NSE Foundation

SERVING & ENRICHING PRIMARY EDUCATION TO THE UNDERPRIVILEGED URBAN CHILDREN IN BHIWANDI & MALEGAON - 2022

Foreword

National Stock Exchange of India Limited (NSE), India's leading stock exchange, is committed to inclusive growth and prosperity. It believes that every individual, irrespective of the divisions in society, has an equal right to resources, and to be included in the country's development story. When a person's economic and social status improves, the community prospers, and by extension, the nation.

With this guiding principle, the group, through NSE Foundation, the implementing arm of its CSR initiatives, endeavours to improve the quality of life in the most disadvantaged communities. In doing so, it plants the seeds of transformation and inclusion.

The Foundation partners with the government, NGOs, multilateral bodies and academic institutions, to inspire, nurture, empower and sustain the aspirations of the communities it serves. Its projects plug gaps in social, economic and educational development in some of the most inaccessible geographies. From a larger standpoint, it also contributes to the fulfilment of the United Nations' Sustainable Development Goals.

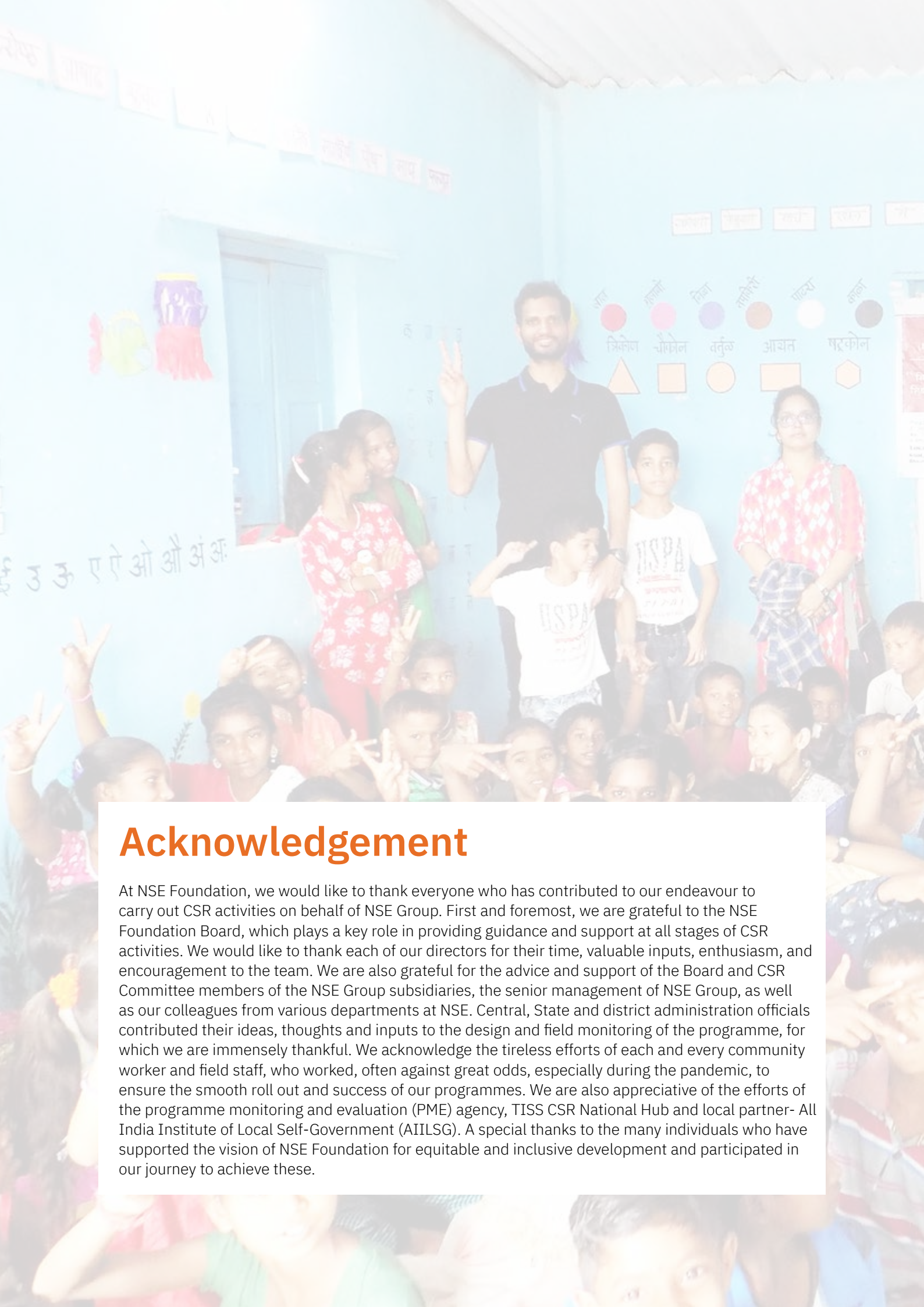
Over the past few years, the Foundation has made steady progress in its core intervention areas of primary education, safe drinking water and sanitation, elder care, skill development, environmental sustainability, health & nutrition and disaster relief in underserved rural and urban communities.

NSE Foundation's district transformation programmes are currently implemented in the aspirational districts of Nandurbar (Maharashtra), Karauli (Rajasthan), Ramanathapuram (Tamil Nadu), Kiphire (Nagaland) and Birbhum (West Bengal), which was on NITI Aayog's initial list.

Through its programmes, the Foundation has reached over 12 lakh children, women, youth, and the elderly in more than 100 districts of Maharashtra, Madhya Pradesh, Rajasthan, Jharkhand, Telangana, Kerala, West Bengal, Tamil Nadu, Odisha, Assam and Gujarat. Apart from major presence in rural regions of the country, projects in urban districts of New Delhi, Kolkata, Chennai, Mumbai and Ahmedabad are also undertaken.

NSE Foundation as part of its CSR initiative launched the Primary Education Program for the underprivileged children in municipal corporation cities of Bhiwandi and Malegaon in the state of Maharashtra, India and engaged with the All India Institute of Local Self Government (AIILSG) as their local partner. The NSE Foundation, through All India Institute of Local Self Government (AIILSG), operated the program as an intervention learning project. A total of 15 Shikshan Ranjan Kendras (SRKs) or Child Resource Centres (8 in Bhiwandi & 7 in Malegaon) were set up. Each of these learning centres has Shikshan Mitras (teaching & counselling staff) who taught foundational subjects of language and arithmetic and conducted extra-curricular activities for holistic development (performing arts, sports, group activities & awareness rallies). As a part of contributing towards the holistic development of the child, the Shikshan Mitras counselled the parents and community to develop positive mindsets towards the importance of education and maintaining good health and hygiene.

NSE Foundation believes that strong partnerships, participatory programmes and alignment to national goals can bring transformational changes in communities and we hope that through enhanced educational environment, we would build a better future for the children of our nation.



Acknowledgement

At NSE Foundation, we would like to thank everyone who has contributed to our endeavour to carry out CSR activities on behalf of NSE Group. First and foremost, we are grateful to the NSE Foundation Board, which plays a key role in providing guidance and support at all stages of CSR activities. We would like to thank each of our directors for their time, valuable inputs, enthusiasm, and encouragement to the team. We are also grateful for the advice and support of the Board and CSR Committee members of the NSE Group subsidiaries, the senior management of NSE Group, as well as our colleagues from various departments at NSE. Central, State and district administration officials contributed their ideas, thoughts and inputs to the design and field monitoring of the programme, for which we are immensely thankful. We acknowledge the tireless efforts of each and every community worker and field staff, who worked, often against great odds, especially during the pandemic, to ensure the smooth roll out and success of our programmes. We are also appreciative of the efforts of the programme monitoring and evaluation (PME) agency, TISS CSR National Hub and local partner- All India Institute of Local Self-Government (AIILSG). A special thanks to the many individuals who have supported the vision of NSE Foundation for equitable and inclusive development and participated in our journey to achieve these.

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ABBREVIATIONS

Abbreviations	Description/ Full Form
NSE	National Stock Exchange
AIILSG	All India Institute of Local Self Government
SRK	Shikshan Ranjan Kendra
CRC	Children's Resource Center
PD	Project Director
PM	Project Manager
SM	Shikshan Mitras
RTE	Right to Education
SSA	Sarva Shiksha Abhiyan
EDI	Education Development Index
TISS	Tata Institute of Social Sciences
M&E	Monitoring & Evaluation
SMC	School Management Committee

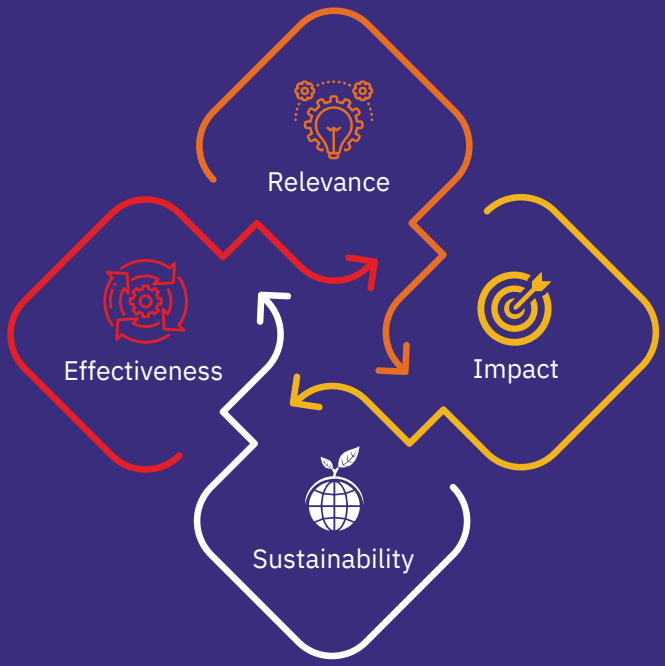
EXECUTIVE SUMMARY

The NSE Foundation, which is a Section 8 company that undertakes the CSR activities of the National Stock Exchange of India Limited, initiated the program through its local partner, All India Institute of Local Self Government (AIILSG), an NGO, as an intervention to make quality primary education available to children in slums. As a part of the program:

- A total of 15 Shikshan Ranjan Kendras (SRKs) or Child Resource Centers (8 in Bhiwandi & 7 in Malegaon) were set up.
- Two or more Shikshan Mitras (teaching & counselling staff) teach foundational subjects like language and arithmetic at each of the SRKs.
- Along with language and Math, multiple extra-curricular activities like performing arts, sports, group activities & awareness rallies were also conducted to ensure holistic development.

The study was conducted at four levels to understand:

- The **relevance** of the program in assessing the extent to which the program is aligned with the needs of the community.
- The rigour of on-ground implementation, stakeholder involvement, and processes undertaken to ensure operational **effectiveness** of the program.
- The extent to which the intervention has **impacted** the lives of the beneficiaries.
- The ability of the beneficiaries to **sustain** the program financially, socially and, post the program intervention period.



The study also focuses on providing actionable recommendations to strengthen the program further.

The research design was based on a cross-sectional approach. Data was collected using a mixed method approach which included both qualitative and quantitative methods of research for data collection. For quantitative data, surveys were conducted among the students. For qualitative data collection, parents, shikshan mitras and the project team were interviewed.

Key insights from the Impact Assessment Study

Based on the data collected from different stakeholders following key insights have been formulated :

Comparison with pre- intervention baseline scores reported a positive change in learning outcomes of students

- According to the program documentation, the percentage of children who passed ASER tests for reading, writing & numeracy ranged from 9 to 13% in both the locations.
- Post the intervention, all the students cleared level 1 ASER tests in reading, writing & numeracy

Stakeholders reported significant improvement in students participation in learning activities; the program offered avenues for holistic development & improved the quality of education.

- ASER assessments reflect an improvement in the linguistic skills acquired by the students as compared to the baseline assessment statistics of both the locations. 45% of the students enrolled in the program could read either a para or a story post the intervention as opposed to an average of 13% in pre-intervention period.

The reading sessions under the program were successful in inculcating reading habits amongst students

- As a part of the reading initiative, the six libraries set up facilitated reading habits among the students. A majority of the student respondents (78%) reported reading at least one or two books in a month.
- More than 80% of the parents had indicated that their children participated in reading sessions at least once a week.

Regular therapy & counselling sessions conducted enabled active parent participation in the education of their children.

- The program team were successful in ensuring parent participation through at least four in-depth counselling sessions an year.
- 91% of the student respondents also reported seeing the Shikshan Mithras at their homes regularly to interact with their parents.

Awareness sessions on health & personal hygiene have been successful in creating increased awareness amongst parents & community

- Nearly 94% of the respondents reported to have understood the importance of washing hands (after meals, using the toilet and coming in contact with a sick person).
- 100% of the respondents indicated that they understood the importance of bathing everyday.

The program has led to a mindset shift to prioritize girl child's education among parents

- 97% of the respondents felt that educating girls is as important as educating boys, and 100% of the respondents felt that families are responsible for supporting girl child education.

CHAPTER 1

Overview

NSE Foundation

NSE Foundation undertakes the Corporate Social Responsibility activities of the National Stock Exchange of India Limited and its subsidiaries (NSE Group), with a broad vision to enhance the well-being of vulnerable and marginalized communities. NSE Group constantly works to improve the financial wellbeing of people through a committed approach to offer investment products that suit varied needs of the people.

The group further understands that the economic and social well-being of the community is closely interlinked to their habitats and surrounding environment. Their program intervention strives to improve the quality of life of its identified beneficiaries by creating inclusive societies, while meeting the social and environmental responsibilities of the NSE group.

NSE Foundation follows a transformative approach that is strategic, participatory, evidence-based, localized, and focused on impact, learning, and reflection. It implements its activities in seven core focus areas with emphasis on education, elder care, and sanitation and safe drinking water.

The Foundation ensures sustainability of these projects by aligning all programmes to state and local governing bodies and leaving room for innovation and customisation to suit the local context. The programs are implemented through partners with domain expertise and a presence in the identified geographies and are closely monitored by empanelled agencies with expertise in the social and development sector.

All India Institute of Local Self Government (AIILSG)

AIILSG is one of the oldest government recognized institutes that has worked in the areas of education, training research, policy advocacy, and consultancy across the country. They bring to table a rich experience of working with local bodies, government institutions, and national and international agencies.

Primary Education Program

NSE Foundation as part of its CSR initiative launched the Primary Education Program for the underprivileged children in municipal corporation cities of Bhiwandi and Malegaon in the state of Maharashtra, India and engaged with All India Institute of Local Self Government (AIILSG) as their local partner. The program operated from September 1st 2017 to August 31st 2020.

Demographic Background of the Target Population

The intervention cities were chosen after assessing the demographics and status of primary education at both these places.

Bhiwandi in Thane – The city located close to Mumbai is one of the oldest hubs of power looms and handloom industry, and attracts migrants from other states of India.

Malegaon in Nashik – The city is a major hub of the textile industry. A sizable percentage of the population have migrated from other states such as Uttar Pradesh. Further, the city is culturally sensitive and has reported many incidents of community clash and violence in the past.

Status of Primary Education in Target Location

The children aged between 6 to 14 years residing in the slums of these cities were the primary beneficiaries of the Primary Education Program. The primary education system in these places has unless the program intervention has changed the state of primary education itself its unique set of challenges which indicates a need for such a program.

In both Bhiwandi and Malegaon, a majority of the population resides in the slums in abysmal conditions and abject poverty with minimal amenities for a decent living. The homes are overcrowded, lack basic sanitation facilities, and are surrounded by open dumps of stinking garbage causing health hazards to those living in proximity. These homes mostly belong to unskilled casual labourers and daily wage earners from the power loom industry, and domestic workers who are migrants from Uttar Pradesh and Bihar. Some children are compelled to join child labour and forego basic education as their families needed money to sustain basic living. In other cases, the lack of child friendly

Community awareness drives organised in Bhiwandi

atmosphere at home pulled some of them to vices such as gambling, addiction, and beggary. Hence, it is imperative to create an environment of education and positivity for these children to prevent these situations from arising.

The education of these underprivileged children has rather been neglected according to the Education Development Index (EDI) which is calculated by UNICEF and Government of Maharashtra. This was evident as Municipal Corporations of Bhiwandi and Malegaon were ranked at 20th and 18th positions respectively out of the total 22 Municipal Corporations ranked in Maharashtra. In terms of EDI, both Bhiwandi and Malegaon are ranked amongst the lowest five Municipal Corporations as their EDI is 0.555 and 0.649 respectively. Whereas, overall EDI value of Maharashtra is 0.704. According to the EDI Report of Maharashtra 2012, the statistics for these cities are mentioned below.[1]

School Infrastructure

City	Student Classroom Ratio More than 30/35	% Schools Not Having Drinking Water Facility	% Schools without separate toilet for boys	% Schools without separate toilet for girls
Bhiwandi	69.44	10.2	14.4	25
Malegaon	73.6	0.0	23.9	20.3

Status of Teachers in Schools

City	% Schools with female teachers	Pupil Teacher Ratio more than 30/35	Single teacher school in Primary schools & more than 15 enrollments	Less than 3 teachers in upper primary schools	Teachers without professional qualifications
Bhiwandi	89.8	72.69	0.0	1.69	2.9
Malegaon	12.77	90.86	21.21	5.10	0.1

The statistics provided above indicated that schools are burdened with accommodating a large number of children in each classroom and the teachers have to handle way more than the prescribed number of children at one point of time while teaching lessons. The skewed teacher-student ratio adversely affects the learning outcomes of these children. This is apparent from the fact that on average, only over 87.5% of these children transition from grade 1 to grade 7.

[1] http://dise.in/Downloads/best%20practices/EDI%20Maharashtra-2011-12.pdf

Grassroots Implementation through setting up of Shikshan Ranjan Kendras

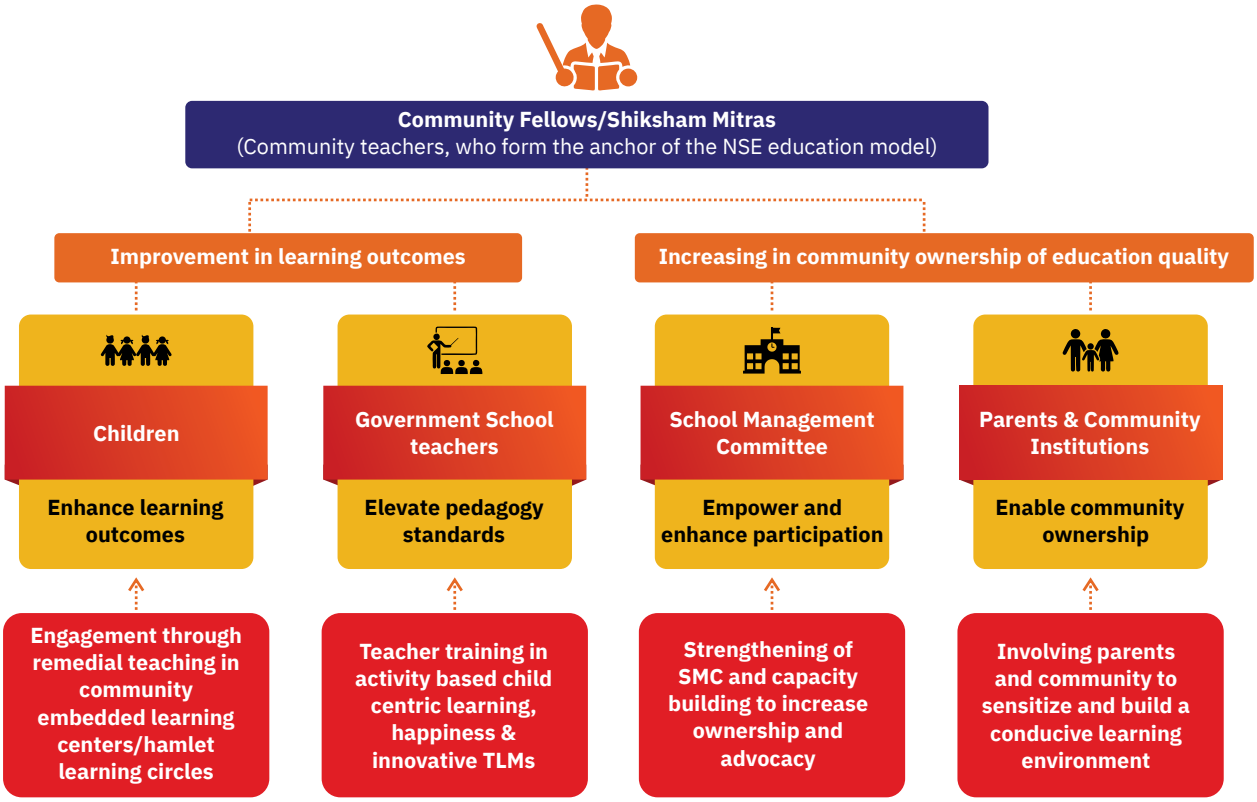
Under the Primary Education Program, NSE Foundation along with AIILSG set up a total of 15 Shikshan Ranjan Kendras (SRK) across the localities of both these cities of Bhiwandi and Malegaon. “Right to Education through Right Education” was the motto in developing Shikshan Ranjan Kendras or Children Resource Centers. These centres functioned as intervention learning centres for providing quality primary education to the underprivileged children aged 6 to 14 in the minority and non-minority communities, and were based in close proximity to the community being served. They targeted the children who were going to mainstream schools, those who had dropped out and even the ones who never had access to any primary school before. The idea was to enrich the primary education system by fulfilling the special needs of these children who did not have a conducive learning environment in terms of scholastic learning and opportunities for holistic development at home.

Shikshan Ranjan Kendras were the intervention learning classrooms that functioned after school hours in which classes for linguistic learning and mathematics were conducted to enhance foundational learning outcomes. These centres focused on providing a congenial atmosphere for holistic education and creating more awareness about Children’s Right to Education (RTE) and Education for all, or Sarva Shiksha Abhiyan (SSA). The program staff encouraged and counselled parents to ensure more enrollment and retention of children in schools.

Each Children Resource Centre had two or more Shikshan Mitras depending on the number of enrollments at the SRKs. The Shikshan Mitras served as mentors to the children and taught them language and mathematics. They also conducted activities for holistic learning outcomes of the children assigned to them and counselled parents and involved them in ensuring positive learning outcomes for the children. The children and community were also taught basic survival concerns of maintaining health and hygiene. The Shikshan Mitras served as a link to the school, parents, teachers and school management committees and project managers.

Students learning in Shikshan Kendra

NSE Foundation Primary Education Program Model



Location of Shikshan Ranjan Kendras

Community Served	Bhiwandi	Malegaon
Minority	Bala Compound Kacheri Pada	Shah Garden Nandedi
Non-Minority	Adivasi Pada No. 3 Pundlik Nagar Chhatrapati Shivaji Maharaj Kridaangan School No. 96 School No. 51 School No. 58	Anjani Mata Nagar Triratna Nagar Panchashil Nagar Eklavya Nagar Shivajiwadi


" Serving & Enriching Education to the Under - Privileged Urban Children "
''शिक्षणाचा हक्क आणि शिक्षणाच्या दर्जाचाही हक्क''
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CHAPTER 2

Approach and Methodology

Objectives of the Impact Assessment study

The program set out to achieve the following objectives during the implementation period from September 2017 and August 2020:

1. Improve access and quality of primary education for the underprivileged children
2. Ensure & Sustain Community Welfare –
    a. Cleanliness & Personal Hygiene on an ongoing basis
    b. Ensure girls education, reduced dropouts, reduced absenteeism
3. Strengthen primary education sustainability of beneficiary community – empower parents to demand quality primary education for their children
4. Strengthen educational institutions to provide education – long term sustenance of education for underprivileged

The following tables mention the overall outline of the impact assessment study conducted by Sattva, based on the objectives of NSE Foundation AIILSG program on “enriching primary education for urban underprivileged children in Bhiwandi & Malegaon.”

1. Improve access to quality primary education to underprivileged children.

Desired Outcome	Measurable Parameter/ Output
Reach of the Program to the Underprivileged	Number of children enrolled Demographics of the children (Minority/ Girls/ Parental Background) No of SRKs Established No of children per Teacher/ SM
Engagement of Qualified Teaching Professionals	No of Teachers/ SMs Engaged Qualifications Prior Teaching Experience
Training & Workshops for Teachers	No of workshops organized & attended
Scholastic Learning	Subjects chosen & methods of learning Assessment scores of the children at the end of the project (NAS & ASER Scores) (grade specific reading, writing and numeracy skills) – improvement in foundational learning outcomes
Holistic Learning for Children	Activities undertaken for community participation Opportunities for Children to participate in drawing, dancing, singing, art & craft
Reading Environment	No of community libraries & total no of books Frequency of reading sessions & participation levels Interest levels of the children (subjective assessment)
Therapy & Counselling	Sessions conducted by SMs (Anecdotes & Case Studies), counselling of parents and the children

2. Ensure and sustain community welfare

Desired Outcome	Measurable Parameter/ Output
Increase Awareness About Health & Hygiene for Children	No of sessions conducted on Washing, Health & Hygiene & Cleanliness – ongoing activity (audited reports statements) General observations on children's Cleanliness (Hand washing prior to eating, clean nails, combed hair, clean physical (As stated by teachers, principals & SMs in their IDIs & FGDs)
Increase Awareness on Cleanliness for Parents	Workshops & Activities Conducted – (Outcomes as given in Surveys) Observations by SMs on home visits
Prioritize Girls Education	Enrollment of girls across communities in SRKs and schools Observations on value attached to girls' education
Dropout Rates	General observations in schools (by principals, teachers and SMs) Counselling Sessions to prevent dropouts (Reasons stated for dropouts, case studies)
Absenteeism/ Regularity in Attendance	General Observation (in Attendance Register by the SMs, Teachers, & Principals)

3. Ensure sustainability of the initiative by facilitating community ownership

Desired Outcome	Measurable Parameter/ Output
Set Up Apex Body for Parents	No of Apex Bodies Set Up Frequency of meetings (target & actuals) Agenda for the meeting Whether functioning after the dissolution of CRCs
Establish Bal Panchayats	No of Bal Panchayats operating during the period Activities undertaken by Bal Panchayats Whether functioning after the dissolution of CRCs
School Management Committee	No of meetings held / frequency Meetings attended by parents Parents Role – (Subjective assessment of involvement, and sustainability) Whether functioning after the dissolution of CRCs

Study Design and Methodology

Sattva undertook a descriptive cross-sectional study where data has been collected from the beneficiaries around the previous and current status of outcome indicators to quantify the changes affected by the intervention.

Sattva conducted an impact assessment study for the program using a mixed-method approach consisting of quantitative techniques such as surveys, and qualitative research techniques such as focused group discussions (FGDs), in-depth interviews (IDIs); both primary and secondary data collection methods were used.

This helped to gather valuable impact-related insights from a 360-degrees angle across the stakeholders involved and served as a fundamental resource for providing recommendations around ways to inform the program strategy for the future.

The methodology for the impact assessment exercise encompassed developing a set of research questions based on Organization for Economic Cooperation and Development's (OECD) Development Assistance Committee (DAC) framework to draw evidence towards each program, which would help draw out a reasonable set of conclusions within the constraints of time, availability of information and depth of the research.

Students taking part in awareness campaign

Sampling and Outreach

Sattva adopted a Stratified Random Sampling approach to ensure the right representation of the population in the impact study across partner organizations for each of the interventions. The sample size was calculated using the population frame (all beneficiaries of the intervention) with 95% confidence level and 5% margin of error.

Nature of Respondents	Tool	Mode of Data Collection	Sample Size / Actual No of Respondents				Total
			Bhiwandi		Malegaon		
			Minority	Non-Minority	Minority	Non-Minority	
Students	ASER	Offline	45	56	---	55	156
	NAS	Offline	55	56	52	54	217
	Survey	Telephonic	14	12		8	34
Parents	IDI	Telephonic					15
	Survey	Telephonic	11	10	3	14	38
Shikshan Mitras	IDI	Telephonic					8
	FGD	Telephonic					1
Project Team	IDI	Telephonic					2
	FGD	Telephonic					1
Principals	IDI	Telephonic					8
Teachers	IDI	Telephonic					3
	FGD	Telephonic					1
Government Official	IDI	Telephonic					1

Ethical considerations of the study

The assessment followed the ethical protocols in all aspects and at all stages of the engagement based on the discussion with the team :

- As part of data collection, team members followed ethical protocols by explaining the purpose of the study and ensured informed consent from the participants.
- The interview sessions were conducted in an environment that ensured the privacy of respondents as per their convenience and comfort.
- The respondents were assured about the confidentiality of their personal information and the usage of data only for research purposes.
- The participation of respondents was ensured as being voluntary, and they were not compelled to answer any questions.

Limitations of the study

- Partial qualitative data collection process (in-depth interviews and FGDs) conducted during the study was held virtually due to unavailability of the personnel on field.
- Social Desirability & Conformity bias in regard to openly expressing non-conformity when asked to self-report their behavior, beliefs and opinions. In such cases, respondents will tend to provide a socially acceptable response (sometimes subconsciously) over their true feelings.

CHAPTER 3

Findings of the Impact Assessment Study

The following section of the report details the key results and insights of the impact assessment study across the DAC standard parameters as outlined in the framework for the study. The insights have been drawn using the 360-degree approach of data collection by gathering data from qualitative and quantitative methods by engaging with different stakeholders of the program.

The target population residing in intervention locations are the children of migrants, daily wage earners and casual laborers living in degraded conditions and extreme poverty. The landscape of these areas is such that it is challenging for these children to even get basic formal education. Thus, programs such as the Primary Education Program are imperative and relevant to create an environment of education and positivity in these communities.

Effectiveness of the Program

Effectiveness measures the extent to which the objectives of the program have been achieved and identification of supporting processes and systems influencing the achievement of objectives. Sattva's observations can be seen below.

The program had an effective beneficiary mobilization process with well defined enrollment targets & successful door to door counselling for parents.

The program had an effective beneficiary mobilization process with the team being able to meet their enrollment targets.

- According to 86% of the parent respondents, programme representatives had approached them for enrollment in SRKs. The primary method of beneficiary mobilization was through door to door visits conducted by SMs at homes & schools. 76% parents respondents recalled directly speaking to the SMs before enrolling their children in the program.

Areas	Target	Actual	Target Achieved
SRKs Set Up	15	15 (8 in Bhiwandi + 7 in Malegaon)	Yes
Project Team Employed & Trained	32 Shikshan Mitras + 4 Project Managers + 1 Project Director	32 Shikshan Mitras + 4 Project Managers + 1 Project Director	Yes
Target to Enroll Children	1600	1637*	Yes
Student to teacher ratio	50:1	50:1	Yes

- The SMs also conducted one on one counselling sessions with parents of girl children to ensure enrollment & meet the program's target of 50% female children in every class (which was met by the third year of the program).
- Other methods utilized include text messages through Whatsapp & SMSs, phone calls & school workshops.

The SMs were highly qualified to teach & understand the needs of the students; regular training & workshops for Shikshan Mitras ensured quality education delivery

- As part of the study, out of a sample of 32, 14 SMs were doctorates in education, 8 were post graduates while the rest were graduates in streams like social work, education, arts, science, commerce, and computer applications. Almost all SMs were well versed in Marathi & Urdu.
- Majority of the SM were in the age group of 21 to 30 years. Nearly 75% of them were women ensuring a higher women participation in schools.
- Mandatory training workshops were conducted at locations & at the AIILSG branch in Pune under the program which included innovative teaching methods, soft skills, administrative operations of the program and sensitization activities like handling specialized issues of children who hail from troubled family backgrounds.

Regular therapy & counselling sessions were conducted with parents to ensure attendance & participation in the program activities

- Almost all parent interviewees reported that they are regularly contacted by SMs to discuss their child's education. A majority of student respondents (91%) also reported seeing SMs at their homes regularly to interact with their parents.
- The program team were successful in ensuring parent participation through at least four in-depth counselling sessions an year. Shikshan Mitras conducted regular home visits, counselling parents regarding absenteeism, sending girl children to the SRKs daily and sometimes on family matters like alcoholism or children being pushed into beggary or gambling.
- The sessions were effective with reportedly 37 dropouts being re-enrolled in their schools within the first year as per a teacher respondent. The parents also reported a positive shift in their mindset regarding education for the girl child.

Impact of the Program

Impact entails an assessment of the extent to which the program has generated significant positive or negative, and intended or unintended impacts in the lives of target group and community through the program directly and indirectly. Sattva's observations are given below.

Comparison with pre- intervention baseline scores reported a positive change in learning outcomes of students

- The program successfully fulfilled its primary objective of improving foundational literacy skills amongst its beneficiaries. According to the program documentation, the percentage of children who passed ASER tests for reading, writing & numeracy ranged from 9 to 13% in both the locations.

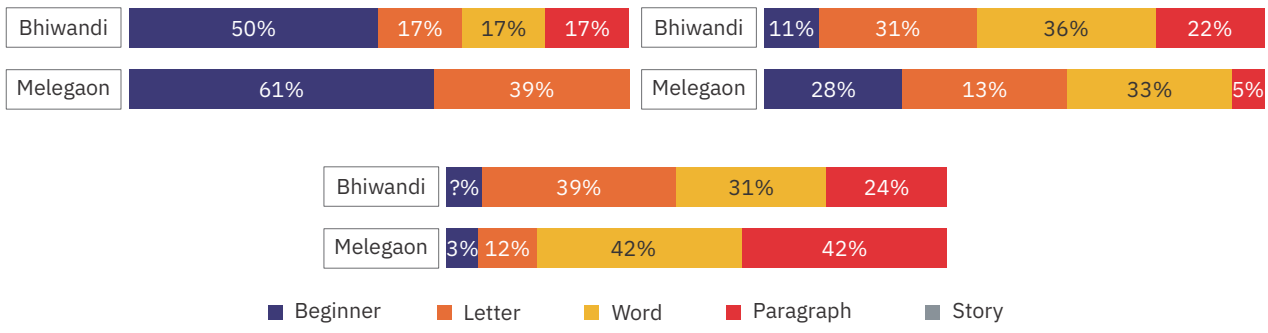
Learning Attainment – Baseline % of children in SRKs who passed the tests for reading, writing, and numeracy

Grades (1 to 5)	Reading	Writing	Numeracy
Bhiwandi	13%	9%	11%
Malegaon	13%	10%	12%

- Post the intervention almost all students cleared the baseline assessment with 56% students being able read paragraphs and stories, while 33% able to read words.

Students engaged in fun-filled learning

Comparison of average ASER reading scores in grade 3, 4 & 5 respectively of AIILSG students with all India average

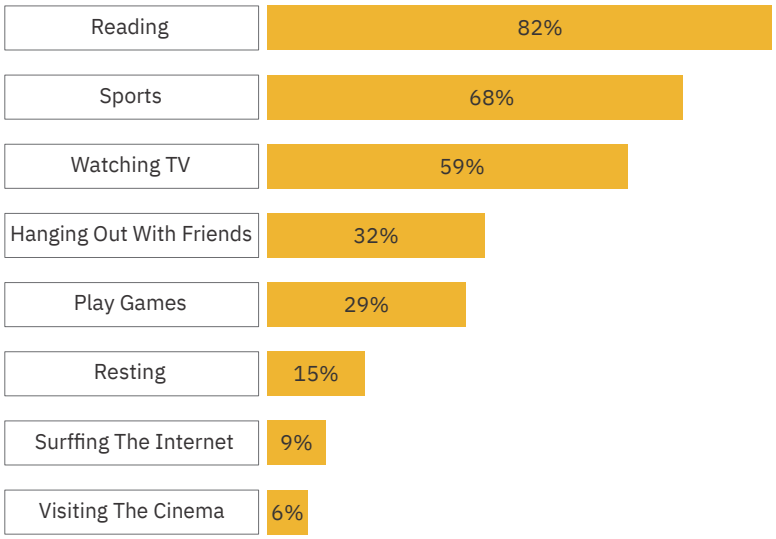


- While more students were able to read words & paragraphs as compared to initial baseline studies, the ability of the SRK students to reach level 5 i.e. reading stories remains limited across locations.

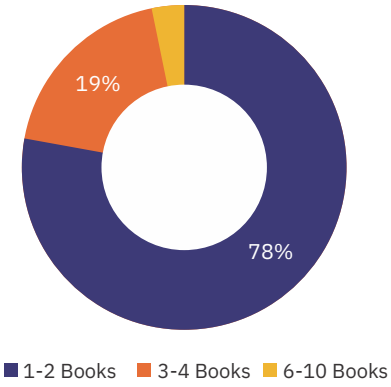
The program has successfully developed reading habits amongst beneficiary students

- As part of the program, a total of six libraries were set up with three in Bhadwad, Kacheri Pada, and the Bala Compound in Bhiwandi & the other three in Panchashil Nagar, Shah Garden, & Nandedi in Malegaon.
- According to the program documents, there are currently 3530 books & 2863 books in the Bhiwandi & Malegaon libraries respectively. These books are available in four languages- Marathi, Urdu, Hindi & English, consisting of curriculum books, story books and comics, and supplementary knowledge books
- 500 sessions were conducted in the first two years of the program with operations ceasing during Covid-19 lockdown
- According to faculty respondents, the libraries were functional with students borrowing & lending books & good attendance in the reading sessions.
- Post the intervention, a majority of the student respondents (82%) reported reading as their preferred hobby. Most students (78%) also report reading at least 1 to 2 books every month.

What do you like to do in your free time? (N=34)



How many books do you read in a month? (N=34)



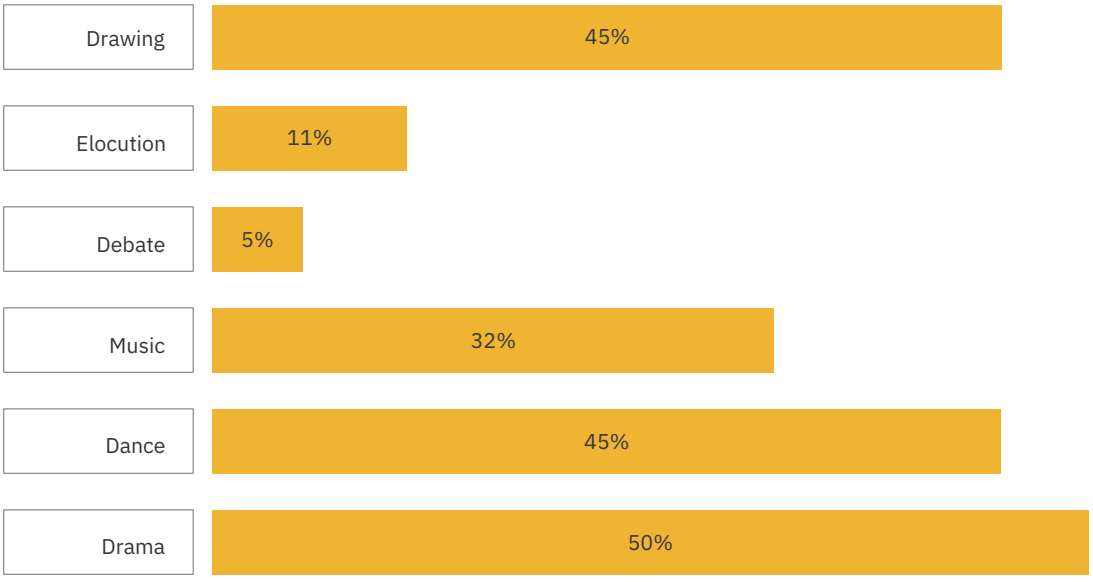

NSE

- A majority (more than 80% of those surveyed) parents also reported that their children participated in the reading sessions at least once a week. In the students' survey, reading was ranked as the most preferred hobby as compared to other free time activities.

The program successfully developed a holistic learning environment for children through extracurricular activities

- Students under the program were encouraged to participate in the sessions on music, dance, art and drama, games & sports to ensure holistic learning amongst them.
- In the last two quarters, centres also spread awareness about protecting oneself from Covid-19.
- Before the intervention, only 1 out of 15 parents reported their child participating in extracurricular activities which increased to 14 out of 15 post the intervention.
- More than half of the parent respondents (67%) surveyed said that the CRCs helped their children participate in extracurricular activities. A majority of the student respondents (76%) reported participating in extra-curricular activities organized at the CRCs.

Activities student respondents were participating in during the study (N=34)

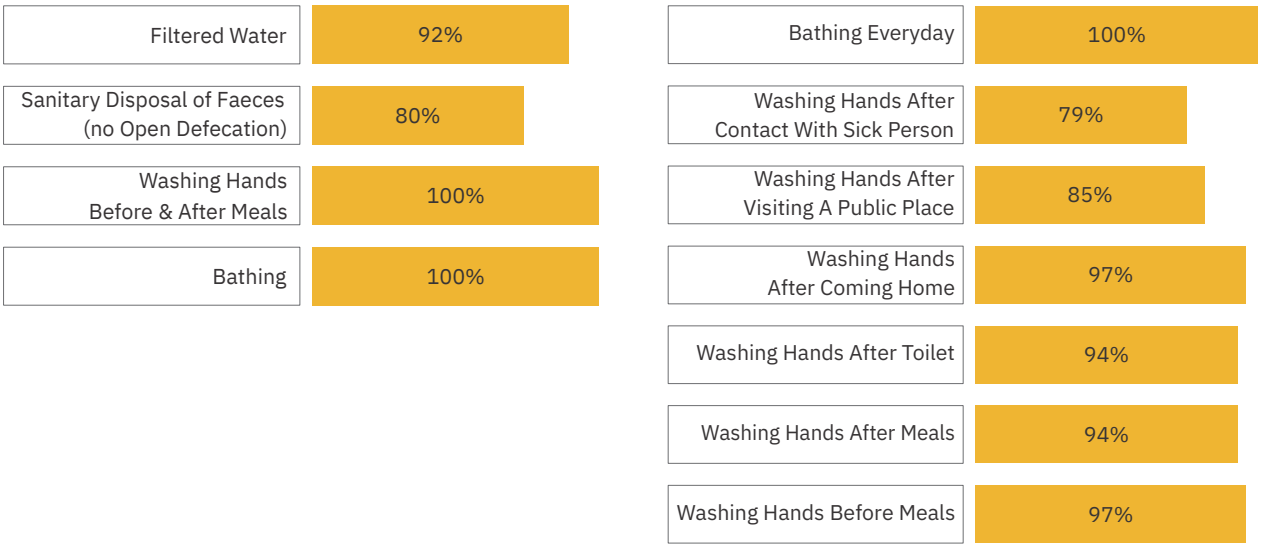


- The program also succeeded in ensuring that the children started washing hands regularly & bathing and grooming themselves every day.

Awareness sessions on health & personal hygiene have been successful in creating increased awareness amongst parents & community

- Apart from the daily classroom sessions, street plays, rallies, puppet shows and group activities were implemented to create awareness about cleanliness and personal hygiene for the children.

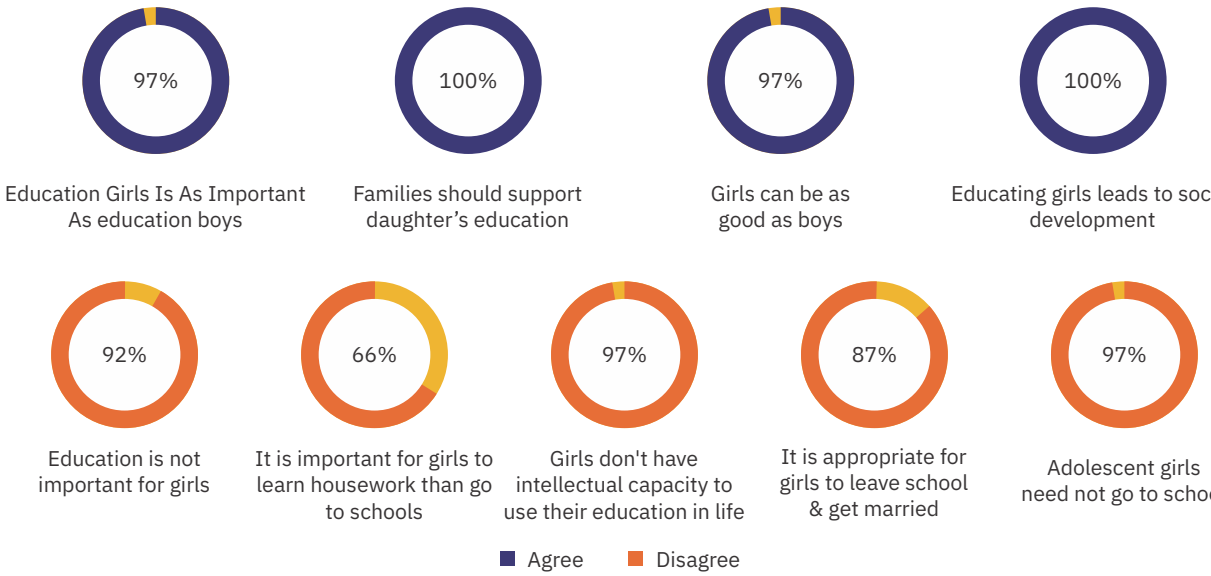
Parent & student respective responses on good hygiene practices they learnt from SKR sessions & follow (N= 38, 34)



- The hygiene and health sessions were also attended by parents and the community with a majority of the parent respondents (87%) attending the handwash sessions conducted by SRKs.

The program has led to a mindset shift to prioritize girl child's education amongst parents; teachers report improved parent involvement in the girl child's education

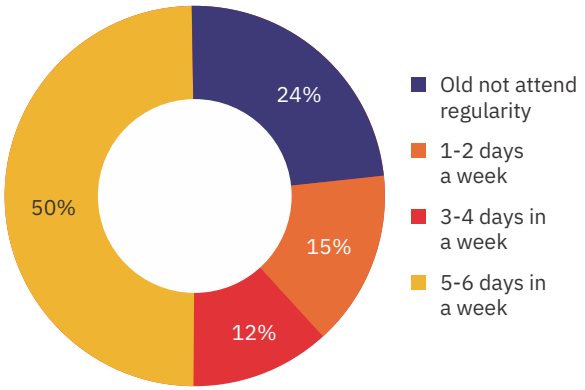
When asked regarding their agreement with certain statements, parents placed importance towards ensuring education & equal treatment towards their girl child:



- The program managers reported that female education was a secondary concern for most parents prior to the intervention.
- Earlier 11 out of 15 parent interviewees thought that education was equally important for girls. Post the intervention all the 15 parents interviewed felt that girls' education was very important.
- Teachers/SMs also report that parental involvement in furthering the education of their female children has improved post the intervention.

Teachers report a decrease in dropout rates; absenteeism a concern expressed by SMs

SMs & school teachers report that constant counselling sessions have resulted in regular attendance in schools & reduction in drop out rates.



- As mentioned, a few dropouts were re-enrolled in schools post counselling sessions conducted by the SMs in the first two years of the program
- When asked how many classes do they attend in a week, half of the student respondents reported attending 5 to 6 days a week.
- Through our survey, teachers reported that convincing parents to maintain low rates of absenteeism is a challenge they frequently face while conducting counselling sessions. This is notable as a minority of the respondents (24%) did not attend classes regularly, which, according to secondary research, can have a detrimental effect on learning outcomes & put children behind on the learning curve

Students learn using activity based methodology

- Reasons for absenteeism as per SMs include seasonal migration for work, responsibility of taking care of siblings in the absence of parents, responsibility to find jobs & financially support families from a young age.

Improved parental involvement in their child's education

- There was a significant encouragement amongst the parents, post the program, to participate actively in children's education as reported by both parents & observed by the Shikshan Mitras.
- As per parent respondents, most recalled attending school class events/ cultural programs (89%), Parent Teachers Association or School Management Committee meetings (97%) & Parent Teachers Meeting/ conferences (82%).

The program has helped in empowerment of community through setting up of parent apex bodies, Bal panchayats & School Management Committees (SMCs)

- Children's groups or Bal Panchayats had been formed across all the SRKs as part of the program which were responsible for conducting various extra curricular & social programs according to SM respondents.

- Children of almost all parent interviewees were a part of these bal panchayats though only a minority of the parents were aware of the activities conducted under the group.
- The Bal panchayats have been beneficial to the program with SM respondents pointing to cases where the Children led committees have flagged issues like shortage of books or lack of sanitation. Most of these bal panchayats were functional until the program operated
- More than half of the parent respondents (56%) also reported being part of the parents' apex body with meetings taking place regularly to discuss their children's education concerns.
- While parents showed increased awareness and actively participated in the respective school management committees post setting up of apex bodies, the teachers cited that not many were willing to take complete control of these committees.
- Reasons cited by parents for disinterest in taking control of the committee include - timings of the meeting clashing with their work hours, the place of the meeting requiring considerable travel & lack of knowledge regarding the timings & functioning
- It is to be noted that post Covid-19 lockdown, no parent group or bal panchayat meetings have taken place.

Sustainability of the Program

Sustainability assesses the operational and institutional sustainability of the intervention. Sattva's observations are outlined below.

Lack of qualified manpower hinders the operational sustainability of the program

- A majority of the program team respondents report that the program lacks sufficient manpower to ensure the smooth functioning of the SRKs post AIILSG's exit.
- Lack of infrastructure, minimal capacity building amongst teachers & lack of willingness to undertake additional responsibility of the running the STK on school premises hinders sustainability
- Parent respondents expressed willingness to support SRKs independently when asked about the same. Three SRKs in Shiwajivadi, Anjanimata Nagar & Triratna Nagar, Malegaon were reported to be functional during the study, being effectively run by the SMs in the area with increased parent support.
- Parent respondents in Bhiwandi also reported that their children were attending SRKs at the time of the study period

Students taking pledge as a part of the bal panchayat meetings.

CHAPTER 4

Key Recommendations

A thorough assessment of the impact that the program brought upon the community, it was found that there were several factors that stood out. However, there do remain areas of improvement. The following recommendations have been formulated keeping in mind the existing gaps and global best practices.

Improving digital capacity for record keeping by Shikshan Mitras (teaching staff)

Observation: Since there is lack of personnel for maintenance of program & student records, SMs started undertaking administrative duties for at least two hours a day. This affected their core function like teaching & conducting counselling sessions, potentially affecting learning outcomes.

Recommendation: Digitizing the record keeping process through a management information system (MiS) can have the benefit of reducing time spent on record keeping by SMs & also providing them with digital literacy skills

Incentives for training mainstream education personnel

Observation: A major concern with respect to the sustainability of the program was the lack of qualified personnel to impart quality teaching post the program team's exit.

- Paucity of time to participate in remedial teaching and upskilling after the school working hours hindered capacity building as teaching processes did not percolate down to mainstream education after the culmination of the program.

Recommendation: Teachers and schools need to be incentivized for training their internal resources within the school premises in the day-to-day settings. An online session can be mandated by the local education department to enable this.

Understanding and replicating the child Resource SRK model that were successfully implemented

Observation: Three centres in Malegaon & a few possible centres in Bhiwandi (out of the total 15 SRKs set up) remain functional post NSE Foundation-AIILSG's exit by support from parents & SMs

Recommendation: Understanding the revenue/ funding model & the nature of parent and SM involvement in the three SRKs that were functional throughout can help in strengthening the program going further & improving the operation sustainability of the program in other locations. The model in these SRKs can also be replicated in other locations

Annexure 1: Data policy

Sattva has in place internal security protocols to protect the privacy of all data collected from respondents, especially any personally identifiable information (PII). The set of protocols listed below may be revamped depending on the complete data flow process as decided for this program.

- **Data Storage and Access:** Any devices used for data collection are password-protected to prevent unauthorized access. Survey software with encryption features, such as Collect, will be used so that encryption occurs during data collection and transmission to a central server. Data with PII is shared only using encrypted files, unless being shared directly from Sattva's cloud storage. Access to data on Sattva's cloud storage may also be further limited to program team members who require access.
- **Data Retention:** Data with PII is only retained for pre-decided periods based on program requirements. Any data stored on data collection devices is removed after data collection for the program is complete, to minimize risk. Where possible, data stored on stolen/lost devices is remotely deleted.
- **Training**: Personnel are provided adequate training on maintaining privacy of data collected, including procedures for handling devices to maintain data security.
- **Removal of PII:** All PII is removed from the raw dataset and separated into an "Identifiers Dataset" and "Analysis Dataset". A common ID is generated to allow re-joining PII data if required. Access to "Identifiers Dataset" is limited to select personnel as required. Limited and necessary PII is re-shared with enumerators/field supervisors to allow for quality checking and back-checking of data as per program requirements.

Annexure 2: Student Survey Tool

Order	Question Type	Question Title	Option
1	Choice	Can we proceed with the Survey?	Yes
			No
	Section Break	Basic Information	
2	Text	Name of Respondent	
3	Number	Age of Respondent	
4	Choice	Gender of Respondent	Male
			Female
5	Choice	Location	Malegaon
			Bhiwandi
6	Choice	Community Type	Minority
6	Choice		Non-minority
7	Text	Do you go to school? How far is it from your home?	
8	Text	Do you like going to school?	
9	Number	How many days in a week do you go to school?	
	Section Break	Development of reading habits of the child	
10	MCQ	What do you like to do in your free time?	Playing Sports
			Reading
			Watching TV
			Surfing the internet
			Playing Games
			Chatting
			Resting
			Going to Cinema, Theatre, Museum
11	Text	What do they like doing after school hours? How do they spend their holidays?	
12	Text	Do they like reading books	

Order	Question Type	Question Title	Option
13	Choice	How many books do you read in a month?	I don't read
			1-2 book
			3-5 books
			6-10 books
			More than 10 books
14	Text	What kind of books do you read? From where do you get these books?	
15	MCQ	If you do read, why do you do it?	It helps me get better grades in tests and exams
			It helps me improve my language skills
			It helps me learn new things
			It is my hobby
			It is fun
			It is relaxing
			It helps in my homework and projects
			My parents or teachers ask me to read
			I have to
16	Text	Ask more about how much they enjoy	
	Section Break	Motivation of the child towards having a career	
17	Choice	How much do you like going to school?	Dislike it
			Neither Like nor Dislike it
			Like it
18	MCQ	What is the best part about going to school? Key phrases	learning helps in daily life
			friends
			extracurricular activities
			teachers
			classes
			others
19	MCQ	Why do you not like going to school? Key phrases	classes are boring
			a lot of work at home
			others
20	Text	What do you want to be when you grow up?	
21	Text	1. If the student gives a clear answer	

Order	Question Type	Question Title	Option
22	Text	How do you think school will help you with you career? How important is it to go to college?	
23	Choice	Does your teacher make school work interesting	Not at all
			Sometimes
			Usually
			Always
24	Text	Ask about how much they like	
25	Text	Who is your favourite teacher?	
26	Text	What does the teacher do that you like?	
27	Text	What subject do you like?	
28	Choice	Does your teacher check to make sure you understand what they are teaching?	Not at all
			Sometimes
			Usually
			Always
29	Text	How do they do that? Keywords	
30	Text	If you say you do not understand, how do they usually help?	
31	MCQ	What methods does the teacher use to teach in the class?	Teaching from the book
			Teaching using TLMs and activities
			Group activities and discussions
32	Text	How do you enjoy learning the most?	
33	Text	What do you like about studying?	
34	Choice	Is your teacher is helpful when you ask questions?	Not at all
			Sometimes
			Always
35	Text	How do they help you generally?	
36	Choice	Does what you learn at school help you in your life outside school?	Not at all
			Sometimes
			Always
37	Text	How has it helped you so far? Quote instances for the same	
	Section Break	About Children Resource Centres	

Order	Question Type	Question Title	Option
38	Text	Which Children Resource Centre did you attend? (Name	
39	Text	How far was CRC located from your home?	
40	Choice	How frequently did you attend the CRC?	5
			3
			1
			Didn't attend regularly
41	Choice	Did the Sikshan Mitra (Teacher at CRC) visit your home?	Yes
			No
42	Choice	Did your parent visit CRC?	Yes
			No
43	Choice	Did your Sikshan Mitra visit your school?	Yes
			No
44	MCQ	What all activities did you undergo at CRCs ? (Select All)	Studying Arithmetic, Urdu and Marathi
			Reading Books
			Co
			Activities on Health and Hygiene e.g. Street Plays, Rallies etc.
			Others
45	Choice	Did you like attending CRCs?	Yes
			No
46	Choice	How will you rate the Sikshan Mitras (Teacher at CRC)	Very Good
			Good
			Okay
			Not Good
47	Choice	Do you think that attending CRCs has helped you in increased learning	Yes, Very Much
			Yes, Somewhat
			No, Didn't help
			Can't Say
48	MCQ	In which areas you feel your understanding has grown due to Program	Language (Marathi
48	MCQ		Arithmetic
			Reading
			Participating in Co
			Health and Hygiene Practices (E.g. Hand Washing, Taking Bath, Cutting Nails etc.)
			Others (Mention Others)

Order	Question Type	Question Title	Option
49	Choice	Are you member of any Bal Panchayat?	Yes
			No
	Section Break	Health and Hygiene	
50	MCQ	In which of the following situations do you wash your hands?	Before Meals
			After Meals
			After using the toilet
			After coming back home
			After visiting public places
			After conatct with a sick person
51	Choice	How often do you cut your nails?	Everyday
			Everyweek
			Once in two weeks
			Once in a month
			Once in two months
			Once in more than two months
			Never
52	Choice	Do you take a bath everyday?	Yes
			No
53	Choice	Do you have access to clean drinking water at home?	Yes
			No
	Section Break	Co-curricular Activities	
54	Text	Have you done any group or peer activities during your subject classes? If yes, name them	
55	Text	Do you like these group activities? Why or why not?	
56	MCQ	Have you participated in non/ academic activities in school? (Give some examples like festival celebrations, elocution, games, singing etc.)	festival celebrations
			elocution
			games
			singing
			dancing
			others
57	Text	What did you enjoy about those activities? What did you dislike?	
58	Text	Can you recite your favourite poem for me? (to check student's command over language, and most importantly check their confidence in conversing with a stranger)	

NSE Foundation

Impact Assessment of “Swachh Vidyalaya, Swachh Aadat” Project for Dumka and Pakur Districts of Jharkhand

March 2022

FOREWORD

National Stock Exchange of India Limited (NSE), India's leading stock exchange, is committed to inclusive growth and prosperity. It believes that every individual, irrespective of the divisions in society, has an equal right to resources, and to be included in the country's development story. When a person's economic and social status improves, the community prospers, and by extension, the nation.

With this guiding principle, the group, through NSE Foundation, the implementing arm of its CSR initiatives, endeavours to improve the quality of life in the most disadvantaged communities. In doing so, it plants the seeds of transformation and inclusion. Over the past few years, the Foundation has made steady progress in its core intervention areas of primary education, safe drinking water and sanitation, elder care, skill development, environmental sustainability, health & nutrition and disaster relief in underserved rural and urban communities.

Through its programmes, the Foundation has reached over 12 lakh children, women, youth, and the elderly in more than 100 districts of Maharashtra, Madhya Pradesh, Rajasthan, Jharkhand, Telangana, Kerala, West Bengal, Tamil Nadu, Odisha, Assam and Gujarat. Apart from major presence in rural regions of the country, projects in urban districts of New Delhi, Kolkata, Chennai, Mumbai and Ahmedabad are also undertaken.

In 2014, India launched the Swachh Bharat Mission and further, The Ministry of Human Resource Development, Government of India, launched "Swachh Bharat Swachh Vidyalaya" (SBSV) initiative in 2014 to ensure that all schools in India have access to separate functional toilets for boys and girls. NSE Foundation's efforts through water and sanitation programmes have been aligned to the national goals to equip institutions and communities with functional sanitation and safe drinking water facilities.

One such programme undertaken by NSE Foundation was "Swachh Vidyalaya, Swachh Aadat" in March 2017, with an aim to inculcate hygiene behaviour among the children and communities through strengthening school institutions to effectively deliver on their responsibility and raise awareness on hygienic behavior. This three-year programme (from 2017 – 20) was designed to intervene in government schools in Dumka district and Pakur district in Jharkhand. 52 schools in Dumka district and 52 schools in Pakur district were to be covered each year thus covering a total of 312 schools in a span of three years. The programme had both hardware development components as well as softer components like capacity building of service providers, institutional development, and hygiene promotion in schools. Detailed WASH plans were developed for all the 312 schools and were handed over to the Jharkhand Education Department at the state and district levels.

The programme reached around 42,000 students through improved sanitation access, drinking water facilities and handwashing facilities. Students received hygiene education including awareness on menstrual hygiene management. The project followed a child-centric approach by strengthening child cabinets across all schools and engaging them in planning and programme monitoring. The programme followed a unique pathway of "child to community" education, where children educated community members on appropriate hygiene practices and facilitated their monitoring.

This programme received immense support from the community and local government. In 221 of the 312 schools, a total of Rs. 1,15,00,000 was leveraged from Education Department, 14th Finance Commission grants and MLA funds. This was used for making improvements and retrofitting of WASH facilities. About 2600 School Management Committee (SMC) members and 1800 teachers were trained on school WASH for better operation and maintenance of WASH infrastructure.

NSE Foundation believes that strong partnerships, participatory programmes and alignment to national goals can bring transformational changes and build a stronger and accessible future for all.

ACKNOWLEDGEMENT

At NSE Foundation, we would like to thank everyone who has contributed to our endeavour to carry out CSR activities on behalf of NSE Group. First and foremost, we are grateful to the NSE Foundation Board, which plays a key role in providing guidance and support at all stages of CSR activities. We would like to thank each of our directors for their time, valuable inputs, enthusiasm, and encouragement to the team. We are also grateful for the advice and support of the Board and CSR Committee members of the NSE Group subsidiaries, the senior management of NSE Group, as well as our colleagues from various departments at NSE. Central, State and district administration officials contributed their ideas, thoughts and inputs to the design and field monitoring of the programme, for which we are immensely thankful. We acknowledge the tireless efforts of each and every community worker and field staff, who worked, often against great odds, especially during the pandemic, to ensure the smooth rollout and success of our programmes. We are also appreciative of the efforts of the programme monitoring and evaluation (PME) agency, Thinkthrough Consulting. This study and report would not have been possible without the support of the Taru Leading Edge team. A special thanks to the many individuals who have supported the vision of NSE Foundation for equitable and inclusive development and participated in our journey to achieve these.

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LIST OF ABBREVIATIONS

ASER	Annual Status of Education Report
CBO	Community-based Organization
CINI	Child In Need Institute
COVID	Coronavirus Disease
CRC	Cluster Resource Centre
CSR	Corporate Social Responsibility
CWSN	Children With Special Needs
DOE	Department Of Education
DEO	District Education Officer
DLO	District Level Office
DPO	District Programme Office
DPR	Detailed Project Report
DTF	District Task Force
FFC	Fourteenth Finance Commission
FGD	Focus Group Discussion
IDI	In-Depth Interview
IEC	Information, Education and Communication
GP	Gram Panchayat
JAC	Jharkhand Academic Council
JEPC	Jharkhand Education Project Council
LPCD	Litres Per Capita Per Day
MDM	Mid-Day Meal
MHM	Menstrual Health Management
MNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
NADEP	National Agribusiness Development Programme
NGO	Non-Government Organization

NSE	National Stock Exchange
ODK	Open Data Kit
O&M	Operation & Maintenance
PRI	Panchayati Raj Institution
RDDE	Regional Deputy Director Of Education
RPWSS	Rural Pipe Drinking Water Supply Scheme
RTE	Right To Education
SC/ST	Schedule Caste/Schedule Tribe
SDP	School Development Plan
SDGS	Sustainable Development Goals
SMC	School Management Committee
SSA	Sarva Shiksha Abhiyan
SBSV	Swachh Bharat Swachh Vidyalaya
WAI	WaterAid India
WASH	Water Sanitation and Hygiene
UNGA	United Nations General Assembly
UNICEF	United Nations Children's Fund

Executive Summary

Context

Keeping its continued commitment to providing a long-term support to the Corporate Social Responsibility (CSR) programmes, the **National Stock Exchange (NSE)** and **WaterAid India** started the project **"Swachh Vidyalaya, Swachh Aadat"** in Jharkhand in March 2017 to focus on School Water, Sanitation and Hygiene (WASH) and strengthen the institutional capacity. The programme was designed on a rationale that the schools can become an epicentre (centre-for-change) for bringing out change in WASH-related behaviour and practices within the community only when they are WASH-secure.

The Project

The ''Swachh Vidyalaya Swachh Aadat'' project focused on **312 government schools of Dumka and Pakur Districts in Jharkhand**. Dumka and Pakur are among the most backward districts in India and ranked at 50 and 69, respectively, among the 447 backward districts[1]. The project was implemented over a three-year phase (2017-2020), covering **104 schools** each year. The project covered primary and upper primary government schools, with a few schools in the secondary education. Most of the schools covered were co-education schools. The project had set the following objectives:

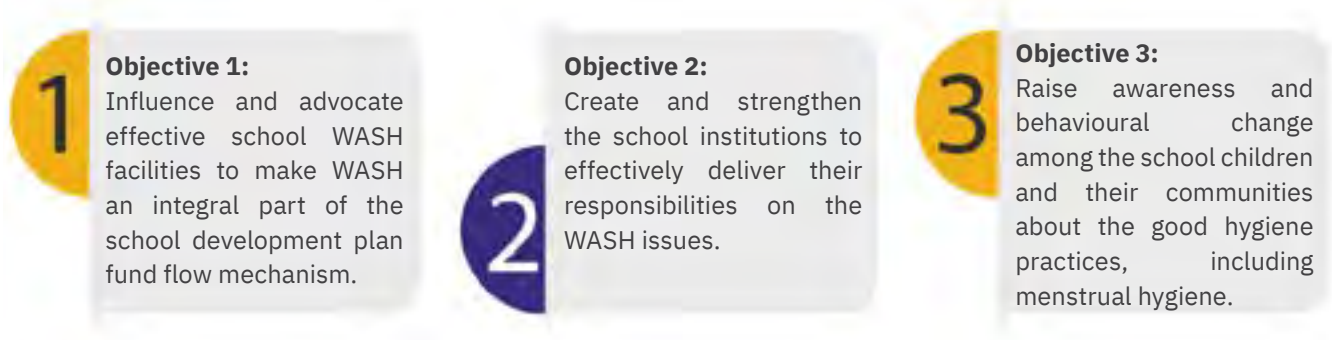


Fig. 1: Project Objectives

Theory of Change

Overall, the project targeted creating an enabling environment at the school level to foster hygiene practices with the partnership of schools, SMCs, Communities, and the Government. The project's central idea was to transform schools as "centres of change" that would eventually influence hygiene behaviours at household and community levels, thus creating an enabling environment for the schools and the entire community to sustain hygiene practices. A simplified Theory of Change, based on the programme design, was developed, and used to assess the impact of the project.

[1] *Backward districts were ranked on parameters like districts with low wages, low productivity, and high SC/ST population.*

Evaluation Design and Methods

Evaluation Design

The Terms of Reference for the Impact evaluation sets out the broader objectives to evaluate and assess the project design, considering the outcomes and outputs planned. The assessment of the project included five themes of **relevance, effectiveness, efficiency, impact, and sustainability**, and developing critical questions for the evaluation. A set of evaluation criteria and questions was developed based on the project design and the five evaluation themes.

Evaluation Methods and Tools

The evaluation process comprised three phases of:

a. Document review and consultation meetings,

b. Field investigations and

c. Analysis and development of impact assessment report

The assessment was designed to draw the quantitative and qualitative data using the primary and secondary sources made available and collected by Taru's team. Qualitative data was mainly collected through observations, consultations with the key stakeholders (students, teachers, SMCs, parents, community members) in the field and others, including WaterAid, WaterAid's partner NGO and select government officials. The field investigations were carried out in select yet representative 51 schools and communities in the project districts, which were considered sufficient to capture the project interventions and impacts.

Various tools for field investigations and consultations like Field Survey Questionnaire for quantitative data collection and IDIs, FGDs checklists and Observation survey for qualitative data collection, were prepared to conduct the assessment in these 51 schools and their communities. These tools were digitized and adapted by Taru's team. A total of **524 students**, **51 teachers/principals/ headmasters**, **60 SMCs members** and **community** and **PRI members** were interviewed, and observation surveys in **18 schools** were conducted during the field investigations.

Key Findings

The following key outcomes of the project have been substantially achieved:

- WASH became an integral part of the government's plan for resource allocation.
- SMCs were strengthened and now take informed actions on improving WASH facilities in the target schools.
- Behavioural change among the children on the key behaviours and the adoption of hygienic MHM practices by the adolescent girl students.
- Children as catalysts influenced their families and communities to adopt the hygiene and MHM practices.

The key outcomes and impacts of the projects are:

WASH-secured environment created in all schools through awareness generation, retrofitting of WASH facilities, collective engagement of SMCs, teachers and students for O&M and monitoring, and innovations. All the 312 schools had the provision of water; in 52 schools, new/existing sources were constructed or improved. In 67% schools, adequate provision of toilets and urinals was made, meeting the adequacy ratio of 1:40 with separate toilets for girls and for disabled children. In all the schools, handwashing facilities were installed or retrofitted, with 77% of schools reporting adequate provision of consumables for handwashing and 79% schools reporting clean toilets.

SMCs capacitated and collaborated with the Government on the issues of O&M of WASH facilities. Capacity of SMCs was built to assess the WASH facilities in schools, develop budgets for improvements and O&M of facilities, and engage with the government to leverage funds. SMCs were federated in all the blocks for putting collective demands before the government to provide funding support for O&M of facilities. The project

strengthened the collaboration of the government and the SMCs on the issues of O&M of WASH facilities.

- **Improved resource allocation by the government for improvements and O&M of WASH facilities in schools.** Funds to the tune of Rs. 1.15 crores were leveraged for improvements and retrofitting of WASH facilities in 221 schools.

- **Hygiene practices accelerated in all schools** through training and provision of adequate and equitable WASH facilities for boys and girls. Practices sustained through the school-level monitoring of hygiene behaviours by WASH Cabinet and Ambassadors. Handwashing practices by students improved to 68% in schools and 98% at the household level.

- **Enhanced knowledge and practices of MHM by adolescent girls** through awareness programmes, facilitating access to the provision of napkins and disposal facilities at the school level. Seventy-six percent adolescent girls reported awareness on MHM and 65% schools reported to having sanitary pads available in schools.

- **Motivated children catalyzing behaviour change in their families and communities** through community outreach activities, which have enhanced the awareness on key hygiene practices, including those of MHM and O&M situations of WASH facilities in schools. Sixty-five percent students reported handwashing with soap at critical times at home by their family members and siblings.

Fig. 2: 5-day MHM training facilitated by GJ

The achievements of the project under the themes of relevance, effectiveness, efficiency, impact, and sustainability are summarized below:

Relevance

The project aligns with the National and State priorities of providing WASH facilities in schools, Child Participation, School community linkage through active SMCs and holistic School Development Plan (SDP) as reflected in the RTE Act. Various State-sponsored initiatives for WASH in Schools, which were being implemented at the time of the Project launch in 2017 and later, reflected the more substantial need for improving WASH facilities and practices at the school level in the State. The ongoing programmes at the time of the project launch of 'Swachh Vidyalaya: Swath Bachhe' and Swachh Vidyalaya Puraskar by the State Government focused primarily on hygiene promotion with less emphasis on maintenance of WASH facilities in schools for sustained hygiene practices and strengthening linkages of SMCs and communities with the schools.

With the high proportion of toilets being unusable (35% of Boys toilets and 24% of Girls toilets) during 2016, the Project interventions of restoring WASH facilities supported by hygiene education, their O&M, and effective engagement of schools and communities remained vital and highly relevant for sustaining hygiene practices and creating an enabling environment for behavioural change at the school and community level. The assessment finds that the activities designed were coherent and consistent with the outputs and outcomes of the project. The results or the outputs of the Project were defined; however, a well-designed framework could have helped to understand their linkages-relationships clearly with activities and outcomes in the project.

Effectiveness

The Project design sounded consistent with the outcomes planned, and relates to the priorities and policy contexts of the State for WASH in Schools programme primarily

related to the implementation of the RTE Act. The project made continuous efforts to keep the government informed at various levels and encouraged their participation and support for the project activities despite the several challenges faced in the project. The project was able to exceed the targets given for various output level indicators. As the project could not address all the elements of SDPs, DPRs focusing on WASH improvements in schools were prepared to leverage funds from the government for O&M of WASH facilities in schools. In the process, preparation of SDPs – which was vital in achieving an outcome of making WASH as an integral part of the school development plan fund flow mechanism - lagged and was not fully achieved.

Efficiency

The project could utilize 95% of the budget on the project activities.

Impact

- **Enabling Environment at School for practicing hygiene behaviour**

  The enabling factors are usable WASH Facilities, engagement of SMCs-Teachers-Students on the maintenance, enhanced hygiene awareness among the students-teachers-communities and funding the support leveraged from the government. All these factors were well addressed through retrofitting the WASH Facilities, awareness and the capacity-building activities, and the government participation in the project contributing to creating an enabling environment at the school level.

- **Improved attendance/Less absenteeism in target schools**

  This has been challenging to evaluate in the absence of the required data.

Sustainability

Sustainability of interventions and impact relies on two key factors: a) interests of teachers and SMCs and b) prioritizing the WASH-related tasks by the government.

SMCs were observed to be active as long as there was an external facilitation support available through the project. There were indications that the interests of the SMCs and teachers have diluted with the reduced level of inputs and support from the Project, indicating that the process required a long-term support and institutionalization within the government through a policy mechanism. Overall, with the enhanced awareness on WASH facilities and hygiene, a collaboration of SMCs, Teachers, and students may last for the short term, but by virtue of the requirements of the RTE Act, some activities like preparing SDPs, grievances redressal by SMCs and budgetary support for consumables and repairs may continue with some minimum level of priority.

Fig. 3: Hygiene Sessions in Schools

Achievements of Objectives

Objective 1: Influence and advocate effective school WASH facilities, making WASH an integral part of the school development plan fund flow mechanism.

WaterAid and their partner were able to leverage their relations with the government to inform the government at various levels on a continuous basis, advocate various issues, and disseminate the learnings from the project. Also, the project was able to encourage the participation of government officials across the multiple project activities and help mobilize the schools and communities on issues related to WASH and MHM.

The project used various platforms and means to leverage funds from Panchayats, District Administration, and the Education Department of the State through advocacy, direct demands, and detailed project reports prepared for improvements of WASH infrastructures in the project schools. The response to the release of funds depended on the circumstances rather than a policy and at the discretion of the authorities based on the availability of funds.

The assessment considers that leveraging the funds through SDPs was the legitimate (Under the RTE Act) and sustainable way of leveraging funds, thereby strengthening the relations of SMCs with the government. The project had limitations in addressing all the aspects of SDPs, and therefore, funds were leveraged by preparing the DPRs, which focused on WASH improvements in schools.

The project successfully leveraged the funds from the government mainly for retrofitting the WASH facilities in schools from various sources – Government O&M Budget, MLA Fund, 14th Finance Grant, etc. - benefitting 221 schools. The leveraged funds exceeded the target of Rs. 6 lakhs annually. In the three-year phase (2017-2020), Rs. 8.15 lakhs, Rs. 31.21 lakhs and Rs. 76.80 lakhs were leveraged each year.

Objective 2: Create and strengthen the school institutions to effectively deliver their responsibilities on the WASH issues.

- Strengthening SMCs

The project undertook several capacity-building measures for the SMCs (encouraging monthly meetings and training) and attempted to integrate WASH improvements as a part of the SDPs. Such efforts were made in 2017-18, and in the subsequent years, federating SMCs at the block level were undertaken, which helped to some extent in raising their demands with the government. However, it required substantial institutional inputs and support within the project and from the government to accept and institutionalize the federations as a formal mechanism to collaborate with the government.

- Restoration of WASH Facilities

Water: The project installed new water-lifting devices in 50 schools (16%) to improve the access to water. Hand pump platforms were retrofitted in 52 schools (17%) to protect the sources from contamination and improve convenience in fetching water. Iron contamination was observed in about 36 schools, where the iron filters were provided through the project interventions. By the project closure in 2020, it appears that all the school students had access to safe water in 312 schools.

Toilets: The project primarily focused on retrofitting the non-functional toilets (the proportion of which was 35% for Boys toilets and 24% for Girls toilets) in 2016. It was estimated that 321 additional seats for boys and girls were required in the 312 schools. The project, using the project and government funds, could retrofit 30% of the toilets in the schools (96 toilets out of 321 required) with an anticipation that the rest of the defunct toilets would be restored by the SMCs and the Government, which apparently did not happen during the project period. However, it was also ensured that there were an equal number of toilets available for boys and girls, meeting the gender equality norm.

Sanitation needs of children with special needs were addressed by constructing new 16 CWSN friendly unisex toilets to meet the sanitation needs of 135 CWSN children in these 312 schools.

There are several practices of maintaining toilets reported in the project schools - by the students, cleaners and mid-day meal cooks. A uniform mechanism of maintaining the toilets could have been agreed upon and promoted for large scale adaptations in the State. It is appreciable

that the budgetary provisions are available in the school budgets to procure toilet cleaning materials, tools and for minor repairs to maintain the toilets.

According to the survey of students done by Taru, the functionality of the toilets has gone up to 96.4% in the schools surveyed, and that's quite phenomenal. The functionality of toilets has also improved by water availability – 82.4% of students confirmed the use of water source available in the schools and by the addition of a handwashing facility near the toilets; 92.9% students confirmed the availability of a handwashing facility near the toilet.

Handwashing Facilities: As per the baseline assessment conducted before the project implementation, 44% of schools intervened in 2017-18 and 37.5% in the year 2018-19 had the handwashing facilities available, whereas only 13.5% of schools in the year 2019-20 (year three) were equipped with the handwashing facilities for students and teachers within the school premises. Under the project, nearly 310 schools (99% schools) had the handwashing facilities (Portable and Permanent Units) installed to facilitate the handwashing by students, which has greatly facilitated the practising of handwashing by students at critical times.

MHM Incinerators: Under the Project, MHM Incinerators were installed in 39 project schools (12.5%) targeting the secondary school adolescent girls, where such a facility did not exist. The incinerators were attached to the existing toilets for the disposal of used sanitary napkins. This is a significant improvement over the practice of disposing the used napkins in the bins.

Solid and Liquid Waste Management: Solid Waste collection and the disposal systems were improved in 195 schools (63% - improved from 32% at the time of the baseline) and liquid waste disposal arrangements (new drains) in 45 schools (14%). Only 39% of schools had some arrangement of wastewater disposal, but now it has gone up to 84% of the schools.

Capacity Building of Students, Teachers and SMCs on WASH: There have been several trainings conducted in the project for SMCs, teachers, students on WASH facilities and their maintenance. They were also involved in the functionality assessment conducted in schools as a part of the preparation of the DPRs to seek funding support from the government. This certainly helped to raise the awareness level on the maintenance issues associated with the WASH facilities. 92.2% of teachers were trained on WASH and 56.9% on MHM compared to the baseline figures of 23.4% and 5.5%, respectively. WASH Cabinets and WASH Ambassadors were selected and trained in all 312 schools. They were given responsibilities to upkeep the toilets and monitor the hygiene behaviours in schools using the monitoring tools developed under the project.

Objective 3: Raise awareness and behavioural change among the school children and their communities about the good hygiene practices, including menstrual hygiene.

The project has demonstrated several initiatives that have contributed substantially to enhancing the knowledge on hygiene and MHM and the practices at the school and community level. Communication materials and their delivery through hygiene sessions, reiterating those messages through events and campaigns, installing facilities to practice those behaviours, and setting up school-based monitoring systems appeared to be the key drivers to mobilize students and teachers around the hygiene issues in schools. The project has exceeded the targeted hygiene sessions per school and conducted follow-up sessions with the schools (average eight sessions per school against targeted 3) to reinforce the behaviour among students. The survey of students by Taru revealed that 68% of the children indicated improvements in handwashing after the hygiene learning in schools, 68.7% washed hands with soap before food, and 98.4% followed the handwashing practice at home. A participatory and convergent approach was used to involve schools, Anganwadi centres, Jalsahiyas, panchayat members, She members and She PRI members, and government officials at the block and district level in the various awareness activities on MHM. Overall, the project was able to sensitize and increase awareness among adolescent schoolgirls, women and other para workers such as Anganwadi workers and SHG groups on MHM practices and taboos.

Lessons Learned

- The project should have logical framework developed at the initial stage to guide the planning, implementation and evaluations.
- Mid-term review of the project is suggested to review the progress made and plan any mid-course corrections required.
- The practice of engaging a Third Party to conduct an independent assessment of progress should be continued to provide an independent view and insights on the programme activities and achievements.
- Consultations with children on designing infrastructures should be part of the project design to make the infrastructure child-friendly and enhance the children's ownership and the use of the infrastructure.
- The project could address only 30% of the requirements of WASH Infrastructure in terms of their retrofitting and making them functional. Funding the commitments and meeting the deficit, if any, through an additional funding or by leveraging funds from the government or other sources requires closer monitoring to fulfil the project objectives.
- Events with participation from the government would be helpful to disseminate learnings from the project, and any takeaways in terms of innovations, processes and experiences that can be adapted or scaled up.
- The project should plan an exit strategy focusing on crucial sustainability elements, which should be prepared much before the exit.
- The project's intervention duration of one year in schools appeared to be ambitious. The project's design needs to include the practical realities and constraints and prioritize the interventions with appropriate timeframes.
- The project should specify the standard inputs of the lead NGO and their partners in the project so that the quality of interventions can be delivered and sustained throughout the life of the project.
- The project reports give the impression that the interventions were implemented in schools and in certain areas, but not scaled up to all the project schools. A definite yet a strategic set of interventions for each school could have been planned and delivered to all the project schools.
- Building technical capacity of partners on water, solid and liquid waste management issues through recurrent training and joint working for the initial project period is recommended.

01 Introduction & Project Background

1.1. Location and Context

Jharkhand is one of the 28 states of India, situated in the eastern part of the country. The state was carved out from Bihar on 15th November 2000. Since then, the State has made rapid development in various sectors. While Jharkhand has almost 40% of India's mineral resources, the State has one of the highest poverty rates in India, with 37% of the population living below the poverty line. Poverty-stricken Jharkhand has always been an underperformer in economic and human development indexes. About 26% of Jharkhand's population is tribal, the sixth-largest such population in India. Though the tribal communities are the natives of Jharkhand, they are the most deprived and marginalized section of the society in the state. Literacy rates in Jharkhand are lower than India's average and are about the same as in Rwanda.

Socio-Demographic of Communities/ Districts (Dumka & Pakur)

Among the 24 districts in the State, project districts of Dumka and Pakur have a high proportion of people with a low wealth index which is much higher than the average of Jharkhand. These two districts also have poor child health indicators in comparison to the State average. Infant mortality rate, under nourishment among children, is high compared to Jharkhand's average child health status. Both Dumka and Pakur are home to some of the Particularly Vulnerable Tribal Groups.

Dumka and Pakur are among the most backward districts in India and ranked at 50 and 69, respectively, among the 447 districts that were ranked on parameters like districts with low wages, high SC/ST population and low productivity. Both these districts have relatively poor performance of education and literacy-related indicators. Dumka and Pakur are also among the 21 Maoist-affected districts in the State. In recent years, the Maoist activities have lessened due to various development works. However, there were disturbances on this account, and the project implementation was affected occasionally. The profile of these two project districts is presented below:

Fig. 4: Map - Jharkhand District (Left), India (Right)

Table 1: District Profile for Dumka and Pakur

Indicators	Dumka	Pakur
Population	13,21,442	9,00,422
Sex Ratio	977	989
Literacy	61.02	48.82
SC Population	79,614 (6%)	28,469 (3.1%)
ST Population	5,71,077 (43.22%)	3,79,054 (42.09%)
Number of Blocks	10	6
Number of GPs	206	128
Number of Villages	2,944	1,250

Children with Special Needs[2]

As per the census 2011, total CWSN under the age group of 6-18 years in the state were 1,48,043 and constituted approximately 1.71% of the State's general population. In 2017-18, the proportion of CWSN children was 0.83% of the total children aged 6-18. In the project schools, the proportion of CWSN students was at 0.5% of the total student strength.

WASH Scenario

Jharkhand reported a full coverage of 95% of its rural habitations by water by April 2017[3]. Over 85% of the water supply schemes are based on groundwater, facing issues related to sustainability of the sources in the State. There are also sources chemically contaminated with iron, arsenic and fluoride in some pockets. Out of its 119,191 rural habitations, a total of 3,084 habitations (2.5% of total) with iron, arsenic and fluoride contaminations have been observed. In the project schools, iron contamination was observed in a few schools.

At the time of the launch of the Swachh Bharat Mission in 2014, the access to household sanitation in Jharkhand was a mere 14.16% and rose to 46.6% in 2016-17. By then, Dumka and Pakur Districts relatively had impressive household sanitation coverage, which stood at 76.40% and 57.69%, respectively[4]. Jharkhand was declared ODF (Open defecation free) in early 2019.

WASH in Schools

School Education and Literacy Department, Government of Jharkhand, is responsible for School Education in the State. Jharkhand Education Project Council (JEPC) is an autonomous body registered in 2001 under the Societies Registration Act, 1860. It is involved in the implementation of various Projects/Programmes like Sarva Shiksha Abhiyan (SSA), the National Programme for Education of Girls at Elementary Level (NPEGEL) and Kasturba Gandhi Balika Vidyalaya (KGBV). JEPC is also involved in the community mobilization, MHM, Model Schools, etc., among other programmes in the State.

Jharkhand has a total of 40,178 schools run by the Department of School Literacy and Education. More than 90% of these schools had classes up to the 8th standard (elementary schools). The percentage of secondary and higher secondary schools is very low. Only about 5% of the schools provide secondary-level education, and only about 2% percent provide higher secondary-level education.

Concerning the WASH situation in schools in the State, the Annual Status of Education Reports (ASER) of 2016 and 2018 for schools with Standards I to VIII reveal the following statistics. **There has been a substantial increase (75% from 63%) in the proportion of useable toilets in schools by 2018 before the beginning of the NSE-WaterAid interventions in 2017.** But despite the improvements, nearly 23% of toilets remained unusable by 2018. Availability of drinking water remains good, and nearly 83% of schools had drinking water available. Such data is not available after 2018.

[2] *JPEC Annual Report – 2018-19*

[3] *CAG Report dated 1 April 2017-Chapter IV Programme Implementation, www.cag.gov.in. Full coverage means 55 lpcd.*

[4] *sbm.gov.in*

Table 2: WASH Scenario in Schools

Facility		(% schools) 2016	2018
Mid-day Meal	Kitchen shed for cooking mid-day meal	88.4	88.7
	Mid-day meal served in school	80.7	79.0
Drinking Water	No facility for drinking water	8.3	6.6
	Facility exists, but no drinking water is available	10.2	10.9
	Drinking water available	81.5	82.6
Toilet	No toilet facility	1.9	2.4
	The facility exists, but the toilet is not usable	35.3	22.7
	Toilet usable	62.8	74.9
Girls Toilet	No separate provision for girl toilet	3.3	5.6
	Separate provision but locked	11.2	8.6
	A separate provision, unlocked, but not usable	24.1	13.3
	Separate provision, unlocked, and usable	61.4	72.5

Status of RTE Rules

Jharkhand enacted its own rules called 'The Jharkhand Right of Children to Free and Compulsory Education Rules, 2011' based on The Right of Children to Free and Compulsory Education Act, 2009, and made effective through a notification[5] dated 11 May 2011. The rules were further amended in May 2012. The Act 2009 and the Rules 2011 suggest having separate toilets for girls and boys and safe and adequate drinking water facilities for all the children in schools. ASER Data of 2018 presented above indicates that the RTE implementation is in progress.

Table 3: RTE Indicators for Tribal schools in Dumka and Pakur district (Source: DISE 2014)

RTE Indicator	State Average (%)	Dumka (%)	Pakur (%)
Formation of SMC and meetings held in the previous year	94.7	36	58
Availability of Drinking Water	93.1	100	75
Availability of Handwashing Facilities	NA	82	50
Kitchen Shed for MDM	83.9	73	42

[5] *Issued by Human Resource Development Department, (Directorate of Primary Education), Government of Jharkhand*

In 2014, the Supreme Court ruled that all the schools must have separate toilets for boys and girls and also directed all the states to provide the toilet facilities, drinking water facilities, sufficient classrooms, appointment of teaching and non-teaching staff, etc.[6] The court's verdict, effective from May 9th 2014, made it clear that these norms were integral to the Right of Children to Free and Compulsory Education (RTE) Act, 2009. Despite the Supreme Court's instructions on the abidance of RTE norms in schools, most of the government schools, especially those falling under the tribal belt of Jharkhand, including Dumka and Pakur districts, are out of the reach of the basic facilities of Water, Sanitation and Hygiene (WASH). As indicated in Table 3, Dumka and Pakur perform well below the state average in all the RTE indicators, except for the availability of drinking water in the Dumka district.

No Enrolment and Dropout Status

The proportion of children who have not enrolled or dropped out of school has been declining since 2006 from nearly 9% to 3.8% in 2016 in the age group of 6-14. However, this proportion is at 16.2% among the children in the age group 15-16 in 2016. The proportion had further declined to 2.7% and 13.2% in the age group of 6-14 & 15-16 respectively in 2018. The increase in school enrolment may be attributed to a Zero Dropout Panchayats scheme[7] implemented by the School Education and Literacy Department, Govt. of Jharkhand, which encouraged monitoring of irregular children in schools and their enrolment by a local group comprising Mukhiya, teachers and SMCs.

The State has declared 1,828 Panchayats out of 4,398 as Zero Dropout Panchayats by March 2019. This included 108 GPs from Dumka (out of 206) and 29 GPs from Pakur (out of 128).

1.2. NSE Foundation-WaterAid Project

The Rationale for the Project

The NSE philosophy believes in the growth and prosperity for all. NSE and its group companies strive to impact the societal transformation through unique, innovative models in education, elder care, and WASH programmes. NSE Foundation implements its activities in seven core focus areas, emphasising three key areas - Primary Education, Elder Care, and Sanitation and Safe Drinking Water.

Keeping its continued commitment to providing long-term support to CSR programmes, NSE and WaterAid India started the project "Swachh Vidyalaya, Swachh Aadat" in Jharkhand in March 2017 to focus on School WASH and strengthen the institutional capacity. The programme was designed on a rationale that the schools can become an epicentre (centre-for-change) for bringing out change in WASH-related behaviour and practices within the community only when they are WASH-secure.

With the high proportion of toilets being unusable (35% of Boys toilets and 24% of Girl's toilets 24%) during 2016, restoring WASH facilities supported with hygiene education, their O&M and effective engagement of schools and School Management Committees remained vital for creating an enabling environment for the behavioural change at the school and community level. At the same time, the government's support, especially for O&M of WASH facilities, is also critical to keep the facilities functional and usable for students.

The Project, therefore, had three major components of a) strengthening institutions and WASH infrastructures in schools, b) hygiene education including Menstrual Hygiene Management (MHM) and c) leveraging the government support for O&M of WASH facilities in schools.

With its unique set of interventions, the Project was also expected to demonstrate a model of processes and partnerships, which would have the potential for replication in the State.

[6] *Order dated May 09 2014; Available athttp://www.indiaenvironmentportal.org.in*

[7] *https://schooleducation.jharkhand.gov.in/*

Project Objectives

The 'Swachh Vidyalaya, Swachh Aadat' project focused on 312 government schools in Dumka and Pakur Districts. The Project was implemented over a period of three years (2017-2020) and in phases covering 104 schools each year. The project had set the following objectives.

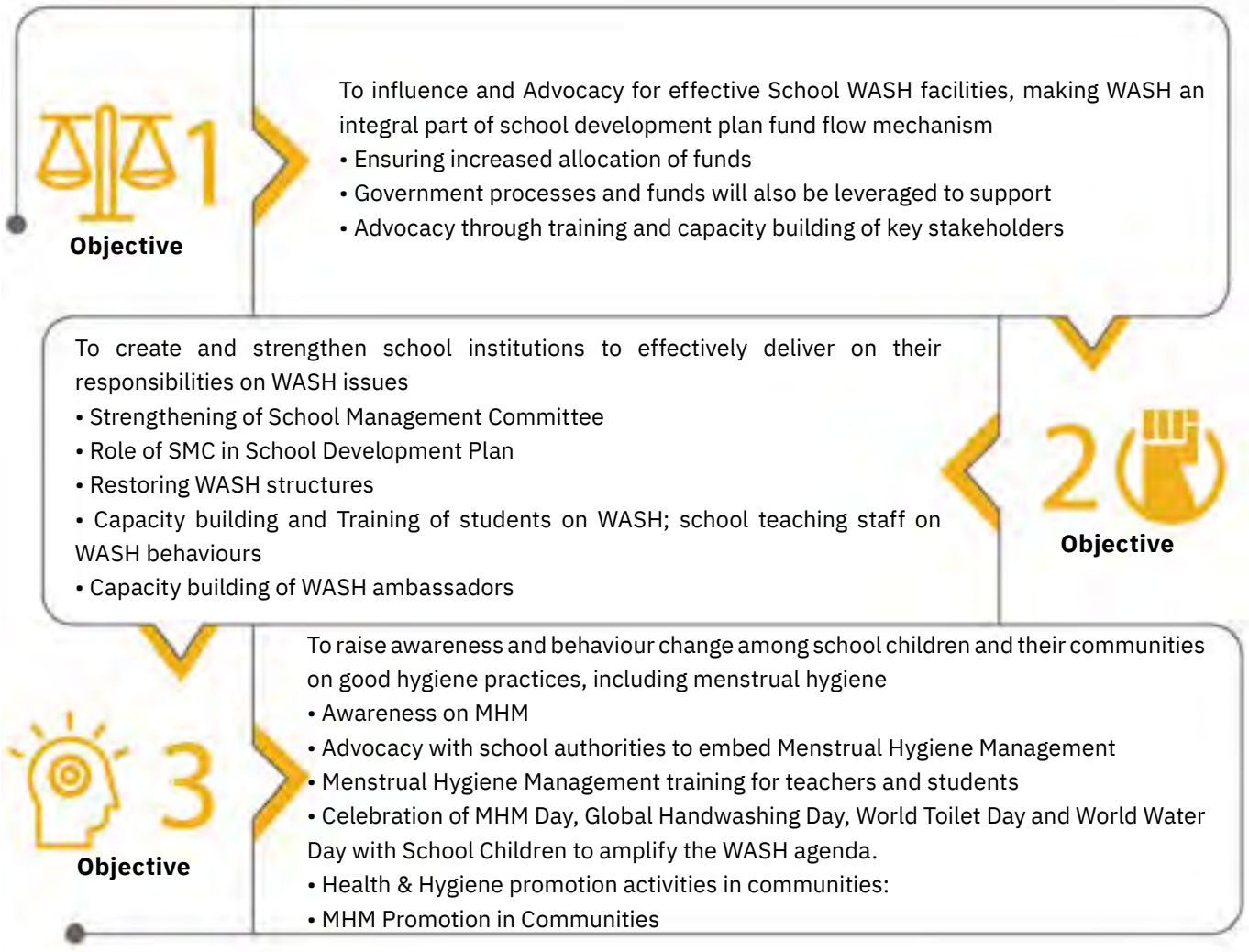


Fig. 5: Project Objectives

Theory of Change

Overall, the project targeted creating an enabling environment at the school level to foster hygiene practices with the partnership of schools, SMCs, Communities and the Government. If the project creates the usable WASH facilities, puts the O&M mechanism in place, activates the SMCs to support O&M, and enhances the support to keep the facilities functional by leveraging the support from the government and hygiene practices improved through awareness, it can lead to the project's central idea of creating schools as "centres of change", which will eventually influence the hygiene behaviours at the community level, thus creating an enabling environment for the schools and for the entire community to sustain the hygiene practices. Based on the programme design, a simplified Theory of Change is developed and presented below in Table 4.

Table 4: Theory of Change based on the programme design

Sr. No.	Project Objectives	Input	Output	Outcome	Impact
1	To influence and advocate effective school WASH facilities, making WASH an integral part of the school's development plan fund flow mechanism	• Launch event inviting key stakeholders explaining the purpose and plan of the project • Showcasing school WASH in key Government events • Meeting key Government officials with specific demands • Presenting findings of the baseline survey and Infrastructure assessment with officials – highlighting gaps • Media engagement	Funds leveraged from the Government for O&M of WASH Facilities in target schools	WASH Facilities remain usable all the time in target schools WASH becomes an integral part of the Government's school WASH plan and resource allocation	Enabling environment created at the school level for sustained hygiene practices
2	To create and strengthen the school institutions to effectively deliver their responsibilities on the WASH issues	• Train SMCs on hygiene, O&M, regular meetings, participation and School Development Plan • Prepare DPRs and School Development Plans (DPRs act as evidence for estimating the need and costs) • Federation of SMCs • Train the teachers on WASH • Train the students on WASH • Development of SMC tool for the WASH infrastructure monitoring	The capacity of SMCs, teachers and students built on WASH knowledge and practices	SMCs take informed action on improving and sustaining WASH in the target schools	

Sr. No.	Project Objectives	Input	Output	Outcome	Impact
		• WASH Infrastructure – innovations to be locally suitable • Undertake repairs/ restoration of WASH Facilities	Improved WASH facilities available in target schools	WASH and hygiene facilities used by students at the schools for maintaining hygiene	
3	To raise awareness and behavioural change among the school children and their communities about the good hygiene practices, including menstrual hygiene	• Develop appropriate IEC materials on hygiene and MHM • Training of the teachers and students, child cabinet and WASH ambassadors on hygiene and MHM • Frontline workers (JalSahiya and Anganwadi worker training) on MHM • Regular hygiene sessions by the teachers and the child cabinet members • Conduct hygiene campaigns and events at the schools • Child – Family – Community influencing behavioural change among a wider audience • Hygiene behavioural change monitoring tool • Install/restore MHM Facilities in schools • Promote MHM in communities	Hygiene and MHM promoted at the school and community level	Children adopt improved hygiene behaviours Adolescent girls are adept in managing hygienic management of menstruation which gives them confidence in taking on leadership roles	Improved attendance/ less absenteeism in target schools

1.3. Project Components

Fig. 6: Project Components for Swachh Vidyalaya, Swachh Aadat

The project included three major components:

- Strengthening the institutions and WASH infrastructures in schools
- Hygiene education, including the Menstrual Hygiene Management
- Advocacy of leveraging the government support for O&M of WASH facilities in schools

The component of strengthening included:

- **Restoration of school toilets, provision of safe drinking water, interventions for solid and liquid waste management including the disposal arrangement for menstrual waste.**
- **Capacity building of students, teaching staff and School Management Committees on hygiene and their participation in the maintenance of WASH facilities.**

It was expected that School Management Committees, teachers and students would work together to maintain the WASH facilities and sustain the hygiene practices. The project intended to enhance the involvement of SMCs by drawing their attention to situations of WASH facilities in schools and encouraging them to adopt a greater role in engaging with the schools and the government in leveraging funding support for the maintenance of WASH facilities.

The component of hygiene education included hygiene events and Child to Community Outreach interventions to influence the hygiene practices at the household and community level and enhance their knowledge on MHM to address the related taboos among the households and communities.

The component of advocacy linked interventions included influencing a larger set of schools in the district and the government functionaries at the district and block levels to ensure:

- Implementing the RTE (Right to Education) linked to WASH
- Leveraging the Government processes and funds to support the Operation and Maintenance (O&M) of WASH facilities in schools and the hygiene education
- Instilling accountability in the system and efficient Grievance Redressal System

Various hardware and software interventions included in the project are listed below.

HARDWARE INTERVENTIONS

Development/ Upgrade/ Renovation of Wash Facilities

a. Assessment of the existing WASH infrastructure
b. Rehabilitation/restoration of WASH infrastructure, which also included construction of new facilities where needed. The facilities included:
   - Water (drinking water source/distribution, water lifting devices, water storage systems)
   - Sanitation (toilet blocks for boys and girls and CWSN students), liquid and solid waste management
   - Hygiene (hand wash stations, incinerators to dispose of MHM Waste)
c. Preparation of DPR for assessing the funding requirements
d. Leveraging of funds from Government and Other Sources

Operation and Maintenance of WASH Infrastructure

a. Assessment of budget requirement of schools related to recurring expenditures for Operation and Maintenance (O&M) activities
b. Developing the systems for regular/periodic inspection and assessment of water and sanitation facilities by an appropriate group of persons as appointed by the SMC
c. Discussion with stakeholders on issues of regular maintenance of facilities, regular supply of cleaning materials, consumables like soap, disinfectants, brooms, brushes, buckets, etc.
d. Strengthening and sensitization of School Management Committee on Operational and Maintenance issues concerning WASH
e. Sensitization of parents and community

SOFTWARE INTERVENTIONS

Behavioural Change Activities to Enhance the Capacities of Students and Teachers

a. Making children the monitors of hygiene behaviour within the school through Child Cabinets and WASH ambassadors by way of training and monitoring
b. Conducting various hygiene promotional events.
   - Observing various days at schools
   - Sensitization of parents and community members through Child to Community outreach activities
   - Community campaigns
c. Development of training materials for students, teachers, and SMC
   - Handbooks, IEC Material, Wall Paintings
   - Hygiene sessions at the school
d. Strengthening of School SMC, which includes all the stakeholders like the parents, teachers, government officials, etc., for creating a demand for WASH and leading to a sustainable WASH-secure environment
e. Spreading the best practices of WASH in the schools to the nearby communities

Advocacy and Convergence

a. Advocacy at District, State and National level for mainstreaming WASH in the school curriculum.
b. Strong connect with the local government officials in Jharkhand to ensure the local government bodies like PRI recognize WASH as an important agenda and influence for larger fund allocation.

1.4. Profile of Schools Covered under the Project

The project covered 156 schools from each of the districts of Dumka and Pakur, totalling 312 schools over a period of three years, covering three blocks in each of these districts. The year-wise targeted blocks and schools are listed in table 5. The detailed list of all 312 schools is attached in Annexure 1.

Table 5: Year-wise intervention in schools

District	Inception Year	Block	Schools
Pakur	2017 - 18	Maheshpur	41
		Pakuriya	11
	2018 - 19	Littipara	16
		Pakuriya	36
	2019 - 20	Littipara	52
Total No. in Districts			**156**
Dumka	2017 - 18	Raneshwar	52
		Raneshwar	33
	2018 - 19	Dumka	19
		Dumka	16
	2019 - 20	Sikaripara	36
Total No. in District			**156**
Grand Total			**312**

The project largely covered the government's primary and upper primary schools and a few schools with the secondary education. The majority of the schools covered were co-education schools. The profile of the schools covered under the project is presented in table 6.

Implementation Arrangements

The project was initiated and funded by NSE Foundation, and WaterAid undertook the implementation of the project, a leading international non-governmental organization focused exclusively on improving people's access to safe water, improved sanitation and hygiene (WASH) in the developing countries. NSE and WaterAid entered into Project Agreement on 23.02.2017. CINI and Gram Jyoti were the local implementing agencies engaged by WaterAid. CINI worked in Dumka and Gram Jyoti in the Pakur district in 2017-18, and later on, it was Gram Jyoti that worked in both the districts until the project closure in 2020. WaterAid gave the strategic support and monitoring and supervision support. NSE appointed TTC Glocal as the auditing agency to assess the progress and provide recommendations.

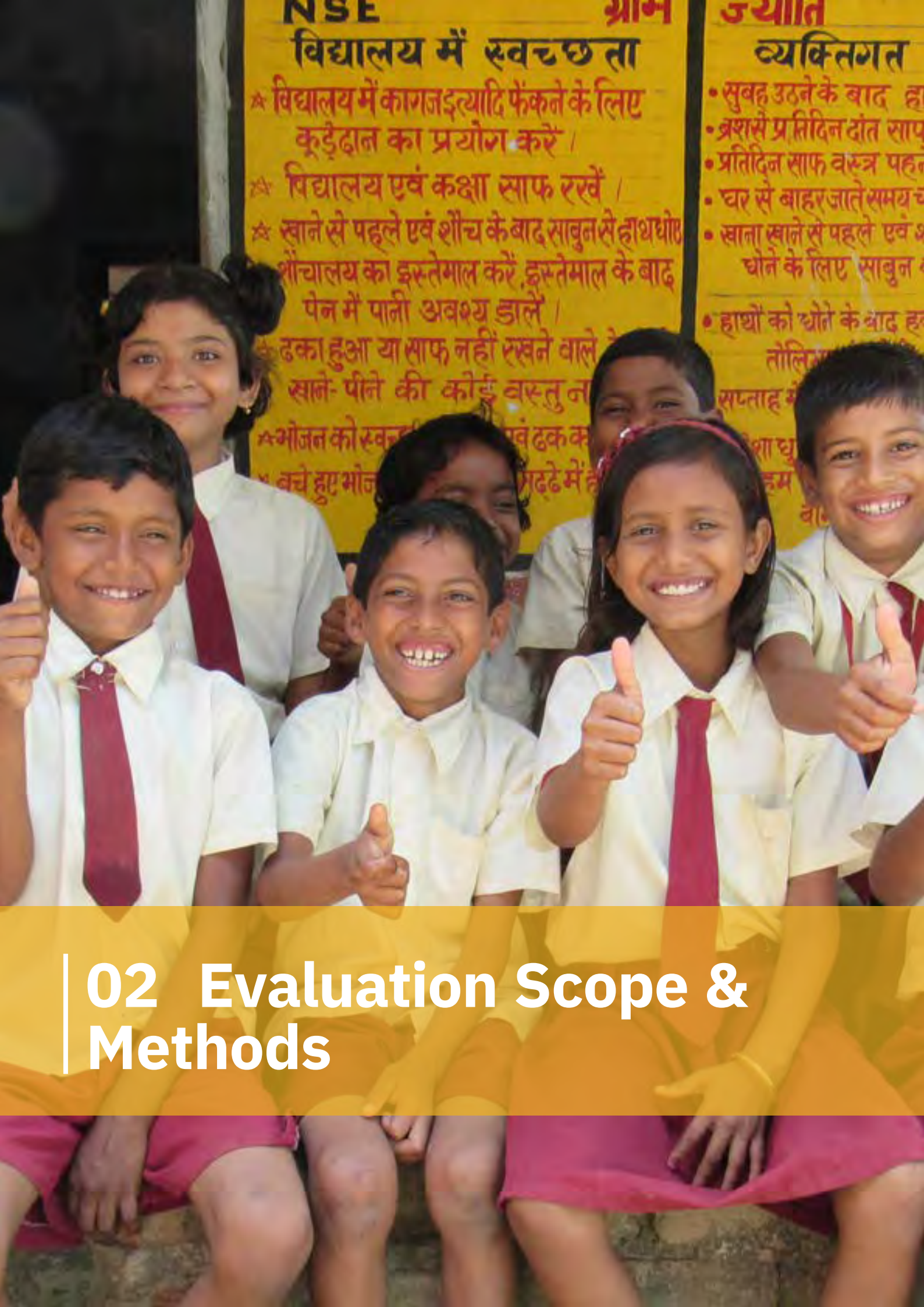
Table 6: Profile of schools covered under the project

Category of School	Year 1	Year 2	Year 3	Total
Primary	67	52	36	155
Primary, Upper Primary	33	38	61	132
Primary, Upper Primary, Secondary	2	9	6	17
Secondary	1	3	1	5
Type of School				
Co-education	103	98	103	304
Girls Education	0	4	1	5
Accurate Data Unavailable	1	2	0	3
School Management				
Government	100	102	104	306
Private	3	0	0	3
Accurate Data Unavailable	1	2	0	3
Students Strength				
Total Number of Boys	4472	850	7288	12610
Total Number of Girls	4314	990	7134	12438
Total Number of Children	8785	1840	14207	24832
Number of Boys with Special Needs	20	17	21	58
Number of Girls with Special Needs	27	25	25	77
Total Number of Children with Special Needs	47	42	46	135
Teachers' Strength				
Total Number of Male Teachers	190	22	205	417
Total Number of Female Teachers	69	5	142	216
Total Number of Teachers	259	27	343	629
Other				
Total Number of Sanitation Workers*	4	7	2	13

*Most schools are marked as '0' sanitation workers, data not available

Beneficiaries and Stakeholders

Students at the targeted schools are the primary beneficiaries of the project, while their household members and community members remain the secondary beneficiaries of the project. Teaching staff, SMCs, district administration and State level government are also the beneficiaries of the project due to the institutional strengthening component of the project.



02 Evaluation Scope & Methods

2.1. Location and Context

NSE Foundation intended to evaluate the quality of the project's implementation, relevance, and impact by engaging an external organization. Taru Leading Edge was chosen to conduct the impact assessment of the project.

Evaluation Objectives

The broader evaluation objectives were to evaluate and assess the project design considering the outcomes and outputs planned, engagement of various stakeholders at the school and community level, behavioural practices at the school and community level, and advocacy efforts to leverage the government's funding support for O&M of WASH facilities in schools. The specific objectives as outlined in the Terms of Reference are as below:

- Undertake an evaluation of the project design and efficacy
- Collect data and obtain perspectives of various stakeholders such as beneficiaries, community members, SMC members, teachers, relevant government department staff on the project and sustainability issues of assets created under the project
- Evaluate the outputs and outcomes
- Assess the impact of WASH assets and behavioural change at a local, community, systemic or governmental level.
- Comparative assessment of different projects and organizations
- Challenges and solutions
- Lessons learnt and way forward
- Best practices (Model projects)
- Develop an evaluation report

Evaluation Scope

The scope of work included the evaluation process and evaluation of the quantitative and qualitative indicators achieved during the project's implementation and the impact of the project on the beneficiaries and other concerned stakeholders. The evaluation of the project included five themes of relevance, effectiveness, efficiency, impact, and sustainability, and developing key questions for the evaluation. The assessment also included the criteria such as target versus deliverables, community adoption, advocacy with the government agencies, institutional strengthening where applicable and sustainability once NSE Foundation exits these projects.

Evaluation Criteria and Questions

Based on the Terms of Reference, Taru has developed the following criteria and evaluation questions under the given five themes. These questions have been developed considering the inputs, outputs and outcomes expected out of the project. The questions have assisted in evaluating the project objectively on a qualitative and quantitative basis and assessing the efficacy of the Theory of Change Matrix (Table 7) used for the project.

Table 7: Profile of schools covered under the project

Evaluation Criteria	Evaluation Questions
Relevance	
Assess the extent to which the Project is suited to the priorities of the Government and target population.	To what extent, the Project interventions aligned with the priorities of Government's WASH in the schools?
	To what extent, the activities and outputs of the Project were consistent with the expected results?
	To what extent, the expected results of the Project were clearly defined?
Effectiveness	
Assess whether the Project's intended results at the outcome level have been achieved and why/ why not.	To what extent, the implemented activities were consistent with the Project design?
	To what extent, the intended results at the outcome level have been achieved?
	To what extent, the Project succeeded in providing adequate and functional WASH and MHM facilities to the school students?
	To what extent, the Project contributed to addressing the gender equality in the provision of WASH Facilities?
	To what extent, the Project addressed the WASH needs of children with special needs?
	To what extent, the Project contributed to a better knowledge of hygiene and MHM among the students and teachers?
	To what extent, the Project contributed to the improved O&M of WASH facilities in schools?
	To what extent, the project strengthened the SMCs to leverage the funds and act as a grievance redressal institution in the school?
Efficiency	
Assess the extent to which the relationship between inputs and outputs is timely, cost-effective, and expected standards.	To what extent, the Project has been able to utilize the Project budgets?
Impact	
Assesses the positive and negative, primary and secondary long-term effects produced by the Project, whether directly or indirectly, intended or unintended.	To what extent, the Project has contributed to the use of WASH facilities by students in schools?
	To what extent, the Project succeeded in effective engagement of Communities, SMCs, Teachers and Students to a sustained monitoring and maintenance of the WASH facilities at schools?
	To what extent, the Project contributed to a change in handwashing practices at critical times?
	To what extent, the Child to Outreach activities have contributed to improving the hygiene knowledge, practices and addressing the taboo related to MHM among the households and communities?
	To what extent, the Project Model has the potential for replication?
	To what extent, the Project has contributed to creating an enabling environment for sustaining the hygiene practices?
	To what extent, the Project contributed to a change in the school enrolment and attendance rate among boys and girls?
Sustainability	
Assess the extent to which outputs, outcomes and impact have been sustained or likely to be sustained after the Project Support has ended.	To what extent, the engagement of Communities, SMCs, teaching staff, and students will continue to monitor and maintain the WASH services in schools?
	To what extent, the Teaching Staff and Student Ambassadors will continue to promote the hygiene education in schools?
	To what extent, the schools outreach activities will continue to influence the households and the community hygiene practices?

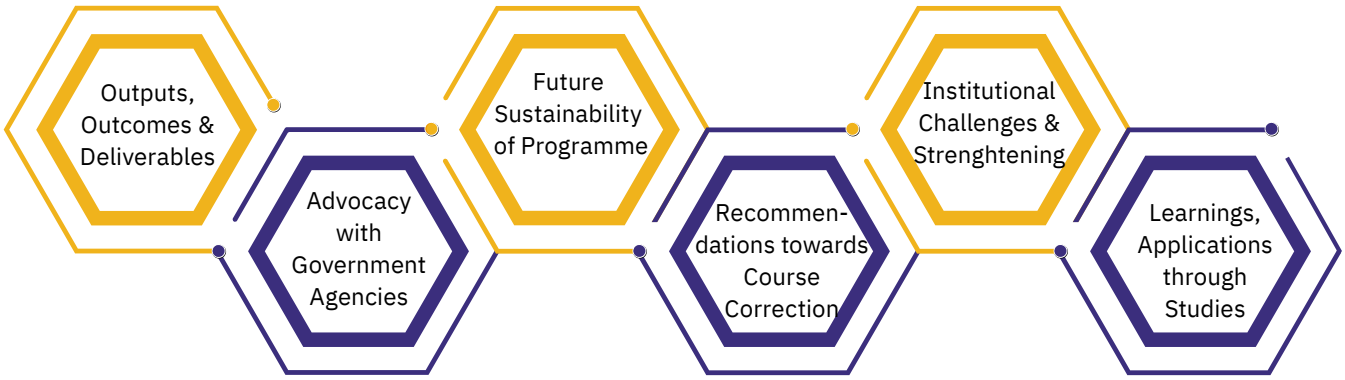


Fig. 7: Project Visions, Goals & Target

2.2. Evaluation Design

The evaluation process comprised three phases of a) Document review and consultation meetings, b) Field investigations and c) Analysis and development of impact assessment report. The assessment was designed to draw quantitative and qualitative data using the primary and secondary sources made available and collected by Taru's team. Qualitative data was collected largely through observations, consultations with key stakeholders (students, teachers, SMCs, Parents, Community members) in the field and others, including WaterAid, Partner agency and select government officials. The field investigations were carried out in select yet representative 60 schools and communities in the project districts, sufficient to capture the project interventions and impacts.

The Theory of Change framework given in Table 4 was used to understand the project interventions and their impact and explore the potential linkages and reasons for their effectiveness.

Document Reviews & Consultation Meetings

Taru team undertook a document review of the primary data such as the project agreements (NSE, WaterAid), documents, progress reports, auditors (engaged by NSE) reports, published literature by the NSE Foundation and other collaterals, etc., to develop a clear understanding of the project and processes that went in its implementation. The Team also reviewed the government policy and several project documents related to WASH in schools, implementation of RTE Act provisions, and flagship programmes of Swachh Bharat and National Rural Drinking Water Programme (NRDWP) for understanding the priorities and efforts of the State and National Governments on WASH in schools. The team held several consultations with the team of NSE Foundation, WaterAid, Auditor (TTC Glocal) and Partner organization (WaterAid India) to get an overall perspective on the "Swachh Vidyalaya, Swachh Aadat" project and insights into the specific issues of the project.

2.3. Field Investigations and Consultations

Sampling Approach – Selection of Schools & School Profiles

Out of the 312 schools that were part of the project intervention, 51 schools were selected to be surveyed for the assessment study. The selected 51 schools were among the six blocks covered in these two districts, as shown in Table 8. The selected sample is considered representative of the project schools in the Dumka and Pakur districts. A block-wise approach was followed in Dumka and Pakur districts. From each district, three blocks were selected – sampling distribution was done by picking up of school locations. The typical Male to Female ratio in sampling was taken at 50:50. As agreed with the NSE Foundation Team, **a total of 51 schools, including their communities, 25 schools from Dumka and 26 schools from Pakur, were selected for carrying out the field investigations and consultations with stakeholders.** Overall, the investigated 51 schools covered 10,833 students and 233 teachers, which represented approximately 43% of students and 37% of teachers among the 312 schools. As shown in Table 8, among the 51 schools surveyed, 49 schools were co-educational, and two were all-girls schools.

Table 8: List of schools surveyed for Impact Assessment

District	Block	GP	Village	School (UDISE Code)
Dumka	Dumka	Behrabank	Kadokhicha 1	UPG Govt Ms Kad Okhicha (20110113701)
		Darbarpur	Kulungu	UMS Kulungu (20110117201)
		Ghatrasikpur	Rasikpur	Govt PS Durgasthan (20110124601)
		Kurwa	Kurwa	Govt Sri Ra K R AS MS Dumka (20110117704)
		Parsimla	Bagnal	Govt Ra MS Bagnal (20110101501)
		Rampur	Panjanbana	UPG Govt MS Panjanbona (20110122301)
		Ranibahal	Kathaldiha	UPG PS Kathaldiha (20110115201)
	Ranishwar	Brindabani	Tongra	UPG MS Tongra (20110221701)
		Dakshinjol	Jamjuri 1	Govt MS Jamjuri (20110209601)
		Gobindpur	Gobindpur	UPG MS Chockthikr (20110208401)
		Haripur	Kalakata	Govt PS Kalakata (20110220401)
		Rangalia	Boradangal	Upgrade Govt Ra HS Boradanga (20110222801)
		Taldangal	Dhakajol	Govt MS Dhakajol (20110207001)
	Shikaripara	Barmasia	Barmasia	KGBV Barmasia (20111024106)
		Dhaka	Dhaka	Upgrade Govt HS Dhaka (20111005402)
		Gandrakpur	Gandrakpur	MS Gamra (20111007601)
		Kuspahari	Kuspahari	UPG MS Kuspahari (20111015201)
		Kuspahari	Kalhajor	UMS Kalhajor (20111012701)
		Shikaripara	Shikaripara	Govt Ra Ka MS Shikaripara (20111024101)
		Shivtalla	Ranga	UPG MS Ranga (20111022001)
Pakur	Littipara	Jabardaha	Hiranpur	MS Hiranpur (20100905901)
		Littipara	Hethbandha	UPG MS Hethbandha (20101110601)
		Sonadhuni	Sathiya	UPG MS Sathiya (20101102801)
		Taljhari	Kariodih	UPG HS kariodih (20101104801)
	Maheshpur	Kanijhara	Englishpara	UPG MS Englishpara (20100700301)
		Khanpur	Ramnathpur	UPG MS Ramnathpur (20100710601)
		Pokhariya	Pakripara	PS Pakripara (20100721201)
		Silampur	Makdampur	UPG HS Makdampur (20100705702)
	Pakuria	Khaksa	Sarsabandh	MS Sarsabandh (20100800701)
		Moglabandh	Amakona	PS Amakona (20100800801)
		Pakuria	Pakuria	KGBV Pakuria (20100809902)
		Rajpokhar	Rajpokhar	UPG MS Rajpokhar (20100800000)
Total No. of surveyed schools				**51**

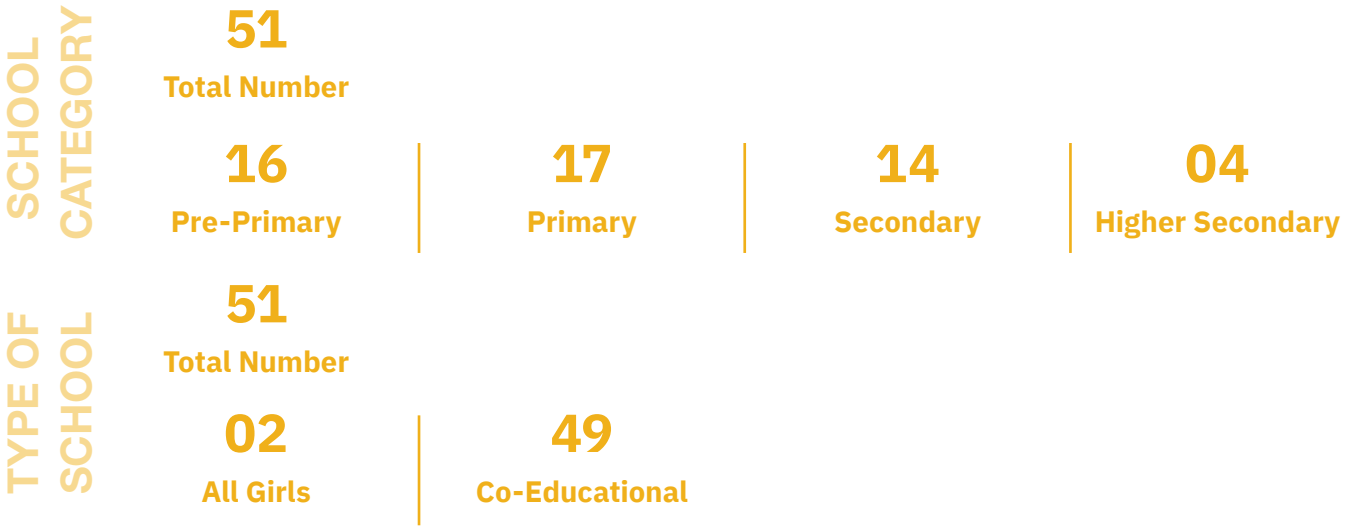


Fig. 8: Profile of Surveyed Schools

Sampling Approach - Stakeholders

The Taru team identified the relevant stakeholder groups important to the overall assessment. This was done through a detailed desk review step and initial interactions with Partners, Auditor and NSE Foundation Team, which helped firm up and identify more relevant important stakeholders for the assignment. The assessment touched a wide range of topics as discussed above for the various stakeholder groups; to create a holistic and comprehensive picture of the specifics impact assessment of the programme.

Detailed break-up of the stakeholders reached through the field investigations is provided below.

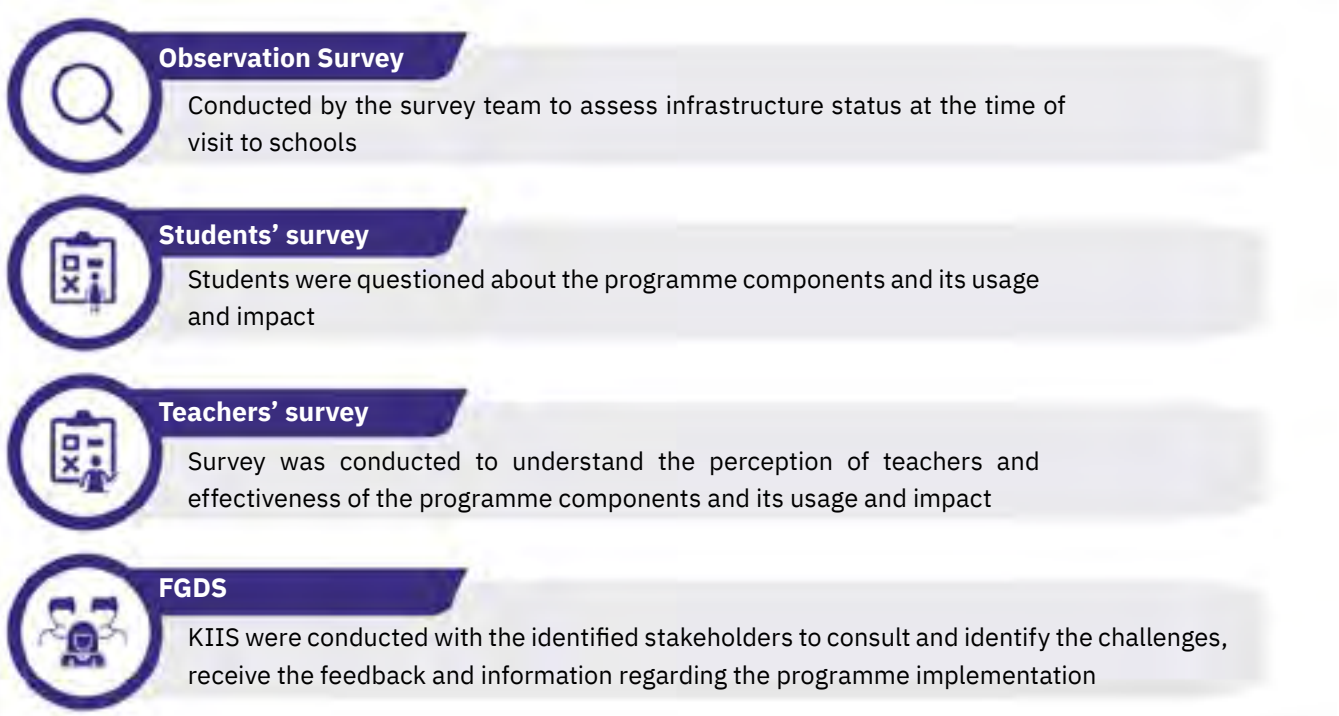


Fig. 9: Research tools administered

Table 9: Sample Size Distribution

Sr. No	Stakeholder Group	Sample Size
1.	Students	524 students – 3-4 students from each school
2.	Teachers/Principals/Headmasters (HM)	51 Teachers/Principals/Headmasters (HM) i.e., 1 in each school
3.	School Management Committees	51 SMCs i.e., 1 SMC in each school
4.	Community Members PRIs, Sarpanch, etc.	33 (19 in Dumka; 14 in Pakur)
5.	Government Functionaries, Education Department Officials	3 (in total)
6.	NGO Volunteers (Shikshan Mitras)	3 (in total)
7.	Infrastructure Observation Survey	18 Intervention Schools[8]

2.4. Data Collection and Analysis

Preparation and Digitization of Tools

Various tools for the field investigations and consultations were prepared to conduct the assessment in these 51 schools and their communities. These tools were developed to capture the information required for the evaluation criteria and questions. These tools included Field Survey Questionnaire for the quantitative data collection and IDIs, FGDs checklists and Observation surveys for the qualitative data collection. The formats were prepared and shared with the NSE for their review and, once finalized, were used in the field investigations. These tools were digitized and adapted by the Taru's team on its data collection ODK software (CAPI based) on Android-Based Tablet PCs to collect information from various stakeholders. These are attached here as Annexure 2 for reference. These tools were administered depending on the purpose of the investigation or consultation, as listed below.

Table 10: Stakeholders and Tools Administered

Sr.No	Stakeholder Group	Tools Administered
1.	Students	Survey Questionnaires
2.	Teachers/Principals/Headmasters (HM)	In-depth Interviews (IDIs)
3.	School Management Committees	Focus Group Discussions (FGDs)
4.	Community Members PRIs, Sarpanch etc.	Focus Group Discussions (FGDs)
5.	Government Functionaries, Education Department Officials	In-depth Interviews (IDIs)
6.	NGO Volunteers (Shikshan Mitras)	Focus Group Discussions (FGDs)
7.	Infrastructure Observation Survey	Observation Survey

[8] *Ratio of 3:7 was maintained i.e., 18 schools with Infrastructure intervention and 42 schools with non-Infrastructure (software) intervention.*

Training of Field Investigation Team

A half-day training session was conducted for the investigative team (Table 12) by the core study team members to familiarize them with the study plan and questionnaires. The training also included explaining the importance of maintaining the confidentiality of the respondents' answers and any additional comments made. Refinement of the research instruments occurred based on the training. To check for the consistencies before the actual rollout of the tools, a small pre-testing was also conducted and based on the feedback, the tools were finalized. The Field Supervisors were responsible for the concurrent monitoring or spot checks/back checks and In-Depth Interviews/FGDs.

Fig. 10: Composition of Field Investigative Team

Data Collection through On-ground Surveys

During the interactions with the key stakeholders, the findings and information gathered were collated, cleaned, analysed, and verified. Figure 5 depicts the geographical distribution of interviews, FGDs and KIIs conducted in the impact assessment. It also captures the distribution of the communities investigated.

Data Management and Quality Assurance

Quality control was ensured both through the digital and manual means. The following quality control and assurance practices were incorporated, both for the process and deliverables. Field Investigators were regularly monitored the on-field by the respective Field Supervisors during the data collection and interactions. Field Supervisors ensured that enough samples as per the sampling plan were collected with good quality of data. They also conducted spot checks to ensure quality in the data collection. To ensure quality, back checks and on-field supervision was done frequently by the respective field supervisors during the data collection process. At least 20% of the total sample size on both the demand and supply sides were revisited.

Limitations, Constraints and Challenges

The field surveys for the project were conducted between February 2021 and March 2021. Due to the prevailing COVID-19 pandemic during this period and the enforcement of government lockdown orders to ensure public safety, the assessment surveys faced a few challenges. Due to the closure of the schools, it was difficult to get in touch with the SMC members. This required the field team to visit the school multiple times to cover the sample targets. Despite these constraints, the survey was completed and was able to fulfil the sample size as planned.

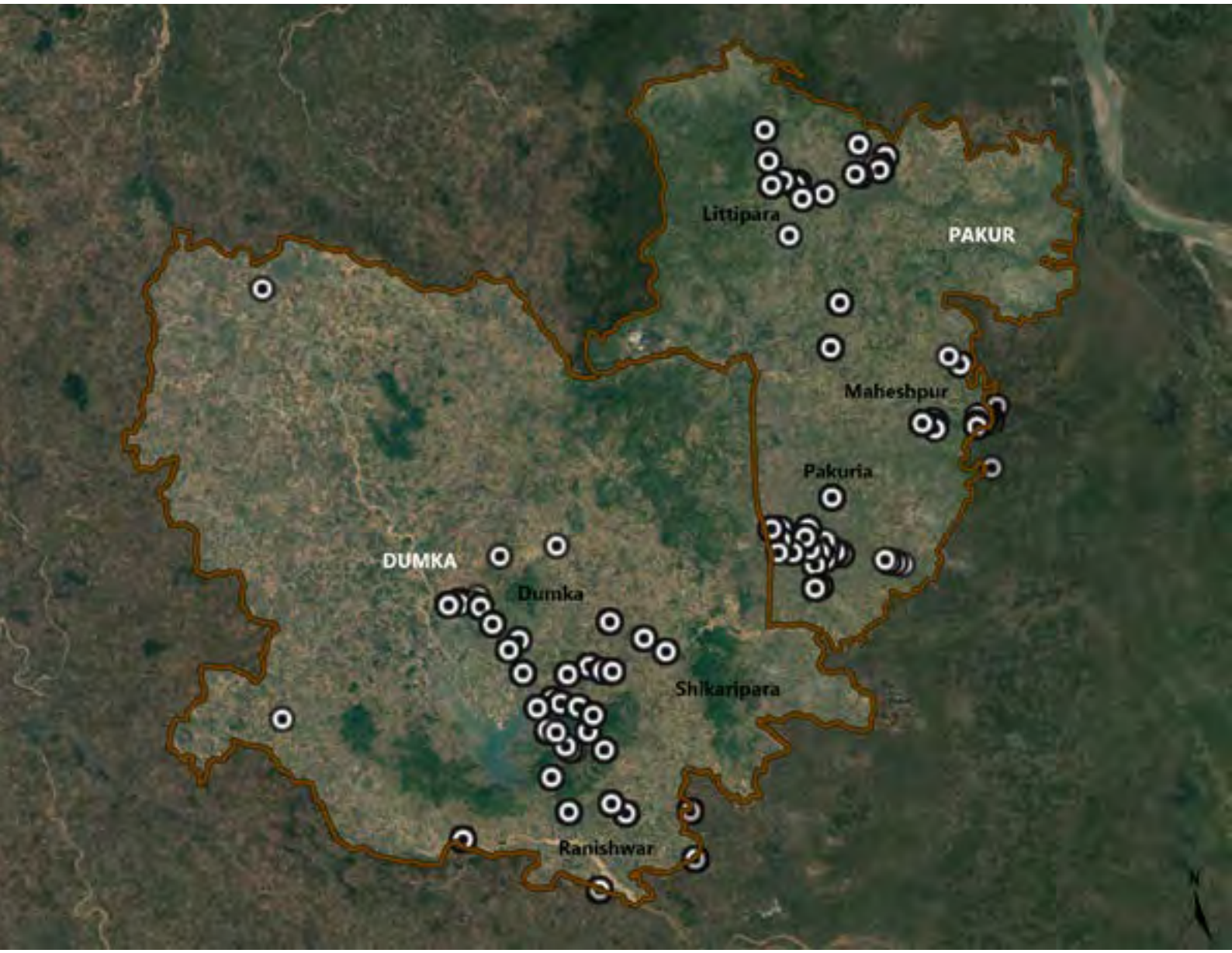


Fig. 11: Geo-tagged location of schools, FGDs & KIIs conducted during Impact Evaluation survey

03 Key Findings

Key Findings

The project evaluation follows the Theory of Change and the related evaluation criteria, and the questions developed to assess the project inputs-outputs-outcomes and impacts, desired and achieved. The evaluation also analyses the reasons for achievements or no-achievements of outputs and outcomes, and such analysis is based on the available data and feedback obtained from the surveys and consultations with the stakeholders. The detailed outcomes and survey findings are attached in Annexure 3: Findings from Observation Survey; Annexure 4: Findings from Students' survey; and Annexure 5: Findings from Teachers' survey.

Key Outcomes and Impact

The project aligned with the National and State priorities of providing WASH facilities in schools, Child Participation, School community linkage through active SMCs and holistic School Development Plan (SDP) as reflected in the RTE Act. The Project interventions of restoring the WASH facilities supported with hygiene education, their O&M, and effective engagement of schools and communities remained vital and highly relevant for sustaining the hygiene practices and creating an enabling environment for behavioural change at the school and community level. The assessment finds that the activities designed were coherent and consistent with the outputs and outcomes of the project and the ongoing flagship programme of Swachh Bharat and Swachh Vidyalaya.

The following objectives set for the project have been substantially achieved:

1. Advocacy with the government
2. Strengthening the school institutions on the WASH issues
3. Hygiene promotion for behavioural change among the students and communities

The following key outcomes of the project have been substantially achieved:

1. WASH became an integral part of the government's plan for resource allocation

2. SMCs were strengthened and now take informed actions on improving WASH facilities in the target schools

3. Behavioural change among the children on the key behaviours and the adoption of hygienic MHM practices by adolescent girl students

4. Children as catalysts influenced their families and communities to adopt hygiene and MHM practices.

The key outcomes and impacts of the projects are:

- WASH-secured environment created in all the schools through awareness generation, retrofitting of the WASH facilities, collective engagement of SMCs, teachers and students for O&M and monitoring, and innovations. All the 312 schools had the provision of water; in 52 schools new/existing sources were constructed or improved.

In 67% schools, adequate provision of toilets and urinals was made, meeting the adequacy ratio of 1:40 with separate toilets for girls and for disabled children.

In all the schools, handwashing facilities installed or retrofitted, with 77% of schools reporting adequate provision of consumables for handwashing 79% schools reporting clean toilets.

- SMCs capacitated and collaborated with the Government on the issues of O&M of WASH facilities. Capacity of SMCs was built to assess the WASH facilities in schools, develop budgets for improvements and O&M of facilities, and engage with the government to leverage funds. SMCs were federated in all the blocks for putting collective demands before the government to provide the funding support for O&M of facilities. The project strengthened the collaboration of the government and the SMCs on the issues of O&M of WASH facilities.
- Improved resource allocation by the government for improvements and O&M of WASH facilities in schools.

  Funds to the tune of Rs. 1.15 crores were leveraged for improvements and retrofitting of WASH facilities in 221 schools.
- Hygiene practices accelerated in all schools through training and provision of adequate and equitable WASH facilities for boys and girls. Practices sustained through the school-level monitoring of hygiene behaviours by WASH Cabinet and Ambassadors.

  Handwashing practices by students improved to 68% in schools and 98% at the household level.
- Enhanced knowledge and practices of MHM by adolescent girls through awareness programmes, facilitating access to the provision of napkins and disposal facilities at the school level. Seventy-six percent adolescent girls reported awareness on MHM and 65% schools reported to have sanitary pads available in schools.
- Motivated children catalyzing behaviour change in their families and communities through community outreach activities, which have enhanced the awareness on key hygiene practices, including those of MHM and O&M situations of WASH facilities in schools. Sixty-five percent students reported handwashing with soap at critical times at home by their family members and siblings.

Fig. 9 given below summarizes the achievements of the project under the themes of relevance, effectiveness, efficiency, impact and sustainability; the subsequent sections discuss the related details.

Impact

- Government addressing gaps in WASH infrastructure adequacy and improving the content and quality of teachers and SMC training
- Adolescent girls aware in managing menstrual hygiene and confident lead the change
- Motivated children are catalyzing behaviour change in their families and communities
- Trained and committed school management committee advancing WASH standards and sustainability in schools
- 40,000 children and their families have been impacted

Relevance

- The project has been designed on the need identified through baseline and infrastructure assessment
- The project design and delivery has been consistent with Government laws (RTE) and flagship programme Swachh Bharat and Swachh Vidyalaya

Efficiency

- The allocated resources have been used on the intended purpose ensuring value for money

Effectiveness

- Influencing the government to adopt the recommended changes allocated resources
- Capacitated SMC demonstrating efforts to improve and sustain the changes
- Improved knowledge and practice of handwashing among children and menstrual hygiene among girls

Sustainability & Equity

- The project has addressed sustainability from design stage – school institutions like SMC and Child Cabinet are trained and play their intended role in leading the change from within
- Accessible toilets for disabled children and separate toilets for girls

Fig. 12: Key achievements of the Project

3.1. Relevance

To what extent, the project interventions aligned with the priorities of Government's WASH in the schools?

The project aligns with the National and State priorities of providing the WASH facilities in schools, Child Participation, School community linkage through active SMCs and holistic School Development Plan (SDP) as reflected in the RTE Act. Various State-sponsored initiatives for WASH in the schools were being implemented at the time of the Project launch in 2017 and later reflected the stronger need for improving the WASH facilities and practices at the school level in the State.

In 2017, two major interventions were being implemented in Jharkhand:

a. **'Swachh Vidyalaya: Swasth Bachhe' initiative launched in 2015-16** with UNICEF support and convergence with the Department of Water and Sanitation and Department of Rural Development, and aimed at ensuring the availability of separate toilets for boys and girls and adequate water.

b. **Swachh Vidyalaya Puraskar, which was launched in 2016 by the Ministry of Human Resource Department**, Government of India, and being implemented in Jharkhand, encouraged maintaining cleanliness and hygiene in schools through voluntary efforts of schools. Clean schools were ranked and awarded by the State. The initiative was later continued from 2019-20 by the State using its fund. These interventions, however, lacked the emphasis on maintenance of WASH facilities for the sustained hygiene practices and did not focus much on strengthening the linkages of SMCs and communities with the schools.

Fig. 13: Wall painting about school cleanliness

Community Participation is one of the major aspects under the Right to Education Act 2009. Samagra Shiksha Abhiyan (SSA)[9] is the initiative of the Government of India, being implemented in Jharkhand, promoting universalized elementary education and establishing a strong linkage between the school and community and developing a sense of community ownership of schools and schooling processes to create an enabling environment.

With the high proportion of toilets being unusable (35% of Boys toilets and 24% of Girls toilets) during 2016, the Project interventions of restoring the WASH facilities supported with hygiene education, their O&M and effective engagement of schools and communities remained vital and highly relevant for sustaining the hygiene practices and creating an enabling environment for behavioural change at the school and community level. Bringing in government support, especially for O&M of WASH facilities, is also a highly relevant intervention of the Project to ensure that the schools and the SMCs are supported to keep the WASH facilities functional and usable for students.

To what extent, the activities and outputs of the Project were consistent with the expected results?

There was no readily available framework of activities-outputs-outcomes for the project. However, the NSE-WaterAid CSR agreement reflects the activities under the project objectives and outcomes as separately defined for the direct and indirect beneficiaries. Activities-Outputs and Outcomes have been broadly reformulated during this assessment based on the understanding of the project developed through the documents review and consultations with various stakeholders, including the NSE Team, and presented in the Theory of Change Matrix attached in Table 7. As defined by the three project objectives of influencing government, strengthening institutions and infrastructures, and hygiene promotion, the activities are highly complementary and critical to each other to create and sustain an enabling environment at schools. Therefore, the assessment finds that the activities designed were coherent and consistent with the project outputs and outcomes of the project.

To what extent, the expected results of the Project were clearly defined?

The results or the outputs of the Project were defined, but a well-designed framework could have helped to understand their linkages-relationships clearly with activities and outcomes in the project. Such a framework can assist the project partners in developing a clear understanding of the project interventions, results to be achieved, and the outcomes.

[9] *In Jharkhand, the Jharkhand Education Project Council is the implementing agency for Samagra Shiksha*

3.2. Effectiveness

The project design in terms of outcomes-outputs-activities, achievements, constraints and issues have been reviewed in light of the Theory of Change Matrix, activities executed on the ground and their contributions and linkages with the outcomes. The Project design sounded consistent with the outcomes planned and related to the State's priorities and policy contexts for WASH in Schools programme.

To what extent, the implemented activities were consistent with the Project design?

The implemented activities were consistent with the project design to realize the outputs and outcomes as stated in the ToC tables presented in Chapter 3. The project made continuous efforts to keep the government informed at various levels and encouraged their participation and support for the project activities.

WaterAid and their partner developed the project processes around each of the outcomes and implemented them. There were a few deviations, though, which were beyond the mandate of the project but done at the request of the government. These deviations include technical support to IHHL construction in 20 villages in the Raneshwar block of Dumka and preparing 48 WASH Plans for 6 GPs in Maheshpur and Pakuriya blocks of Pakur District in 2018. As the project could not address all the elements of SDPs, DPRs focusing on WASH improvements in schools were prepared to leverage funds from the government for O&M of WASH facilities in schools. In the process, preparation of SDPs – which was key in achieving an outcome of making WASH as an integral part of the school development plan funds flow mechanisms - lagged and was not fully achieved.

To what extent, the intended results at the outcome level have been achieved?

As described in the Theory of Change Matrix, the Project had three major outcomes and related outputs, reproduced below along with the key indicators (Quantitative and Qualitative for direct and indirect beneficiaries) and their targets and achievements for easy reference. The project has been able to exceed the targets given for these indicators, as indicated in Annexure 3, 4 and 5.

The project has achieved the outputs fully, except for that the funds leveraged from the government were from various other sources rather than through the preparation of SDPs as envisaged under the project design. Funds were leveraged by preparing DPRs for repair and restoration of WASH facilities in schools, but these were subject to the authorities' discretion and funds availability with them. Regarding the preparation of SDPs, the project focused on preparing DPRs after 2018 to address the WASH-related gaps at the school level (as the project had limitations to address other interventions[10] of the SDPs), an outcome of making WASH an integral part of the school development plan funds flow mechanisms lagged and could not be achieved. It seems that the inputs or activities implemented may not have scaled up to all the schools and remained limited to a set of schools in certain areas. Had it been the case otherwise, meaning a definite set of interventions for all the schools in the project, the impact and achievements could have been different.

To what extent, the Project succeeded in providing adequate and functional WASH and MHM facilities to the school Students?

The project carried baseline surveys during each of the years of the interventions with a detailed assessment of the availability and functionality of WASH and MHM facilities. **The project developed detailed designs and specifications, as a part of the DPRs, for all the hardware interventions and was used to prepare the cost estimates and guide the implementation.**

3.3. Water

The baseline assessment does not indicate the extent of water scarcity and water quality issues in the project schools. However, only 14% (45) schools reported testing the drinking water source for bacterial contamination in the schools.

[10] *Estimate of class wise enrolment, requirement of teachers (class and subject wise), requirement of any additional infrastructure, and any other requirement of the school.*

Fig. 14: PWS leveraged under the project

The project interventions helped develop water resources in 50 schools (16% schools) by installing water-lifting devices/FLP, thus improving the water availability in these schools.

Hand pump platform improvements were undertaken in 52 schools (17% schools) to protect the water from external contamination and improve convenience for fetching the water.

Water Quality Test reports[11] available for project schools from District Water Laboratory for 2017-18, 2018-19 and 2019-20 indicate no major water quality issues except for 36 schools where marginally higher iron contamination (max 2.3 mg/lit) was detected. As a part of the field investigations, Taru's team did independent water quality testing for 11 schools on 23 March and 1 April 2021 (Annexure 6). The testing was done at the government laboratory, and it was found that the water quality was satisfactory (safe to drink). **The Zimba Filter and the Iron Removal Filters were also provided to schools to ensure safe access to the drinking water.** The programme also helped the SMCs leverage funds through the Education department and 14th Finance Commission for several initiatives to improve the access to water (see Table 26 for component-wise breakup of funds leveraged). A total of Rs. 68,40,000 was leveraged for the installation of a solar water supply system in schools.

Table 11: Interventions to improve the access to water

Sr. No.	Interventions	2017-18 (Year-I)	2018-19 (Year-II)	2019-20 (Year-III)	Total
	Water				
1	Water Lifting Devices/ FLP	16	18	16	50
2	Hand Pump Platform Restoration	18	18	16	52

[11] *Done by Drinking Water and Sanitation Dn.1 Dumka, Department of Water and Sanitation, Jharkhand*

3.4. Toilets and Urinals

Baseline on Availability and Functionality

The baseline assessment indicates that nearly 79% of toilets and 82% of urinals were functional in the project schools. The Year 3 schools had a large proportion of defunct toilets compared to the schools intervened in Year 1 and 2 due to poor maintenance and water scarcity in some schools. Year 3 schools were in Dumka and Shikaripara blocks, Dumka, and Littipara block of Pakur district. Using the design norm of 1:40 for toilets, the availability of functional toilets was sufficient for boys and girls in the first batch of interventions schools in year 1 (Functional toilets 222 vs. required 220). However, the availability of functional toilets is not sufficient for the schools of years 2 and 3 (functional toilets 154 vs. required 222).

According to Taru's field observation survey, the functionality of toilets at the end of the project improved to 88.9% with the improvements in O&M of toilets.

Construction and Restoration of Toilets

The project interventions included restoring the existing toilets and urinals and construction of new toilets to ensure

Table 12: Baseline assessment of toilets and urinals

BOYS	Year 1	Year 2	Year 3	Total	% Status
Total Toilets	**118**	**106**	**130**	**354**	
Functional Toilets	105	95	75	275	22%
Defunct Toilets	13	11	55	79	78%
Total Urinals	152	148	251	551	
Functional Urinals	138	141	175	454	82%
Defunct Urinals	14	7	76	97	18%
GIRLS					
Total Toilets	**128**	**142**	**135**	**405**	
Functional Toilets	117	128	79	324	20%
Defunct Toilets	11	14	56	81	80%
Total Urinals	177	167	263	607	
Functional Urinals	162	153	182	497	82%
Defunct Urinals	15	14	81	110	18%
TOTAL (BOYS+GIRLS)					
Total Toilets	**246**	**248**	**265**	**759**	
Defunct Toilets	24	25	111	160	21%
Functional	222	223	154	599	79%
Total Urinals	329	315	514	1158	
Functional Urinals	300	294	357	951	82%
Defunct Urinals	29	21	157	207	18%

Fig. 15: Status of toilets at the time of the survey (Source: Taru's Field Data)

that a minimum of one toilet and three urinals each for boys and girls are available at the school level. Requirements for restoration or new toilets were estimated as a part of the preparation of detailed project reports (DPRs) prepared by WaterAid and Gram Jyoti in consultation with the concerned SMCs. It was estimated that nearly 321 additional toilets were required in the project schools to meet the adequacy norm (1:40 for toilets). **The project was able to address 30% of the toilet requirements (96 against 321 required) through new constructions and retrofitting, partly from the project and partly by leveraging funds from the government**, leaving a gap of 225 toilets which means about 33% requirement (225/(612+67)) was unmet at the time of the project closure. It was also expected that the concerned SMCs were expected to take lead and leverage funds for the toilets where the adequacy ratio was not met. However, there was not much success of the SMCs to leverage funds and build the toilets. The following table presents the details of available and required new & retrofitted toilets in the project schools.

The project retrofitted 49 urinals (14 in 2017-18, 20 in 2018-19 and 15 in 2019-20), and there was no new construction of urinals. The project could have retrofitted or built more new toilets and urinals to fulfil the toilets requirements in the project schools.

Table 13: Status of Toilet Interventions

Year	Available Toilets (Girls + Boys)	The gap in Toilets (As per DPR)		Toilets Retrofitted through project	New toilet block constructed through leveraging Govt. funds	Toilets Retrofitted through leveraging Govt. funds
		New	Renovation			
				14		
2018-2019	248	47	106	18	1	22
2019-2020	265	20	148	18	1	22
Total	759	67	254	50	2	44

*NOTE: DPR was prepared in years 2 and 3 of the project based on the Baseline survey. In year 1(2017-18), Gap assessment was done based on a baseline survey.

3.5. Hygiene and MHM

As per the baseline assessment conducted before project implementation, 44% of schools intervened in 2017-18 and 37.5% in the year 2018-19 had handwashing facilities, whereas only 13.5% of schools in the year 3 in the year 2019-20 were equipped with handwashing facilities for students and teachers within the school premises. With the project interventions, there has been substantial improvement in the provision of handwashing facilities in the schools. Nearly 310 schools (99% schools) have now have handwashing facilities (Portable and Permanent Units) to facilitate handwashing by students.

Before the project implementation, the baseline for all the project schools indicated that only about 12% of the schools were equipped with a suitable arrangement for the disposal of menstrual waste. **There has been significant improvement in disposal arrangements with the project interventions, and currently, 43.1% of the project schools,** as per Taru's field surveys, have established some form of disposal systems such as dustbins, incinerators, etc. MHM Incinerators were installed in 39 project schools.

Table 14: Hygiene Interventions

Sr. No.	Interventions	2017-18 (Year-I)	2018-19 (Year-II)	2019-20 (Year-III)	Total
	Hygiene				
1	Portable Hand Wash Unit	88	86	93	265
2	Permanent Hand Wash Station	16	18	11	45

Table 15: MHM Interventions

Sr. No.	Interventions	2017-18 (Year-I)	2018-19 (Year-II)	2019-20 (Year-III)	Total
	MHM				
1	Incinerator	9	19	11	39

Fig. 16: Wall paintings done within school campus

Fig. 17: AGG formation

3.6.Solid and Liquid Waste Management

There has been a mixed situation on solid and liquid waste management in schools. The baseline data, presented in Table 17 below, indicates that 32% of the schools had no system of solid waste collection and disposal system, 61% of schools had no disposal arrangement for wastewater, but a fairly good proportion of schools (95%) had some arrangements for safe excreta disposal systems for their toilets.

The project interventions substantially improved solid waste collection and disposal systems using different technologies for dry and wet waste within the school premises. Nearly 195 schools (63% schools) were targeted to improve the situation there. With respect to liquid waste, disposal arrangements improved by constructing new drains in 45 schools (14% schools). There have been reports[12] of the non-utilization of NADEP pits and utilizing them as regular waste bins despite the training on maintenance offered to schools.

Fig. 18: Hygiene Kit (Left), Children using dustbin (Right)

[12] *TTC Monitoring Report for Year 2 -Q4 and Year 3 – Q1, August 2019*

Table 16: Status of Solid and Liquid waste management

Solid & Liquid Waste Management Status	No. of Schools				% of Schools (Against 312)
	Year 1	Year 2	Year 3	Total	
Current systems of solid waste management					
Dustbins and segregation within schools	19	5	3	27	9 %
Dustbins, segregation and treatment within schools	21	5	4	30	10 %
Only dustbins disposed outside school	220	78	40	338	108 %
Burning	21	6	2	29	9 %
No system	36	10	55	101	32 %
Current systems of waste water management					
Stagnation/No arrangement	69	36	85	190	61 %
Soak Pit	98	27	12	137	44 %
Leading to agricultural farm	43	0	0	43	14 %
Kitchen garden	3	1	0	4	1 %
Drainage leading to stagnation	72	26	0	98	31 %
Drainage leading to main drain of village	32	14	6	52	17%

Table 17: Solid and Liquid waste interventions

Sr. No.	Interventions	2017-18 (Year-I)	2018-19 (Year-II)	2019-20 (Year-III)	Total
	Solid and Liquid Waste Management				
1	Compost Pit (Wet Waste)	18	84	93	195
2	Dry solid waste pit	18	84	93	195
3	Dustbin round shape	104	24	4	132
4	Soak Pits	13	20	11	44
5	NADEF (Compost Pit)	2	20	11	33
6	Drains	16	20	9	45

To what extent, the Project contributed to addressing the gender equality in the provision of WASH Facilities?

The field investigations confirmed that all the schools visited (51) had separate toilets for boys and girls, in conformity with The Right of Children to Free and Compulsory Education Act, and thus the project has been able to fully address the gender equality in the provision of toilets in the project schools.

Fig. 19: CWSN toilet

To what extent, the Project addressed the WASH needs of children with special needs?

Before the project, there were no toilets specially designed to meet the needs of CWSN students. The project schools had about 135 children with special needs across 36 out of the 312 intervention schools. The project has built new 16 CWSN friendly toilets (7 in 2017-18, 5 in 2018-19 and 4 in 2019-20) comprising hand railing and commodes. These were unisex toilets and built for CSWN children and demonstration.

Feedback from the TTC Audit report[13] suggests that the commode toilets were not preferred by CWSN children indicating a) the need for prior consultations with the CWSN children for designs and b) the need for training them to use those toilets.

To what extent, the Project contributed to a better knowledge of hygiene and MHM among the students and teachers?

The project demonstrated several initiatives that have contributed substantially to enhancing the knowledge on hygiene and MHM and practices at the school and community level. Communication materials and their delivery through hygiene sessions, reiterating those messages through events and campaigns, installing facilities to practice those behaviours, and setting up school-based monitoring systems appeared to be the key drivers to mobilize students and teachers around hygiene issues in schools.

Several communication materials were developed by the Project on personal hygiene and MHM. **These include posters, wall paintings, MHM comic books, wall handing display boards, etc., and distributed to all 312 schools.** These were useful materials to reiterate hygiene messages[14] to students and teachers. In addition, project volunteers initially conducted hygiene sessions in schools and later on by teachers as per the hygiene sessions calendar agreed with them. The project has exceeded the targeted hygiene sessions per school and conducted follow-up sessions with the schools (average 8 sessions per school against targeted 3) to reinforce the behaviour among students.

Installation of new handwashing facilities in most schools, which did not exist initially, might also have substantially contributed to practising handwashing at schools.

[13] *TTC Monitoring Report for Year 2 -Q4 and Year 3 – Q1, August 2019*

[14] *covered 6 hygiene messages (safe handling of drinking water, importance of use of toilet and hand washing in critical times, the waste management process, improved personal Hygiene etc).*

Table 18: Solid and Liquid waste interventions

Sr. No.	Indicators	Year-I		Year-II		Year-III		Total	
		Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
1	IEC Materials Produced (Nos)	1	1	1	1	1	1	3	3
2	Regular Hygiene Sessions in School (No. of Sessions)	312	1522	312	436	312	522	936	2507

Fig. 20: MHM training in schools

Hygiene messages were also reiterated through various hygiene events by observing several international and national days, schools-based activities (competitions) and organizing campaigns/rallies, Bal Melas at community and block/district level. These activities remained recurrent features throughout the year. Notably, opportunities for CWSN children were also provided to participate in these events or by organizing special events for them, and their stories and issues were discussed.

Student-led hygiene and Mid-Day Meal Monitoring mechanisms were developed under the project to sustain the efforts. The formats were used in schools by WASH Ambassadors and Child Cabinets to monitor hygiene behaviours, and it continued in all schools until the end of the project. These efforts could have been further scaled up in terms of ranking schools on hygiene scores and creating a competitive environment for the project schools. Such a system could have been advocated at the government level for large-scale adaptations.

Some attempts were made to mainstream hygiene

Fig. 21: Handwashing facility near toilet

sessions through morning prayers, integrate with Sanskrit classes in schools, but these were limited to a few schools and not scaled up across all schools. Taru's field surveys and interviews with students revealed that handwashing practices had improved greatly with the provision of handwashing facilities and consumables like soaps, etc. Students have also been able to influence their families. COVID has further accelerated these practices, as seen from the table below.

Table 19: Solid and Liquid waste interventions

Handwashing at critical times	Before COVID	After COVID	Remarks
Learning at school improved my handwashing	68.4%	NA	Response based on the interview of 524 students
Handwashing before having food	68.7%	89.7%	
Follow Handwashing practice at home	98.4%	NA	
Handwashing by family members/siblings	64.7%	88.9%	
Handwashing facility available near the Toilet	92.9%		
Availability of handwashing soaps/liquid	76.9%		

Adolescent girls from schools and women in the communities were targeted for MHM education in the project. A participatory and convergent approach was used to involve schools, Anganwadi centres, Jalsahiyas, panchayat members, PRI members, and government officials at block and district level in various awareness activities on MHM, which included orientation sessions, observing Menstruation Day, block-level MHM melas and participating in a State-level MHM Campaign of "Chuppi Todo, Swastha Rahio" (or Speak Up and Stay Healthy) conducted in May 2019.

It seems that sanitary napkins were largely promoted in MHM awareness activities, and the use of sanitary napkins could be an expensive affair for girls in the project area, predominantly tribal and poor. The project could have explored other options in line with the traditional

Fig. 22: Handwashing facility at the time of the survey

practices of using clothes, etc., but making them safer and more hygienic like washing the clothes with detergents and drying them in sunlight, etc. Menstrual waste disposal is an issue for schools and households also. It seems that the promotion of household-level disposal options was not addressed in the Project.

Taru's field surveys and interviews with the girl students revealed awareness of the MHM hygiene practices and provisions at the school level, as indicated in the table below.

Table 20: Status of MHM initiatives (Source: Taru's Field Survey)

Status	Response	Remarks
Awareness of MHM Hygiene Sessions at schools	76.3%	Response based on interview of 177 girl students
Availability of Sanitary Pads at schools	65.0%	
Safe Place available for disposal of Used Pads	47.5%	

About the knowledge of Teachers on WASH and MHM in project schools, Taru's field surveys have revealed that the project has achieved significant progress in training the teachers compared to the baseline findings, which are presented below.

Table 21: Status of WASH indicators (Source: Taru's Field Survey)

Indicators	Baseline	End line	Remarks
Teachers trained in WASH	23.4%	92.2%	Response based on the interview of 51 teachers
Teachers trained on MHM	5.5%	56.9%	
Safe Place available for disposal of Used Pads	47.5%		

To what extent, the Project contributed to the improved O&M of WASH facilities in schools?

- O&M of Toilets

The School Development Plans (DPRs) provided the maintenance schedules, costs and defined responsibilities at the school level. The budgets approved to the schools had the provision of procurement of consumables (phenol, acid, detergents, handwashing soap/liquid), cleaning materials (brooms, buckets, mops) and also minor repairs. There is no sufficient data available to assess the adequacy of these consumables to keep the toilets clean and hygienic.

Toilet cleaning arrangements vary in the project schools,

Fig. 23: Child Cabinet Training

but in most of the schools, the toilets were cleaned by students and teachers. In a few schools, special cleaners were appointed, and in others, they demanded to appoint a cleaner. A few schools used cooks of Mid-Day meals to clean the toilets. Some formal and uniform arrangements for cleaning the toilets could have been agreed upon. The funds leveraged from the government were largely used for renovations and repairs of toilets. According to the field surveys done by Taru's team, it was reported that more than half (55%) of the toilets in the surveyed schools were cleaned once daily, and that is commendable.

Table 22: O&M requirements in schools (Source: Taru's Field Survey)

Key O&M requirements	Response	Remarks
Frequency of toilet cleaning in schools		Response based on the interview of 51 Teachers and Principals
Daily	54.9%	
Responsibility to maintain the toilet's hygiene		
WASH Cabinet	52.9%	
Cleaning Agents Used		
Harpic	96.1%	
Source for Purchase of Cleaning Agents		
School's Own Fund	100%	
Source for funding Minor repairs		
Vikas Fund	68.6%	
Students' Feedback on the cleanliness of Toilets		Response based on 524 students' interview
Clean	79%	

Fig. 24: Toilet block observed during Taru field survey

- O&M of Other WASH Facilities

O&M of Water Systems, MHM Incinerators, and NADEP compost pits that require reasonable maintenance remained unclear in the project. The Report[15] of TTC Glocal indicates that MHM incinerators and NADEP pits were rarely used in schools despite the training and user manuals provided under the project to schools. Consultations with teachers and students while designing the incinerators may have helped enhance the ownership and use of these facilities. It appears that inputs on water quality testing and remedial actions, cleaning of the toilets, dos and don'ts to be followed, cleaning of septic tanks or leach pits and maintenance of other WASH facilities would have been more useful for schools and SMCs to know and understand the remedial actions to keep them functional.

To what extent, the project strengthened the SMCs to leverage funds and act as a grievance redressal institution in the school?

WaterAid and their partner were able to leverage their relations with the government to inform the government at various levels on a continuous basis, advocate on various issues, and disseminate the learnings on the project. It also encouraged the participation of government officials in various project activities and helped mobilize schools and communities on WASH and MHM issues.

The project used various platforms and means to leverage funds from Panchayats, District Administration and the Education Department of the State through advocacy, direct demands, and detailed project reports prepared for improvements of WASH infrastructures in the project schools.

The response on funds release depended on circumstances rather than a policy and at the authorities' discretion based on the availability of funds.

Leveraging funds through the preparation of the School Development Plan was envisaged under the project as an important output and strengthening the SMCs to prepare such plans was vital to leverage funds. Preparation of School Development Plan is the most important power given to the School Management Committees by the Right of Children to Free and Compulsory Education Act

Fig. 25: SMC federation meeting at Asansaldanga

[15] *August 2019, Year 2-Q4 and Year 3-Q1*

[16] *Section 22 (2) of RTE Act 2009 empowers School Management Committees to monitor the working of the school, prepare school development plan and monitor the utilization of the grants received.*

2009[16] to evaluate the demand and gaps present in the school in relation to meeting all RTE/SSA norms and put together a plan to fulfil those gaps. According to the Jharkhand RTE Act, the SDP needs to reflect the plan for school development and related requirement of finances for three years. The SDP should also consist of three sub-plans, which consist of the plan for each respective year. The SDP needs to be submitted to the local authority three months before the end of the financial year. Apart from the development plans, the SDP also needs to contain, estimate class wise enrolment, requirement of teachers (class and subject wise), requirement of any additional infrastructure, and any other school requirement.

The project undertook several capacity-building measures for the SMCs (encouraging monthly meetings and training) and attempted to integrate WASH improvements as a part of the SDPs. Such efforts were made in 2017-18, and SDPs for 18 schools were improved with WASH-related actions in Pakur District. However, the Project seems to have given up on preparing SDPs in the subsequent years and resorted to preparing DPRs based on school-based facility assessment to address WASH-related gaps and issues at the school level, although WASH plans could have been one of the sub-plans of the SDPs. Preparing DPRs, though encouraged learning at the school level, remained intensive and time-consuming, and there were reports of delayed submission and approvals, affecting the development at the school level. Further, DPR being a technical document, its adaptation by SMCs and its continuation seems challenging. To mobilize the SMCs for putting forward the demands to the government on the school-level improvements, the project focused on federating SMCs. SMCs were federated in all the blocks of the project. Federating SMCs is a good idea to create a platform for them to raise their demands with the government and could have strengthened preparing SDPs and their early approvals.

The assessment considers that leveraging the funds through SDPs was the legitimate and sustainable way of leveraging funds, thereby strengthening the relations of SMCs with the government. The process was critical to making WASH an integral part of the School Development Plan funds flow mechanism – an important outcome envisaged by the project. The project, however, missed

Fig. 26: Handwashing and toilet facility

this process and prioritized other channels of leveraging funds. The project leveraged funds, largely for retrofitting the WASH facilities in schools, from various sources– Government O&M Budget, MLA Fund, 14th Finance Grant, etc. The details are as below in Tables 23 & 24.

Table 23: Details of funds leveraged

Funds leveraged - Component	2017-18 (in INR)	2018-19 (in INR)	2019-20 (in INR)	Total	Target	Achieved
New Toilet construction		210000		210000		Education department
Toilet Renovation	307300	125050	97100	529450		Education department, SSA
Ensure Safe drinking water		10500	1500	12000	Drinking water drum installed for storage, candle water filter fixed, Bucket & Tisni have been placed	Education department
New Hand Pump		5000	65000	70000		
Hand pump restored	34900	195580	27900	258380	Pipe, washer, bearing, chain, nut bolt, etc., have been replaced	Education department,14th Finance commission, Govt. of Jharkhand, SSA, Community contribution
Drain Repair	1000	5700	100000	106700		
New Electric Motor			50000	50000		
New Soak pit			29400	29400		
New PCC Road			50000	50000		Rs. 100000 has been leveraged from Mukhiya Fund
New School building constructed		540000		540000		Education department

Funds leveraged - Component	2017-18 (in INR)	2018-19 (in INR)	2019-20 (in INR)	Total	Target	Achieved
New Gate for school			50000	50000		
Developing Teacher Learning Materials.		6500		6500		
WASH Teacher learning materials for the library.		13300		13300		
1000 lit. PVC overhead tank installed		5000		5000		Education department
Bamboo boundary wall		20200	150000	170200		14th Finance Commission
Electricity power supply connected		1527275	28000	1555275		Education department
Constructed Kitchen Shed in the school premises		15000		15000		Education department
A brick boundary wall has been constructed		10000	130000	140000		Education department
A pipeline of Handwashing, toilet, Urinal, kitchen units restored		72900	18000	90900		14th Finance Commission
Dustbins placed		4400		4400		
SLWM steel dustbin installed		42000	61600	103600		
Solar water supply system/tank		315000	3105000	3420000		Education department,14th Finance Commission
Kitchen Garden plantation		9000	1500	10500		
Others	472000		3715000	4187000	In year 2019 -2020: Six soak pits Rs. 30,000, one new HP installed Rs. 65000.00, two Summer Sebel Pumps installed Rs. 60000.00, five new solar water tank Rs. 1250000.00, six HP Restored Rs. 12000; nine Solar Tank Installation RS. 2250000 and two Summer sebel pumps Rs. 60000 have been installed in the project area.	Education department, DWSM, PRI and 14th Finance Commission
TOTAL	Rs. 81,5200	Rs. 31,32405	Rs. 76,80000	Rs. 108,76155		

The project intended to set up a sustainable and efficient Grievance Redressal System. As per the state RTE rules, the SMCs are the first level of grievance redressal institution for teachers and parents when it comes to fulfilling the RTE norms. The SMC is responsible for bringing to the local authority's notice any grievance related to the management of the school and compliance with RTE norms. Setting up such a grievance redressal system at the school level would have further strengthened the engagement of SMCs, Teachers and Students on issues of WASH. However, apparently, there was less emphasis on developing such grievance mechanisms in the project.

Fig. 27: Hand pump observed during field survey by Taru

3.7. Efficiency

The project has demonstrated the budget utilization at a level of 95%, and the details are as below.

Table 24: Budget Utilization

	Year 2017-18	Year 2018-19	Year 2019-20	Total
Budget	80,26,000	91,60,600	1,02,02,160	2,73,88,760
Utilization	67,28,607	92,69,750	1,00,84,764	2,60,83,121
% Utilization	84%	101%	99%	95%

3.8. Impact

Overall, the project interventions, particularly hygiene and MHM promotion activities at the school and community level, have enhanced knowledge among students and communities and positive change towards recalling the hygiene messages and practicing them. The provision of water, toilets, and handwashing facilities further strengthened hygiene practices and provided students with opportunities to sustain them. The interventions have also drawn the attention of communities to the maintenance of WASH facilities in schools and their access to students to avoid the open defecation. Capacity building and Awareness interventions on RTE provisions and the role of SMCs have been helpful to guide the SMCs in understanding their role in the provision and


Fig. 28: Students interviewed during impact evaluation

maintenance of WASH facilities in schools, which is a key to making WASH secure schools. Strengthening SMCs linkages with the government by developing SDPs could have been more impactful in this direction.

To what extent, the Project contributed to the use of WASH facilities by students in schools?

As the project improved the water supply in 102 schools by the installation of water lifting devices and restoration of hand pump platforms where needed and retrofitted/constructed toilets in 96 schools and special toilets were retrofitted/constructed for CWSN students in 16 schools, the project helped improve the access to water and toilets to boys and girls in the project schools. The project also offered special training on WASH for students, which covered the use of the facilities by them. Following are the reported figures of access by students in the project schools. The number of children reported is based on the current student strength of the schools.

Table 25: Indicators and targets achieved (Source: WaterAid Data)

Sr. No.	Indicators	Year-I		Year-II		Year-III		Total	
		Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
1	Models toilet for children with special needs	2	7	2	5	2	4	6	16
2	No. of schools gaining access to drinking water	19	19	19	19	19	19	57	57
3	No. of school water ponds tested ensured safe water supply	104	104	104	104	104	104	312	312
4	Number of schools with access to sanitation	104	104	104	104	104	104	312	312
5	Number of children in the project schools gaining access to functional toilets	9100	14332	9100	11039	9100	17538	27300	40200
6	Number of children in the project schools having access to safe drinking water	9100	14332	9100	11039	9100	14829	27300	40200

Taru's interviews with the students confirmed that the access to WASH facilities has improved in the schools.

Table 26: WASH facilities (Source: Taru's Field Investigation Data)

Status	Response	Remarks
Water		Response based on interviews of 524 students
Use Water Source Available in School	82.4%	
Quality of Water - Clean	77.9%	
Toilets		
Functional toilets in schools	96.4%	
Functional Urinals in schools	87.4%	
Handwashing Facility		
Handwashing facility near the toilet	92.9%	

To what extent, the Project succeeded in the effective engagement of SMCs, Teachers and Students to a sustained monitoring and maintenance of the WASH facilities at schools?

Several trainings have been conducted in the project for SMCs, teachers, and students on WASH facilities and their maintenance. They were also involved in functionality assessment conducted in schools as a part of the preparation of the DPRs to seek the funding support from the government. This certainly helped to raise the awareness level on maintenance issues associated with the WASH facilities.

The project introduced the hygiene monitoring tools in 2017 and scaled up to all the schools in 2018. There were three types of tools developed for Student Ambassadors and Child Cabinets, and SMC members. These include a) Monitoring tool for personal hygiene to be monitored by Ambassadors and Cabinets once in a week b) MDM Monitoring tool to be used by Ambassadors and Cabinets once in a week and c) School WASH Monitoring Tool to be used by the select SMC Members once in a month. The monitoring was followed and supported by the Project to emphasize the specific behaviours to be strengthened. However, the scale, intensity, and outcomes of such monitoring tools were not documented well in the project to understand the effectiveness of such monitoring tools and their adaptations.

Setting up a grievance system at the school level through SMCs would have further strengthened the engagement of SMCs, Teachers and Students on the issues of WASH. However, the Project did not provide much emphasis on such systems. Under the mandate given to SMCs to monitor developments at the school level and budget provision for retrofitting and consumables, the engagement of SMCs, Teachers and Students may continue.

To what extent, the Project contributed to a change in the hygiene behaviours at critical times?

There is no baseline available to measure the knowledge and behavioural change against the change at the end of the project. However, field surveys conducted by Taru have indicated that there have been significant improvements among the students about the hygiene knowledge and behaviours primarily due to the hygiene inputs provided and improvements in the WASH facilities.

Table 27: Key behaviour changes (Source: Field Surveys by Taru)

Key behaviours	Before COVID	After COVID	Remarks
Learning at school improved my handwashing	68.4%	NA	Response based on the interview of 524 students
Handwashing before having food	68.7%	89.7	
Follow handwashing practice at home	98.4%	NA	
Handwashing by family members/siblings	64.7%	88.9	
Handwashing facility available near the Toilet	92.9%		
Availability of handwashing soaps/liquid	76.9%		

To what extent, the Child to Outreach activities have contributed to improving the hygiene knowledge, practices and addressing the taboo related to MHM among the households and communities?

The project mobilized children and district & block officials to organise community-level campaigns to sensitize them on cleanliness and WASH behaviours. 'Chamakta Dumka, Damakta Dumka' – a campaign organized in Rameshwar Block of Dumka was one of the successful campaigns run in the project in 2017-18. Community-level observation meetings, hygiene orientations, observing International and National days, Mobile Swachhta Rath and Exhibitions were the kind of activities and events used to promote hygiene behaviours among communities, including youths, local women groups and girls, Panchayat Mukhiyas and members. Swachhta Pakhwada being observed during 1-15 September in Swachh Bharat Mission was also supported by the project in communities. With school children involvement, rallies and door-to-door visits were supported in the project to emphasise the hygiene practices.

On MHM, MHM Melas were organized at the block level for women and adolescent girls for educating them on the best MHM practices. These melas have attracted the participation of women and girls in large numbers. MHM Campaign named 'Chuppi Todo Swastha Rahio (Speak Up and Stay Healthy) on around World Menstrual Hygiene Day (28 May) was organized at the village, block and district level where a large number of women, girls and block/district officials had participated. Gram panchayat level MHM sessions were also organized on the safe MHM practices. The project used various innovative approaches to reach out to the communities to promote the hygiene practices and, at times, conducted special programmes for women and adolescent girls on MHM. During the FGDs conducted by Taru's team as a part of the Field Surveys, community members could recall various activities conducted at the community level with their participation. **Community members could also recall the key hygiene messages such as handwashing with a soap for 20 seconds, handwashing before a meal and after using the toilets, using the toilets and not defecating in the open, etc.** Community members were also aware of the need to maintain the WASH facilities at schools for children to use the facilities and not to defecate in the open. Overall, the communities seemed to have gained knowledge on the key hygiene behaviours due to the project's promotional activities. The field surveys also observed that the Pandemic COVID 19 has helped to intensify the practices and sustain them for a long time among the households and communities.

Fig. 29: Awareness material painted at handwashing stations

To what extent, the Project Model has the potential for replication?

Some of the achievements and innovations of the project, such as strengthening of SMCs and their federations at the block and district level, school assessments and budget preparations for O&M of WASH facilities, innovations for water-scarce schools (filtration galleries and intake wells, and use of waterless urinals in schools), monitoring tools for WASH cabinets, child to community outreach activities, partnership approach of NGOs-schools and district administration for improving the WASH access and use in schools, innovations in the handwashing facilities and CWSN toilets, carry a high potential for replication in WASH in schools programme in the State. Many of the project's trained staff members were recruited by the District Water and Sanitation Missions, which indicates

Fig. 30: Awareness programme at community

the need for trained resources in the implementation of the WASH programmes.

To what extent, the Project contributed to a change in the school enrolment and attendance rate among the boys and girls?

There is no sufficient data available to assess this impact.

3.9. Sustainability

To what extent, the engagement of SMCs, teaching staff and students will continue to monitor and maintain the WASH services in schools?

The following could be the determinants for SMCs, teachers and students working together at the school level:-

1. School Development Plans with WASH Components in it (for continuous improvements of facilities and keeping them functional all the time)

2. Grievance Mechanism operated by SMCs (to address the WASH facility usage related grievances of students)

3. Monitoring tools used by the WASH Cabinets or by nominated students (for undertaking the assessments and monitoring the facilities in schools)

4. Continued hygiene education by teachers

5. Continued budgetary support to schools for procurement of consumables and tools for cleaning the toilets and water purification

6. Interest and priority of SMCs to continue to work on the WASH issues and support the students for upkeep and maintenance of WASH facilities

7. Institutionalization of the entire process through formal guidelines from the government and their continued monitoring and demand for SMCs active leadership

Among the above seven factors, the project substantially tried to address #1, 3, 4 and 6. Critical among all are the determinants #6 and 7, which essentially rely on the interests of SMCs and prioritizing the WASH-related tasks by the government. SMCs were observed to be active as long as there was external facilitation support available through the project. There are indications that the interest levels of SMCs and teachers have diluted with the reduced level of inputs and support from the Project, indicating the process required a long-term support. Overall, with the enhanced awareness of WASH facilities and hygiene, the collaboration of SMCs, teachers, and students may last for the short term, but by virtue of requirements of RTE, determinants #1, 2, and 5 may be carried out by schools with some minimum level of priority.

To what extent, the Teaching Staff and Student Ambassadors will continue to promote the hygiene education in schools?

Again, these are subject to the interests of teachers and their incentives to do so unless the hygiene promotion through WASH Ambassadors or Cabinets is accepted as a policy by the Government.

To what extent, the schools outreach activities will continue to influence the households and the community hygiene practices?

These are dependent on the continued learning that happens at the school level, and children will continue to influence the households and, to some extent, communities as long as the hygiene knowledge dissemination and practices continue at the school level. Any dilution on these efforts at the school level will reduce the influence at the community level. Also, **the children require a platform to engage with the communities using various opportunities** (e.g., observing national/ international days and events). **Such opportunities are dependent on the quality of leadership at Panchayat and school level and the existence of ongoing programmes of similar nature.**

04 Lessons Learned

These are based on the insights obtained through this evaluation and consultations with the key stakeholders. The lessons learned are expected to be valid for similar programmes and beyond.

4.1. Lessons Learned

The project should have a logical framework developed at the initial stage to guide the planning, implementation and evaluations. Such a framework will also be valuable in deciding the nature of the baseline data to be collected, which can be valuable to assess the impacts later.

Mid-term Review of the project is suggested to review the progress made, any mid-course corrections required, and plan the remaining project duration with modified strategies and outputs/outcomes to achieve the desired objectives and impacts.

The practice of engaging a Third Party to conduct an independent assessment of progress should be continued to provide an independent view and insights on the programme activities and achievements.

In programmes like WASH in Schools, where children are direct beneficiaries, consultations with them, especially on infrastructure development, have to be integrated with the project design. Such consultations will help to design a child-friendly infrastructure, enhance children's ownership, and use of the infrastructure.

Engagement with the government is essential to bring their support and involvement in the programme and showcase the programme achievements to them for scaling it up at their level. The programme should attempt the government's engagement and participation in some of the programme's key elements, which are under the priorities and policy contexts of the government. In the project's case, the preparation of SDPs is where the government's participation would have helped to strengthen the process.

The project's commitment to improving the WASH infrastructure was in line with making schools WASH-secure. The project could address only 30% of the requirements of WASH Infrastructure in terms of their retrofitting and making them functional. The project could have committed more to ensure that the remaining 33% of the unaddressed schools also benefit from the project interventions. Functional infrastructures can accelerate the hygiene behaviours by providing opportunities for the users to do so and sustain them as long as the infrastructures are operational and usable. Funding commitments and meeting deficit, if any, through additional funding or by leveraging funds from the government or other sources require closer monitoring to fulfil the project objectives.

Events with participation from the government would be useful to disseminate the learnings from the project, and any takeaways in terms of innovations, processes and experiences that can be adopted or scaled up through ongoing programmes at the government level. Due to the COVID-19 pandemic restrictions, this may not have happened, but such an event is highly recommended.

The project should plan an exit strategy, which should be prepared much before the exit and should focus on the sustainability elements of the project. Some suggestions are a) formalizing the key processes in agreement with the government by issuing guidelines, resolutions, etc., from government b) building linkages with other parallel programmes to continue with the project processes and c) developing mechanisms within the project (like SMCs federations which will carry forward the work on their own) to own the processes and take them forward.

The project intervention duration of one year in schools appeared to be ambitious to achieve the given project objectives considering that the opportunities to develop processes, obtain approvals from the government in some cases, and to organize the interventions take time. Also, there are limitations to implement them with the fully packed calendars of schools. The Project design

needs to consider these practical realities and prioritize interventions with appropriate timeframes.

The project should specify the standard inputs of Lead NGO and their partners in the project so that the quality of interventions can be delivered and sustained throughout the lifecycle of the project. Such time-sharing aspects have to be part of the CSR agreements with the NGOs/Partners. This recommendation is based on observations made by the Audit Agency in 2019.

The project reports give the impression that interventions were implemented in schools in certain areas and not scaled up to all the project schools. The impact could have been different. As the intervention timeframe was limited to a year, a definite yet strategic set of interventions for each school could have been planned and delivered to all the project schools. Such planning will follow the resources planning and their deployment to deliver those interventions.

There have been indications of gaps in the knowledge and skills of WaterAid partners in facilitating and delivering interventions in the project, particularly those of technical nature related to water, solid and liquid waste management, etc. **Capacity building of partners and their staff (volunteers) on these aspects is critical to the whole process to ensure that complete and correct messages, information and guidance is delivered to the project stakeholders and beneficiaries.** An initial period of joint working of WaterAid and partners staff is recommended as an on-the-job training and sensitization for the partner's staff. Recurrent training is also recommended for the partners based on the experiences observed and the project developments.

Fig. 31: Children in School

05 Project Innovations and Best Practices

Monglabandh Middle School of Pakuriya Block in Pakur district

Where students take the charge of School Environment

In Monglabandh Middle School, the key responsibilities of WASH Management are in the hands of Child Cabinet & WASH Ambassadors. Mr. Pradip Saha, Head Teacher, proudly says that "Students guide me here for WASH Management". He also recalls those days when along with "Swachh Vidyalaya, Swachh Aadat" programme, the students, teacher and SMC sat and assessed the status of WASH and planned time to time how to improve the WASH status of the school. The students were so enthusiastic that sometimes it was an uphill exercise for "Swachh Vidyalaya, Swachh Aadat" team to reply to the queries of the students in the beginning stage.

Prior to the construction of new & renovation of the existing structures, the WASH sessions became an integral part of School Education. **With the initiative of Swachh Vidyalaya, Swachh Aadat" programme, new hardware structures like Incinerator, Hand Wash Unit and NADEP have been constructed and major renovations of toilets have been done.**

However, the school did not stop here. Then, under the leadership of Child Cabinet & WASH Ambassadors, they have approached the Gram Panchayat Chief & SSA and could leverage funds for the boundary wall, drain and platform for HP, etc., from the 14th Finance Commission and many of these constructions are already complete. Impressed by these initiatives, especially by the students in this school, SSA has decided to convert one classroom as a SMART Class from where digital education will be imparted to the students.

Last but not the least, Mr. Jiten Verma, President – SMC, Monglabandh Middle School, proudly says that the major credit of these go to the Child Cabinet & WASH Ambassadors. Mr. Tekram Verma, Prime Minister- Child Cabinet, added that in this school, every student is required to follow the basic rules of hygiene. If anybody fails and gets caught, he or she has to face a series of punishments. Child Cabinet & WASH Ambassadors also clearly defined the rules for these and ensure that at the same time these are maintained. As a result, one will find discipline in a WASH-secure Environment at the school.

Unlike many other schools, MHM is not a taboo here. Without hesitation, the adolescent girls approach the Head Teacher or other male teachers for sanitary napkins during their menstruation period, which is a great achievement.

Fig. 32: Dustbins installed in school campus

Rajakiya Middle School of Ranibahal, Dumka Block in Dumka District

BCC may pave the path towards "Mukhya Mantri Swachh Vidyalya Puraskar"

This institution has an enrolment of 327 students. According to Mr. Ratan Ozha, Headmaster - Rajakiya Madhya Vidyalaya Ranibahal, until 2017-18, the institution was deprived of many basic facilities. As a result, many boys used to urinate outside the school premises and hardly any student was using the toilets. A sizeable number of students were not used to wash hands at critical times. During 2018-19, the "Swachh Vidyalaya, Swachh Aadat" project started in this school. **At the beginning of the project, Child Cabinet Members & WASH Ambassadors were selected and trained on WASH using the Hygiene Module. The teachers were also oriented on WASH.**

All these interventions have brought a remarkable change in the behavioural pattern among the students. Nowadays, the teachers as well as students do not wait for the project staff to come for taking the hygiene classes. The Hygiene Module has become so popular that the students sometimes read the module even during recess time in small groups. According to Mr. Samir Pal, President – SMC, Ranibahal, the school is totally changed now. Now, all the students wash hands at critical times with soap. If any student fails to wash hands with soap and gets caught, the punishment is to bring two soaps the next day. The collected soaps become the asset of "Soap Bank" which is maintained by the students. The Child Cabinet itself has laid this rule. Proud Mrs. Babita Singh, a teacher of the school, also proudly added that Rajakiya Madhya Vidyalaya Ranibahal is fully WASH-secure now. "Swachh Vidyalaya, Swachh Aadat" programme along with new constructions like Incinerator, Children with Special Needs (CWSN) Toilet, etc., also could orient the students towards the good practices on WASH. She is confident enough that the next year Rajakiya Madhya Vidyalaya Ranibahal will get the "Mukhya Mantri Swachh

Fig. 33: Various events and activities undertaken in Rajakiya Middle Schools

Model School Raneshwar, Ranishwar Block in Dumka district

Piloting Evapo-transpiration Toilet

The Evapo-transpiration toilet has been recently added in the list of appropriate toilet technologies by the Ministry of Drinking Water and Sanitation. The evapo-transpiration toilet was developed and popularized more than two decades ago by permaculture practitioners in different countries, especially in US and Brazil. In India, it was tried earlier in Raibareli, UP. WaterAid has also experimented with the same technology in Chhattisgarh, Maharashtra and now in Jharkhand, in KGBV, Raneshwar, and Dumka.

Technology behind this mission: Old tyres are used as the containment for the faecal digester tank of this toilet. The tyres are arranged in a tunnel shape and surrounding it the sand granite chips and the soil are covered. On the top of the soil, the plants are grown to acquire the sludge water through the capillary action and seepage from the tyre tunnel. Thus, the FSM will be properly managed in the system. On the top, broad leaf plants like Banana and Cana are planted.

Special features: This is eco-friendly and low-cost intensive.

Initiative taken in SVSA: Being guided by the above technology, a toilet in KGBV, Raneshwar has been converted into an evapo-transpiration toilet.

Fig. 34: Informative activities undertaken in Classroom (Left), Selection of WASH Ambassadors (Right)

Strengthening and Federation of SMCs

Federating SMCs accelerates Fund leveraging for WASH facilities in Jharkhand

The RTE Act mandates the formation of School Management Committees (SMCs) in all the schools. SMC in the School has the prime responsibility to prepare the SDP and monitor function, fund & functionaries towards overall school development and thus improved and functional WASH facilities in institutions. Thus, effectiveness & active functioning of School Management Committee ensures improved and functional WASH facilities in schools as an integrated component of Quality Education.

But, it was observed that the SMCs were in place in all schools as per the guideline; however, these institutions were not active, attentive and accountable. The SMC meetings were not regular; they were not discussing any school development issues, rather concentrating on the utilization of already allocated Govt fund for any particular work.

Strengthening the SMCs towards effective delivery of their responsibility on WASH was one of the key strategies of the project. The following processes were followed towards strengthening the SMCs and federating them.

- Training to SMC members on their role and responsibility, WASH vulnerability assessment, inclusion of WASH Chapter in School Development Plan, and the process of WASH advocacy influencing Govt, etc.
- Involvement of SMCs in DPR preparation to identify the potential WASH structural requirement of their respective schools and further prioritization of WASH needs and incorporation in SDP
- Amplified voice of SMC at the block and district level through SMC federation and demand submission
- Join meeting between PRI and SMC members at the school level to prioritize and allocate the fund from FFC, SFC & MNREGA grant
- Submission of DPR to the state and district level education authority through SMCs for fund leverage
- Memorandum highlighting the WASH agenda was submitted to the respective MLAs and MPs. The SMC federations have submitted their respective demand towards the WASH structure improvement in the schools to the respective PRIs, Block and District Officials, and MPs and MLAs

Federating School Management Committees (SMCs) could trigger them to prioritize WASH chapter in the school development initiatives and amplify their voice of demand on WASH facility improvement in their respective schools. As a result, there was a fund leveraging to 70 lakhs from the government by November 2019 for either water project or Toilet repairing or urinal repairing or handwashing or water filter for safe drinking water provisioning, etc.).

Now, during the Assembly Election period, the SMC Federations had prepared a charter of demands on the WASH improvements and submitted to the MLA candidates of various political parties. The candidates of political parties had assured the federation members to

Fig. 35: SMC Federation (Left), Training of SMCs (Right)

Swachh Vidyalaya Puraskar to Englishpara School, Kanjihara, Maheshpur Block, Pakur

Where students take the charge of School Environment

U.M.S. Englishpara in Kanijhara Panchayat of Pakur district was selected for "Mukhya Mantri Swachh Vidyalaya Puraskar". This was the state level award facilitated by Govt of Jharkhand based on WASH status improvement and its maintenance by the active SMC. The SMC president of Englishpara School, Mr. Suraj Sheikh, received the award from the State Education Minister Neera Yadav at Ranchi on 26 February 2019. The president appreciated the input received through the project. This award became an inspiration to other SMCs to be more proactive in maintaining the WASH status of the school.

However, the path was not so easy. Mr. Suraj Sheikh recalls his school days when he was a student. Mr. Abbu Bakkar, the then Headmaster of the school, used to give his full effort. Still, the school remained in a very bad state. Since then, a lot of changes have come. Due to a special effort in the last two to three years, a number of structures especially on WASH have come up.

With the efforts of government as well as non-government initiatives (like "Swachh Vidyalaya, Swachh Aadat" - a joint initiative of NSEF, WAI & Gram Jyoti), the facilities for quality toilets & urinals, incinerators, hand wash unit, Children with Special Needs (CWSN) toilet, Force & Lift Pump for safe drinking water, etc., were renovated or constructed.

Even after these key achievements, the management failed to create a WASH-secure environment in the school campus. U.M.S. Englishpara did not have a boundary wall as a result of which a handful of troublemakers often broke the taps of hand wash, dirtied the toilets & urinals during the non-school hours, interfered during the academic sessions, etc. After these incidents, the School Management Committee (SMC) realized the requirement to construct a boundary wall.

The SMC of Englishpara did not sit idle. In the month of June 2017, they approached the Gram Panchayat Chief, but there was no response. However, the school did not lose hope and began the initial measurement & planning exercise with the community support. They continued approaching Village Panchayat Chief & SSA repeatedly and moved the application to the Block Development Officer (BDO), organized community meetings, etc. As an outcome, initially an amount of Rs. 20,000 was approved by SSA for the purpose. With this limited resource, the courageous SMC began the construction work. Then, the collective pressure of SMC & community compelled the Gram Panchayat Mukhiya to discuss this initiative in the open meeting at Gram Sabha. Ultimately, an amount of Rs. 64,000 was granted from 14th Finance Commission for this purpose. Using this finance, a boundary wall and an iron gate at the front were constructed.

In the words of Ms. Sababa Khatun, Prime Minister – Child Cabinet – Englishpara, "We have CWSN Toilet, Incinerator, WASH Unit, Force & Lift Pump connected to Hand Wash Unit, dustbins for garbage disposal, and separate dustbins for dry & wet wastes in our school. All these assets are now protected by a boundary wall. So, we feel that we are number one in Maheshpur Block".

In the words of Mr. Arvind Yadav, Headmaster - Englishpara, "Now, I am assured that WASH structures like toilets, incinerator, CWSN toilet, hand wash units are protected in my school. Now, 447 students can use these properly. Thanks to Mr. Suraj and SMC who had taken the initiative and constructed the boundary wall. I feel that in Maheshpur except for the Kasturba Vidyalaya, no other education institution has such a well-protected environment from all angles. This success could be achieved mainly because of the strong will power and commitment of SMC."

Mr. Suraj did not stop here. He and other likeminded SMC Members of Maheshpur have formed a SMC Federation (i.e., a collective forum of SMCs from where SMCs would be able to raise their voice to the authorities in a more effective fashion). This type of federation is a unique one at least in Santhal Pargana Region.

Annexure 1: List of Intervention Schools

Sr. No.	District	Block	GP	Village	School Name	Students
1	Pakur	MAHESHPUR	KANIJHARA	ENGLISHPARA	UPG MS	417
2	Pakur	MAHESHPUR	KANIJHARA	KANIJHARA	PS	98
3	Pakur	MAHESHPUR	KANIJHARA	KATALLA	UPG PS	66
4	Pakur	MAHESHPUR	KANIJHARA	NURAYI	UPG MS	85
5	Pakur	MAHESHPUR	KANIJHARA	SONARPARA	PS	129
6	Pakur	MAHESHPUR	KHANPUR	KADAMPUR	UPG MS	101
7	Pakur	MAHESHPUR	KHANPUR	KHANPUR	UPG HS	92
8	Pakur	MAHESHPUR	KHANPUR	MADHOPARA	UPG PS	71
9	Pakur	MAHESHPUR	KHANPUR	MAHADEO, NAGAR	PS	89
10	Pakur	MAHESHPUR	KHANPUR	MURGADAN GA -2	UPG MS	100
11	Pakur	MAHESHPUR	KHANPUR	RAMNATHPUR	UPG MS	57
12	Pakur	MAHESHPUR	KHANPUR	TOLASERPUR	UPG PS	71
13	Pakur	MAHESHPUR	POKHARIYA	ASNADANGAL	UPG MS	58
14	Pakur	MAHESHPUR	POKHARIYA	JABDIKHAIRI OPA-RA	UPG PS	63
15	Pakur	MAHESHPUR	POKHARIYA	MAYOURNA CHA	UPG PS	65
16	Pakur	MAHESHPUR	POKHARIYA	PAKRIPARA	PS	63
17	Pakur	MAHESHPUR	POKHARIYA	PATHARGHA TTA	UPG MS	110
18	Pakur	MAHESHPUR	POKHARIYA	POCHAIBERA	PS	83
19	Pakur	MAHESHPUR	POKHARIYA	POKHARIYA	UPG HS	106
20	Pakur	MAHESHPUR	POKHARIYA	SIMALDHAB	PS	44
21	Pakur	MAHESHPUR	POKHARIYA	TASARIYA	PS	69
22	Pakur	MAHESHPUR	SHIVRAMPUR	BABUPUR	UPG PS	101
23	Pakur	MAHESHPUR	SHIVRAMPUR	BAGDUBA	PS	27
24	Pakur	MAHESHPUR	SHIVRAMPUR	BARMASIYA	UPG PS	81
25	Pakur	MAHESHPUR	SHIVRAMPUR	BATHANDANGA	PS	38
26	Pakur	MAHESHPUR	SHIVRAMPUR	BHAGWANPUR	UPG PS	42
27	Pakur	MAHESHPUR	SHIVRAMPUR	CHAMRAKHI	UPG PS	34
28	Pakur	MAHESHPUR	SHIVRAMPUR	CHANDRAPU RA	MS(MISSION)	104
29	Pakur	MAHESHPUR	SHIVRAMPUR	DEVPUR	UPG MS	93
30	Pakur	MAHESHPUR	SHIVRAMPUR	DHAWABATHAN	PS	41

Sr. No.	District	Block	GP	Village	School Name	Students
31	Pakur	MAHESHPUR	SHIVRAMPUR	KIRTA	UPG MS	51
32	Pakur	MAHESHPUR	SHIVRAMPUR	NANDOPUR	UPG PS	74
33	Pakur	MAHESHPUR	SHIVRAMPUR	NAVPARA	PS	85
34	Pakur	MAHESHPUR	SHIVRAMPUR	RATANPUR	PS	99
35	Pakur	MAHESHPUR	SHIVRAMPR	SHIVRAMPUR	UPG MS	77
36	Pakur	MAHESHPUR	MAKDAMPUR	NANDOPUR	MADARSAESA ATUL ULOOM	39
37	Pakur	MAHESHPUR	MAKDAMPUR	NAVPARA	UPG HS	197
38	Pakur	MAHESHPUR	MAKDAMPUR	RATANPUR	PS KANYA	96
39	Pakur	MAHESHPUR	RAJAPUR	SHIVRAMPR	PS RAJAPUR	27
40	Pakur	MAHESHPUR	SILAMPUR	MAKDAMPUR	PS SILAMPUR	82
41	Pakur	MAHESHPUR	SIRAJPUR	MAKDAMPUR	PS SIRAJPUR	148
42	Pakur	PAKURIA	ANGARGARIYA	MAKDAMPUR	UPG PS	83
43	Pakur	PAKURIA	DOMUHANI	RAJAPUR	UPG MS	145
44	Pakur	PAKURIA	JATANGKHAKHA	SILAMPUR	UPG PS	80
45	Pakur	PAKURIA	KHAKSA	SIRAJPUR	PS	87
46	Pakur	PAKURIA	KHANTARGH UTU KHAKSA	ANGARGARIYA	UPG PS	77
47	Pakur	PAKURIA	MALIKPUR	DOMUHANI	UPG P	137
48	Pakur	PAKURIA	MATIYACHUAN	JATANGKHAKHA	UPG MS	103
49	Pakur	PAKURIA	PAHARKHAKSA	KHAKSA	UPG MS	113
50	Pakur	PAKURIA	PATIYALGARIYA	KHANTARGHUTU	UPG MS	82
51	Pakur	PAKURIA	SARSABANDH	MALIKPUR	MS	98
52	Pakur	PAKURIA	SARSABANDH	MATIYACHUAN	MADARSA KHA-RUL ULUM	59
53	Pakur	RANISHWAR	MAHULGHATA	PAHARKHAKSA	UPG P.S.	32
54	Pakur	RANISHWAR	DAKSHINJOL	PATIYALGARIYA	GOVT.P.S.	32
55	Pakur	RANISHWAR	DAKSHINJOL	SARSABANDH	UPG P.S.	29
56	Pakur	RANISHWAR	GULAMSULI	SARSABANDH	UPG M.S.	94
57	Dumka	RANISHWAR	JAMJURI-1	MAHULGHATA	GOVT.M.S	89
58	Dumka	RANISHWAR	LAKHANPUR	DAKSHINJOL	UPG P.S.	25
59	Dumka	RANISHWAR	PHAJILPUR	DAKSHINJOL	UPG	30

Sr. No.	District	Block	GP	Village	School Name	Students
60	Dumka	RANISHWAR	DAKSHINJOL	PRATAPPUR	UPG	43
61	Dumka	RANISHWAR	DAKSHINJOL	RAKHALPAHARI	UPG P.S.	26
62	Dumka	RANISHWAR	DAKSHINJOL	SUJANPURNIJHARI	GOVT.P.S	54
63	Dumka	RANISHWAR	GOBINDPUR	DIGULI	GOVT.P.S.	47
64	Dumka	RANISHWAR	GOBINDPUR	GOBINDPUR	UPG M.S.	159
65	Dumka	RANISHWAR	GOBINDPUR	CHAMPFULLY	UPG P.S.	24
66	Dumka	RANISHWAR	GOBINDPUR	TILPARA	UPG P.S.	14
67	Dumka	RANISHWAR	HARIPUR	CHAPURIA	UPG P.S.	49
68	Dumka	RANISHWAR	HARIPUR	JAYTARA-2	UPG P.S.	39
69	Dumka	RANISHWAR	HARIPUR	KALAKATA	GOVT.P.S.	58
70	Dumka	RANISHWAR	HARIPUR	KAMTI	UPG P.S.	40
71	Dumka	RANISHWAR	HARIPUR	JAMGRAM	UPG P.S.	21
72	Dumka	RANISHWAR	HARIPUR	HARIPUR	UPG P.S.	24
73	Dumka	RANISHWAR	HARIPUR	PAKURIA	GOVT.P.S.	40
74	Dumka	RANISHWAR	HARIPUR	PATUSOLA	UPG M.S.	51
75	Dumka	RANISHWAR	HARIPUR	RANABAND H	UPG RA.H.S.	70
76	Dumka	RANISHWAR	KUMIRDAHA	RAGHUNATHPUR	GOVT.P.S.	69
77	Dumka	RANISHWAR	PATHRA	PATHRA	UPG P.S.	160
78	Dumka	RANISHWAR	RANGALIA	KUCHIADALI	UPG P.S.	33
79	Dumka	RANISHWAR	RANGALIA	KUCHIADALI	UPG P.S.	25
80	Dumka	RANISHWAR	RANGALIA	KUKRIBHASA	N.P.S.	73
81	Dumka	RANISHWAR	RANGALIA	LAKRAGHATI	UPG. M.S	147
82	Dumka	RANISHWAR	RANGALIA	MURGABANI	GOVT.P.S.	40
83	Dumka	RANISHWAR	RANGALIA	PANCHPAHARI	UPG P.S.	35
84	Dumka	RANISHWAR	RANGALIA	RANGALIA	UPG M.S.	228
85	Dumka	RANISHWAR	RANGALIA	RANGALIA	UPG P.S.	30
86	Dumka	RANISHWAR	RANGALIA	RANGALIA	UPG P.S.	37
87	Dumka	RANISHWAR	RANGALIA	PALASPARA	GOVT.P.S.	24
88	Dumka	RANISHWAR	RANGALIA	BORADANGAL	UPGRADE GOVT	267
89	Dumka	RANISHWAR	SADIPUR	HAKIKATPUR	UPG M.S.	78

Sr. No.	District	Block	GP	Village	School Name	Students
90	Dumka	RANISHWAR	SADIPUR	HUSENPUR	UPG P.S	47
91	Dumka	RANISHWAR	SADIPUR	KHUSDILPUR	UPG P.S.	27
92	Dumka	RANISHWAR	SADIPUR	NIMBANI	GOVT.P.S.	55
93	Dumka	RANISHWAR	SADIPUR	TASARKATA	UPG M.S.	81
94	Dumka	RANISHWAR	SALTOLA	CHAKPALSA	UPG P.S.	49
95	Dumka	RANISHWAR	SALTOLA	PAKURIA	UPG M.S.	78
96	Dumka	RANISHWAR	SALTOLA	PARPALSA	GOVT.RA.M.S. P	224
97	Dumka	RANISHWAR	SALTOLA	SALTOLA	GOVT.RA M.S.	76
98	Dumka	RANISHWAR	SALTOLA	SALTOLA	UPG P.S.	41
99	Dumka	RANISHWAR	SALTOLA	SALTOLA	UPG P.S.	61
100	Dumka	RANISHWAR	SALTOLA	SALTOLA	UPG P.S.	53
101	Dumka	RANISHWAR	SALTOLA	TANGDAHA	GOVT.UPG M.S.	70
102	Dumka	RANISHWAR	SALTOLA	TILABANI	GOVT.UPG M.S.	102
103	Dumka	RANISHWAR	SALTOLA	TILABANI	UPG P.S.	33
104	Dumka	RANISHWAR	SUKHJORA	RAGHDIH	UPG P.S.	27
105	Dumka	DUMKA	PARSIMLA	BAGNAL	GOVT.RA.M.S.B	151
106	Dumka	DUMKA	PARSIMLA	BALJURI	UPG GOVT.P.S	83
107	Dumka	RANISHWAR	DHANBASA	CHAPURIA	GOVT.P.S.	45
108	Dumka	RANISHWAR	DHANBASA	CHAPURIA	GOVP.S.	122
109	Dumka	RANISHWAR	TALDANGAL	CHARKAPATHAR	UPG M.S.	83
110	Dumka	RANISHWAR	HARIPUR	CHOPABATHAN	MS	176
111	Dumka	DUMKA	RAMPUR	DASORAYDIH	UPG. P.S.	61
112	Dumka	DUMKA	RANIBAHAL	DEWANBARI	GOVT.P.S.	58
113	Dumka	RANISHWAR	TALDANGAL	DHAKAJOL	GOVT M.S.	80
114	Dumka	RANISHWAR	MAHULBONA	HARIPUR	UPG M. S	27
115	Dumka	RANISHWAR	BILKANDI	JAYTARA-1	UPG M.S.	189
116	Dumka	DUMKA	DARBARPUR	JHAJHAPARA	UMS	93
117	Dumka	RANISHWAR	TALDANGAL	KARIKADAR	MS	99
118	Dumka	DUMKA	RANIBAHAL	KATHALDIH A	UPG. P.S.	59
119	Dumka	DUMKA	RAMPUR	KATIJORIA	GOVT.UPG M.S.	240

Sr. No.	District	Block	GP	Village	School Name	Students
120	Dumka	DUMKA	RAMPUR	KHAYERBANI	UPG. GOVT M.S.	123
121	Dumka	RANISHWAR	TALDANGAL	KOURSHILA	GOVT.UPG.MS	68
122	Dumka	RANISHWAR	BRINDABANI	KULUBANDI	UPG M.S.	76
123	Dumka	RANISHWAR	BILKANDI	KURAPAHAR I	UPG P.S.	38
124	Dumka	RANISHWAR	DHANBASA	LATULIA	GOVT.P.S.	108
125	Dumka	RANISHWAR	TALDANGAL	LEYA	GOVT UPG.M.S.	145
126	Dumka	RANISHWAR	MAHULBONA	MAHULBANA	UPGRADE GOVT RA H.S.	362
127	Dumka	RANISHWAR	PATJORE	METELKOND A-2	UPG P.S.	68
128	Dumka	DUMKA	RANIBAHAL	MURJORA	UPG M.S.	198
129	Dumka	DUMKA	RANIBAHAL	MURJORA	UPG P.S.	67
130	Dumka	DUMKA	DARBARPUR	Naratala	UPS	24
131	Dumka	DUMKA	RANIBAHAL	NARATOLA	UPG P.S.	119
132	Dumka	RANISHWAR	BILKANDI	PAKPAHARI	GOVT.UPG M.S.	121
133	Dumka	DUMKA	RAMPUR	PANJANBANA	UPG GOVT M.S.P	285
134	Dumka	DUMKA	PARSIMLA	PARSIMLA	GOVT.RA. M.S.	339
135	Dumka	DUMKA	PARSIMLA	PARSIMLA	UPG P.S.	66
136	Dumka	RANISHWAR	BRINDABANI	PORABATHA N	UPG P.S.	60
137	Dumka	RANISHWAR	KUMIRDAHA	RAGHUNATHPUR	KGBV	399
138	Dumka	DUMKA	PARSIMLA	RAMPUR-1	UPG.P.S	121
139	Dumka	DUMKA	RAMPUR	RAMPUR-1	GOVT.P.S.	38
140	Dumka	DUMKA	RANIBAHAL	RANIBAHAL	GOVT.M.S.	510
141	Dumka	RANISHWAR	PATJORE	SAGRAMPUR	GOVT.P.S.	60
142	Dumka	DUMKA	PARSIMLA	SALTALA	UPGRADE GOVT.RA.	125
143	Dumka	RANISHWAR	BILKANDI	SANAIPUR	GOVT.P.S.	26
144	Dumka	RANISHWAR	BILKANDI	SANTHALI CHAULIA	PS	72
145	Dumka	RANISHWAR	TALDANGAL	Sarpahari	GOVT.P.S.	45
146	Dumka	RANISHWAR	BILKANDI	SIULIBONA-1	UPG P.S.	37
147	Dumka	RANISHWAR	DHANBASA	SIULIBONA-2	NPS	50
148	Dumka	RANISHWAR	DHANBASA	SIULIBONA-2	GOVT.P.S.	68

Sr. No.	District	Block	GP	Village	School Name	Students
149	Dumka	RANISHWAR	BRINDABANI	SUNDARDIH	GOVT.P.S.	40
150	Dumka	RANISHWAR	BRINDABANI	SUNDARDIH	UPG P.S.	42
151	Dumka	RANISHWAR	BILKANDI	TANTLOI	UPG P.S	126
152	Dumka	RANISHWAR	BRINDABANI	TARNI	GOVT.M.S.	101
153	Dumka	RANISHWAR	BRINDABANI	TARNI	UPS	46
154	Dumka	RANISHWAR	BILKANDI	TATLOI	MS	217
155	Dumka	RANISHWAR	BRINDABANI	TONGRA	UPG M.S.	63
156	Dumka	DUMKA	DARBARPUR	UMS Kulungu	UMS Kulungu	345
157	Pakur	PAKURIA	MOGLA BANDH	AMAKONA	PS	57
158	Pakur	LITTIPARA	TALJHARI	ASANBANI	UPG MS	95
159	Pakur	PAKURIA	RAJPOKHAR	BALKO	UPG PS	38
160	Pakur	LITTIPARA	NAWADIH	BANSJORI	PS	48
161	Pakur	LITTIPARA	TALJHARI	BARAPOKHAR	UPG MS	58
162	Pakur	LITTIPARA	BARASARSA	BARASARSA	UPG HS	72
163	Pakur	PAKURIA	KHAJUR DAN-GAL	BARAUDALI	PS	46
164	Pakur	PAKURIA	PAKURIYA	BENAKUDA	PS	56
165	Pakur	PAKURIA	LAGDUM	CHIRUDIH	MS	56
166	Pakur	LITTIPARA	NAWADIH	CHOTA KALDAM	UPG PS	42
167	Pakur	PAKURIA	KHAJUR DAN-GAL	DALAHI WEST	UPG PS	38
168	Pakur	PAKURIA	MOGLA BANDH	DHENKIDUBA	UPG MS	137
169	Pakur	PAKURIA	KHAJUR DAN-GAL	DURGAPUR	UPG HS	60
170	Pakur	PAKURIA	KHAJUR DAN-GAL	GODROSOL	UPG MS	50
171	Pakur	PAKURIA	KHAJUR DAN-GAL	GODROSOL	UPG PS	38
172	Pakur	PAKURIA	RAJPOKHAR	GOPI	PS	20
173	Pakur	PAKURIA	KHAJUR DAN-GAL	GOVINDPUR	PS	50
174	Pakur	PAKURIA	PAKURIYA	HARIPUR	PS	28
175	Pakur	LITTIPARA	BARASARSA	JITPUR	PS	30

Sr. No.	District	Block	GP	Village	School Name	Students
176	Pakur	PAKURIA	PAKURIYA	JONKA	PS	28
177	Pakur	PAKURIA	MOGLA BANDH	JUGGARIA	UPG PS	59
178	Pakur	PAKURIA	RAJPOKHAR	KACHUABATHAN	PS	60
179	Pakur	LITTIPARA	BARASARSA	KARANGHATI	PS	73
180	Pakur	LITTIPARA	TALJHARI	KARIODIH	UPG HS	72
181	Pakur	PAKURIA	LAGDUM	Kathijoria	PS (W)	30
182	Pakur	PAKURIA	KHAJUR DAN-GAL	KHAJURDAN GAL	UPG MS	50
183	Pakur	LITTIPARA	BARASARSA	KUKURDUBA	UPG PS	71
184	Pakur	PAKURIA	LAGDUM	LAGDUM	MS LAGDUM (E)	94
185	Pakur	PAKURIA	LAGDUM	LAGDUM	PS KANTHAL-DIH	23
186	Pakur	PAKURIA	RAJPOKHAR	LAKRAPAHARI	UPG MS	60
187	Pakur	PAKURIA	LAGDUM	MADGAON	MS	67
188	Pakur	PAKURIA	MOGLA BANDH	MOGALABANDH	MS	28
189	Pakur	LITTIPARA	AWADIH	MURGABANI	UPG MS	45
190	Pakur	PAKURIA	PAKURIYA	MURGADANGA	UPG PS	50
191	Pakur	LITTIPARA	NAWADIH	NAWADIH- 3	UPG MS	89
192	Pakur	PAKURIA	PAKURIYA	PAKURIA	KGBV PAKURIA	390
193	Pakur	PAKURIA	PAKURIYA	PAKURIYA	UPG HS	41
194	Pakur	PAKURIA	PAKURIYA	PAKURIYA	PS PAKURIYA	30
195	Pakur	PAKURIA	PAKURIYA	PAKURIYA	PS PAKURIYA	30
196	Pakur	PAKURIA	PAKURIYA	PAKURIYA	MS	80
197	Pakur	PAKURIA	KHAJUR DAN-GAL	PATPAHARI	UPG MS	63
198	Pakur	PAKURIA	RAJPOKHAR	RAJPOKHAR	UPG MS	114
199	Pakur	PAKURIA	MOGLA BANDH	RAM PUR	UPG MS	76
200	Pakur	LITTIPARA	NAWADIH	RANGA	UPG MS RANGA	92
201	Pakur	PAKURIA	KHAJUR DAN-GAL	SAGBERIYA	PS SAGBERIYA	57
202	Pakur	PAKURIA	PAKURIYA	SAHAR PUR	PS SAHAR PUR	41
203	Pakur	LITTIPARA	NAWADIH	SAWLAPUR	UPG MS	67
204	Pakur	PAKURIA	RAJPOKHAR	SIDPUR	UPG PS SIDPUR	28

Sr. No.	District	Block	GP	Village	School Name	Students
206	Pakur	LITTIPARA	TALJHARI	TALJHARI	PS TALJHARI	49
207	Pakur	PAKURIA	TALWA	TALWA	MS TALWA	61
208	Pakur	PAKURIA	KHAJUR DAN-GAL	UDALBANI	UPG MS	55
209	Dumka	DUMKA	KURWA	BAGNOCHA	UPG GOVT M.S	60
210	Dumka	DUMKA	BHURKUNDA	BHURKUNDA	UPG GOVT M.S.	100
211	Dumka	DUMKA	BHURKUNDA	CHAPAKANDER	UPGRADE GOVT H.S.	118
212	Dumka	DUMKA	DARBARPUR	DARBARPUR	UPG. M.S.	49
213	Dumka	DUMKA	BEHRABANK	GUHIAJORI- 1	GOVT UPG.M.S.	59
214	Dumka	DUMKA	KESHIYABAHAL	JAMDALI	UPG GOVT M.S.	62
215	Dumka	DUMKA	PURANA DUMKA	JARUADIH	P.S.	115
216	Dumka	DUMKA	DARBARPUR	JHAJHAPARA	UPG M.S.	67
217	Dumka	DUMKA	BEHRABANK	KADOKHICH A-1	UPG GOVT.M.S.	83
218	Dumka	DUMKA	KARHARBIL	KARAHARBIL	GOVT.RA.SP. ST.M.S.	94
219	Dumka	DUMKA	KESHIYABAHAL	KESHIYABAHAL	GOVT.M.S.	96
220	Dumka	DUMKA	KARHARBIL	KHIJURIA	GOVT.UPG M.S.	47
221	Dumka	DUMKA	BEHRABANK	KURUA-2	GOVT.RA.M.S.	59
222	Dumka	DUMKA	KURWA	KURWA	GOVT.SRI.RA.K. R.AS.M.S.	171
223	Dumka	DUMKA	KURWA	RAGHUNATHGANJ	GOVT.HI.M.S.	78
224	Dumka	DUMKA	GHATRASIKPUR	RASIKPUR	GOVT.P.S.	98
225	Dumka	SHIKARIPARA	PALASI	ASNA	UPG M.S.	126
226	Dumka	SHIKARIPARA	PALASI	ASNA	UPG P.S.	89
227	Dumka	SHIKARIPARA	MALUTI	BAKIJOR(E)	GOVT.UPG. M.S.	90
228	Dumka	SHIKARIPARA	MURAYAM	BALIJOR	UPG M.S.	138
229	Dumka	SHIKARIPARA	BARMASIA	BARMASIA	MS BARMASIA	60
230	Dumka	SHIKARIPARA	BARMASIA	BARMASIA	KGBV	81
231	Dumka	SHIKARIPARA	KUSH PAHARI	BHAL PAHARI	UPG M.S.	80
232	Dumka	SHIKARIPARA	BARMASIA	BUCHAN	UMS	51
233	Dumka	SHIKARIPARA	DHAKA	DHAKA	UPGRADE GOVT H.S.	123
234	Dumka	SHIKARIPARA	MOHUL PAHARI	DHOPAHARI	UMS	92
235	Dumka	SHIKARIPARA	SHIVTALLA	DIGALPAHARI	UPG M.S.	94

Sr. No.	District	Block	GP	Village	School Name	Students
236	Dumka	SHIKARIPARA	SHIVTALLA	DUARPAHARI	GOVT.UPG. M.S.	54
237	Dumka	SHIKARIPARA	BARMASIA	DURGAPUR	GOVT.UPG.M.S.	97
238	Dumka	SHIKARIPARA	GANDRAKPUR	GANDRAKPUR	MS GAMRA	75
239	Dumka	SHIKARIPARA	GANDRAKPUR	GANDRAKPUR CHAKALTA	UPG R.M.S.	78
240	Dumka	SHIKARIPARA	MURAYAM	INDRABANI	UPG M.S.	125
241	Dumka	SHIKARIPARA	PALASI	JOGIKHOPA	UPG M.S.	87
242	Dumka	SHIKARIPARA	MOHUL PAHARI	KARMATANR	UPG M.S..	77
243	Dumka	SHIKARIPARA	SHIVTALLA	KESHARGARH	DPEP N.P.S	64
244	Dumka	SHIKARIPARA	KUSH PAHARI	KUSPAHARI	UPG M.S.	191
245	Dumka	SHIKARIPARA	DHAKA	LAKHANPUR	UMS	55
246	Dumka	SHIKARIPARA	BARMASIA	MOHANPUR	GOVT.P.S.	96
247	Dumka	SHIKARIPARA	BARMASIA	PATTABARI	MS PATTABARI	96
248	Dumka	SHIKARIPARA	MOHUL	POKHARIA-1	GOVT.P.S.	67
249	Dumka	SHIKARIPARA	PALASI	RAJBANDH	UPG M.S.	63
250	Dumka	SHIKARIPARA	SIMANIJOR	RAMGARH	UPG P.S.	74
251	Dumka	SHIKARIPARA	SHIVTALLA	RANGA	UPG M.S.	132
252	Dumka	SHIKARIPARA	MOHUL	SAHARJURI	UPG M.S.	109
253	Dumka	SHIKARIPARA	KUSH PAHARI	SARDAHA	UMS SARDAHA	113
254	Dumka	SHIKARIPARA	SHIKARIPARA	SHIKARIPARA	GOVT.M.S.	90
255	Dumka	SHIKARIPARA	SHIKARIPARA	SHIKARIPARA	GOVT.RA.KA. M.S.	154
256	Dumka	SHIKARIPARA	SHIVTALLA	SIBTALA	GOVT.P.S.	103
257	Dumka	SHIKARIPARA	BARMASIA	SIMALTI	GOVT.P.S.	28
258	Dumka	SHIKARIPARA	SIMANIJOR	SIMANIJOR	GOVT.UPG. M.S.	47
259	Dumka	SHIKARIPARA	MOHUL	SIMLA	UPG M.S. SIMLA	107
260	Dumka	SHIKARIPARA	GANDRAKPUR	SITASAL-1	GOVT.UPG. M.S.	70
261	Pakur	LITTIPARA	BANDU	BANDU	PS BANDU	47
262	Pakur	LITTIPARA	BANDU	BANDU	UPG MS	66
263	Pakur	LITTIPARA	BANDU	BANJIRLI	UPG MS	76
264	Pakur	LITTIPARA	KAMALGHATI	BINJHAMARA	PS	80
265	Pakur	LITTIPARA	BANDU	BISHWANATHPUR	UPG PS	85

Sr. No.	District	Block	GP	Village	School Name	Students
266	Pakur	LITTIPARA	SURAJBERA	CHITALO	UPG MS	75
267	Pakur	LITTIPARA	SURAJBERA	CHITARO	UPG MS	49
268	Pakur	LITTIPARA	BANDU	DAHARLANGI	PS	80
269	Pakur	LITTIPARA	KUNJBONA	DAMRULILATARI	UMS	24
270	Pakur	LITTIPARA	NAWADIH	DANGAPARA	P.S.JOBADIH	15
271	Pakur	LITTIPARA	FULPAHARI	DHOPAHARI	UPG MS	93
272	Pakur	LITTIPARA	LITTI PARA	DHUNDAPAHAR	UPG PS	83
273	Pakur	LITTIPARA	KAMALGHATI	DOHRI SANTHALI	UPG PS	21
274	Pakur	LITTIPARA	SONADHUNI	DONGO	PS DONGO	54
275	Pakur	LITTIPARA	TALPHARI	DUMARIYA	M.S DUMARIYA	53
276	Pakur	LITTIPARA	SURAJBERA	DUMERHIR	P .S DUMERHIR	12
277	Pakur	LITTIPARA	FULPAHARI	FOOLPAHARI	UPG MS	28
278	Pakur	LITTIPARA	TALPHARI	GANDUPAHARI	P.S.Gandupahari	56
279	Pakur	LITTIPARA	KAMALGHATI	HATHIGARH	UPG MS	118
280	Pakur	LITTIPARA	LITTI PARA	HETHBANDHA	UPG MS	89
281	Pakur	LITTIPARA	JABARDAHA	HIRANPUR	MS HIRANPUR	66
282	Pakur	LITTIPARA	JABARDAHA	JABARDAHA	PS JABARDAHA	52
283	Pakur	LITTIPARA	LITTI PARA	JHAPRI	UPG PS JHAPRI	66
284	Pakur	LITTIPARA	FULPAHARI	JIRLI	UPG MS JIRLI	115
285	Pakur	LITTIPARA	LITTI PARA	KAIRODALI	UPG PS	66
286	Pakur	LITTIPARA	KAMALGHATI	KAMALGHATI	UPG MS	160
287	Pakur	LITTIPARA	KAMALGHATI	KAMALGHATI	PS	103
288	Pakur	LITTIPARA	SURAJBERA	KARIPHARI	P S KARIPHARI	40
289	Pakur	LITTIPARA	KARMATAND	KARMATAND	UPG MS	25
290	Pakur	LITTIPARA	LITTI PARA	KATHALPARA	UPG MS	57
291	Pakur	LITTIPARA	LITTI PARA	KUMARBHANJA	UPG MS	82
292	Pakur	LITTIPARA	SURAJBERA	LAKHANPUR	U.P. S	70
293	Pakur	LITTIPARA	LITTI PARA	LITTIPARA	MS LITTIPARA	69
294	Pakur	LITTIPARA	LITTI PARA	LITTIPARA	KGVK LITTIPA-RA	103
295	Pakur	LITTIPARA	LITTI PARA	MADUWAN	UPG MS	137

Sr. No.	District	Block	GP	Village	School Name	Students
296	Pakur	LITTIPARA	SONADHUNI	MAHUATAN	UPG PS	45
297	Pakur	LITTIPARA	BANDU	MAHULBONA	UPG HS	57
298	Pakur	LITTIPARA	BANDU	MARGO	UPG MS	87
299	Pakur	LITTIPARA	SURAJBERA	MOHANPUR	UPG MS	93
300	Pakur	LITTIPARA	LITTI PARA	MUKARI	PS MUKARI	27
301	Pakur	LITTIPARA	LITTI PARA	NIPANIA	UPG PS	82
302	Pakur	LITTIPARA	BANDU	PARBABHITA	UPG PS	62
303	Pakur	LITTIPARA	FULPAHARI	PATRAPARA	UPG MS	98
304	Pakur	LITTIPARA	BANDU	RAGHUNAT HPUR	UPG MS	92
305	Pakur	LITTIPARA	LITTI PARA	RANBAHIAR	UPG PS	59
306	Pakur	LITTIPARA	LITTI PARA	RODGO	UPG MS	113
307	Pakur	LITTIPARA	SONADHUNI	SATHIYA	UPG MS	90
308	Pakur	LITTIPARA	LITTIPARA	SONADHANI	MS	69
309	Pakur	LITTIPARA	BANDU	SONAJORI	UPG PS	66
310	Pakur	LITTIPARA	SURAJBERA	SURAJBERA	M.S	35
311	Pakur	LITTIPARA	TALPHARI	TALPHARI	UPGHS TAL-PHARI	118

Annexure 2: Research Tools and Questionnaires

1. Tool for Data Collection from Students

Profile		
1	Name of the Investigator	
2	District	
3	Block	
4	GP	
5	Village	
6	Name of School	
7	Name of Student	
8	Sex of the Student	
9	Class	
Section 1: Soft Intervention/Capacity Building/Behavioural Change		
1.1	Are you aware of the WASH Cabinet in the School?	Yes/No
1.2	Is someone from your class a member in WASH?	Yes/No
1.3	Can you name some members of WASH cabinet from your school?	Yes/No
1.4	Are you aware of WASH ambassadors from your school?	Yes/ No
1.5	Are you aware of the WASH handbook in your school?	Yes/No
1.6	Has it been shown in your school?	Yes/No
1.7	Are you aware of Bal Sabha ?	Yes/No/Not Applicable
1.8	When did you last participate in the Bal Sabha?	Last Week Last Month between 2nd to 4th week Between 1 month to 3 Months Between 3 Months to 1 Year Can't Recall
1.9	Have you received training on WASH?	Yes/No
1.10	Has there been any special occasion celebrated in the school over the last 1 Year (World Water Day/World Sanitation Day/ Swachhata Diwas or anything similar)?	Yes/No
1.11	Did you participate in or observe that event?	Yes/No
1.8	What is the frequency of Training/Refresher Training?	Daily/Weekly/Monthly/Not fixed
1.9	When was the last training, induction or orientation provided in your school?	Last Week Last Month between 2nd to 4th week Between 1 month to 3 Months Between 3 Months to 1 Year Can't Recall

1.10	Do you share the WASH Learning at your home with other household members?	Yes/No
1.11	Do you follow the WASH Practices learnt in school at home?	Yes/No
1.12	Has your sharing helped in improvements of WASH habit of other family members?	Yes/No
1.13	Learning from WASH has improved my WASH behaviour (Please give Marks on a scale of 1 to 5) 1 is for no change while 5 is for significant change	1,2 ,3,4,5
1.14	Learning from WASH has improved WASH behaviour of all household members (Please give Marks on a scale of 1 to 5) 1 is for no change while 5 is for significant change	1.2.3.4.5.
1.15	I will keep continuing following healthy WASH Practices learnt in future (Please give Marks on a scale of 1 to 5) 1 is for full disagreement while 5 is full agreement	1,2,3,4,5,
1.16	I will discourage others from following unhealthy WASH Practices (Please give Marks on a scale of 1 to 5) 1 is for full disagreement while 5 is full agreement	1,2,3,4,5,
Section 2: Facility Infrastructure – Drinking Water		
2.1	How do you manage drinking water requirement at the school?	Carry from Home (Water Bottle) Use Water Source Available in the School
2.2	What is the main source of drinking water provided by the school?	Piped water supply inside the school Functional Hand Pump within the campus Storage Container (Drum/Pitcher etc.) with Lid and Ladle Storage Container with Lid but no ladle Storage Container without Lid and Ladle No Facility within the School Campus
2.3	If no facility, then how much time it takes for you to reach to the water source and come back to the class?	Less than 5 Minutes 5 to 10 Minutes 11 to 20 Minutes More than 20 Minutes
2.4	How do you find cleanliness of Storage Container (1 to 5)? 1 for Very Dirty while 5 for very clean	1,2,3,4,5
2.5	How do you find the quality of drinking water? 1 for Very Dirty while 5 for very clean	1,2,3,4,5
2.6	Are you aware of the source of water used for MDM?	Packaged food is supplied Piped water supply inside the school Functional Hand Pump within the campus Storage Container Brought from outside as no Facility within the School Campus Not Aware
2.7	How will you rate the cleanliness of the water used for Cooking of MDM? 1 for Very Dirty while 5 for very clean	1,2,3,4,5

Section 3: Facility Infrastructure – Toilet (Hygiene)		
3.1	Is the Toilet/Latrine functional in the School?	Yes/No
3.2	Are the Toilet Facilities separate for Boys and Girls?	Yes/No
3.3	Is there a separate toilet for teachers?	Yes/No
3.4	What is the water supply source for the latrine?	Piped water inside Need to carry in bucket from outside
3.5	Is there a hand wash facility near the toilet?	Yes/No
3.6	Is handwashing material available near the hand wash facility?	Yes/No
3.7	How will you rate the availability of handwashing material (Soap/liquid/detergent) 1 to 5? 1 is for never available while 5 for always available	1,2,3,4,5
3.9	Is there a functional Urinal in your school?	Yes/No
3.10	How frequently is the toilet cleaned in your school?	
3.11	How will rate the cleanliness of toilet on 1 to 5 (1 for very dirty and 5 for very clean)?	1,2,3,4,5
3.12	How far is the hand wash Facility from the toilet?	
Section 4: MHM (To be asked from Girl Participants Class 6th and Above)		
4.1	Was there any session on Menstrual hygiene conducted in School recently?	Yes/No
4.2	Has the school deputed any teacher for the same?	Yes/No
4.3	What types of awareness generation steps have been taken in the school on MHM	Printed Booklets/Leaflets Wall Painting/Slogans Special awareness session
4.2	When did it last happen?	Last Week Last Month between 2nd to 4th week Between 1 month to 3 Months Between 3 Months to 1 Year Can't Recall
4.3	Is any stock maintained at school level for sanitary pads?	Yes

2. Tool for Assessment of School Level Intervention - Teachers/Principals/Headmasters (HM)

School Profile		
1	Surveyor Name	
2	District	
3	Block	
4	Name of GP	

5	Name of School		
6	Name of Respondent		
7	Designation of Respondent		
10	School category	Primary/Upper Primary/Secondary/ Higher Secondary	
11	Type of School	All Boys/All Girls/Co-Educational	
12	Number of Students in School	Boys	Girls
13	Number of Teachers in School	Male	Female
14	No. of Toilets in School	Boys	Girls
15	Is there hand Pump/Well/Tube well/Piped water supply in the schools?	Yes/No	
Section 1: Capacity Building/Sensitization			
1.1	Did you receive IEC material/WASH handbook from the project?	Yes/No	
1.2	Did the teacher/s receive the training on WASH?	Yes/No	
1.3	How many teachers are trained in Water, Sanitation and Hygiene Education?	None/One/Some/All	
1.4	Are there any teacher/s trained on Menstrual Hygiene Management?	Yes/No	
1.5	Have the WASH ambassadors been identified in the school?	Yes/No	
1.6	Has the training of WASH ambassadors been completed?	Yes/No	
1.7	Are there regular hygiene sessions conducted in school for children?	Yes/No	
1.8	Are there regular sessions on Menstrual hygiene conducted in School?	Yes/No	
1.9	Are there Hygiene Education resources (Posters, wall paintings, and others) displayed in the school?	Yes/No	
1.10	What IEC activities have been undertaken in the schools (multiple selection)	Wall paintings Posters and Banners Sensitization Workshops Special occasion celebration Others	
1.11	Have the trainings of SMC be completed?	Yes/No	
1.12	What is the frequency of SMC Meeting?	Weekly/Fortnightly/Monthly/Quarterly	
1.13	In the last two SMC meetings, was the attendance more than 75%	Yes/No	
1.14	Was there any orientation/training/Induction organized for SMC on WASH?	Yes/No	
1.15	Is there a water source inside the campus?	Yes/ No	
1.16	Has such events been organized in the school in last 1 year (MHM Day, Global Handwashing Day, World Toilet Day, World Water Day, any other special day)?	Yes/No	

Section 2: Wash Infrastructure Water		
2.1	Does the school have a dedicated source of drinking water?	Yes/No
2.2	What is the Primary Source of water?	Piped Water / Hand Pump/Stored in Tank with no Facilities Inside/ No system inside the school
2.3	Number of Functional Sources of Water	
2.4	What is the Secondary Source of Water? (If the primary source is Non-Functional)	
2.5	How is drinking water stored in school?	No Requirement of Storage Tank/Stainless Steel/Plastic Drum Tank/Stainless Steel/Plastic Drum with lid, ladle/tap Storage Not Available
2.6	Is there a system through which drinking water is treated for quality?	Yes/No
2.7	How is drinking water treated in school?	No System/Chemical Treatment/RO/Purification Systems
2.8	How is the Mid-Day meal Managed?	Cooked in the school, Packaged Food supply
2.9	What is the source of water for cooking under Mid-Day meal?	Piped Water/Hand Pump/Stored in Tank with no Facilities Inside/Brought from Outside
2.10	What is the current system of Wastewater Management in School?	Soak pit/Kitchen Garden/Water Treatment Unit/School Drain Leading to Main Drain/ No Arrangement
Section 3: Wash Infrastructure Toilet (Construction/Operation/Management		
3.1	Has any toilet been constructed in last 3 years?	Yes/No
3.2	If Yes, from where the fund was mobilized	Yes/No
3.3	Are all toilets functional in the schools?	Yes/No
3.4	Has any toilet been constructed for disable/kids?	Yes/No
3.5	Does the school have adequate toilet facilities?	Yes/No
3.6	If not, what is the Gap (Number of Toilets)?	
2.7	Is there an Operation & Maintenance system for maintenance of WASH infrastructure in the school?	Yes/No
3.8	Who all have been trained on Operational and Maintenance systems (multiple selection)?	Students Teachers SMC WASH ambassadors Any Other
3.9	Which cleaning agents are used for school toilets?	Only Water/Any Detergent/Acid/ Phenyl/ Harpic/Others
3.10	How it is purchased?	School's Own Fund, Teachers Contribution/Students Contribution

3.11	Who has been assigned the Responsibility of maintaining the hygiene standards of toilets?	Students/Teachers/WASH Cabinet/Others
3.12	What is the frequency of toilet cleaning in the school?	More than Once Daily Once Daily/Weekly/Fortnightly/No fixed Schedule
3.13	What is the system for managing minor repairs in the toilets in the school?	
3.14	Is there a separate handwashing facility available in the school near the toilet?	Yes/No
3.15	Is there a provision for soaps/detergents/hand wash liquid available at the handwashing facilities?	Yes/No
3.16	How it is regularly purchased?	School's Own Fund, Teachers' Contribution/Students' Contribution
Section 4: Hygiene & MHM		
4.1	Are the cooks and food servers trained on hygiene?	Yes/No
4.2	Who monitors the hygiene quality of MDM?	Students' Committee Teachers SMC Any Other
4.3	What is the frequency of monitoring?	Daily/Weekly/Fortnightly/Monthly/Any Other
4.4	How is the dirty water disposed from the kitchen?	Dump outside/Kitchen garden/Through drain/Through bucket/Through pipe
4.5	Has a system been developed for proper disposal of menstrual waste?	Yes
4.6	Does the school maintain stock of Sanitary Pads inside the school?	Yes/No
Section 5: Qualitative Section		
5.1	What is the System for Monitoring for Cleaning and Maintenance of WASH Infrastructure?	
5.2	Please share in detail the fund management system operation and maintenance of WASH Infrastructure	
5.3	What type of support you get from PRIs?	
5.4	What type of support do you get from Government?	
5.5	What are your observation/concerns over the sustainability?	
5.6	Any Other Issues/Concerns	

3. FGD Discussion Points from SMC

1. Number of SMC Members Participated in the Discussion
2. Name and Post/Role within the SMC

1	a) What are the key roles of SMC in School? b) Can you tell us about the various activities that have been done by the SMC related to WASH? What is your role in WASH Communication as part of SMC? c) What is your role in promoting WASH behaviour at the Community level?
2	a) Have you received any training on WASH? b) If yes, what has been the frequency of receiving the training? c) What have been your learnings from these training? d) To what extent, you think these trainings were enough in enabling you to perform your roles as an SMC Member? e) Are there any gaps in the training and capacity building that you feel should be addressed? If yes, what are these gaps?
3	a) What is your understanding of WASH? b) What is your understanding of the potential reasons that have aided in bringing about a behavioural change among teachers, students at the school? c) What is your understanding of the potential challenges that prevent bringing about a behavioural change among teachers, students at the school? d) What role SMC and school can play in bringing behavioural change at the community level for WASH?
4	a) What do you think should be done for the long-term maintenance of WASH infrastructure created during the last few years? b) What is your opinion on the development of new infrastructure or upgrading the existing infrastructure? c) How funds can be leveraged from PRIs/Government for infrastructure development as well as for maintenance of existing infrastructure? d) How has been your experience of working with the local NGO in terms of cooperation, feedback, monitoring?
5	What do you think is the way forward to make WASH more inclusive and increase the participation from the community?

4. FGD Discussion Tool: FGD Discussion Points from Community

1. Number of Community Members Participated in the Discussion
2. How many of their kids go to school?

1	a) What is your understanding of the importance of WASH in schools? b) Are you aware of the WASH infrastructure created in schools in the last few years? c) How frequently do you visit schools and assess the quality of Infrastructure? d) Do you discuss with kids about the quality of WASH infrastructure in the schools?
2	a) Are you aware of capacity building initiatives taken in the schools under WASH? b) Do you interact with SMC and teachers on these? c) Are these things discussed in common meetings (GP/Village Chaupal, etc.)? d) Do your kids discuss with you about WASH practices which they learn there? e) Can you share some of the learnings?

3	a) Are you aware about the financial cost involved in creation and maintenance of WASH infrastructure? b) Can you contribute it from your side for such costs? c) Can you bring those issues at Gram Panchayat Level? d) Will you discuss with PRI/Political Representatives for more funds for WASH Infrastructure at School Level?
4	a) How often do you visit schools? b) Do you participate in the Parent-Teacher Meetings? c) Have you ever participated in a sanitation related campaign at the school level?
5	a) Share your awareness about Healthy WASH practices b) From where have you learned about this? c) What is the contribution of your child in your change in awareness and practice? d) Can you share some practices which you have learned through SMC/Teachers/your kids etc.

5. Tool for Assessment for Government Functionaries, Education Department Officials

1. Name and Designation of the Government/Education Department of the Official
2. Roles and Responsibility

1	a) Please share some of the initiatives undertaken by your department to improve the WASH Infrastructure in schools. b) Please share some of the initiatives undertaken in convergence with other Government Departments in schools. c) Please share initiatives undertaken by your department or in convergence of with other departments related to operation and maintenance of WASH infrastructures. d) Please share some of the initiatives taken by You/Department for Capacity Building and awareness creation at school level
2	a) Are you aware of WASH infrastructure created in schools in the last few years by other agencies (NGOs/CSOs/CSR/Private Organizations? b) Are you aware of the Intervention taken by waterAid /Partner agencies? Please share in detail. c) Have you visited the schools where infrastructure has been created? How frequently do you visit schools and assess the quality of Infrastructure? d) What is your assessment of the quality of WASH infrastructure and maintenance issues? e) Do you discuss with teachers/Headmaster/SMC about the quality of WASH infrastructure in the schools? f) Are you aware of capacity building initiatives taken in the schools under WASH? g) Have you seen the training modules and other capacity building initiatives under this programme? h) What is your opinion on quality and adequacy of these interventions? i) How these initiatives can be sustained?
3	a) Are you aware about school level financial cost involved in maintenance of WASH infrastructure? b) What type of funding support is provided by your department for creation and operation/maintenance of WASH infrastructure? c) What should be done to make the Operation and Maintenance system sustainable? d) What support can be provided by the Department? e) How can schools leverage that fund? f) Have you ever attended the special events, Global Handwashing Day, World Toilet Day and World Water Day organized at the schools?

3	a) What are your suggestions for improving the convergence between Government and Non-Government/Private Sector for WASH infrastructure creation? b) What are your suggestions for making such partnerships sustainable and long-lasting? c) Any suggestions for making such interventions more effective?

6. Tool for Assessment for NGO Volunteers (Shikshan Mitras)

1. Name and Designation of the NGO Volunteer

1	a) When did you join the project? b) What types of trainings/orientation did you receive while joining/being deputed on this project? c) Please share some of the work undertaken by you to improve the WASH Infrastructure in schools. d) Please share some of the work undertaken by you to improve the maintenance and operation of the WASH Infrastructure in schools. e) Please share some of the work undertaken by you to for capacity building and awareness creation in schools. f) Did you also take initiatives to increase the awareness at the community level? Please share details, if any. g) Did you also work SMCs? Please share in detail. h) Was there any convergence with PRIs? Please share in detail. i) What was your role in fund mobilization for construction/maintenance of the WASH infrastructure? j) Please share about some of the challenges that you faced during the project period.
2	a) How frequently do you visit schools and assess the quality of Infrastructure? b) Please share in detail about your coordination and nature of working School Teachers/HMs. c) What was your role in development of training manuals/materials? d) What was your role in organizing special events related to WASH/MHM at the school level? e) What is your opinion on quality and adequacy of these interventions to create community level impacts? f) How can this be sustained? g) What steps did you take to ensure addressing the O&M issues for the infrastructure? h) What are the key challenges that you can identify with respect to the O&M infrastructure?
3	a) What are your suggestions for bringing sustainability in the Interventions that were made during the project duration? b) Any other suggestions.

7. Tool for Assessment for Project Manager (NGO) - WaterAid India

1. Name and Designation of the WaterAid India Staff

1	a) Please share the process flow of the intervention. b) Please share the strategies related to selection of schools for infrastructure and non-infrastructure related interventions. c) Please share the process followed for fund mobilization for construction/maintenance of the wash infrastructure? d) Please share the monitoring protocols to ensure the quality of the WASH infrastructure developed. e) Which were the key stakeholders while development of Training Materials? f) Was any TNA conducted? Please share details? g) Please share the process and key initiatives related to advocacy/influencing for effective School WASH facilities and for making WASH an integral part of school development plan fund flow mechanism.

	h) How was the experience of working with Government of district/state/block level officials of Govt. of Jharkhand? i) Please share the key challenges faced during this process.
2	a) Which were some of the departments from which funds were mobilized and the process followed for leveraging funds? b) To what extent was the fund mobilization target achieved? c) Please share the challenges faced in fund mobilization. d) What types of systems were developed for effective fund utilization? e) Please share in detail about your/staffs' coordination and nature of engagements with School Teachers/HMs. f) What was your role in organizing special events related to WASH/MHM at the school level? g) What is your opinion on quality and adequacy of these interventions to create community level impacts? h) How can this be sustained? i) What steps did you take to ensure addressing the O&M issues for the infrastructure? j) What are the key challenges that you can identify with respect to O &M infrastructure? k) How was your experience of working on MHM related issues? l) What types of challenges you foresee in ensuring adequate and regular supplies of Sanitary Pads and other materials at school level?
3	a) What are your suggestions for bringing sustainability in the Interventions that were made during the project duration? b) Any Other Suggestions.

8. Tool: Observation Survey for Schools with Infrastructure Intervention

Name of School: GP: Block: District:		
1	What is the main source of drinking water available in the School?	• Piped water supply inside the school • Functional Hand Pump within the campus • Storage Container (Drum/Pitcher etc.) with Lid and Ladle • Storage Container with lid but no ladle • Storage Container without lid and ladle • No Facility within the School Campus
2	Was the Water available during the visit/was the system functional?	• Adequate Water Available in storage container/Functional system for water supply • System available but non-functional at the time of visit • Not Available/Non-Functional within the school campus
3	If no facility, then how much it takes reach to water source and come back to class?	• Less than 5 Minutes • 5 to 10 Minutes • 11 to 20 Minutes • More than 20 Minutes

4	How do you rate the cleanliness of the storage container from 1 to 5? (1 for very dirty while 5 for very clean)	1,2,3,4,5
5	Is there any process system available for ensuring cleanliness/quality of the water supply?	• Permanent Facility available (RO/Water Filter etc)/ • Water is purified before storage/ Water available is fresh and no purification is required • Water is purified as and when required • No system is available, but water quality requires purification
6	Can small kids and the physically challenged students access the water without any hurdle?	Yes/No
7	Is the Toilet/Latrine functional in the School?	Yes/No
8	Are the Toilet Facilities separate for Boys and Girls?	Yes/No
9	Is there a separate toilet for teachers?	Yes/No
10	Is there a functional Urinal in the school?	Yes/No
11	Please rate the overall status of toilet facilities on a scale of 1 to 5 (1 for minimum and 5 for maximum)	1,2,3,4,5
11	What is the water supply source for the latrine?	Piped water inside Need to carry in bucket from outside
12	Is there hand wash facility near the toilet?	Yes/No
13	Is handwashing material available near the hand wash facility?	Yes/No
14	How will you rate availability of handwashing material (Soap/ liquid/detergent)? (1 is for never available while 5 for always available)	1,2,3,4,5
15	How will you rate the cleanliness of toilet on 1 to 5 (1 for very dirty and 5 for very clean)?	1,2,3,4,5
16	Is any stock maintained at school level for sanitary pads for girls?	
17	Are MHM, Sanitation related messages/posters/wall paintings displayed within the School?	

Annexure 3: Findings from Observation Survey

Infrastructure Assessment as per Observation Survey (N=18 schools surveyed)		
Sanitation		
Parameter / Question	**N – Value***	**Percentage (%)**
Schools with Functional Toilets/latrines	11	61
Schools with Functional Urinals	16	88
Schools with separate toilet facilities for Boys/Girls	16	89
Schools with separate toilets for Teachers	3	17
Schools with Hand Wash facility near the toilet	11	61
Availability of Handwashing material near hand wash facility	14	78
NSE logo displayed at any place in school	18	100
MHM		
Schools with sanitary pads available for girls	7	39
Schools with MHM, Sanitation related message /posters/wall painting displayed/within the school	17	94
Water		
Availability of Water during the Observation visit	**N - Value**	**Percentage (%)**
Adequate Water Available in Storage container/Functional System for water supply	12	67
Not Available/Non-Functional within the school campus	2	11
System available but non-functional at the time of visit	4	22
Main Source of drinking water available in the School	**N - Value**	**Percentage (%)**
Functional Hand Pump within the Campus	8	44
No Facility within the School Campus	1	6
Piped water supply inside the School	8	44
Storage Container (Drum/Pitcher etc) with Lid and Ladle	1	6
Is any process system available for ensuring cleanliness /quality of the water supply?	**N - Value**	**Percentage (%)**
No system is available, but water quality requires purification	8	44
Permanent Facility available (RO/Water Filter etc.) Water is purified before storage water available is fresh and no purification is required	6	33
Water is purified as and when required	4	22
What is the Water supply source for the latrine	**N - Value**	**Percentage (%)**
Need to carry in bucket from outside	8	44
Piped water inside	10	56
*N-Value represents value for 'YES' answers		

Annexure 4: Findings from Students Survey

Assessment as per Students Survey (N= 524 students interviewed across 51 intervention schools)		
Sanitation & Hygiene (Toilets, Urinals, Handwashing facilities) (N=524)		
Parameter / Question	**N – Value***	**Percentage (%)**
Does the school have functional toilets/latrines?	505	96
Does the school have separate facilities for Boys/Girls?	515	98
Does the school have separate facilities for Teachers?	223	43
Does the toilet have water supply inside the toilet/latrine?	213	41
Is the Urinal functional in the school?	458	87
Is there a hand wash facility near the toilet?	487	93
Is there a hand washing material available ?	487	93
Rating availability of handwashing material	**N - Value**	**Percentage (%)**
Never available	13	2.5
Not available	24	4.6
Sometimes available	84	16.0
Available	312	59.5
Always available	91	17.4
Frequency of toilet cleaning in school	**N - Value**	**Percentage (%)**
No fixed Schedule	1	0.2
Fortnightly	2	0.4
More than Once Daily	3	0.6
Never	12	2.3
Twice a week	13	2.5
Monthly	21	4.0
Once Daily	228	43.5
Weekly	243	46.4
Rating the cleanliness of toilet	**N - Value**	**Percentage (%)**
Very dirty	7	1.3
Dirty	10	1.9
Neither dirty nor clean	93	17.7
Clean	324	61.8
Very clean	90	17.2
*N-Value represents value for 'YES' answers		

Water (Infrastructure & Usage) (N=524)		
Main source of drinking water provided by the school	**N – Value***	**Percentage (%)**
Piped water supply inside the school	85	16.2
Functional Hand Pump within the campus	246	46.9
Storage Container (Drum/Pitcher etc.)	159	30.3
Storage Container with Lid and Ladle	7	1.3
Storage Container with Lid but no ladle	0	0.0
No Facility within the School Campus	27	5.2
How do you manage drinking water requirement at the school?	**N - Value**	**Percentage (%)**
Carry from Home (Water Bottle)	92	17.6
Use Water Source Available in the School	432	82.4
Source of water used for MDM	**N - Value**	**Percentage (%)**
Piped water supply inside the school	113	21.6
Functional Hand Pump within the campus Storage Container	378	72.1
Brought from outside as no Facility within the School Campus	32	6.1
Not Aware	1	0.2
Rating Quality of drinking water	**N - Value**	**Percentage (%)**
Very dirty	14	2.7
Dirty	16	3.1
Neither dirty nor clean	86	16.4
Clean	292	55.7
Very clean	116	22.1
Rating cleanliness of water storage facility	**N - Value**	**Percentage (%)**
Very dirty	6	1.1
Dirty	8	1.5
Neither dirty nor clean	99	18.9
Clean	296	56.5
Very clean	115	21.9
Rating cleanliness of the water used for Cooking of MDM	**N - Value**	**Percentage (%)**
Very dirty	4	0.8
Dirty	11	2.1
Neither dirty nor clean	94	18.0
Clean	298	56.8
Very clean	117	22.4
*N-Value represents value for 'YES' answers		

Menstrual Health Management (N=177 secondary level girl students interviewed)		
Parameter/Question	**N – Value***	**Percentage (%)**
Availability of sanitary pad stock in school	115	65
Availability of safe place to dispose used pads	84	47.5
Availability of resource person for MHM	105	59.3
Was there any session on Menstrual hygiene conducted in School?	135	76.3
When was the last MHM session conducted?	**N - Value**	**Percentage (%)**
Last Week	32	18.1
Last Month between 2nd to 4th week	20	11.3
Between 1 month to 3 Months	3	1.7
Between 3 Months to 1 Year	8	4.5
Can't Recall	114	64.4
What types of awareness generation steps have been taken in the school on MHM?	**N - Value**	**Percentage (%)**
Printed Booklets-Leaflets	8	4.5
Wall Painting/Slogans	46	26.0
Special awareness sessions	123	69.5
*N-Value represents value for 'YES' answers		

Impact of programme on Habits/Behaviour (N=524)		
Parameter / Question	**N – Value***	**Percentage (%)**
Did you practice hand wash regularly during Covid -19 pandemic for regular hand wash?	523	99.8
Did you encourage your siblings /parents for regular handwashing during this period?	521	99.4
Did you encourage parents for purchasing soaps, hand wash, etc., during this period?	522	99.6
Did the programme learnings help you to maintain better hygiene behaviour during this period?	518	98.9
How much has your learnings helped you to maintain better hygiene behaviour?	**N - Value**	**Percentage (%)**
Very occasionally	0	0.0
Occasionally	3	0.6
Sometimes	81	15.5
Mostly always	345	65.8
Always	95	18.1

Impact of programme on Habits/Behaviour (N=524)				
I wash my hands properly after entering home	**Before Covid: 'N - Value***	**Percentage (%)**	**After Covid: 'N - Value***	**Percentage (%)**
Always	349	66.6	482	92.0
Frequently	146	27.9	39	7.4
Sometimes	28	5.3	3	0.6
Never	1	0.2	0	0.0
I wash my hands properly before having food	**Before Covid: 'N - Value***	**Percentage (%)**	**After Covid: 'N - Value***	**Percentage (%)**
Always	360	68.7	470	89.7
Frequently	146	27.9	49	9.4
Sometimes	17	3.2	4	0.8
Never	1	0.2	1	0.2
My family members/siblings wash their hands	**Before Covid: 'N - Value***	**Percentage (%)**	**After Covid: 'N - Value***	**Percentage (%)**
Always	339	64.7	466	88.9
Frequently	156	29.8	39	7.4
Sometimes	27	5.2	18	3.4
Never	2	0.4	1	0.2

Awareness of students on WASH initiatives in school (N=524)		
Parameter/Question	**N – Value***	**Percentage (%)**
Are you aware of the WASH Cabinet in the School?	419	80.0
Are you aware about the WASH handbook in school?	429	81.9
Has it been shown in your school?	512	97.7
Are you aware about Bal Sabha?	441	84.2
Have you received training on WASH?	515	98.3
Has there been any special occasion celebrated in the school in last 1 Year (World Water Day/World Sanitation Day/ Swachhata Diwas or anything similar)?	473	90.3
Did you participate/observe that event?	452	86.3
Do you Share the WASH Learning at your home with other household members?	508	96.9
Do you Following WASH Practices learnt in school at home?	516	98.4
Has your sharing helped in improvements of WASH habit of other family members?	514	98.1
When did you last Participation in Bal Sabha?	**N – Value***	**Percentage (%)**
Last Week	2	0.5
Between 1 month to 3 Months	7	1.4
Between 3 Months to 1 Year	209	39.9
Can't Recall	305	58.3

Awareness of students on WASH initiatives in school (N=524)		
What is the Frequency of Training/Refresher Training?	**N - Value**	**Percentage (%)**
Daily	62	11.8
Weekly	132	25.2
Monthly	118	22.5
Not fixed	212	40.4
When did was last training/ induction/orientation provided in school?	**N - Value***	**Percentage (%)**
Last Week	4	0.8
Last Month between 2nd to 4th week	1	0.2
Between 1 month to 3 Months	7	1.4
Between 3 Months to 1 Year	231	44.1
Can't Recall	281	53.6
Learning from WASH has improved my WASH behaviour	**N - Value***	**Percentage (%)**
No change	0	0.0
Not Important change	10	1.9
Somewhat Important Change	156	29.7
Important Change	264	50.3
Very Important Change	95	18.1
I will keep continuing following healthy WASH Practices learnt in future	**N - Value***	**Percentage (%)**
Totally disagree	0	0.0
Disagree	4	0.8
May or may not be agree	125	23.9
Agree	289	55.1
Totally agree	106	20.2
I will discourage others from following unhealthy WASH Practices	**N - Value***	**Percentage (%)**
Totally disagree	1	0.2
Disagree	6	1.2
May or may not be agree	122	23.3
Agree	301	57.5
Totally agree	94	17.9
Learning from WASH has improved WASH behaviour of all household members	**N - Value***	**Percentage (%)**
No change	2	0.4
Not Important change	11	2.1
Somewhat Important Change	122	23.3
Important Change	290	55.3
Very Important Change	99	18.8

Annexure 5: Findings from Teachers' Survey

Assessment as per Teachers' Survey (N= 51 teachers interviewed across 51 intervention schools)		
1. WASH facilities (Toilets, Urinals, Handwashing, Water facilities) (N=51)		
Parameter/Question	**N – Value***	**Percentage (%)**
Are all toilets functional in the schools?	48	94
Does the school have adequate toilet facilities?	41	80
Are there separate handwashing facilities available in the school near the toilet	37	73
Is there provision of soaps/detergents/hand wash liquid available at the handwashing facilities?	50	97
Is there an Operation & Maintenance system for maintenance of WASH infrastructure in the school?	51	100
Is there hand Pump/Well/Tube well/Piped water supply in the schools?	48	94.1
How is drinking water treated in school?	**N – Value***	**Percentage (%)**
No System	28	55
Chemical Treatment	2	4
RO	1	2
Purification Systems	20	39
Who has been assigned the Responsibility of maintain the hygiene standards of the toilet?	**N - Value**	**Percentage (%)**
Students	5	10
Teachers	18	35
WASH Cabinet	27	53
Others	1	2
What is the frequency of toilet cleaning in the school?	**N - Value**	**Percentage (%)**
More than Once Daily	1	2
Once Daily	28	55
Weekly	15	29
Fortnightly	6	12
No fixed Schedule	1	2
Which cleaning agents are used for school toilets?	**N - Value**	**Percentage (%)**
Phenyl	1	2
Harpic	49	96
Others	1	2

How it is purchased?	N – Value*	Percentage (%)
School's Own Fund	51	100
Teachers' Contribution	0	0
What is the system for managing minor repairs in the toilets in the school? From where are the funds managed?	**N – Value***	**Percentage (%)**
Govt. Fund	1	2
Minor repairs	3	6
No repairs	3	6
SMC and Teacher	1	2
SMC Fund	6	12
Teacher	1	2
Vikas Fund	35	69
Vikas Fund, Village support	1	2.0
2. Menstrual Health Management		
Parameter/Question	**N – Value***	**Percentage (%)**
Does the school maintain stock of Sanitary Pads inside the school?	35	69.4
Are there any teacher/s trained on Menstrual Hygiene Management?	29	56.9
Are there regular sessions on Menstrual hygiene conducted in School?	32	62.7
Has a system been developed for proper disposal of menstrual waste?	**N – Value***	**Percentage (%)**
Dispose on land	1	2.0
Dustbin	7	13.7
Incinerator	12	23.5
No arrangement	29	56.9
Yes	2	3.9
3. Mid-Day Meal Practices		
Parameter/Question	**N – Value***	**Percentage (%)**
Are the cooks and food servers trained on hygiene?	47	92.2
Who monitors the hygiene quality of MDM?	**N – Value***	**Percentage (%)**
Students' Committee	10	19.6
Teachers	30	58.8
SMC	11	21.6

How is the dirty water disposed from the kitchen?	N – Value*	Percentage (%)
Dump outside	5	9.8
Kitchen garden	1	2.0
No arrangement	4	7.8
No dirty water	1	2.0
Soak pit	4	7.8
Through bucket	3	5.9
Through drain	26	51.0
Through pipe	7	13.7
4. Capacity Building - WASH practices		
Parameter/Question	**N – Value***	**Percentage (%)**
Did you receive IEC material /WASH handbook from the project?	46	90.2
Did the teacher/s receive training on WASH?	47	92.2
Have the WASH ambassadors been identified in the school?	41	80.4
Has the training of WASH ambassadors been completed?	39	76.5
Are there regular hygiene sessions conducted in school for children?	50	98.0
Are there Hygiene Education resources (Posters, wall paintings, and others) displayed in the school?	49	96.1
How many teachers are trained in Water, Sanitation and Hygiene Education?	**N – Value***	**Percentage (%)**
Wall Painting	40	77.6
Posters and Banners	41	79.6
Sensitization Workshops	5	10.2
Special occasion celebration	8	16.3
Others	1	2.0
What IEC activities are undertaken in the schools	**N – Value***	**Percentage (%)**
Wall Painting	40	77.6
Posters and Banners	41	79.6
Sensitization Workshops	5	10.2
Special occasion celebration	8	16.3
Others	1	2.0

5. SMC Activities		
Parameter/Question	**N – Value***	**Percentage (%)**
Have the trainings of SMC be completed?	46	90.2
Has there been any orientation/training/induction organized for SMC on WASH?	47	92.2
Did the school participate in awareness creation exercise during COVID-19 at Community Level?	46	90.2
Was help of SMC also taken under the process of awareness creation at Community Level?	42	82.4
In the last two SMC meetings, was the attendance of more than 75%	35	68.6
What is the frequency of SMC Meetings?	**N – Value***	**Percentage (%)**
Fortnightly	2	3.9
Monthly	46	90.2
Quarterly	3	5.9
What was observation on handwashing practices of community during the COVID-19 pandemic?	**N – Value***	**Percentage (%)**
Always	34	66.7
Frequently	10	19.6
Sometimes	4	7.8
Never	3	5.9

Annexure 6: Water Quality Test Reports

The following water quality reports were analysed to assess the drinking water quality in the sampled schools. This was done to check for improvements in water quality as compared to baseline values.

District Level Water Testing Laboratory ,Dumka, Jharkhand

	TEST ANALYSIS REPORT	Doc No.: DMK-DLWTL-QP-4-F19 Issue No.: 01 Revision No.: 00 Date : 01.02.2019	NABL Certificate No. – TC - 8873

Issued to : M S JAMJURI PANCHAYAT-DAKSHINJOLE , RAMESHWAR DUMKA	Sample Code: - 21/03/23/GWF-29 Report ID : - RM/03/29 Date of Issue: -31/03/2021 Customer Reference No. : RM/03/29

Sample Particulars	Details of Sampling
Sample Name/Description: - GROUND WATER Sample Quantity :- 1L Sample pkg. Condition : - Satisfactory	Date of sampling : ---NA Sample Receive date: 23/03/2021 Sampling Protocol: - --- Sample collected by: - CUSTOMER Sampling Location: - ---

Test Result

Test started on: - 24/03/2021 Test completed on :- 25/03/2021

Sl. No.	Tested Parameter	Unit	Method	Results
1	pH	-	APHA 23rd Ed.2017-4500-H B. (Electrometric method)	6.54
2	Turbidity	NTU max	APHA 23rd Ed.2017-2130 B. (Nephelometric method)	0.4
3	Alkalinity as $CaCO_3$	mg/L max	APHA 23rd Ed.2017-2320 B. (Titration method)	82
4	Calcium as (Ca)	mg/L max	APHA 23rd Ed.2017-3500 Ca B. (EDTA Titration method)	22.4
5	Magnesium as Mg	mg/L max	APHA 23rd Ed.2017-3500-Mg B. (Calculation method)	14.4
6	Hardness as $CaCO_3$	mg/L max	APHA 23rd Ed.2017-2340 C. (EDTA Titration method)	116
7	Fluoride as (F)	mg/L max	APHA 23rd Ed.2017-4500 F- C. (Ion selective electrode method)	0.30

Remarks:-

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- Tested Sample shall be retained up to Seven Days from the date of analysis of the sample.
- All disputes are subjected to the Ranchi Jurisdiction.
- Sampling process is not done by the laboratory.
- NOTE:- BDL = Below Detection Limit

for

Authorised Signatory

District Level Water Testing Laboratory
Dumka, Jharkhand

District Level Water Testing Laboratory ,Dumka, Jharkhand

	TEST ANALYSIS REPORT	Doc No.: DMK-DLWTL-QP-4-F19 Issue No.: 01 Revision No.: 00 Date : 01-02-2019	NABL Certificate No. – TL - 8873

Issued to : M S KARIKADAR PANCHAYAT-TALDANGAL , RANISHWAR DUMKA	Sample Code: - 21/03/23/GWCF-28 Report ID : - RN/03/28 Date of Issue: -31/03/2021 Customer Reference No. : RN/03/28

Sample Particulars	Details of Sampling
Sample Name/Description: - GROUND WATER Sample Quantity : - 1L Sample pkg. Condition : - Satisfactory	Date of sampling : —NA Sample Receive date: 23/03/2021 Sampling Protocol: : — Sample collected by: - CUSTOMER Sampling Location: - —

Test Result

Test started on: - 24/03/2021 Test completed on :- 25/03/2021

Sl. No.	Tested Parameter	Unit	Method	Results
1	pH		APHA 23rd Ed.2017 4500-H+ B. (Electrometric method)	6.79
2	Turbidity	NTU max	APHA 23rd Ed.2017-2130 B. (Nephelometric method)	2.6
3	Alkalinity as $CaCO_3$	mg/L max	APHA 23rd Ed.2017-2320 B. (Titration method)	274
4	Calcium as (Ca)	mg/L max	APHA 23rd Ed.2017-3500 Ca B. (EDTA Titration method)	64
5	Magnesium as Mg	mg/L max	APHA 23rd Ed.2017-3500-Mg B. (Calculation method)	30.72
6	Hardness as $CaCO_3$	mg/L max	APHA 23rd Ed.2017-2340 C. (EDTA Titration method)	288
7	Fluoride as (F)	mg/L max	APHA 23rd Ed.2017-4500 F- C. (Ion selective electrode method)	0.31

Remarks:-

Specific contractual notes: -

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Dumka, Jharkhand

District Level Water Testing Laboratory ,Dumka, Jharkhand

	TEST ANALYSIS REPORT	Doc No.: DMK-DLWTL-QP-4-F19 Issue No.: 01 Revision No.: 00 Date : 01-02-2019	NABL Certificate No. - TC - 8873

Issued to :- P S PARSIMLA PANCHAYAT-PARSIMLA , DUMKA

Sample Code :- 24/03/21/GWA-27
Report ID :- DU/03/27
Date of Issue: -31/03/2021
Customer Reference No. :- DU/03/27

Sample Particulars

Sample Name/Description: - GROUND WATER
Sample Quantity : - 1L
Sample pkg. Condition : - Satisfactory

Details of Sampling

Date of sampling : —NA
Sample Receive date: 23/03/2021
Sampling Protocol) : —
Sample collected by : - CUSTOMER
Sampling Location: - —

Test Result

Test started on:- 24/03/2021 Test completed on :- 25/03/2021

Sl. No.	Tested Parameter	Unit	Method	Results
1	pH	-	APHA 23rd Ed.2017-4500-H+ B, (Electrometric method)	6.77
2	Turbidity	NTU max	APHA 23rd Ed.2017-2130 B, (Nephelometric method)	2.3
3	Alkalinity as $CaCO_3$	mgL max	APHA 23rd Ed.2017-2320 B, (Titration method)	106
4	Calcium as (Ca)	mg/L max	APHA 23rd Ed.2017-3500-Ca B, (EDTA Titration method)	57.8
5	Magnesium as Mg	mg/L max	APHA 23rd Ed.2017-3500-Mg B, (Calculation method)	19.2
6	Hardness as $CaCO_3$	mg/L max	APHA 23rd Ed.2017-2340 C, (EDTA Titration method)	224
7	Fluoride as (F)	mg/L max	APHA 23rd Ed.2017-4500 F- C, (Ion selective electrode method)	0.21

Remarks:-
Specific contractual notes: -

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- Sampling process is not done by the laboratory.
- NOTE:- BDL/ Below Detection Limit.

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District Level Water Testing Laboratory
Dumka, Jharkhand

District Level Water Testing Laboratory ,Dumka, Jharkhand

	TEST ANALYSIS REPORT	Doc No.: DMK-DLWTL-QF-4-F19 Issue No.: 01 Revision No.: 00 Date : 01-02-2019	Certificate No. – TC - 8873

Issued to : M S KULONGO PANCHAYAT-DARWARPUR , DUMKA	Sample Code:- 21/03/23/DWA-26 Report ID :- DU/03/26 Date of Issue: -31/03/2021 Customer Reference No. :- DU/03/26

Sample Particulars	Details of Sampling
Sample Name/Description: - GROUND WATER Sample Quantity :- 1L Sample pkg. Condition :- Satisfactory	Date of sampling : ---NA Sample Receive date: 22/03/2021 Sampling Protocol:- --- Sample collected by:- CUSTOMER Sampling Location:- ---

Test Result

Test started on:- 24/03/2021 Test completed on :- 25/03/2021

Sl. No.	Tested Parameter	Unit	Method	Results
1	pH	-	APHA 23rd Ed 2017-4500 H+ B, (Electrometric method)	7.24
2	Turbidity	NTU max	APHA 23rd Ed.2017-2130 B, (Nephelometric method)	0.2
3	Alkalinity as $CaCO_3$	mg/L max	APHA 23rd Ed.2017-2320 B, (Titration method)	252
4	Calcium as (Ca)	mg/L max	APHA 23rd Ed.2017-3500-Ca B, (EDTA Titration method)	46.4
5	Magnesium as Mg	mg/L max	APHA 23rd Ed.2017-3500-Mg B, (Calculation method)	24
6	Hardness as $CaCO_3$	mg/L max	APHA 23rd Ed.2017-2340 C, (EDTA Titration method)	216
7	Fluoride as (F)	mg/L max	APHA 23rd Ed.2017-4500 F- C, (Ion selective electrode method)	0.73

Remarks :-

Specific contractual notes :-

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- Sampling process is not done by this laboratory.
- NOTE:- MDL=Method Detection Limit.

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District Level Water Testing Laboratory ,Dumka, Jharkhand

	TEST ANALYSIS REPORT	Doc No.: DMK-DLWTL-OP-4-F19 Issue No.: 01 Revision No.:00 Date : 01-07-2019	NABL Certificate No. - TC - 8873

Issued to : K G B V SHIKARIPARA PANCHAYAT- BARBESIFA , SHIKARIPARA DUMKA	Sample Code: - 21/03/23/GWW-31 Report ID : - SK/03/31 Date of Issue: -31/03/2021 Customer Reference No. : SK/03/31
Sample Particulars Sample Name/Description : - GROUND WATER Sample Quantity : - 1L Sample pkg. Condition : - Satisfactory	**Details of Sampling** Date of sampling : — NA Sample Receive date: 23/03/2021 Sampling Protocol : — Sample collected by: - CUSTOMER Sampling Location: - —

Test Result

Test started on :- 24/03/2021 | Test completed on :- 25/03/2021

Sl. No.	Tested Parameter	Unit	Method	Results
1	pH	—	APHA 23rd Ed.2017-4500-H+ B, (Electrometric method)	6.70
2	Turbidity	NTU max	APHA 23rd Ed.2017-2130 B, (Nephelometric method)	0.2
3	Alkalinity as $CaCO_3$	mg/L max	APHA 23rd Ed.2017-2320 B (Titration method)	108
4	Calcium as (Ca)	mg/L max	APHA 23rd Ed.2017-3500-Ca B, (EDTA Titration method)	24
5	Magnesium as Mg	mg/L max	APHA 23rd Ed.2017-3500-Mg B, (Calculation method)	17.26
6	Hardness as $CaCO_3$	mg/L max	APHA 23rd Ed.2017 2340 C, EDTA Titration method)	132
7	Fluoride as (F)	mg/L max	APHA 23rd Ed.2017-4500 F- C, (Ion selective electrode method)	0.78

Remarks:-
Specific conventional notes: -

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- Sampling process is not done by this laboratory.
- NOTE:- BDL=Below Detection Limit .

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	TEST ANALYSIS REPORT	DOC No.: DMK-DLWTL-QP-4-F19 Issue No.: 01 Revision No.: 00 Date : 01-02-2019	Certificate No. – TC - 8873

Issued to : U M S RAMNATHPUR , PAKUR	Sample Code:- 21/04/01/GW/PAK-06 Report ID :- PAK/04/06 Date of Issue: -05/04/2021 Customer Reference No. : PAK/04/06

Sample Particulars	Details of Sampling
Sample Name/Description :- GROUND WATER Sample Quantity :- 1L Sample pkg. Condition :- Satisfactory	Date of sampling :—NA Sample Receive date: 21/04/2021 Sampling Protocol: - Sample collected by:- CUSTOMER Sampling Location: -

Test Result

Test completed on :- 01/04/2021

Sl. No.	Tested Parameter	Unit	Method	Results
1	pH		APHA 23rd Ed 2017-4500-H+ B, (Electrometric method)	7.73
2	Turbidity	NTU max	APHA 23rd Ed.2017-2130 B, (Nephelometric method)	0.6
3	Alkalinity as $CaCO_3$	mg/L max	APHA 23rd Ed.2017-2320 B, (Titration method)	92
4	Calcium as (Ca)	mg/L max	APHA 23rd Ed.2017-3500 Ca B, (EDTA Titration method)	44.8
5	Magnesium as Mg	mg/L max	APHA 23rd Ed 2017-3500-Mg B (Calculation method)	23.04
6	Hardness as $CaCO_3$	mg/L max	APHA 23rd Ed 2017-2340 C, (EDTA Titration method)	208
7	Fluoride as (F)	mg/L max	APHA 23rd Ed 2017-4500 F- C, (Ion selective electrode method)	0.74

Remarks:-

Specific comments and notes:-

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Dumka, Jharkhand

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	TEST ANALYSIS REPORT	Doc No.: DMK-DLWTL-QP-4-F19 Issue No.: 01 Revision No.: 00 Date : 01-02-2019	Certificate No.:- TC - 8873

Issued to : U M S KANJHARA , PAKUR	Sample Code:- 21/04/01/GW/PAK-03 Report ID :- PAK/04/03 Date of Issue:- 05/04/2021 Customer Reference No. :- PAK/04/03

Sample Particulars	Details of Sampling
Sample Name/Description:- GROUND WATER Sample Quantity :- 1L Sample pkg. Condition :- Satisfactory	Date of sampling :---NA Sample Receive date:- 01/04/2021 Sampling Protocol:- --- Sample collected by:- CUSTOMER Sampling Location:- ---

Test Result

Test started on:- 01/04/2021 Test completed on :- 01/04/2021

Sl. No.	Tested Parameter	Unit	Method	Result
1	pH		APHA 23rd Ed.2017-4500 H+ B, (Electrometric method)	7.99
2	Turbidity	NTU max	APHA 23rd Ed.2017-2130 B, (Nephelometric method)	0.5
3	Alkalinity as $CaCO_3$	mg/L max	APHA 23rd Ed.2017-2320 B, (Titration method)	44
4	Calcium as (Ca)	mg/L max	APHA 23rd Ed.2017-3500 Ca B, (EDTA Titration method)	81.6
5	Magnesium as Mg	mg/L max	APHA 23rd Ed.2017-3500-Mg B, (Calculation method)	24.96
6	Hardness As $CaCO_3$	mg/L max	APHA 23rd Ed.2017-2340 C, (EDTA Titration method)	308
7	Fluoride as (F)	mg/L max	APHA 23rd Ed.2017-4500 F- C, (Ion selective electrode method)	0.41

Remarks:-

Specific conditions, if any:-

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	TEST ANALYSIS REPORT	Doc No.: DMK-DLWTL-QP-4-F19 Issue No.: 01 Revision No.: 00 Date : 01-02-2019	Certificate No. – TC - 8873

Issued to : U M S SARSABAD , PAKUR	Sample Code:- 21/04/01/GW/PAK-02 Report ID :- PAK/04/02 Date of Issue: -05/04/2021 Customer Reference No. : PAK/04/02
Sample Particulars	**Details of Sampling**
Sample Name/Description:- GROUND WATER Sample Quantity :-1L Sample pkg. Condition :- Satisfactory	Date of sampling : —NA Sample Receive date: 01/04/2021 Sampling Protocol:- ----- Sample collected by: -CUSTOMER Sampling Location: - ----

Test Result

Test started on: - 01/04/2021 | Test completed on :- 05/04/2021

Sl. No.	Tested Parameter	Unit	Method	Results
1	pH	-	APHA 23rd Ed.2017-4500-H+ B. (Electrometric method)	7.52
2	Turbidity	NTU max	APHA 23rd Ed.2017-2130 B. (Nephelometric method)	0.1
3	Alkalinity as $CaCO_3$	mg/L max	APHA 23rd Ed.2017-2320 B. (Titration method)	54
4	Calcium as (Ca)	mg/L max	APHA 23rd Ed.2017-3500 Ca B. (EDTA Titration method)	8
5	Magnesium as Mg	mg/L max	APHA 23rd Ed.2017-3500-Mg B. (Calculation method)	1.92
6	Hardness as $CaCO_3$	mg/L max	APHA 23rd Ed.2017-2340 C. (EDTA Titration method)	28
7	Fluoride as (F)	mg/L max	APHA 23rd Ed.2017-4500 F⁻ C. (Ion selective electrode method)	0.39

Remarks:-

Specific contractual notes: -

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District Level Water Testing Laboratory
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	TEST ANALYSIS REPORT	Doc No.: DMK-DLWTL-QP-4-F19 Issue No.: 01 Revision No.: 00 Date : 01-02-2019	Certificate No. – TC - 8873

Issued to : U M S HETHBANDHA , PAKUR	Sample Code:- 21/04/01/GW/PAK-01 Report ID :- PAK/04/01 Date of Issue: -05/04/2021 Customer Reference No. : PAK/04/01

Sample Particulars	Details of Sampling
Sample Name/Description: - GROUND WATER Sample Quantity :- 1L Sample pkg. Condition :- Satisfactory	Date of sampling :---NA Sample Receive date: 01/04/2021 Sampling Protocol: - --- Sample collected by:- CUSTOMER Sampling Location: - -----

Test Result

Test started on: - 01/04/2021 | Test completed on :- 01/04/2021

Sl. No.	Tested Parameter	Unit	Method	Results
1	pH	-	APHA 23rd Ed 2017 4500 H+ B. (Electrometric method)	7.68
2	Turbidity	NTU max	APHA 23rd Ed 2017 2130 B. (Nephelometric method)	0.7
3	Alkalinity as $CaCO_3$	mg/L max	APHA 23rd Ed 2017 2320 B. (Titration method)	10
4	Calcium as (Ca)	mg/L max	APHA 23rd Ed 2017 3500 Ca B. (EDTA Titration method)	16
5	Magnesium as Mg	mg/L max	APHA 23rd Ed 2017 3500 Mg B. (Calculation method)	2.88
6	Hardness as $CaCO_3$	mg/L max	APHA 23rd Ed 2017 2340 C. (EDTA Titration method)	52
		mg/L max	APHA 23rd Ed 2017 4500 F- C. (Ion selective	1.2

Remarks:-

Specific conditions / notes: -

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Annexure 7: Achievements of Outputs

Sr. No.	Objectives	Indicators	Year 1		Year 2		Year 3		Total	
			Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
	Outcomes									
1	WASH becomes an integral part of school development plan fund flow mechanism									
2	Effective engagement of SMCs, Teachers and children in monitoring and maintenance of WASH services	Number of SMCs Active	104	104	104	104	104	104	312	312
3	Behavioral change in adopting hygiene practices at school and community level.	Number of children in the project schools gaining access to functional toilets	9100	14332	9100	11039	9100	17538	27300	42909
		Number of children in the project schools having access to safe drinking water	9100	14332	9100	11039	9100	14829	27300	40200
		Number of children in the project schools practicing hand washing at critical times	9000	14332	9100	11039	9100	17538	27200	42909
		Number of Girls Student having awareness about Menstrual Hygiene Management	1500	3193	1500	2271	1500	1217	4500	6681
	Outputs									
1.1	Funds leveraged from Government for O&M of WASH Facilities in target	Estimated Leverage from Government (Rs)	600000	615200	600000	3132405	600000	7680000	1800000	11627605
2.1	Capacity of SMCs, Teachers and Students built on WASH knowledge									
3.1	Hygiene and MHM promoted at school and community level									
	Inputs/Activities									
1.1.1	Prepare School Development Plans integrating O&M of WASH Facilities in target schools and submit to the Government	Number of school development plans prepared and submitted to Block Education Department	104	104	104	104	104	104	312	312
1.1.2	Advocacy with the department of Education and Literacy on allocation of funds for O&M									
2.1.1.	Train SMCs on Hygiene, O&M, School Dev Plan	No of SMC's Trained	104	104	104	104	104	104	312	312
2.1.2	Train Teachers on WASH	No of Teachers Trained	600	630	600	856	600	629	1800	2114
2.1.3	Train Students on WASH	WASH ambassadors Awarded	10	14	10	25	10	155	30	194
		No of WASH Cabinet Students Trained	1040	5111	1040	2127	1040	2826	3120	10064
2.1.4	Undertake repairs/restoration of WASH Facilities	Number of Schools gaining access to drinking water	19	19	19	19	19	19	57	57
		Number school water points tested ensured safe water supply	104	104	104	104	104	104	312	312
		Number of Schools with access to Sanitation	104	104	104	104	104	104	312	312
		Models Toilets for Children with Special Needs	2	7	2	5	2	4	6	16
3.1.1	Develop appropriate IEC materials on Hygiene and MHM	IEC Materials Produced (Nos)	1	1	1	1	1	1	3	3
		Wash in School Handbook(No of Schools)	104	104	104	104	104	104	312	312
3.1.2	Training of Teachers and Students on MHM									
3.1.3	Conduct Hygiene Events/Days at schools	Regular Hygiene Sessions in School (No of Sessions)	312	1522	312	463	312	522	936	2507
3.1.4	Install/Restore MHM Facilities in schools									
3.1.5	Promote WASH and MHM in Communities	Number of communities reached with WASH messages	104	104	104	104	104	104	312	312
		Number of people with enhanced awareness on WASH	52000	54497	52000	15569	52000	24740	156000	94806

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Name of Current Document:
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NSE Foundation

Impact Assessment of
Community-Led Solutions for

GIRLS' EDUCATION PROGRAMME

MARCH 2022

Contents

This programme during its span of two years covered **4,000 students** across **478 schools** in three blocks of **Ajmer district, namely, Jawaja, Bhinay** and **Silora.**

Foreword

NSE Foundation drives the achievement of envisioned CSR outcomes aligned with the United Nations' and Government of India's agenda for creating a sustainable ecosystem intrinsically beneficial for communities. This is accomplished by fostering partnerships with mission driven organisations that have a strong local presence and participation. The programs are designed through a deep dive into societal issues to outline the goals that brought transformational results in these communities. Our efforts have been targeted at bringing in a sustainable change through participatory programs that engage communities and beneficiaries.

NSE Foundation is pleased to present the impact assessment report of the education project "Community-Led Solutions for Girls' Education Programme".

This report presents the learnings and outcomes of the programme which aimed at improving learning outcomes and strengthen the bridge between girl students and educational opportunities. It was undertaken from 2017-18 to 2018-19. This programme during its span of two years covered 4,000 students across 478 schools in three blocks of Ajmer district, namely, Jawaja, Bhinay and Silora. This programme, had three broad components which aimed at improving learning outcomes, increasing enrolment and retention and imparting life skills trainings. The key stakeholders of the programme were teachers, headmaster, GKP trainers, parents, Team Balika, SMC members, PRI members and life skills trainers.

None of the programme objectives have been achieved singlehandedly. NSE Foundation expresses its sincere gratitude to all the stakeholders who have extended support in implementation of the project.

Abbreviations used

Cr.	Crore
CSR	Corporate Social Responsibility
EG	Educate Girls
GKP	Gyan Ka Pitara
HDI	Human Development Index
NHM	National Health Mission
OOSG	Out-of-School Girls
PRI	Panchayat Raj Institution
RBI	Reserve Bank of India
SMC	School Management Committee
WASH	Water, Sanitation and Hygiene

Notice to the reader

This report is with restrictive circulation and has been prepared exclusively for NSE Foundation as part of the impact assessment study for Community-Led Solutions for Girls' Education Programme in Ajmer, Rajasthan. It should not be used, reproduced or circulated for any other purpose, in whole or in part, without prior written consent if used or referred for any other inference/study as an input or reference document. Grant Thornton Bharat LLP would only give such consent after full consideration of circumstances.

The information collected for this study is through field visits, meeting with various stakeholders, information shared by respondents and backend data provided by NSE Foundation. We have relied on the information shared by these sources. The scope of work here does not constitute an audit or due diligence of the information shared, hence information received from the various sources was believed to be accurate.

This report should not be considered as an expression of opinion on any form of assurance on the financial statements of or on its financials or other information.

The recommendations provided as part of the assessment exercise may be implemented after an analysis of prioritization. The decision to implement the recommendations is the responsibility of the management of NSE Foundation. Field visits were conducted in cognizance with NSE Foundation, the implementing partner and field teams with prior acceptance on approach, methodology, coverage plan, survey tools and indicators.

Owing to communication gap and the inherent human instinct to report everything as above-expectations and glitch-free, it was challenging to make interviewees understand the purpose of the survey and ensure that correct data accordingly gathered.

Grant Thornton Bharat LLP accepts no liability in relation to use by any third party of the analysis, findings or recommendations contained in this report. The report relies on responses provided by stakeholders. We have not independently verified the accuracy or completeness of information and available documents provided by the implementing partner or stakeholders covered or any other party involved, and results/references drawn basis the same.

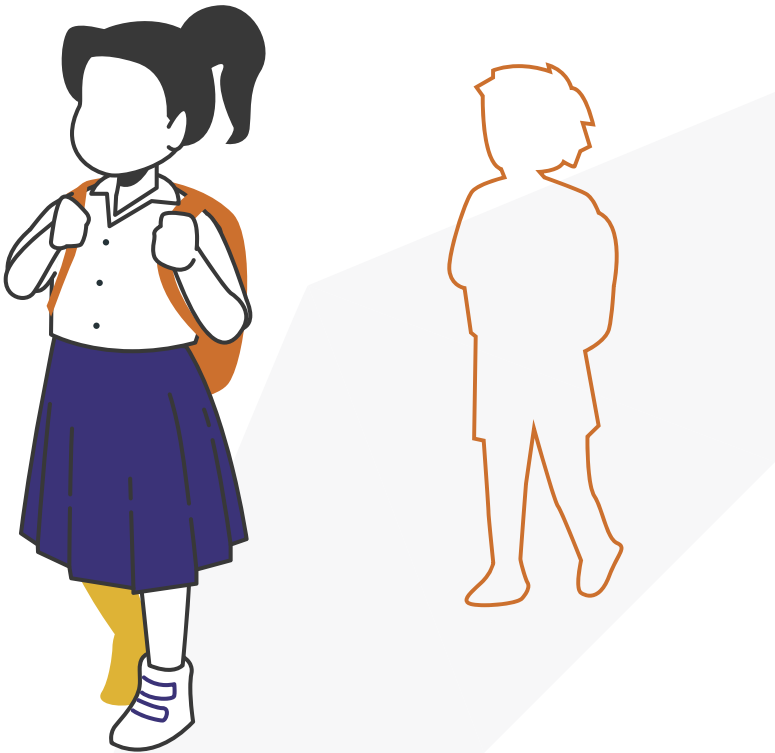
Limitations of the study

01 The study was conducted post-Covid, resulting in apprehension among parents towards sending their children for regular classes. This led to lower attendance and thus a variance between planned and actual sample size.

02 Since the schools were closed for an extension period due to Covid, there appeared to be a learning gap in students, especially the first-generation learners. This also led to the assessment relying on students' recall.

03 Interactions with the members of the Bal Sabha were limited as girls were enrolled in different senior secondary schools for higher education. A few headmasters in these schools were reluctant to send students for interaction during class hours.

04 Limited photos of the beneficiaries were clicked as most of the respondents were not wearing masks and Covid appropriate behaviour was neglected in the schools.



Executive Summary

NSE Foundation partnered with Educate Girls (EG) in 2017, to implement a project on girls' education through community-led solutions in 463 villages of Silora, Jawaja and Bhinay blocks in Ajmer, Rajasthan, through the financial support of NSE Foundation. The programme aimed at reducing social barriers and increasing the enrolment of girls into mainstream education.

The programme was implemented in three blocks of Ajmer namely Jawaja, Silora and Bhinay. The programme included three components- improved learning outcomes, enrolment and retention and life skills training.

01 IMPROVED LEARNING OUTCOME

Learning level assessment was conducted with boys and girls of class 3, 4 and 5 with a view to improve the learning levels in English, Hindi, and Math. Though the proposed programme primarily focused on girl education; the intervention also included boys.

02 ENROLMENT AND RETENTION

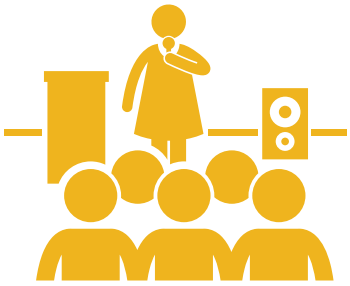
To improve enrolment in schools, EG conducted door-to-door communication, community meetings and communication with school authorities.

03 LIFE SKILLS TRAINING

Basic life skills training was conducted with girl students in each school, wherein a group called Bal Sabha was formed involving 13 girls from class 6, 7 and 8.

The programme worked towards improving the quality of education provided to children in schools and reducing dropout rates in the three blocks of Ajmer district. The programme not only focused on improving enrolment but also worked on maintaining the retention rate of the enrolled students and further on improving the learning level outcomes of students.

The present assessment study was executed to evaluate the outcomes and impact of the programme on the key stakeholders. The objectives of the assessment were to gauge the effectiveness of the programme, role and engagement of the local community and stakeholders, and documenting their perceptions and feedback. The approach adopted for the evaluation included five key principles namely relevance, effectiveness, efficiency, impact, and sustainability. Further, a mixed methods research design was adopted for the data collection and included both quantitative survey and qualitative interviews with the key stakeholders.



75%

students achieved **Grade A** in **English** whereas the same was

61% and 50%

for **Hindi** and **Math** respectively.

The key (03) interventions of the programme were identified through discussions with NSE Foundation and Educate Girls, and a review of the programme documents, stakeholders, and respondents of the programme.

These included –

- Improving learning outcomes;
- Enhancing enrolment and retention; and
- Life skills development.

The stakeholders were further divided into school level, programme level and community level. Key areas of enquiry for each stakeholder were developed, these include awareness of the importance of education, socioeconomic profile, behaviour patterns, knowledge level and the effectiveness of the programme. These areas of enquiry were further used to develop the stakeholder specific questionnaires.

A distinct sampling approach was followed for each of the programme interventions. Ten (10) schools were randomly selected where all three interventions were undertaken. For learning outcomes, students who were in class 3 and 4 in 2017–18 and subsequently in class 4 and 5 in 2018–19 were selected as the sample group as this group were covered under the programme for two years.

For life skills, half of the members of the Bal Sabha in the sample schools were selected. For retention rate, enrolment registers were reviewed in the sample schools and five (05) additional schools. The planned sample size could not be covered entirely due to low attendance in schools and some former Bal Sabha members were now enrolled in senior secondary schools. Discussions and interviews were conducted with the available stakeholders.

Following are some of the key findings from the survey and interactions.

- Students have better understanding in Hindi and Math as compared to English. For English, students were unable to form words while reading sentences. Respondents were also more confident while attempting Hindi and Math tests as compared to English language. 30% students achieved Grade A in English whereas the same was 61% and 50% for Hindi and Math respectively. Further, girls showed a higher level of understanding and fluency in all the three subjects across the three (03) blocks.

- The enrolment rate is higher for class 1 students as compared to the other classes. An average retention rate of 97% and 98% was recorded for 2017- 18 and 2018–19 respectively. Students and parents shared that the collaborative efforts of EG and school authorities led to the awareness around the importance of mainstream education which positively affected the enrolment and retention rate. Before the intervention, more than half of the parents had not enrolled their children in school; people lacked the requisite awareness. Post intervention, every child has been enrolled in school.

- Students who were a part of the Bal Sabha, appreciated the initiative undertaken because it provided them with a positive outlook towards higher education. Respondents agreed that being part of the life skill training group helped them channel their knowledge and skills and become better versions of themselves. The students were confident and vocal about their aspirations and demonstrated high awareness of their internal and external environment.

- The activities conducted by EG indicated a cohesive partnership and involvement of all stakeholders to enable a change in the mindset of the community members. Discussion with various stakeholders clearly categorize the role of EG as instrumental in bringing a positive change in the outlook of students, parents, and the community at large.

Assessment of the programme indicated positive results on all parameters. The programme was relevant for its intended beneficiaries as it has been successful in bridging the gap between formal education and girl students. The programme has been effective in increasing enrolment of girl students and making the community accountable towards their education and retention in schools. 97% retention has been reported for enrolled students against the objective of 85% retention. The programme, through life skills training, has also resulted in a change in the mindset of young girls towards higher education. Additionally, the trainings have led to an increase in self-consciousness, group dynamics and awareness about their internal and external environment among the girls. The robust convergence of stakeholders in the programme has enabled attainment of programme objectives. This convergence has been the key to sustain the ethos of the programme. Going forward, NSE Foundation may consider supporting similar programmes that enable holistic learning avenues, especially for girl students.

01 Background and Introduction

1.1 About NSE

National Stock Exchange of India Limited (NSE) is the world's largest derivatives exchange by trading volume (contracts) as per the statistics maintained by Futures Industry Association (FIA) for calendar year 2020. NSE is ranked 4th in the world in the cash equities by number of trades as per the statistics maintained by the World Federation of Exchanges (WFE) for calendar year 2020. NSE was the first exchange in India to implement electronic or screen-based trading. It began operations in 1994 and is ranked as the largest stock exchange in India in terms of total and average daily turnover for equity shares every year since 1995, based on SEBI data. NSE has a fully integrated business model comprising exchange listings, trading services, clearing and settlement services, indices, market data feeds, technology solutions and financial education offerings. NSE also oversees compliance by trading and clearing members with the rules and regulations of the exchange. NSE is a pioneer in technology and ensures the reliability and performance of its systems through a culture of innovation and investment in technology.

> "NSE Foundation partners with the government, local community-based agencies, multilateral bodies, and academic institutions, to inspire, empower and sustain the aspirations of the communities it serves.

1.2 About NSE Foundation

NSE Group, through NSE Foundation, the implementing arm of its CSR initiatives, endeavours to improve the quality of life in the most disadvantaged communities. In doing so, it plants the seeds of transformation and inclusion.

NSE Foundation partners with the government, local community-based agencies, multilateral bodies, and academic institutions, to inspire, empower and sustain the aspirations of the communities it serves. Its projects plug gaps in the social, economic, and educational development in some of the most inaccessible geographies where it works. From a larger standpoint, it also contributes to the fulfilment of the United Nations' Sustainable Development Goals. NSE Foundation with a focus on primary education, elder care, sanitation and safe drinking water, health and nutrition, skill development and environmental sustainability has a pan India developmental footprint across 13 States, with 78 on-going projects touching more than 12 Lakh lives.

1.3 About the partner – Education Girls

Educate Girls (EG) is a not-for-profit organization working in the domain of education with special focus on girls' education. EG was established in the year 2007 with a view to strengthen the bridge between girl students and educational opportunities. EG aligns strongly with the Right to Education wherein the primary focus is to improve the status of children education.

EG programmes are operational in three states viz. Rajasthan, Madhya Pradesh and Uttar Pradesh covering more than 18,000 villages. EG's interventions are largely implemented in existing Government schools wherein a pool of community volunteers helps identify, enrol, and retain out of schoolgirls. EG's interventions also include improving the numeracy and literacy learning level of both boys and girls.

EG's efforts include liaison at community level to increase awareness among parents. This is to ensure community ownership towards the objective of creating and maintaining an inclusive and conducive learning environment.

EG's reach

- Interventions in more than **26,000 schools**
- **22 educationally** backward districts
- Network of **14,000+ community volunteers**
- Improved learning outcomes of more than **1.3 Mn. students**

1.4 About the programme

Rationale

State of Rajasthan

Rajasthan is a state where tradition and glory meet in the midst of colours. It is located in the north-western region of India. It is the largest state in the Republic of India and forms a corridor between the northern and the western states in the country. Its geographical area of 3.42 lakh sq.km1 is the largest and is fuelled by diversified economy having agriculture, mining, and tourism. According to the 2011 census of India, Rajasthan has a total population of 68,548,437. The largest city by population is Jaipur, Jodhpur, Kota, Bikaner, Ajmer, and Udaipur. Approximately, 13.5% of population constitutes of tribal communities.

District of Ajmer

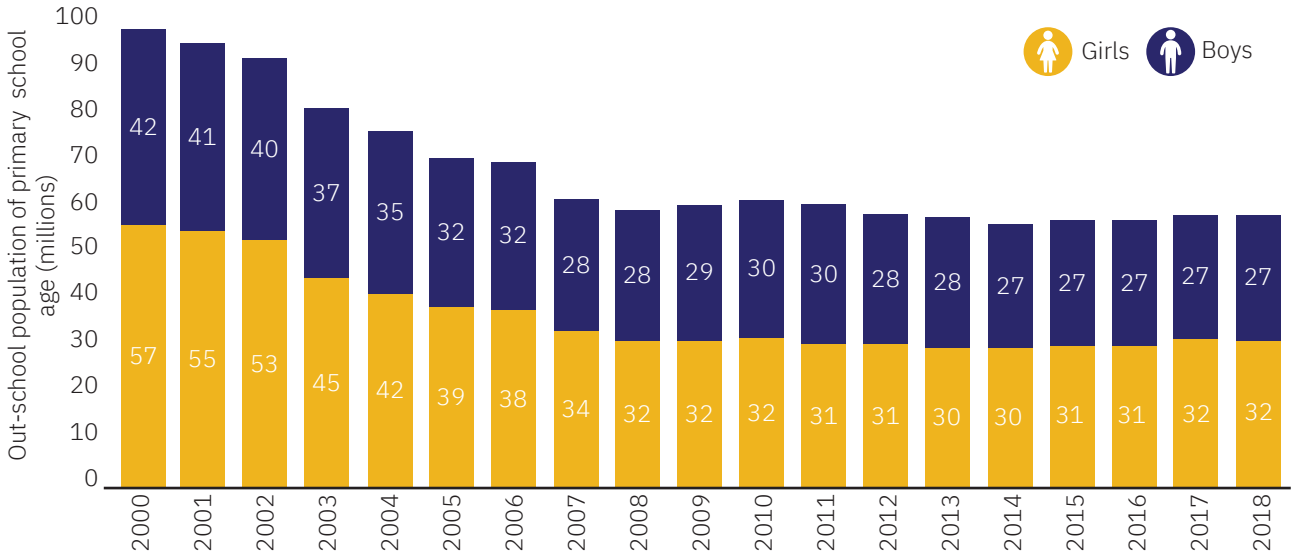
The MSME development institute report2 states, Ajmer district is situated at the centre of Rajasthan with a total geographical area of 8.50 lac hectares for land utilization purpose. The district has no natural division, its boundaries are territorial and composed of four sub-division. Ajmer forms the Northern part of the district. Industrial development in Ajmer district indicates utilization of available resources with 8 medium scale industries and 17,663 small scale and cottage industries.

Status of education in India

Human Development Index, which considers life expectancy, education and gross national income, ranks India at 131 out of 189 countries.3 A deeper analysis of education as a component to calculate HDI considers mean years of schooling and expected years of schooling. Elementary education in particular experiences challenges such as poor infrastructure, customs, traditional practices, resource crisis, etc. The country continues to work in the field of education but challenges still exist

1 https://www.rajras.in/rajasthan/
2 http://dcmsme.gov.in/old/dips/DIPR_Ajmer.pdf
3 https://www.financialexpress.com/lifestyle/health/india-ranks-131-on-human-development-index-2020-all-you-need-to-know/2155827/#:~:text=Human%20Development%20Report%202020%3A%20Out,the%20medium%20human%20development%20category.

Figure 1: Out-of-school of primary school age 2000-2018



As per the UNICEF Gender and Education report 2020,4 there are more out-of-school girls than boys at the primary school age, globally.

A study by United Nations Children's Fund states that there are nearly 6 million out-of-school children in India (SRI-IMRB Survey 2009–2014). The report also highlights that out of 100 students, 29% drop out before completing elementary education. Also, the highest concentration of these dropouts is in the states of Uttar Pradesh, Rajasthan, Bihar, Madhya Pradesh, Odisha and West Bengal.5

The Human Development Report 2020 also states that the Gender Development Index value of India was 0.820, with the value for female at 0.573 and male at 0.699. The contrasting values depict the true picture of the drawback faced by females across India.

Girls face hinderance in accessing education with instances of dropouts at the secondary of higher education level.

Table 1: Level-wise enrolment in school and higher education

Level	All Categories (in '000)
	Female
Primary (I–V)	62,769
Upper Primary (VI–VIII)	32,035
Elementary (I–VIII)	94,804
Secondary (IX–X)	17,477
I–X	1,12,281
Senior Secondary (XI–XII)	10,406
I–XII	1,22,688
Undergraduate	10,815
Postgraduate	1,631
MPhil	19
Ph.D.	34
PG Diploma	51
Diploma	624
Certificate	95
Integrated	32
Higher Education - Total	13,301

The above table presents the steady decline in the number of enrolments of girls as they move up from primary to secondary education.

4 https://data.unicef.org/topic/gender/gender-disparities-in-education/
5 https://www.unicef.org/india/what-we-do/education#:~:text=Large%20numbers%20of%20out%20of,are%20the%20most%20marginalized%20children.

Table 2: Literacy rate in India (Census)

	Person %	Male %	Female %
2001	64.84	75.26	53.67
2011	72.99	80.89	64.64

Rural	Person %	Male %	Female %
2001	58.74	70.7	46.13
2011	67.77	77.15	57.93

Urban	Person %	Male %	Female %
2001	79.92	86.27	72.86
2011	84.11	88.76	79.11

As per the Reserve Bank of India (RBI) publication (2020–21),6 Rajasthan has the third-lowest literacy rate at 66.11%. Further, National Health Mission (NHM) report 2019 states that about 5% of Rajasthan's population constitutes girls in the age group of 14 to 18 years.7 As per DISE in 2008–09,8 approximately 1.05 million girls were enrolled in class 1. But, in 2016-17, the number of girls enrolled in class 10 was only 5,30,000. This proves that half the girl's drop out before secondary education.

These data points indicate deficiencies in the education system which aggravates challenges such as sociocultural dynamics and age-old traditions. These challenges are most prevalent in the rural areas where residents lack awareness about the importance of education and have very limited income. Therefore, the female literacy rate is much lower at the grass-root level in the country.

Literacy rate in Ajmer

According to the official census 2011, Ajmer has a population of 25,83,052. Out of the total population, 1,526,673 people are literate. The average literacy rate in Ajmer is 69.3% while that of male and female is 82.4% and 55.7%, respectively. Evidently, there is a considerable literacy gap between the men and the women.

Dropout rate among adolescents

The school dropout rate among the adolescent girls is 63.5%. Out of the total Ajmer population as per 2011 census, 40.08 percent lives in the urban regions of district and 59.92% population of Ajmer districts lives in the rural areas or villages. Average literacy rate in urban Ajmer is 83.88%, of which literacy for male and female is 90.85% and 76.50% literates, respectively. In rural Ajmer, gender-wise, male and female literacy stood at 76.45% and 41.29%, respectively.

6 https://m.rbi.org.in/scripts/PublicationsView.aspx?id=19995
7 https://nhm.gov.in/New_Updates_2018/Report_Population_Projection_2019.pdf
8 http://udise.in/Front_publications.htm

Table 3: Census of India 2011

	Girls	Boys
Population	13,24,085	2,81,81,670
Literacy	55.68 %	82.44 %
Age group (0–6)	1,80,656	2,00,511
Number of literates	6,00,405	9,26,268

Dropout rate among girls

The Annual Status of Education Report says more than 20.1% girls across all ages dropped out of schools, leading to a sharp decline in enrolment into institutes of higher education. It also recorded a gross enrolment ratio of 21.7% which is lesser than the national average of 25.8%.

Today, Ajmer's 30 government schools have at least one smart classroom with 4G broadband, wi-fi, air conditioning, projectors, power backup, printers and scanners. These smart classrooms relate to a technology, school management software, and operate their functions online (attendance, homework, reports, administration, etc.). In the next 10 years, the gross enrolment ratio in higher education will be 30% as compared to the present ratio of 12%.

The Annual Status of Education Report says more than

20.1%

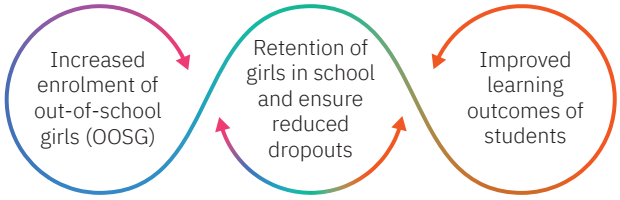
girls across all ages dropped out of schools,

Overview

To improve the quality of education and reduce dropouts, NSE Foundation, in partnership with EG, implemented Community-Led Solutions for Girls' Education Programme in Rajasthan. The programme was implemented across 478 schools in the three blocks of Ajmer district, namely, Jawaja, Bhinay and Silora.

The programme, apart from improving the enrolment, also focused on retention of the students. The objectives also included improving learning outcomes of students (both boys and girls) in class 3, 4 and 5.

Key objectives of the programme:



Programme overview

The programme focused on improving the learning levels of students in class 3, 4 and 5. Furthermore, the programme aimed at facilitating enrolment of girl students into mainstream education. The prime focus was to break the social barriers that disrupt regularity in education and strengthen the bridge between students and educational opportunities. The programme model brought together a range of stakeholders to enable smooth planning and implementation of activities. The programme had

For this purpose, a curriculum – Gyan Ka Pitara (GKP) was used, which focused on child-friendly content to enable easy learning and retention. GKP also included worksheets for students to practice, which resulted in better retention of topics.

three broad components which aimed at improving learning outcomes, increasing enrolment, and imparting life skills training.

Improving learning outcomes – Under this initiative, EG supported multiple schools in providing innovative solutions to gain knowledge and increase interest. It was a 24-week long activity-based pedagogy, which included subject and level-wise learning kits and was implemented through different games and activities conducted in school by GKP trainers. The activity was imperative for students to cope with the basics of language and numeracy by inculcating games and activities as part of their life and understanding in its simplest form. The activity primarily focused on the students of class 3, 4 and 5 and the classes were conducted by working with the school administration and teachers. This component considered both boys and girls and focused on improving learning levels in numeracy and literacy.

Enrolment and retention – The programme identified children, especially girls, who have never attended school and enrolled them. EG leveraged from its team of local volunteers, also known as Team Balika, who helped in identification of OOSGs in the programme area. With the use of various primary and secondary sources, Team Balika reached out to these girls and their parents with an aim to persuade them and increase their awareness on the importance of mainstream education through door-to-door mobilization and community meetings. Post enrolment, the focus was on retention through creation of a conducive learning environment. The school management committee (SMC) in each school was trained on their roles and responsibilities. The SMC's key roles included preparation of school improvement plans to enable a favourable learning environment.

Life skills – Life skills training was conducted through formation of a Bal Sabha (Girls Council), which included 13 girls from class 6 to 8 in each school. The Bal Sabha was formed to provide training on communication, leadership, public speaking, empathy and problem solving.

Table 4: Summary of programme components

Component	Objective	Resources/Enablers
Improved learning outcomes	To improve learning outcomes of boys and girls studying in class 3 to 5	• Gyan ka Pitara • Trainers
Enrolment and retention	To identify and enrol OOSGs (6-14 years) into mainstream education. To retain the enrolled students	• Team Balika • Knowledge of local socio-cultural dynamics • Primary and secondary sources of data • Strengthening of SMCs
Life skills	To impart leadership and other life skills among girl students	• Formation of Bal Sabha Life skills training

1.5 About the study

Grant Thornton Bharat LLP was appointed by NSE Foundation to conduct an impact assessment study of Community-Led Solutions for Girls' Education Programme. The assessment framework to conduct the study was developed on aspects of relevance, effectiveness, efficiency, impact, and sustainability. Key areas of enquiry were developed for each stakeholder group to obtain a holistic understanding of the programme results. The study was executed by interviewing the beneficiaries of the programme to gauge an overall understanding of the outcomes and impact. The assessment included discussions with stakeholders to document their perception and feedback on the modality of the programme, outcomes, and impact.

The key objectives of the assessment:

- Understanding effectiveness of programme components, viz. enrolment, retention, and improved learning outcomes
- Understanding the role and engagement of local community and stakeholders in planning and implementation
- Assessing the change in attitudes and behaviours of stakeholders with respect to governance and ownership, participation, improved knowledge about importance of education, etc.
- Documenting component-specific case studies
- Evaluate the outcomes and impact of the programme through analysis of data collected from beneficiaries and stakeholders

The study aimed to understand the overall process of the programme through analysis of the data collected and further corroborating it with inferences from stakeholder discussions, while evaluating the outcomes and impact of the programme.

02 Approach and methodology

2.1 Approach for the assessment

The assessment framework was implemented to assess the impact of the programme on the target beneficiaries. The framework includes five principles on the basis of which a social programme is assessed. The five principles are relevance, effectiveness, efficiency, impact, and sustainability. To gather data for each of these principles, stakeholders were mapped enabling a robust data collection, analysis, and documentation of findings. Mixed methods research was used for the purpose of data collection through quantitative and qualitative tools.

Table 5: Overview of principles

Principles for evaluation	Brief on the principles
Relevance	• To what extent are the objectives of the programme suitable as per the need of the area? • Are the activities and outputs of the programme consistent with the overall goal and the attainment of its objectives? • Are the activities and outputs consistent with the intended impacts and effects?
Effectiveness	• To what extent were the objectives achieved/likely to be achieved? • What were the major factors influencing the achievement or non-achievement of the objectives?
Efficiency	• Were the activities cost-efficient? • Has the process been documented thoroughly, with controls and checks in place? • Were the objectives achieved on time? • Was the programme/project implemented in the most efficient way compared to alternatives?
Impact	• What has happened as a result of the programme? • What real difference has the activity made to the beneficiaries? • How many people have been affected?
Sustainability	• To what extent did the benefits of a programme/project continue after donor funding ceased? • What were the major factors that influenced the achievement or non-achievement of sustainability of the programme/project?

To develop the approach and methodology, the study relied on the Theory of Change. The Theory of Change maps the overall process of the study through identification of goal or impact of the programme and subsequently map the backward for finding requirements.

Table 6: Theory of change of the programme

Problem	Activities	Outputs	Outcomes	Impact
• Increased dropouts due to financial crisis, lack of awareness and socio-cultural dynamics • Lower retention recorded due to lack of motivation • Learning levels not at par	• Identification and training of community volunteers • Community visits to increase awareness regarding mainstream education • Usage of Gyan ka Pitara tool • Meetings with SMCs • Formation of Bal Sabha • Imparting life skills training	• No. of OOSGs enrolled • No. of community meetings held along with door-to-door surveys • No. of students benefitted using GKP tool • No. of SMCs formed/ restructured • No. of Bal Sabhas formed • No. of girls benefitting from life skills training	• Improved enrolment in schools and decrease in dropouts • Improved learning outcomes of students • Better functioning of SMCs leading to effective ownership and governance • Increased motivation among girl students to attend school regularly	• Improved perception towards education girl students • Improved learning levels among students • Additional impact • Improved outlook of parents and larger community towards girl education • Behavioural change among girl students based on life skills training • Positive perception of parents for higher education among girls • Positive reinforcement and motivation for the next generation of girls • Positive and inclusive environment in schools for girls

2.2 Methodology for the study

The methodology adopted for the study was based on both the qualitative and quantitative indicators spread over three stages.

Table 7: Methodology of the study

Stage I Planning	Stage II Data collection	Stage III Reporting
← Quality assurance across all stages →		
• Inception meeting to understand project context, objectives, and approach • Review of documents • Identification of stakeholders and areas of enquiry • Development of tools for undertaking data collection	• Ascertain the sample size • Field survey and discussions with individuals and groups • Talks with relevant stakeholders for anecdotes	• Collate information and analysis sample • On verifying sample analysis, conduct detailed analysis across locations and stakeholders • Prepare draft narrative report, discuss report findings, results and recommendations with project team and obtain relevant inputs for final report • Prepare and issue final report

Stage 1 – Planning

01 INCEPTION MEETING

The inception meeting was held with NSE Foundation and Educate Girls with an objective to understand the nuances of the programme and gain insights into the modality, beneficiary groups and stakeholders of the programme. Post discussion, an information request log was shared with EG listing out the required programme documents and reports such as annual reports, monitoring reports and past assessment reports.

02 DESK REVIEW

The documents received from EG were reviewed to gain a deeper understanding of the programme components, performance indicators and stakeholder groups. This step also included secondary research to obtain an understanding of the location in terms of relevant statistics related to education. The understanding gained from review of documents further helped in mapping the respondents and the key areas of enquiry.

03 IDENTIFICATION OF RESPONDENTS AND STAKEHOLDERS

On the basis of inception meeting and review of documents shared by EG, the stakeholders of the programme were identified and categorized as mentioned:

Table 8: **Component-wise respondents identified**

Programme component	Primary beneficiaries	Other important stakeholders
Improved learning outcomes	Boys and girls	Teacher/principal/ head master GKP trainers
Enrolment and retention	Girl students	Parents Principal/headmaster Team Balika SMC members PRI members
Life skills	Girl students	Life skills trainers Bal Sabha members

Further, for better understanding, the stakeholders are divided based on either school or the larger community, as shown in the table below:

Table 9: **Relevant stakeholders**

School-based stakeholders	Community-based stakeholders	Stakeholders in implementation
1. Students (boys/girls) 2. Bal Sabha members 3. Principals/ teachers 4. SMC members	1. Parents 2. Panchayat Raj Institution (PRI) members	1. Team Balika 2. GKP trainers 3. Life skills trainers

Areas of enquiry

The key areas of enquiry include questions on awareness regarding the importance of education, effectiveness of the process, socioeconomic profile, change in behaviour patterns, knowledge levels, etc. The table below presents stakeholder-wise areas of enquiry.

Table 10: Key areas of enquiry

School stakeholders	Areas of enquiry	Key questions
Girl students	Awareness levels	• About the programme • Relevance of the programme • About the trainers/programme members
	Feedback on programme process	• Training content • Discussions with the programme team on challenges and requirements
	Change in knowledge	• Pre and post knowledge levels w.r.t. importance of school education, life skills, personal hygiene, and sanitation
	Change in behaviour	• Changes in behaviour patterns w.r.t. decision making, voicing opinions
Students (learning level outcomes)	Knowledge level	• Pre and post analysis of learning levels • Retention of topics
Principals/ headmasters	Feedback about the programme activities	• Training process • Training content • Effectiveness of trainers • Role of programme team • Monitoring of activities
	Roles and responsibilities	• Engagement in the overall process and governance
	Pre and post conditions	• Pre and post status w.r.t. enrolment, retention, performance and activeness of SMC
SMC members	Roles and responsibilities	• Day-to-day activities • Planning and implementation of SIPs • Governance on aspect of SIP
	Enablers and challenges	• Challenges in implementing SIP • Underlying motivations for engagement • Internal and external issues
	Feedback on the training	• Effectiveness of the trainers • General and particular topics • Relevance of the training
	Pre and post conditions	• Change in overall infrastructure post the programme • Change in governance mechanism • Sustainability of the intervention

Programme level stakeholders	Areas of enquiry	Key questions
Team Balika	Roles and responsibilities	• Day-to-day activities • Management of programme activities • Team structure • Monitoring and reporting of activities • Dialogue with school administration
	Enablers and challenges in the overall process	• Enrolment and retention • Reasons for dropouts • Process and programme level challenges
	Socioeconomic dynamics of the location w.r.t. education	• Trends in education w.r.t. awareness, investments and willingness • Perception of parents and stakeholders • Infrastructure adequacy
	Pre and post conditions	• Perception among girl students • Performance of students • Behavioural and knowledge changes
Life skills trainers	Training content	• User friendly content • Benefits of the content • Usage and application of learning
	Interest levels	• Change in interest to attend schools • Retention as a result of life skills training • Challenges in the overall implementation of training
	Knowledge and behaviour changes (pre and post)	• Change in knowledge levels w.r.t. individual rights, hygiene, sanitation • Change in behaviour w.r.t. public speaking, decision making, taking leadership positions, personal hygiene and sanitation
GKP trainers	Training content	• User friendly content • Availability of resources – worksheets, kits for students
	Interest levels	• Change in interest level of students in the subjects • Change in retention • Change in enrolment • Change in students' engagement
	Pre and post conditions	• Change in academic performance • Change in learning levels

Community level stakeholders	Areas of enquiry	Key questions
Parents	Socioeconomic conditions	• Economic conditions • Educational resources for children • Challenges in the process of enrolment/retention
	Feedback on the programme activities	• Process of enrolment • Degree of involvement in the process • Dialogue with the programme team on students' performance and challenges
	Change in outlook towards education	• Awareness regarding school education for girls • Perception towards importance of conducive learning environment • Roles and responsibilities as part of SMC

Community level stakeholders	Areas of enquiry	Key questions
PRI members	Intervention awareness	• Knowledge about the programme activities • Awareness on the objectives of the programme activities
	Roles and responsibilities	• Involvement in the programme • Involvement in the implementation of the programme activities
	Feedback on the programme	• Change in the enrolment of girls in the area • Impact created by the programme

Apart from the beneficiaries and stakeholders, the study included interviews with NSE Foundation and Educate Girls. The table below summarizes the areas of enquiry for the key stakeholders.

Table 11: Areas of enquiry for key stakeholders

NSE Foundation	Educate Girls
• Rationale • Geography selection • Programme achievements • Selection of implementation partner • Role in the overall implementation of the programme	• Programme implementation • Enablers and challenges • Team structure • Intended vs. actual impact • Process of monitoring and reporting

04 TOOLS FOR THE STUDY

The study involved mixed methods of data collection that included both qualitative and quantitative data collection tools and were developed based on the areas of enquiry. Quantitative interactions were conducted through close-ended questions (with few open-ended questions) whereas qualitative questionnaires were undertaken through in-depth interviews and focus group discussions with stakeholders of the programme.

- **Improved learning outcomes:** The data collection through a quantitative survey. This consists of assessment of students' understanding and knowledge of basic English, Hindi, and Math topics. Tools were developed independently based on our experience and understanding of learning assessment and secondary review of the Annual Status of Education Report (ASER) model. The objective was to ascertain the grade appropriateness of the students and analyse whether the students were able to respond and solve grade appropriate content and questions. Basis the class of the students, tools were designed keeping in mind an increasing level of difficulty in each section. For instance, in English the tool started with easier questions on alphabet identification and moved on to paragraph reading. Qualitative interactions were conducted with the students and also with the GKP trainers to understand the modality of implementation.
- **Enrolment and retention:** Verification of enrolment and retention were done on the basis of available enrolment records in the selected schools. Qualitative interactions were undertaken with the stakeholders to document relevant case studies.
- **Life skills:** The Bal Sabha members were the primary stakeholders and were interviewed using a life skills assessment tool. Since the training provided was of beginner level, the assessment focused on basic questions. Interactions with the life skills trainers were also conducted to understand the process of implementation, challenges, and enablers.

Table 11: Stakeholder interaction matrix

Component	Stakeholders	Quantitative	Qualitative	
		Assessment	Focus group discussion	In-depth interview
Improved learning outcomes	Students	✓		
	GKP trainers			✓
Enrolment and retention	Students (enrolment check)	✓		✓
	Parents			✓
	SMC members		✓	
	School staff/principal			✓
	PRI members		✓	
Life skills	Students		✓	
	Trainers			✓

Stage 2 – Data collection

05 SAMPLING PLAN

The table below presents the sampling plan for the data collection separated by the components of the programme. A total of 10 schools were selected from three blocks to conduct the data collection.

For qualitative data collection, separate focus group discussions (FGDs) were conducted with students, parents, and SMC members. In-depth interviews were conducted with PRI members and principals/school authorities.

To cover the sample size, an additional total of 6 schools were identified in Silora, Jawaja and Bhinay. These schools were visited, and the total number of enrolment and retention were verified.

Table 12: Sample plan

Component	No. of students		No. of case studies	Remarks
	Quantitative	Qualitative		
Improved learning outcomes	370 learning level assessment	-	-	• Cover students of class 3 and 4 of 2017–18 batch and with students of class 4 and 5 of 2018-19 batch • Class 5 students of 2017–18 and class 3 students of 2018–19 were excluded as they were covered for only one year, under the programme. Also, class 5 students of 2017–18 had moved to senior secondary schools
Enrolment and retention	Retention status of 100% students enrolled in the schools Actual number dependent on the students enrolled in sample schools	100 (FGD)	~10	• Since most enrolments were done for class 1 (currently in class 4), quantitative assessment were avoided • Interactions with parents and school administration • Relevant case studies were captured • Retention was ascertained through a check of school registers
Life skills	-	70 (group activity)	~10	• At least half of the members of the Bal Sabha through FGDs • Relevant case studies (students) were also captured

06 DATA COLLECTION

The review team visited the schools and conducted interviews with beneficiaries of the programme. The team also conducted discussions, such as focus group discussions, in-depth interviews with students, parents, SMC members, principals and PRI members as identified for each programme component.

Improved learning outcomes - The intervention intended to capture results from the students who at present were in 7th and 8th class as these group of students were part of the intervention for two years during the sessions 2017–18 and 2018–19. Further, due to the lack of students present in school, the students from 6th class who were part of the intervention for only one year were also included in the assessment.

To assess the learning levels, an assessment document was prepared for the students and were given grades from A to E according to the assessment attempted. The table given below represents the grading system adopted during the field assessment test for all schools.

Table 13: Grading guidelines for language assessment

Grade	Criteria	Remarks
E	• Recognizes >=5 letters	Will move to the next level
D	• Recognizes >=5 letters • Recognizes >=5 words	Will move to the next level
C	• Recognizes >=5 letters • Recognizes >=5 words • Recognizes >=3 sentences	Will move to the next level
B	• Recognizes >=5 letters • Recognizes >=5 words • Makes less than = 3 mistakes (words) in sentences • Makes more than = 6 mistakes in story	Assessment ends
A	• Recognizes >=5 letters • Recognizes >=5 words • Makes less than = 3 mistakes in sentences • Able to read complete story	Assessment ends

Table 14: Grading guidelines for numeracy assessment

Grade	Criteria	Remarks
E	• Recognizes >= 5 numbers from 1-9	Will move to the next level
D	• Recognizes >= 5 numbers from 1-9 • Recognizes >= 5 numbers from 10-99	Will move to the next level
C	• Recognizes >= 5 number from 10-99 • Able to add/subtract >= 3 sums	Will move to the next level
B	• Recognizes >=5 number from 10-99 • Able to add/subtract >=3 sums • Not able to Multiply/divide >= 3 sums	Assessment ends
A	• Recognizes >=5 number from 10-99 • Able to add/subtract >= 3 sums • Able to Multiply/divide >= 3 sums	Assessment ends

Enrolment and retention - A total of 16 schools (10 + 6) were visited to check the number of enrolments in each class during the year 2017–2018. For checking retention, registers for the year 2018–2019 were verified to identify the number of students who attempted annual examination and had moved to higher grades.

Life skills - During the field visit, students who were part of the Bal Sabha were engaged in the discussions. The challenge faced during the assessment was to bring the members of the Bal Sabha from their respective senior secondary schools during the school hours.

Stage 3 – Reporting

07 ANALYSIS OF DATA

The review team visited the schools and conducted interviews with beneficiaries of the programme. The team also conducted discussions, such as focus group discussions, in-depth interviews with students, parents, SMC members, principals and PRI members as identified for each programme component.

08 DRAFT AND SUBSEQUENT FINAL REPORT

A draft report was prepared to incorporate the study findings and to share with NSE Foundation for feedback. Thereafter, a comprehensive report was to be prepared to include detailed findings, feedback of the stakeholders and recommendations.

03 Coverage

3.1 Data collection undertaken

This section elaborates the status of data collection undertaken through quantitative and qualitative interviews. The table below presents the sample covered through quantitative survey under the study.

Table 15: Planned vs. actual sample covered

Intervention	Unit	Planned	Actual
Learning level assessment**	No. of students	370	250
Enrolment and retention check	No. of schools No. of students	10 + 5 *100% enrolment	10 + 6 306
Life skills	No. of girl students	70	41

*~5% repetition of students in learning level assessment and enrolment and retention check.

**During data collection, some questions were difficult to administer. Therefore, the impact assessment questionnaire was updated in line with the end line questionnaire.

Planned sample – 20%

Actual sample covered – 15%

The school dropout rate among the adolescent girls is

63.5%

Out of the total Ajmer population as per 2011 census,

40.08%

lives in the urban regions of district and

59.92%

population of Ajmer districts lives in the rural areas or villages

Table 16: Stakeholders sample covered

Stakeholder	No. of respondents
Headmaster	10
Parents	40
SMC members	30
PRI members	4

Note: 100% enrolment and retention check were planned in 15 schools. However, during the study, 16 schools with high enrolments were considered to ensure adequate sample coverage.

Qualitative interactions were conducted with headmasters, parents, SMC members and PRI members in the schools. The table below details the status of qualitative discussions.

As presented in the tables above, the planned sample could not be covered entirely. During data collection, the assessment team faced specific challenges. First, post pandemic, the parents were sceptical about sending their children back to school, which resulted in poor attendance and hence lesser students were available for interactions. Majority of the Bal Sabha members are currently enrolled in different senior secondary schools, which made it challenging to mobilize and conduct FGDs with them. The school officials were hesitant to allow these students attend discussions during class hours as they did not want their learning hours to get affected. Also, inadequate number of parents were available due to their engagement in daily chores/farming etc. during the time of the visits.

3.2 Respondent profile

This section presents respondents' profile who were part of the learning level outcome, enrolment and retention and life skill assessments undertaken in the schools.

Distribution of students involved in the learning level assessment across three blocks were different. In Jawaja, 138 respondents were identified and included in the assessment, 66 in Bhinay and 46 in Silora.

Figure 2: Distribution of students in each block (n =250)

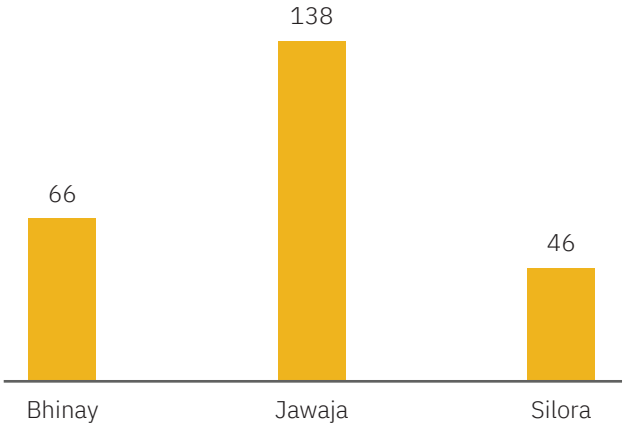


Figure 3: Distribution of students in each school (n = 250)

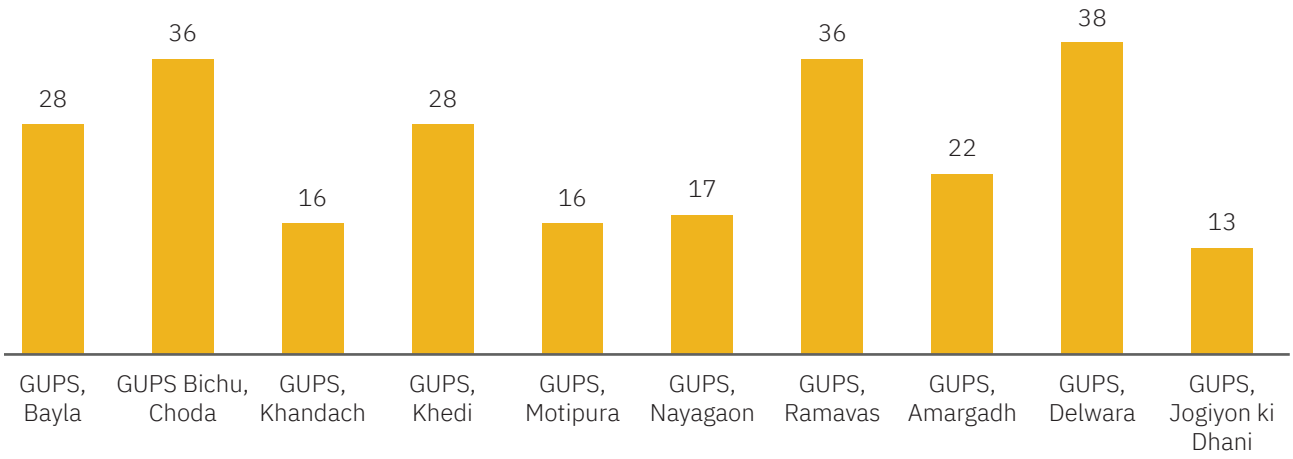


Figure 4: **Distribution of students in current class (n = 250)**

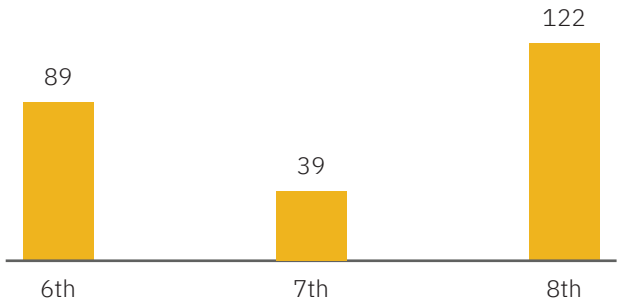
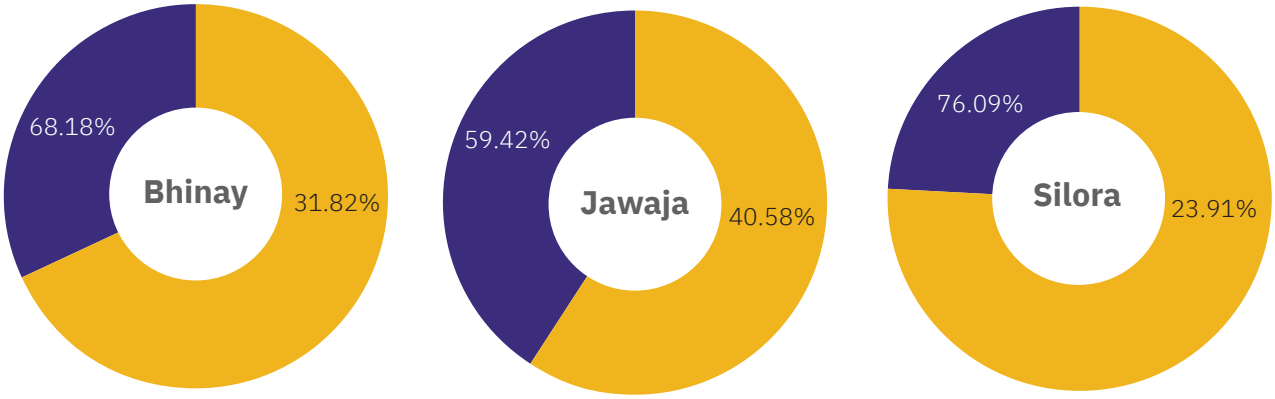


Figure 5: **Total distribution of Gender (n = 250)**

Figure 6: **Distribution of gender in learning level assessment (n = 250)**



Out of the multiple schools supported through the intervention, 10 schools were visited to assess the learning level of students who were part of the intervention. Each school included different number of students as per availability. Highest number of students were captured at block Jawaja in GUPS Delwara with 38 students, GUPS Bichu choda and GUPS Ramavas with 36 students each.

Students from classes 6, 7 and 8 were included in the learning level assessment, lowest number of students were available in class 7th i.e. 39. 89 students from class 6th and 122 students from class 8th.

Overall, a majority of female respondents were part of the intervention with 162 female and 88 males. In each block this majority has been highlighted i.e., 68.18% in Bhinay, 59.42% in Jawaja and 76.09% in Silora. Although the programme focused on girls, the intervention for learning level included boys in class 3, 4 and 5.

For enrolment and retention check 16 schools listed below were identified and covered during the assessment.

For life skill assessment, members of Bal sabha were identified in the below listed schools.

Table 17: **List of schools visited for E&R check**

GUPS Silora	GUPS Delwara	GUPS Gajja Nadi	GUPS Nayagaon
GUPS Bayla	GUPS Motipura	GUPS Bichu Choda	GUPS Ramavas
GUPS Khedi	GUPS Amargadh	GUPS Bhensapa	GUPSTihari
GUPS Goyliya	GUPS Ruppara	GUPS Khandach	GUPS Gordhanpura

Table 18: **List of schools visited for life skill assessment**

GUPS Amargadh	GUPS Motipura	GUPS Khedi	GUPS Bichu Choda
GUPS Ramavas	GUPS Delwara	GUPS Bayla	GUPS Jogiyo ki Dhani

04 Key findings

This chapter presents respondents' view towards the various activities conducted by NSE Foundation as part of the programme. The chapter has been segregated on the basis of the various components of the programme viz. improved learning outcomes, enrolment and retention and life skills. Inferences from discussions with the various stakeholders have also been used to corroborate the quantitative findings. Qualitative discussions were held to gather perception and awareness level about activities such as facilitating enrolment of girls into mainstream education, providing life skills training and improving learning outcomes.

4.1 Improved learning outcomes

The study focused on the impact of the programme in improving learning level of students. The initiative aimed at improving language and numeracy level of students through implementing a curriculum named Gyan Ka Pitara (GKP). The motive was to provide students with student friendly content to enable easy learning and knowledge retention.

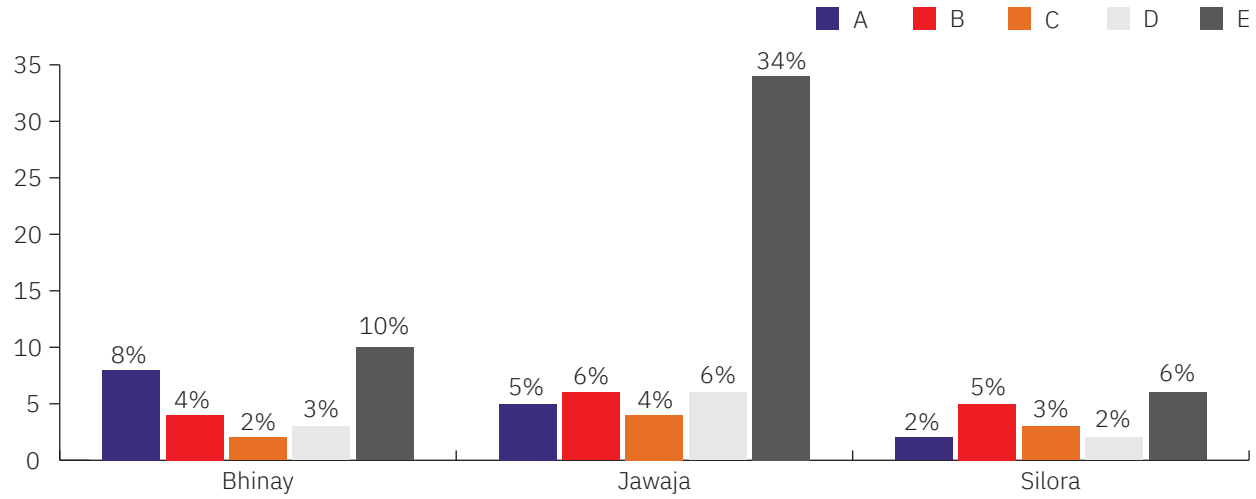
4.1.1. Learning level assessment

Students were provided worksheets to assess language and numeracy, and were also provided support through trainers and fellow classmates.

Figure 7: Students participating in learning level assessment in GUPS Silora

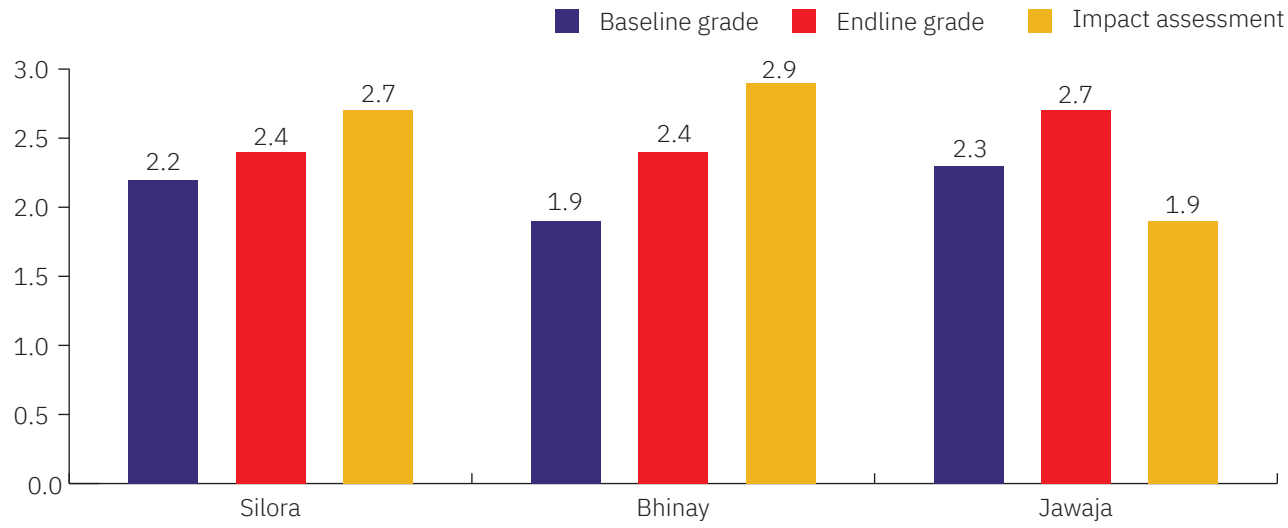
English

Figure 8: Block-wise grade in English (n = 250)



Students were asked to recognize letters of English alphabet, words and sentences and were made to read a story. Further, students were graded on the basis of completion of each task. It was inferred during the interaction that the students lacked confidence in answering questions. The students were hesitant and took time to respond. In Bhinay 8% and 10% of students attained grade A and E respectively. Silora, only 2% of respondent secured grade A and 6% secured grade E. Jawaja indicated the highest disparity in grade among students with 5% and 34% respondents securing grade A and E respectively.

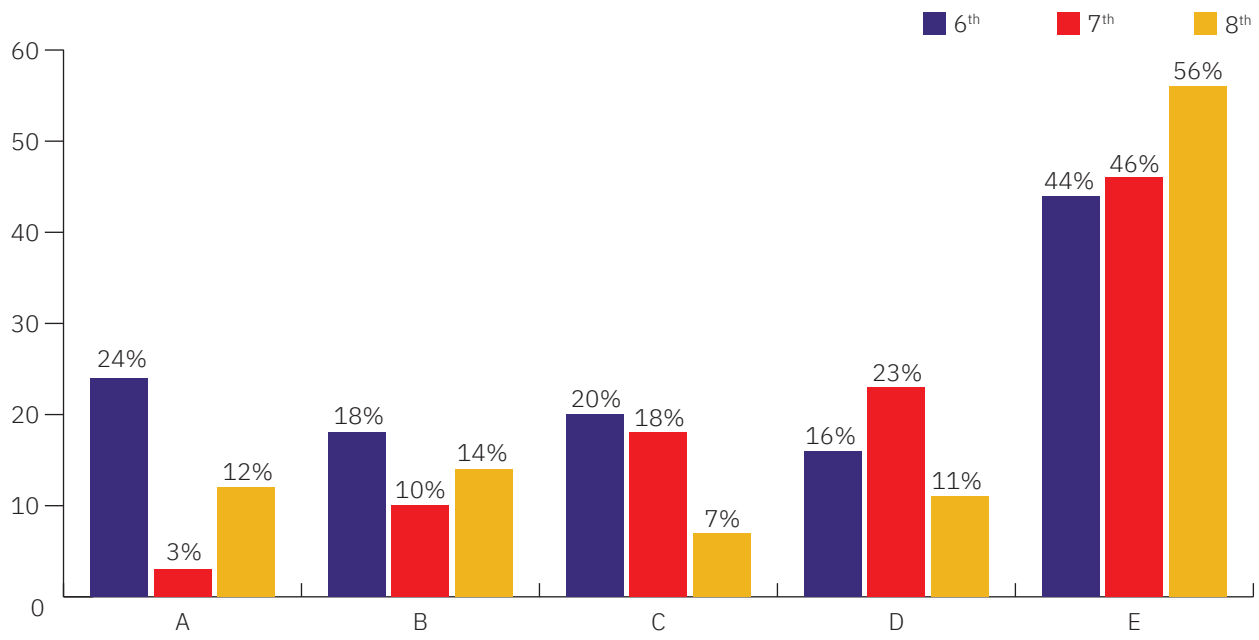
Figure 9: Grade gain in English (n=250)



In comparison to the baseline and end line study, there has been increase in points for Silora and Bhinay by 0.3 and 0.5 respectively. Results of Jawaja indicates a decrease of 0.8 points.

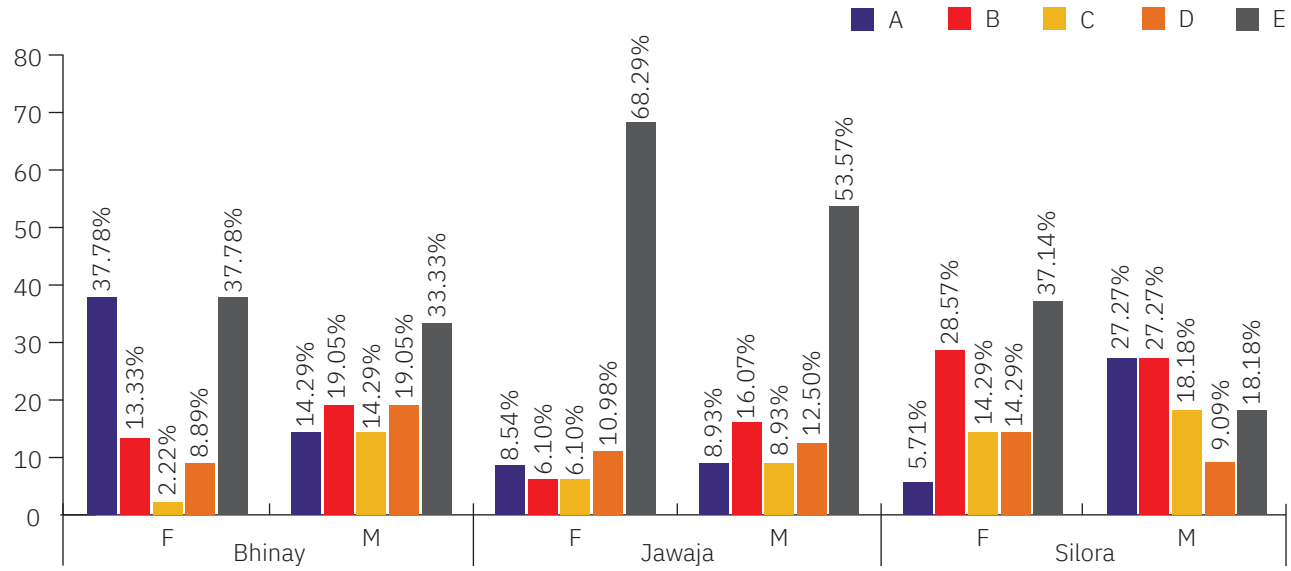
In English, 44%, 46% and 56% of the respondents in classes 6, 7, 8 respectively could not identify alphabets in English. Respondents who were able to attain grade A were limited as compared to the percentage of students attaining grade E. 24%, 3% and 12% of students secured grade A in class 6,7 and 8.

Figure 10: **Class- wise grade in English**



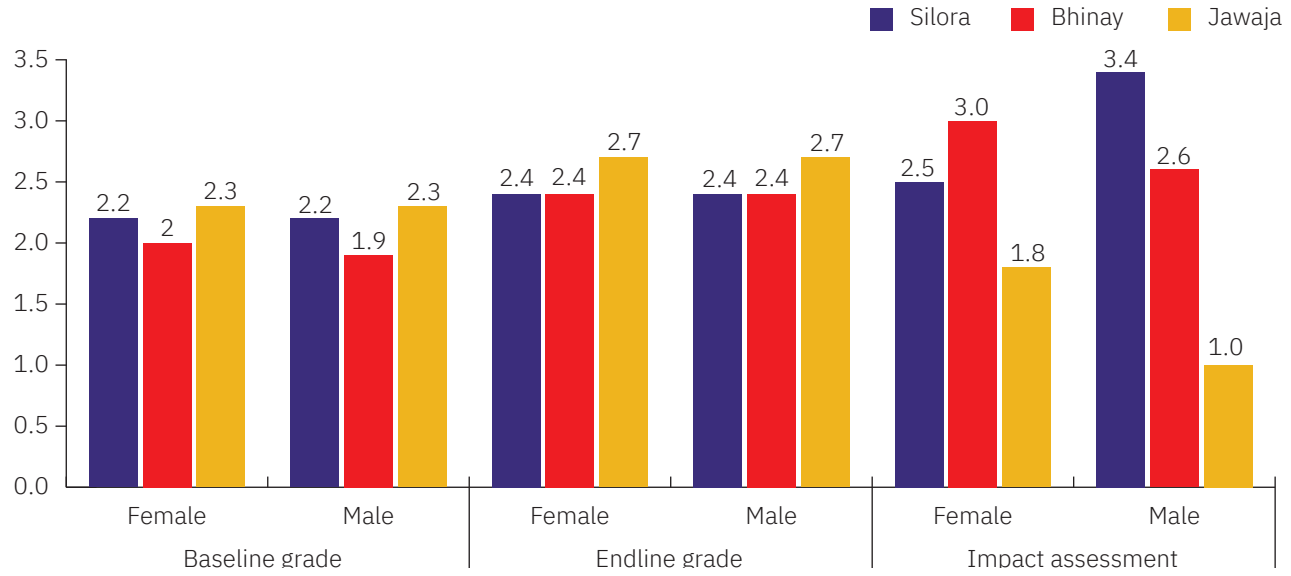
Out of the surveyed respondents in each school, performance of girl students in Bhinay indicate better knowledge of English language with 37.78% compared to boys at 14.29%. In Jawaja, the analysis indicates similar performance. In Silora, boys' performance is better than that of girls with a difference of almost 22% (average) for grade A.

Figure 11: Gender-wise grade in English (n = 250)



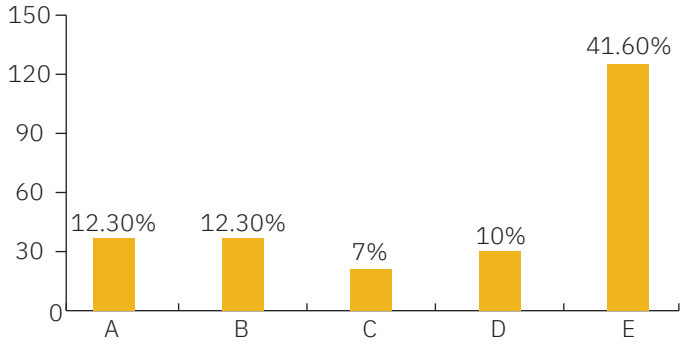
There has been a decrease in points in Jawaja for both female and male students. Students of Silora and Bhinay have consistently improved their performance across the end line and impact assessment.

Figure 12: Gender wise grade gain in English



Respondents were observed to be struggling with English. The students were able to identify English alphabets but could not read words and sentences. About 41.6% of surveyed students were able to identify only alphabets in the assessment

Figure 13: Average grade in English (n = 250)



Hindi

In Hindi, students were able to perform with confidence and had clarity in understanding the letters, words, sentences and stories. Students were observed to be quicker in responding and were generally motivated while attempting each question. Majority percentage of students in each block were able to attain grade A, i.e. 16% in Bhinay, 29% in Jawaja and 11% in Silora had clear understanding of the language. Hindi being respondents' first language, it helped them in identifying and relating to sentences like "मुझे खाना पसंद है", "वह सोना चाहता है" with their daily lives and respond to each word.

Figure 14: Grade gain in Hindi (n=250)

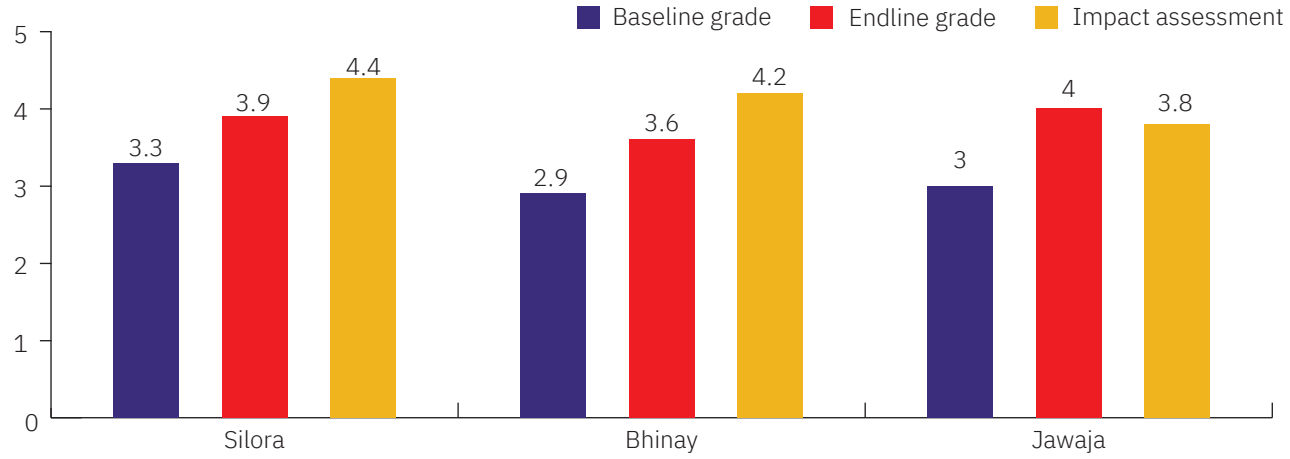
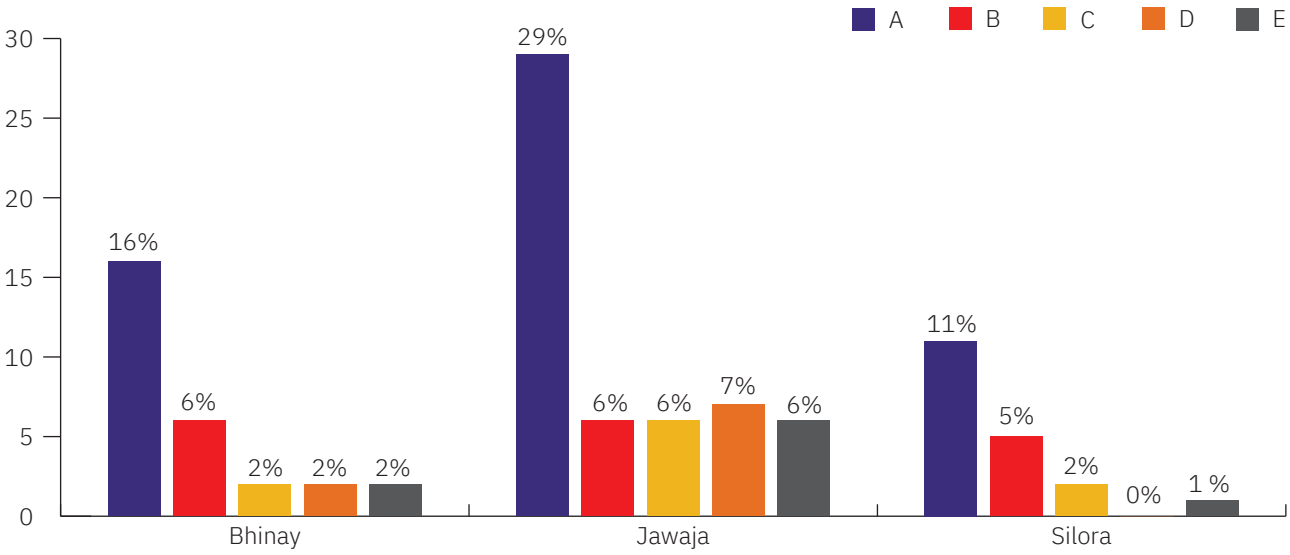
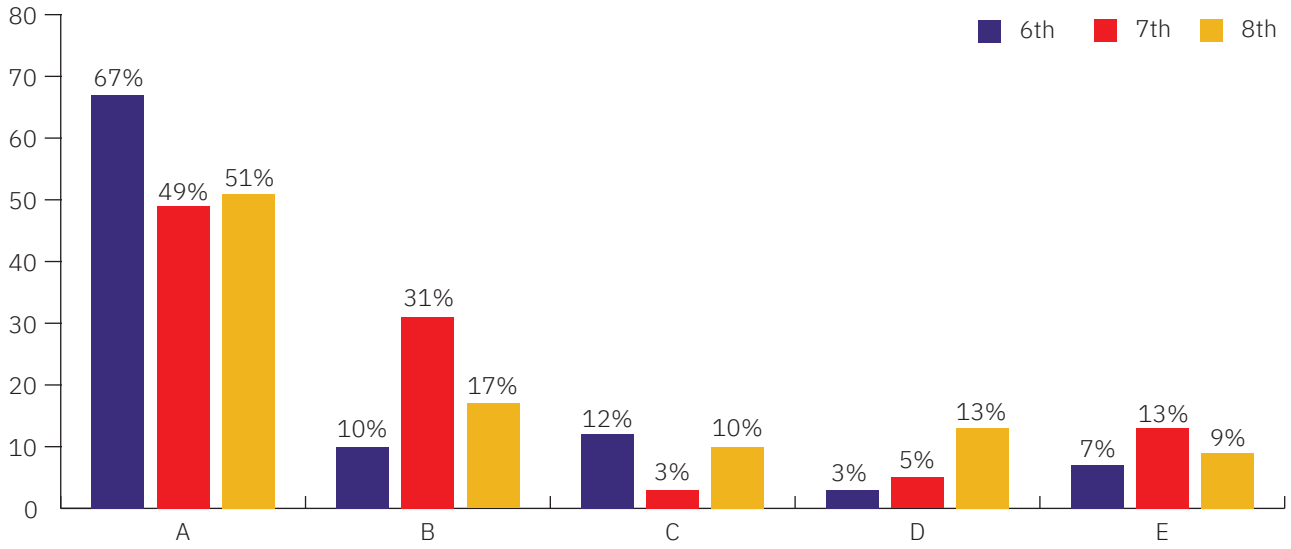


Figure 15: Block-wise grade in Hindi (n = 250)



There has been an increase of 0.5 and 0.6 points for Silora and Bhinay respectively whereas Bhinay has the highest increase in points.

Figure 16: Class- wise grade in Hindi



In Hindi, 67%, 49% and 51% of the respondents in classes 6,7 and 8 respectively had clear understanding and knowledge of the language.

Overall, students were seen to be performing better in Hindi. Discussion with the stakeholders indicated that this has been a continuous trend i.e., students' ability to cope with Hindi as a subject is better than any other subject.

Analysis of performance in Hindi indicates girls' performance better than boys' in Bhinay and Silora whereas in Jawaja, an average of 63% boys attained grade A against 46% attained by girls.

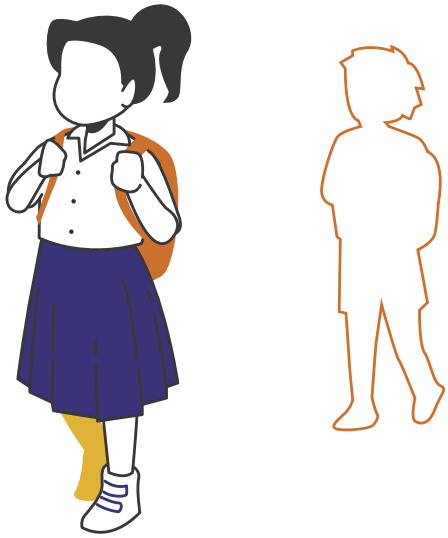


Figure 17: Gender-wise grade in Hindi (n = 250)

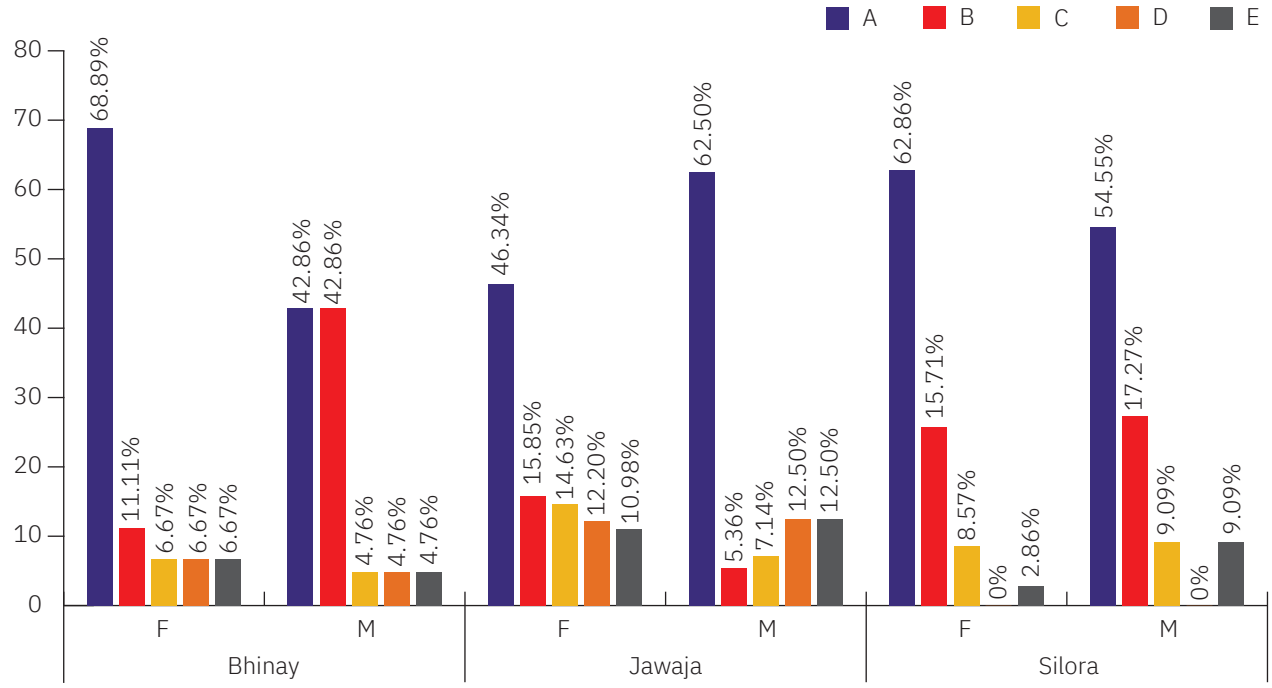
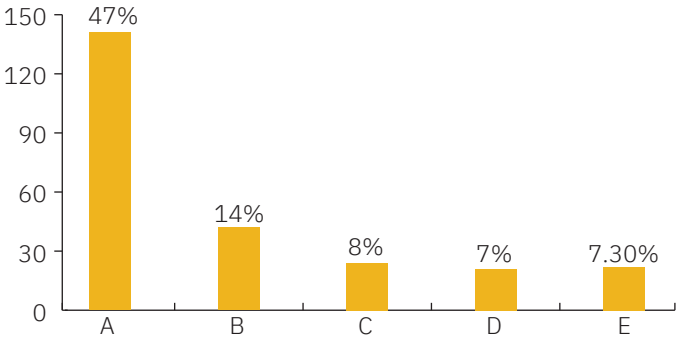


Figure 18: Gender wise grade gain in Hindi

In Hindi, both male and female had performed better in Silora and Bhinay whereas students of Jawaja had performed better in comparison to the baseline results.

Overall students' performance in Hindi language is better in comparison with English language. A total of 47% of respondents scored an A in Hindi and were fluent in identifying alphabets, words and were able to read sentences

Figure 19: Average grade in Hindi (n = 250)



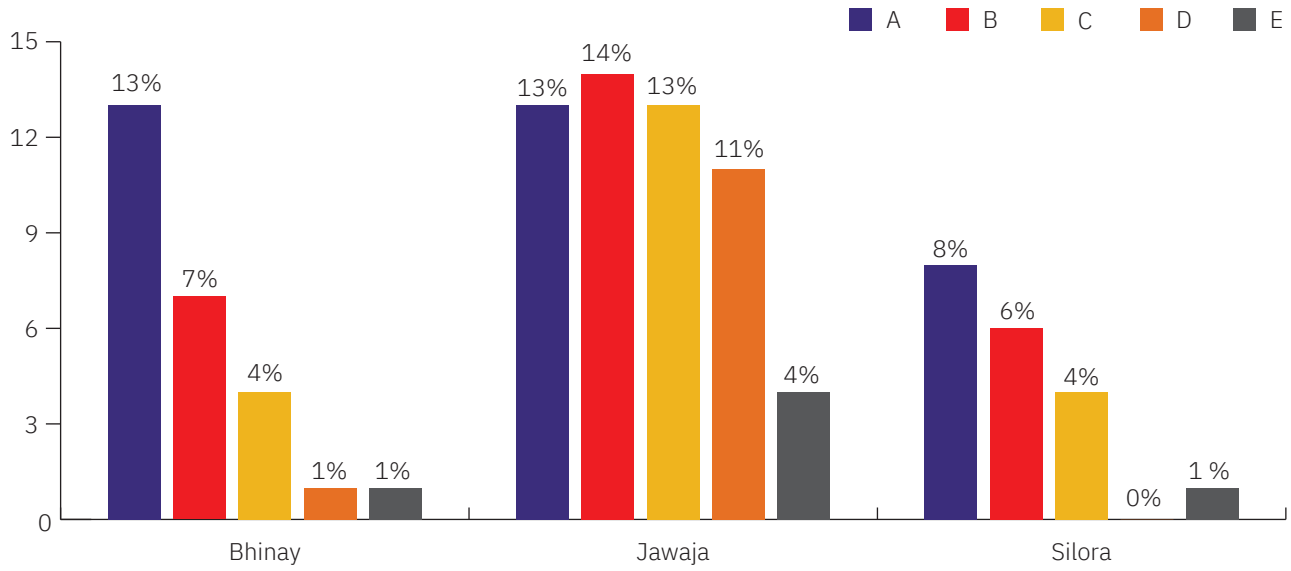
Math

Assessment of numeracy suggests that the students were fluent with numbers and basic calculations. The assessment included identification of single-digit and double-digit numbers, addition and subtraction with single digits and multiplication and division. Majority of students in each block were able to secure grade A i.e. 13% in Bhinay and 8% in Silora. In Jawaja 14% of students attained grade B and 13% secured grade A. **It can be clearly inferred that the students were well-versed with numeracy than language.**

It was also observed that majorly students were unable to identify numbers in English but when asked in Hindi were fluent in answering. The respondents were hesitant towards solving multiplication and division questions. During the course of evaluation, majority of the students exempted themselves from attempting multiplication and division questions.

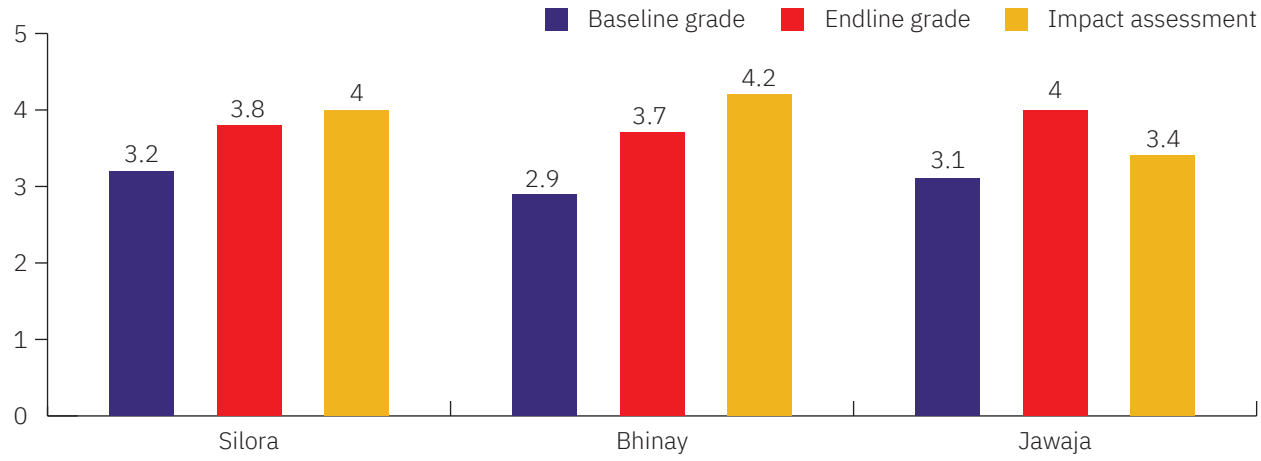
In Hindi, **67%, 49%** and **51%** of the respondents in classes 6,7 and 8 respectively had clear understanding and knowledge of the language.

Figure 20: Block-wise grade in Math (n = 250



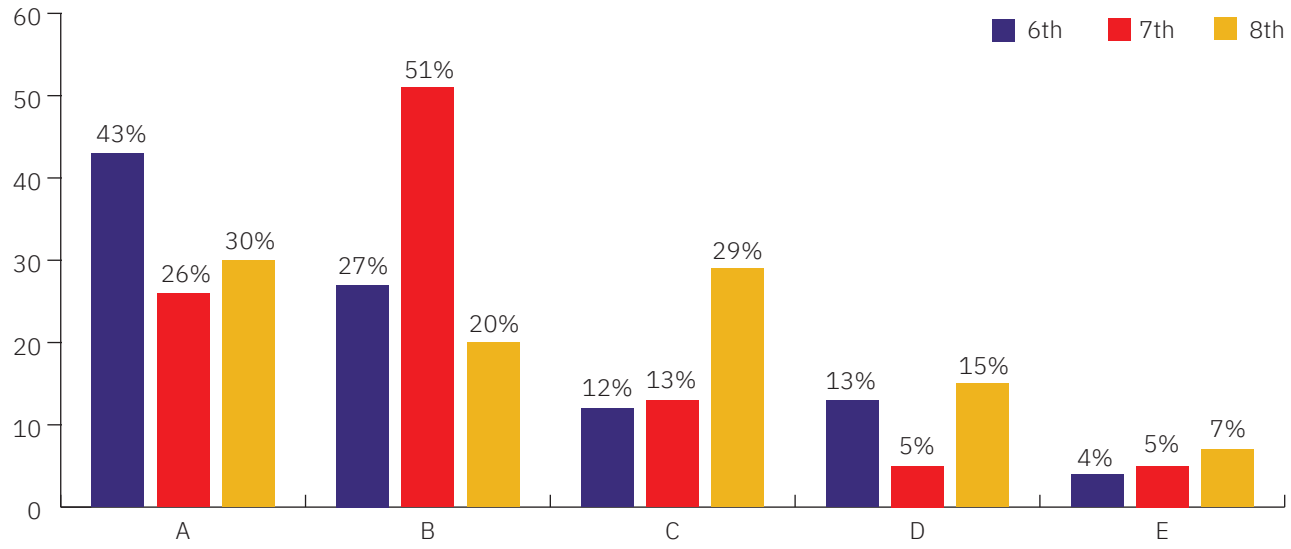
It was witnessed that the students were aware of the subject and had knowledge but when asked "can you add/ subtract", students mentioned they could not add or subtract. However, when they were provided with numbers and asked to add and subtract using pen and paper, they were able to calculate and provide correct answers. The students from Bhinay were less hesitant while attempting each question. They were receptive to questions asked and further attempted to solve each question and reach higher grades.

Figure 21: Grade gain in Math (n=250)



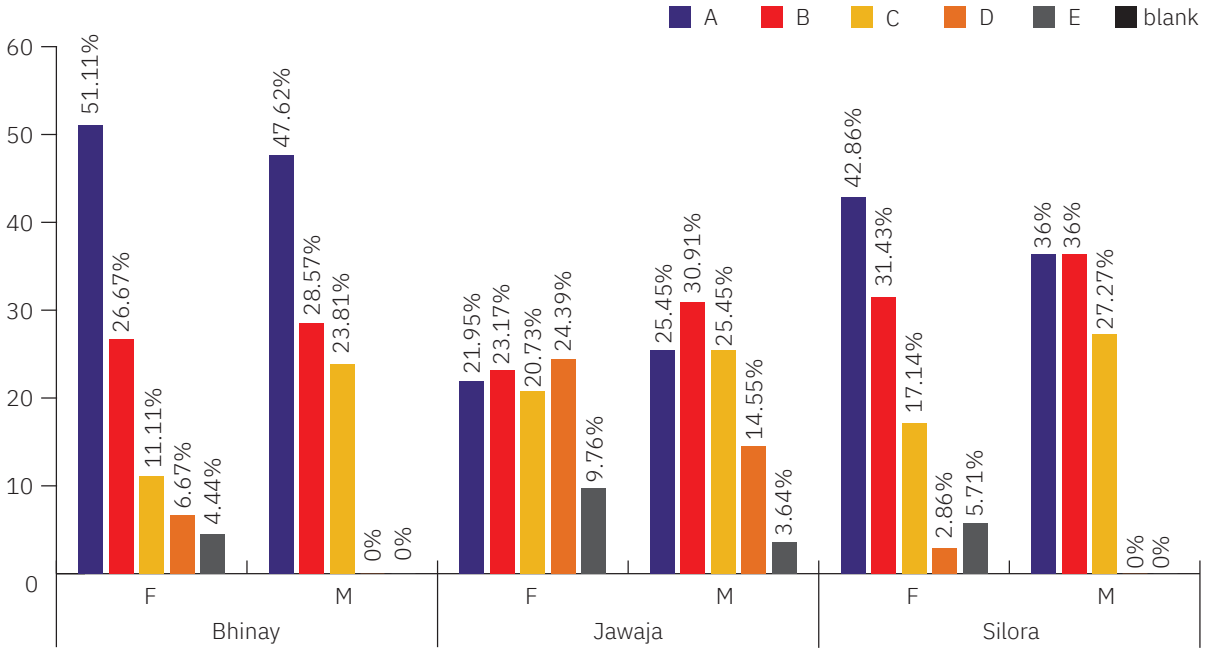
Bhinay has the highest increase in points in comparison to Jawaja and Silora. Jawaja has a decrease of 0.6 points in comparison to the end line results.

Figure 22: Class-wise grade in Math



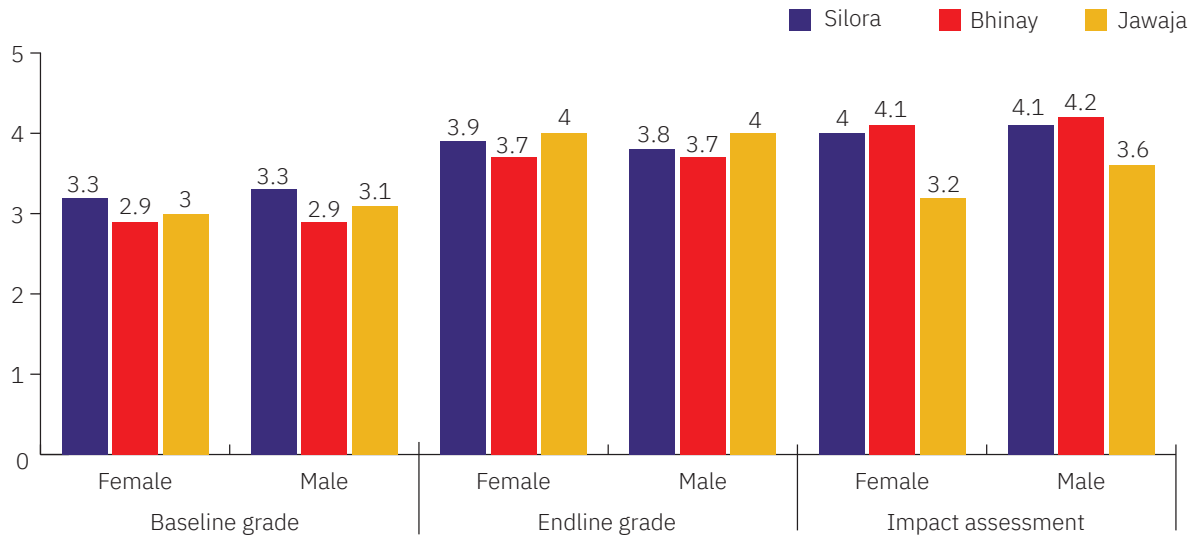
43%, 26% and 30% of respondents were able to solve questions pertaining to multiplication and division. Students from classes 6, 7 and 8 performed better in Math as compared to English.

Figure 23: Gender-wise grade in Math (n = 250)



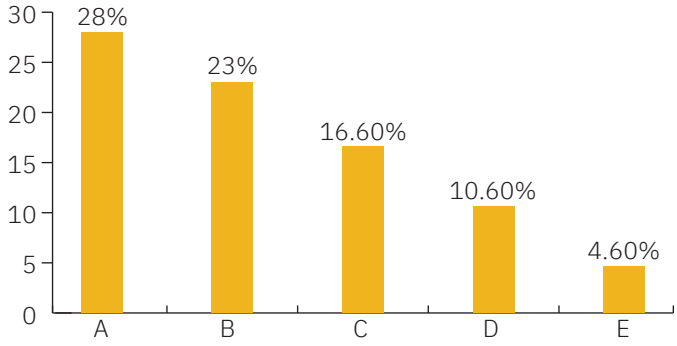
Analysis indicates that girls were better in Bhinay and Silora with 51% and 43%, respectively, in grade A as compared to 48% and 36% for boys.

Figure 24: Gender wise grade gain in Math



In Math, there has been an increase in points for both genders as compared to Baseline and end line results. Results of Jawaja however, indicates a decrease in points in comparison to the end line results.

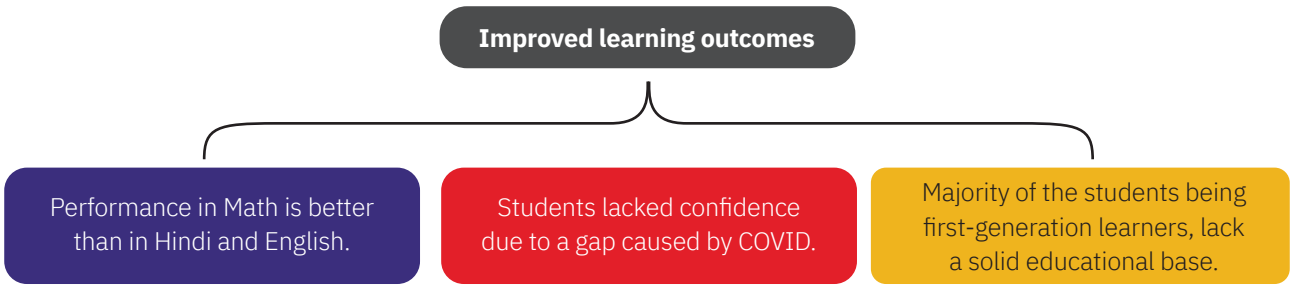
Figure 25: Gender wise grade gain in Math



According to the results, the respondents performed well in Math. 28% of students scored an A in numeracy and were not only able to perform addition and subtraction but were also good at multiplication and division. **Analysis of the students' responses indicates a skewed pattern in the grades of numeracy, i.e., English and Hindi.**

Figure 26: Learning level assessment in GUPS Silora

> ***Students just need the opportunity and support to be able to utilize their full potential and become the best version of themselves.***
>
> ***- Team Balika***



4.1.2 GKP trainers

Particular	Analysis
Role	The GKP trainers played an integral part towards making education innovative in everyday classrooms for students. The trainers became the bridge that guided students in attaining knowledge through interaction and practice of the GKP contents. Each student was provided with the GKP toolkit according to his/her level of learning. Improved learning outcomes helped in changing the behaviour of students towards education. A simple act of playing to learn and understand language and numeracy inspired students and encouraged others towards improving themselves.
Working environment	Once a trainer was appointed for the school, they planned further requirements and prepared a workplan for the intervention. Trainers communicated their schedule and accordingly the school management allocated space for trainings. Trainers also expressed the mutual support and flexibility that the team has had with the school. Relevance of such opportunity and the important role it plays in the lives of the students were stated by both the school administration and the GKP trainers. Trainers also mentioned that working together helped to function as a unit. It also helped to tackle challenges effortlessly while creating a healthy environment for students, teachers, headmaster and trainers themselves.

Implementation modality adopted

Once appointed, the GKP trainers interact with teachers and principals for an overview about the students. For each class, the students were divided in sets of three groups according to the level of understanding each student had about the curriculum. Once divided, the students were provided a set of worksheets and activities to practice and participate.

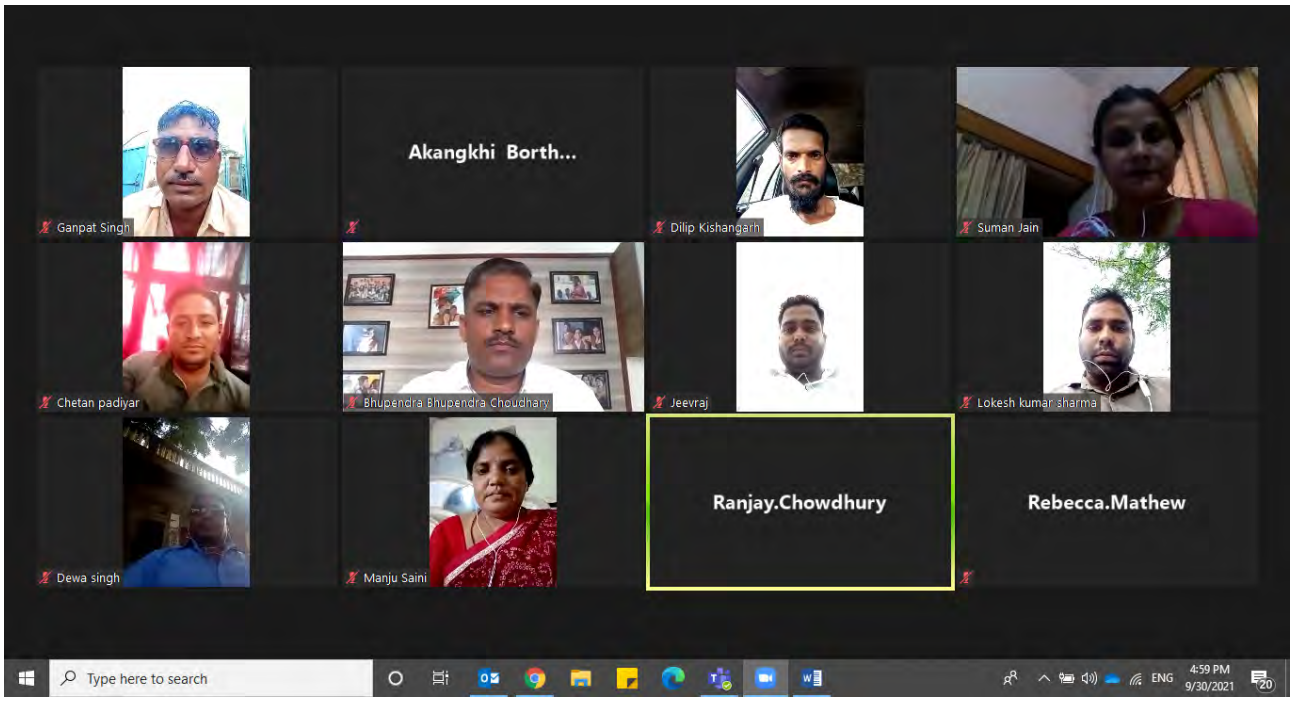
One of the issues faced during implementation was lack of space in schools or rooms where activities and games could be conducted. To address this issue, the students were divided into three groups, i.e., red, yellow and green.

Group green represented the students who were good in language and numeracy and were able to perform well; yellow group represented the students who were not fluent in language and numeracy but were able to identify the letters and words; and red group represented the students who were unable to identify or understand basic language and numeracy.

Once the students were divided into their respective groups, providing equal space to each colour was a priority to ensure active participation of students. **An innovative method was adopted by the trainers to overcome the space issues in schools. The students who were part of the green group but were comparatively higher in learning level compared to the other groups were given the opportunity to teach.**

Further, it was observed that such an adjustment helped the students to connect with each other and motivate them with an ideal goal to be included in the green group.

Figure 27: FGD conducted with GKP trainers



> *School visits are always like a breath of fresh air. We find students happy to see us and eager to be part of the activities we conduct. It also encourages us to do better every day and help them in learn through simple activities.*
>
> *- GKP trainer, Ganpat Singh*

4.1.3 Stakeholder perception

Challenges	Analysis
Regional dynamics	Most of the community members are primarily engaged in farming. The other key source of income is daily wage labour. Most of the families are from the lower income backgrounds and are uneducated. Parents often engage children as additional help in the field during the agricultural season. This often leads to children missing school for multiple days at a stretch which further discourages their attending regular classes. However, the programme along with Team Balika has brought a change in this trend. Awareness has increased leading to lesser dropouts and increased enrolments.
Lack of awareness	Discussions with panchayat representatives and members of the community indicated that one of the major challenges faced in implementing education programmes was to make the community, especially parents of girl child, aware about the importance of education. Lack of awareness among community members and social restrictions imposed on girls led to their dropping out of school after a certain age. This challenge was tackled with continuous interaction with the community in Mohalla meetings conducted by the EG team members and volunteers. Constructive measures like meeting families personally when students stopped coming to schools, showed a sense of accountability that the school had for its students. This motivated parents in sending their children back to school. Through further probing, it was found that headmasters of the schools provided support to such families. Students who did not have notebooks, school authority provided them with blank sheets to write on. **EG along with school administration, helped in creating awareness among communities and in providing a safe space for children.**
First-generation learners	During discussions with headmasters regarding learning level of the students and performance, it was concluded that majority of the students enrolled in the schools are first-generation learners. Support available to students outside school is minimal. A student who is regular in school and studies would still have to go back and help their parents with household activities on a daily basis. After school hours, these students have little or no time to study and even if a student finds time to revise, they are unable to clear their doubts due to lack of support from their parents. Discussions further indicate that the students who have a support system at home are able to grow and learn must faster compared to those without support. This often leads to an inability to retain day-to-day learnings which often prevents them from attaining higher grade levels. **Schools have been working towards bridging the gap in multiple ways to provide support to the students on a daily basis. Students are encouraged to explore their full potential through interactive activities and games.**

Figure 28: **Learning level assessment in GUPS Amargadh, Bhinay**

4.2 Enrolment and retention

One of the key areas of intervention was focused on identifying schoolgirls and girls who have never been enrolled in the mainstream education. To assess the intervention, school registers of some selected schools were checked to understand and analyse the enrolment and retention numbers in the academic sessions of 2017–2018 and 2018–2019. A total of 10 schools were selected from the three blocks – Bhinay, Silora and Jawaja. Furthermore, to increase sample coverage, an additional six schools were selected for enrolment and retention check.

Discussions with the headmasters in the intervention schools indicated a proactive role of the local volunteers of Team Balika. It was also mentioned that Team Balika had been instrumental in persuading and motivating community members in order to increase awareness with respect to importance of mainstream education. Household visits, mohalla or community meetings and meetings with school authorities were the key activities conducted by Team Balika to ensure reinforcement of the idea of importance of girl education in particular and relevance of education in general.

> ***"In the past five years, only ~60% of girls from the village used to go to school and at present, there is no girl left behind. Today, through community efforts every single child in the block goes to school regularly."***
>
> ***- Headmaster, GUPS Bichu Choda***

The school authorities were vocal about the role of Team Balika in being a support system towards enrolling every girl child. It was further noted that although the headmaster/principal holds the responsibility of enrolling every child in a particular village, Team Balika's support further strengthened the process.

Table 19: Data captured on E&R check

Schools	Enrolment		Retention	
	2017–18	2018–19	2017–18	2018–19
GUPS Silora	14	7	87%	100%
GGUPS Delwara	4	4	100%	100%
GUPS Bayla	16	13	100%	100%
GUPS Motipura	5	4	100%	75%
GUPS Khedi	18	7	100%	100%
GUPS Amargadh	4	7	75%	100%
GUPS Govliya	32	6	90%	100%
GUPS Ruppara	20	6	100%	100%
GUPS Gajja Nadi	3	10	100%	100%
GUPS Nayagaon	35	11	100%	100%
GUPS Bichu Choda	0	2	NA	100%
GUPS Ramavas	1	11	100%	90%
GPS Bhensapa	1	16	100%	100%
GUPS Tihari	8	4	100%	100%
GUPS Khandach	7	0	100%	NA
GPS Gordhanpura	23	7	100%	100%
Total	191	115	97%	98%

A student was considered 'retained' depending on his/her attendance in the annual examination. For instance, a student enrolled in class 3, is considered 'retained' if the student had appeared for the annual examination of class 3. As per EG's target of 85% retention, the analysis indicates an average retention of 97.5% across two years of intervention.

The below infographic presents the process adopted for assessment of enrolment and retention records.

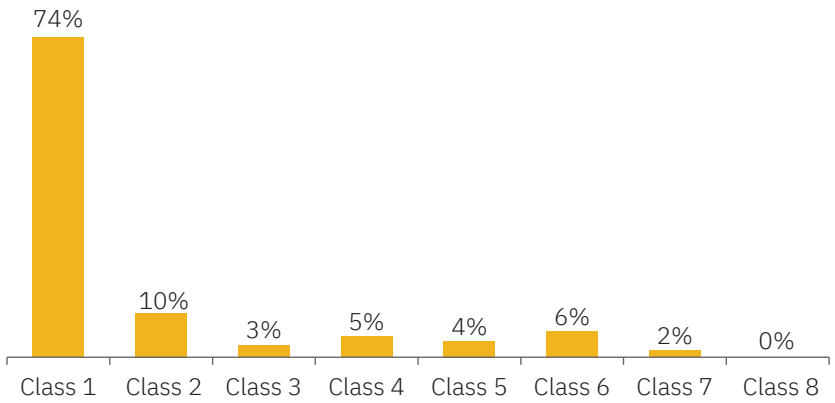
1 For instance, a child enrolled in class 1 in 2017: Register was checked against EG's records

2 The same student's name was checked in class 2 register of 2018 to assess retention

3 For every child, the same process was followed, and retention percentage was documented

A summary of class-wise enrolment has been presented below:

Figure 29: Class-wise enrolment of students in school



74%
enrolments in sample schools happened for class 1

In 2018-19,
100%
enrolment were in class 1

The headmaster of GUPS Jogiyon Ki Dhani, Silora mentioned that regular awareness in the community and surveys helped in changing the mindset of families towards education. It was further mentioned that even parents from financially weaker background are now motivated to send their children to schools. Inference from stakeholder discussions indicate that schools are perceived differently by the community. For most of the people, schools were a medium to learn and an opportunity to excel as an individual. Likewise, few had a notion that schools were a medium for helping families attain economic stability.

> ***"Efforts of EG have been instrumental in connecting children and their families to the idea of education and its importance. The efforts have also resulted in a favourable shift of mindset of parents. They have become receptive to change."***
>
> ***- Headmaster, GUPS Jogiyon ki Dhani***

Enrolment and retention

- Collaboration of EG with the school authorities
- Increased awareness and motivation
- Shift in the mindset of parents and community at large

Khushi Singh, Ramavas, Jawaja

Khushi is one of the students in Ramavas School who got enrolled through continual interaction and persuasion by volunteers. Her parents, Mangal Singh and Asha Devi, work as daily wage labourer. Khushi is a first-generation learner in their family. She shared that being part of the school was initially good for her, however, she has no one to support her with worksheets at home.

She mentioned that school helped her with study materials and different activities, but with time, efforts to study at home decreases gradually. “To continue school without any support from home gets harder day by day.”

Forya Devi, Tihari, Silora

Forya Devi is the daughter of Mahesh Nath who by profession is a farmer with his own agricultural land. Forya has a family of five members and education seemed a choice and not a necessity for the sustenance of the family. Parents were not interested in sending children to school. Instead, Forya and her siblings helped in farming.

With regular interaction with Mahesh Nath, Team Balika members were able to convince the family to enroll Forya and her siblings in school. Due to lack of financials, they were unable to provide books, uniform and stationery for everyone. Therefore, the principal along the community members came forward to support the family financially.

“She is a bright student with a potential to grow and develop as an individual,” Principal, GUPS Tihari, Silora.

Manisha Singh, Bhensapa, Jawaja

Manisha is a student at GPS Bhensapa. She got enrolled in school through the efforts made by Team Balika. Her parents Vikram Singh and Nirma Singh work as farmers and also as daily wage earners. Manisha had never been part of the formal education system. When she got enrolled in school, it was a difficult start for her to adapt to the school functions and activities.

She is now an active student in the school and often takes part in extracurricular activities conducted in school. She is a happy child who enjoys regular schooling.

Pooja Lohan, Amargadh, Bhinay

Pooja is currently in class 2 and is the daughter of Kushum Lohan, a single mother. She lives with her grandparents and due to occupation-related requirements, the family often migrates to various different places. Because of their continual migration, Pooja was never enrolled in school and stayed home with her grandparents.

With the awareness generation programme, Pooja’s grandparents were motivated to get Pooja enrolled in school. With the support of EG and the principal, Pooja was enrolled and was able to access a conducive learning environment.

The grandparents’ interest to provide a better future for their grandchild motivated them towards getting Pooja enrolled. Pooja is enjoying school and is happy to have made a lot of friends.

Divya, Govliya, Bhinay

Divya comes from a financially weak background. Her father works as a daily wage labour and her mother is a housewife. The family survives hand-to-mouth and cannot afford the expense of providing education to children. Parents were continuously being motivated by the principal and Team Balika members for enrolling Divya but due to financial restraints the family avoided discussions.

The SMC members then came together to take charge of the child's admission. The community helped by supporting the family financially and successfully got Divya enrolled in school. Thus, the community as a whole was instrumental is spreading awareness of the importance of education.

Divya is now pursuing her education and her family supports her in every possible way.

4.3 Life skills

As part of the Girls Education Programme, EG introduced life skills training to a select group of students. Life skills training enables individuals to develop adaptive and positive behaviour to deal with the challenges and demands of everyday life. EG initiated the life skills component to impart leadership and other life skills among girl students. It was conducted through formation of Bal Sabha that included girls from class 6 to 8. They were provided with basic training on areas of communication, leadership, empathy, problem solving and public speaking. EG facilitated the implementation of Bal Sabha in schools by electing girls who excelled in everyday classroom activities and were good in school not only in supporting peers but also in motivating them to be a part of the evolving education system.

The study focused on the impact of the programme in terms of increased motivation among girls and behavioural change. The motive was to understand the changes in behaviour and practices after respondents moved to senior secondary school. Respondents were asked questions on the everyday challenges one encounters, to understand their views on how they would tackle them.

While a sharp difference in behaviour becomes difficult to analyse, the responses helped towards perceiving the change.

During discussions with the members of Bal Sabha, the students available were made to form a group and questions were asked for the students to respond as a group. The evaluation undertaken assessed the basic interpretation of life skills of which the girls were already aware. The evaluation consisted of 10 questions addressing identifying emotions, understanding feelings, dealing with emotions and everyday situations, understanding oneself, creative thinking, logical reasoning, problem solving and receptive abilities. The students understood the task at hand and were comfortable sharing their thoughts and experiences in the discussion.

> ***"We have seen how providing a space to express themselves and learn has helped girls to change their behaviour and belief to feel stronger and more confident in life. They can motivate themselves and others around them to achieve bigger dreams and brighter goals."***
>
> ***- Kamal Kishore, GUPS Nayagoan***

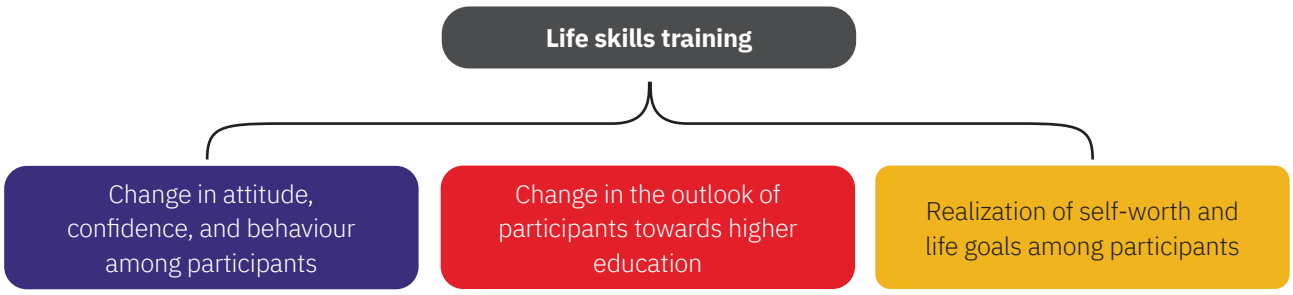
The table below presents each life skill that was part of the curriculum and activities conducted by the school. These life skills were presented to the Bal Sabha as everyday situations to tackle or identify the associated feeling and emotion in the situation.

The table presents; (i) Life skills, which mentions the skill that was evaluated in the discussion with Bal Sabha, (ii) Defined parameter, which provides the definition of each skill and the (iii) Qualitative remark, which highlights the observations perceived during the interaction. The table provides an overview of the exercise conducted with the students and the collative understanding.

Figure 30: Life skills assessment in GUPS Bayla, Jawaja

Life skill	Defined parameter	Qualitative remarks
Interpersonal skills	It is the ability to interact with others in a way that prompts a positive response and helps in building and maintaining friendly relationships.	The students could clearly identify suitable emotional response/s to varying situations. For instance, they were able to identify happiness as an emotion related to winning a group competition. *This is indicative of their ability to associate emotions with others and encourage positive behaviour.*
Empathy	Empathy enables students to understand the other person's point of view by imagining themselves in the same situation. It helps in nurturing a child's positive behaviour in the society.	The students were able to perceive and understand another classmate's feelings in situation of distress and provide an empathetic response. For instance, forgetting a pen during an examination. *This is indicative of their ability to acknowledge and be receptive towards others' emotions.*
Coping with emotions	Awareness of different emotions and how they affect behaviour of students in general. Negative emotions could lead to negative implications such as adopting deviant behaviour like fighting with students in school and disobeying teachers to name a few.	The students were aware that anger, tantrum or violence of any form was not the right way to react in emotional situations. They knew the importance of staying calm in understanding the reason behind their anger. *This is indicative of their ability to acknowledge and cope with emotions through positive behaviour.*
Coping with stress	Recognizing the source and effect of stress in a student's life can help them act in a way to be able to control their level of stress, by taking charge of everyday situation.	The students had a clear understanding of dealing with everyday stress. For instance, forgetting to do their homework on time, the students would cope with the stress by talking to their teachers. *This is indicative of their ability to handle stress and find immediate response to a situation.*

Life skill	Defined parameter	Qualitative remarks
Self-awareness	Students recognizing and accepting their strengths, weaknesses, behaviours and actions is self-awareness. It helps students to be self-confident and work on their weaknesses.	The students were asked to mention qualities about themselves that they considered as either weakness or strength. Though hesitant at first, students were willing to reflect on their actions. *This is indicative of their ability to recognize their own qualities and work towards a better self.*
Creative thinking	Creative thinking enables students to come up with new ideas. It enables children to connect the dots and see the bigger picture. It also promotes imagination and concentration.	The students were able to find the creative outlet to work on a task. They used their imagination to describe images (ice cream and tea) through action and word play. *This is indicative of their ability to think and function out of the box.*
Critical thinking	It is the ability of students to evaluate information and determine if it is right or wrong. For developing this skill, it is necessary to listen carefully and ask questions. Critical component here is how the information is used to derive insights.	The students were able to associate a given series of images with their own experiences and analyse the information critically. For instance, they were able to link winter season with images of sweater and hot drinks. *This is indicative of a strong presence of mind and the ability to process information.*
Problem solving	It is the ability of the students to solve problems calmly and constructively while managing their emotions.	The students were able to understand the problems presented and provide a suitable solution. For instance, they were able to analyse the data to solve a sum. *This is indicative of their ability to analyse and solve problems calmly.*
Decision making	Decision making helps children assess different options available and the effect of those decisions on their lives.	The students were able to find constructive ways to deal with everyday situations and identify the best option. For instance, the students were given a situation (E.g.: cheating during an examination to obtain more marks). They were able to make an objective decision to not cheat even when they did not know the answer. *This is indicative of their ability to take decisions, think objectively and establish strong bonds.*
Effective communication	The ability to express opinions, desires, needs, fears and seek advice and help in times of need, both verbally and non-verbally, in ways that are appropriate.	The students were sensitive to differences in opinion and were able to express their own self. For instance, they were able to associate with the story and communicate effectively about the same. *This is indicative of their ability to be confident in communicating their opinions.*



4.3.1 Beneficiaries' testimonials

Inter-personal skills

"We know that as happiness is important for me, it is for other people around me as well."

- Pooja

Empathy

"Helping others is an act of kindness which one can choose but being responsible is an act of growth."

- Bhawna, Jawaja

Coping with emotions

"Talking to friends is easy; it helps me be myself and say what I am going through without thinking twice. I am happiest when I am with my friends."

-Shivani, Delwara Jawaja

Coping with stress

"It is always easy to be afraid of the unknown and lose focus. All it takes is to know that you can find a way out of any situation by staying positive."

- Kavira, Khedi

Self- awareness

"It is okay to have weaknesses; no person is born perfect. One should be willing to change with time when it becomes necessary for growth."

- Vishnu, Motipura, Bhinay

Creative thinking

"It is always not easy to be different in a community but by being same we tend to become stagnant."

- Muskan, Bichu Choda

Decision making

"After becoming a member of Bal Sabha, I gained a lot of confidence because of the responsibility my teachers gave me. It has helped me to become a better friend, sister and a leader."

- Monica, Khedi

Problem solving

"I was not able to solve problems in my personal life. I used to be scared and cry a lot. I have now been able to calm myself down and think before reacting."

- Misha, Ramavas

Critical thinking

"We understand the need to question things and not blindly follow others. It is difficult at times, but we try."

- Priyanka, Delwara

Effective communi-cation

"In my house, my parents now listen to what I have to say, it feels nice to be part of family discussions and to give my opinion."

- Sulma, Amargadh

4.3.2 Stakeholder perception

Stakeholder	Before intervention	After intervention
Principal	Discussions with HM/principal revealed that before the project, retention and increasing students' interest in the day-to-day classroom activities was a challenge. Students were unable to connect with the mainstream education and lagged in class. Marriage was one major problem in the school. Parents married off girls at a young age that led to discontinuation of their education.	It was through the innovative implementation of life skills training that gave the students a sense of direction. This inspired them and others to focus and contribute more in school. Girls in school have been more vocal in matters of marriage. At present, a positive shift in mindset of girls and parents has been observed.
Parent	Interaction with parents suggest that children of younger age groups focus only on playing games and entertaining themselves and avoided going to school post lunch. Children felt less connected to school and even when pressurized, avoided going to school. With continuous skipping of classes, parents would stop sending their children to school and include them in daily farming activities and household chores.	The program resulted a change in awareness level of the parents regarding formal schooling. It was observed that most parents considered formal schooling as one of the key success parameters. Bal Sabha changed children's perception towards school and education. Education became easy and fun with activities and games. Children became more responsible at home not only with studies but also in household activities. At present, children are no longer pressurized for school. The implementation of activities and games helped children to learn and have fun at the same time. Students often came back home and said, "they understood a lesson by just playing a game or through an activity." It was noted that parents are now enrolling children for higher education, thus indicating an increased motivation.
SMC Committee	Discussions with SMC members indicated that community itself was not motivated to be part of the school. It did not provide any support and people were unaware about how a community can support school.	Presence of mohalla meetings (community meeting) and door-to-door survey, "guided families to be aware about the importance of a school in the village and how a small act of support can uplift the school to be better." Once students were enrolled in schools, parents were motivated to be a part of the system and to understand the functions, requirements and activities conducted in schools.

Stakeholder	Before intervention	After intervention
GP Member	GP members indicated that before the project only 50% of children were being sent to school. Students who were enrolled in schools were not regular in attending classes and completing education. GP members mentioned about Educate Girls' role in increasing their awareness regarding formal schooling. It was noted that prior to the intervention, education was a neglected topic. "We as a community did not support school and its authorities."	Discussion with GP members indicated that students have gained interest in studies. Every child in the village is attaining education even after completing their secondary school. Students travel to senior secondary school by foot or opt for open schooling. GP members played a major role in facilitating EG to conduct community meetings and door- to door surveys. Further, the GP members maintained regular communication with the school authorities to understand issues pertaining to enrolment and drop-out. "Time and awareness have helped us change our attitude towards school education."

4.3.3 Case Studies

Shivani Jugraj, Delwara, Jawaja

Shivani is currently a student at senior secondary school and is studying in class 12th class. Her parents Kuchan Jugraj and Jugraj Tada work as farmers in the village. She has a younger brother who is also pursuing his education and is in class 10th. Shivani is an interactive student and was vocal with her opinions. She shared that during her early school days she was a silent and a shy girl. She liked to study but education was never her priority. She loved spending time with her mother and supporting her in daily activities.

She further mentioned that after joining the Bal Sabha her outlook has changed, "I had friends and people to share my thoughts. Being a part of the Sabha helped me overcome my fear and I was able to interact with people more actively. I am much more confident, and I feel stronger."

Shivani wants to complete her education and aspires to become a nurse. She believes her dreams will come true if she continues to work hard and remain focused.

"Bal Sabha helped me understand my complete potential not only as a student but also as a daughter and sister and at times helped me become a role model for others. I am able to perform well in various areas such as public speaking. Being a shy person, I did not believe it was possible."

- Shivani Jugraj

Jarina, Silora

Jarina a student of GUPS Silora is currently in class 8. Her parents Riziya Banu and Shafi Mohammad Khan are farmers in the village. She has five siblings and is the third child in her family. Jarina characterizes herself as a fun and entertaining person. She mentioned she was known to be the rebellious child of the house. She grew up being vocal and doing what she desires all the time.

She further mentioned that she understood that frequently being rebellious was not always right. She learnt about empathy and its importance by being a part of the Bal Sabha. “I often realize now how hurtful I have been at certain situations towards my parents and siblings. Now, I just try to be better each day.”

Jarina wants to become a teacher as she believes it is one of the most noble profession. “To be able to help children like me find their own path.”

Bhagwati Kumar Daroga, Amargadh, Bhinay

Bhagwati is currently in class 10 and is pursuing her education from Rajasthan State Open School. She has a family of six-members and lives with her in-laws since her marriage. She got married at an early age because of her family’s poor financial condition. She said, “Getting married was a huge change for me, I am still learning how to be a child and a grown-up at the same time. Coping with stress of marriage and the level of responsibility had become difficult for me.”

She further mentioned that, after a year of marriage her in-laws encouraged her to enroll back in school and continue education. Bal Sabha helped her understand how to cope with stress in a constructive and a healthy way. “Now I know how to handle stress and I feel stronger mentally and physically”.

Bhagwati wants to complete her school education and continue to support her family. At present, she has not decided which career path she wants to pursue but she wants to support her family in some way, as they had supported her.

Shobha Rawat, Bichu Choda, Jawaja

Shobha is currently studying in class 11 and lives in a joint family of eight members. Her family is educated. Sobha’s father works as an army officer and her uncle works as an engineer. Getting her educated was considered a primary responsibility in her family.

She said, “Parents were always supportive of getting me educated and they encouraged me to pursue any course or line of work, however, I could never decide what I wanted from my life. I have followed what my parents have always told me to do. Making decisions and clear choices were never in my comfort zone.”

She also said that being part of a small group like Bal Sabha helped in being a much more confident person. “I take pride in my family because they gave me the opportunity to choose and do what makes me happy with my life.”

Her father being her inspiration, she at present thinks she wants to follow his footsteps and join the army. “The future waits with what it has in store for me but for the time being I shall follow what I have decided for myself.”

> ***“Life’s uncertainty makes me fearful about every choice I make. But decision making is just the first step towards a goal. I have realized that without this first step, we shall just be lost and scared all our life.”***
>
> ***- Shobha Rawat***

Sanjana Jogi, Motipura, Bhinay

Sanjana is a student of Motipura Senior Secondary school and is currently studying in class 11. Her mother Shanti Jogi is a farmer and works on their own land and Bhavar Nath works as a truck driver. She has two brothers, one younger and one elder. Sanjana aspires to travel and see the world outside her village. She believes that viewing mountains and beaches with her own eyes will be much beautiful in real life.

She mentioned that being part of the Bal Sabha helped her learn to be responsible and accountable for her work.

Post her schooling, Sanjana wants to attempt the Civil Services Examinations. She says, “I love to take up challenges, it has helped me grow and learn more every day.”

“Being part of the Bal Sabha made me believe in myself more. It helped me identify my strengths and weaknesses.”

- Sanjana Jogi

4.4 Assessment framework

The programme was evaluated on five principles, i.e., relevance, effectiveness, efficiency, impact and sustainability. The table below presents a summary of results for each principle. These results are a cumulative documentation derived out of quantitative results and qualitative inferences.

Parameter	Result
Relevance	The programme serves one of the key human development indicators, i.e., education and particularly, girl education. Girl education in Rajasthan faces multiple challenges and the programme has been successful in minimising challenges that broaden the gap between girl students and formal education. Activities focussed on enrolment of girl children with door-to-door surveys and community meetings have proved to be effective. The activities have helped in changing the mindset of the community and parents, leading to increased enrolments. The programme has also enabled individuals, community and school administration to play a cohesive role towards improving girl education.
Effectiveness	The programme has been successful in attaining its broader objective, i.e., increasing enrolment of girl students and making the community accountable towards girl education and retention. An average of 97% retention has been reported for enrolled students against the objective of 85% retention. For learning level outcome, students performed comparatively better in Hindi than English and Math. Reasons for this skewed performance could be attributed to the following factors: Most of the students are first-generation learners and get no household support in revision of topics learnt in schools. Moreover, it was observed that most of the students are engaged in farming activities post school hours, as a help to their family. This leads to decreasing motivation and interest among students. Also, due to schools being closed for almost two years, there was an evident gap in learning of the students, and they were unable to relate to any kind of assessment conducted as part of the study. The programme has resulted in a change in mindset of the young girls towards higher education. Also, increased awareness towards self-conscience, group dynamics and internal and external environment was noted.
Efficiency	Through reviewing the documents shared by EG and communicating with Team Balika, GKP trainers and life skills trainers provided clear insights into the robust processes adopted for the programme. It was noted that the school administration is also responsible to enrolling children in schools through door-to-door communication. Programme's support towards enrolment has been an add-on support to what is already an allocated responsibility of the school administration.
Impact	The programme has led to a positive change in not only the beneficiaries but also in the larger community. The component of enrolment and retention has led to the community, parents and school administration being more accountable towards girls' education. The programme has helped the stakeholders to build a positive outlook towards education and its importance in creating an informed community. The findings of learning level outcomes have shown skewed trends with students performing better in Hindi and Math compared to English. Challenges such as students being first-generation learners, students providing regular support to their families on income generating activities and COVID-related hindrances have led to a gap in attainment of knowledge at par with grades. The girl candidates of Bal Sabha had demonstrated confidence and understanding of various emotions. Girls as part of life skills assessment were vocal in articulating their aspirations and their change in outlook towards self-development.
Sustainability	The programme, since its closure in the region in the year 2019, has led to the stakeholders being aware of their roles towards encouraging education. It was inferred that the school authorities and community members have continued to encourage children towards school education even after the closure of the programme. The programme enabled convergence of multiple stakeholders for attainment of programme objectives. This convergence has been the key to sustain the ethos of the programme.

05 Way forward

The identification of good practices along with mapping areas of improvement is crucial post the closure of any programme. Below are some key pointers as a way forward for planning similar programmes.

NSE Foundation derived the achievement of envisioned CSR outcomes aligned with the United Nations' and Government of India's agenda by creating a sustainable ecosystem that is intrinsically beneficial for communities. NSE Foundation accomplished the programme objectives by fostering partnerships with mission-driven organizations that have a strong local presence and participation. The objective of the programme was to improve learning level outcomes and reduce dropout rate. To achieve the objectives, the overall strategy undertaken was a deep analysis of the social barriers and attain sustainable change through participatory approach.

These included community involvement through continued awareness activities, meetings and door-to-door surveys. These activities aimed at changing perception towards mainstream education through awareness mediums, introducing new child-friendly content, introducing basic life skills training to girls by forming Bal Sabha and providing a dedicated support system through volunteers like Team Balika, GKP Trainers and SMC Committee.

The assessment brings out the overall impact of the programme, i.e., the community being aware about the importance of mainstream education. Community members shared that through continuous awareness programmes that were conducted by EG and Team Balika, they were able to gain a wider perspective and understand the importance of education in a child's life. Families shared that due to the proactive attitude of headmaster, Team Balika and EG they were able to enrol/re-enrol their children back to school.

Although the programme was largely able to meet its objectives, there are certain improvement measures that may be further considered in planning similar programmes in the future.

01 **Interactions with students during learning level assessment revealed that there was more focus on oral learning, especially in primary classes, which led to students being familiar with English but unable to read them when asked randomly. Most students were able to identify English alphabets but couldn't form words from the alphabets. There was a need for creating an interest in English language and emphasising more on practicing worksheet rather than focusing more on oral method of imparting knowledge.**

NSE Foundation may like to focus on the elements like audio-visual content to increase the understanding and retention of English language.

02 **Discussion with the headmasters in the schools revealed that one of the key responsibilities of the headmaster is to conduct door-to-door interactions with the parents of students who drop out of the school. The role helps the parents feel connected to the school and to further maintain a close relationship with the members of the community. The activity of door-to-door interaction initiated by EG as part of the awareness programme created a parallel support to the school.**

With the programme now concluded, NSE Foundation may consider directing funds towards need-based support rather than engaging in parallel support. Projects/activities intended to improve learning (such as activity-based learning /focus on English language/teacher training) might be further considered. Also, initiatives aimed at improving access to senior secondary education, especially for girl students, might be introduced to ensure continuation of education.

03 **One of the challenges in current assessment was availability of students. When the programme ended in 2019, Bal Sabha group got enrolled either in senior secondary school or in state open schools. This led to the availability of a smaller sample size for conducting assessment.**

NSE Foundation may consider conducting assessment for educational projects (specifically school education related projects) within a year of completion of tenure of the programme to enable better coverage of sample size. This also enables the beneficiaries to recall the learnings and the programme activities clearly and respond correctly to the assessment needs.

As evident from the findings of the study, EG has been successful in generating awareness among the communities about education and the benefit it holds for the future of the students. Inferences indicate that the activities implemented in school to encourage student involvement and participation helped students in gaining knowledge. Innovative solutions implemented by EG had a positive impact in generating interest for classroom activities and creating a positive outlook towards higher education.

6. Annexures

6.1 Tools for the study

Learning level assessment

English

Letter recognition

S	L
G	D
A	T
U	H
N	P

Word reading

Grass	See
Blue	Paper
Hut	Rat
Tree	Mother
Door	Walk

Sentence reading

1. I am a student.
2. There are ten students in my class.
3. I like to play with my friends in school
4. Where is my teacher?
5. What is the time?

Story

There is a big tree in the village. Many birds sit on the branches of the tree. One bird held twigs in its beak. The twigs fell on the ground. The bird flew down to collect the twigs. The bird made its nest using the twigs. The bird laid eggs in the nest. The eggs have hatched now.

Hindi

Letter recognition

ज	म	य	क	र
आ	ऊ	ई	इ	ए

Word reading

कपडा	खेल	मुकाबला	सड़क	आठ
सरल	रोशनी	खाना	पानी	थैला

Sentence reading

1. गर्मी का मौसम बीमार करता है
2. मैं स्कूल जाता हूं
3. मुझे खाना पसंद है
4. वह सोना चाहता है
5. आपको गली में नहीं खेलना चाहिए

Story

6. मैं आज अपने गाँव गया। मैं अपने दोस्तों से मिला हम नदी के पास गए। नदी में पानी ठंडा था। हम नदी के पास खेले। हमलोगों ने वहीं बैठकर चीकू खाया। फिर हम गाँव में अपने घरों को लौट आए क्योंकि अंधेरा हो गया था। घर पर, पिताजी ने मुझे और मेरे दोस्तों को भगवान राम और हनुमान के बारे में एक कहानी सुनाई। हमने कहानी सुनी और हमने रात का भोजन किया।

Math

Number recognition (1-9)

7	9	4	5	6
3	1	8	2	

Number recognition (10-99)

12	76	11	60	83
45	29	32	58	94

Addition / Subtraction

3 – 1	9 – 5	8 – 3	5 – 4	6 –2
7 – 5	4 – 2	9 – 6	2 – 1	5 – 5
9 + 2	3 + 1	1 + 5	7 + 3	4 + 4
8 + 2	5 +5	3 + 4	4 +3	2 + 6

Multiplication / Division

3 x 2	5 x 4	2 x 2	4 x 3	5 x 10
7 x 3	2 x 6	8 x 5	6 x 4	3 x 5

9 ÷ 3 10 ÷ 5 12 ÷ 6 14 ÷ 2 15 ÷ 5

16 ÷ 4 18 ÷ 9 2 ÷ 2 10 ÷ 2 20 ÷

Enrolment and Retention

Villages
School Name
Grades
Date and time

Year			
Class	Enrolment	Retention	Retention %
1			
2			
3			
4			
5			
6			
7			
8			

Life skills

1. Responding to emotions

If you win in a class competition, how would you feel? Select all images that represent your feeling.

यदि आप एक प्रतियोगिता में जीतते हैं, तो आप कैसा महसूस करेंगे? सभी छवियों का चयन करें जो आपकी भावना का प्रतिनिधित्व करती हैं।

Image 1

Image 2

Image 3

Image 4

Image 5

Image 6

2. Understanding feelings

Read the following and select all the correct options from below:

निम्नलिखित पढ़ें और नीचे से सभी सही विकल्पों का चयन करें।

i. The exam is about to start and your classmate forgot to get her pen. She is crying. What will you do?
ii. Help her by giving her your extra pen
iii. Ignore her and let her cry
iv. Tell the teacher that she needs a pen
v. Make fun of her for not bringing a pen

परीक्षा षुरू होने वाली है और आपकी सहपाठी कलम लाना भूल गई। वह रो रही है । आप क्या करेंगे?

i उसे अपनी अतिरिक्त पेन देकर उसकी मदद करें ।

ii उसे अनदेखा करें और उसे रोने दें ।

iii टीचर को बताएं कि उसे एक पेन चाहिए ।

iv पेन न लाने के लिए उसका मजाक उड़ाएं ।

3. Dealing with emotions

Read the sentences and select the correct option of what you do.

वाक्यों को पढ़ें और जो आप करते हैं उसका सही विकल्प चुनें ।

3a. 1) When I am angry, I: जब मैं क्रोधित होती हूं, मैंरू

i.	Throw my things	i. अपनी चीजें फेंकती हूं ।
ii.	Shout at people	ii. लोगों पर चिल्लाती हूं ।
iii.	Try to calm down	iii. लोगों पर चिल्लाती हूं ।
iv.	Hit people	iv. लोगों को चोट पहुँचाती हूं ।

3a. 2) When I am upset, I: जब मैं परेषान होती है, मैंरू

v.	Keep crying all the time	i. रोती रहती हूं ।
vi.	Talk to my parents	ii. अपने माता–पिता से बात करती हूं
vii.	Shout at people	iii. लोगों पर चिल्लाती हूं ।
viii.	Talk to my friends	iv. अपने दोस्तों से बात करती हूं ।

4. Handling the everyday

Below are some situations, tick the option you think is correct.

नीचे कुछ स्थितियां दी गई हैं, जो विकल्प आपको सही लगे, उस पर टिक करें।

S/N	Situation	Responses	
		A	b
1.	There is a test in the class. How do you feel? क्लास में टेस्ट होता है। आपको कैसा लगता है?	Get excited for the test परीक्षण के लिए उत्साहित हों।	Want to leave the class कक्षा छोड़ना चाहते हैं।
2.	You forgot to complete your homework that you had to submit, what do you do? आप अपना होमवर्क पूरा करना भूल गए जो आपको जमा करना था, आप क्या करेंगे?	Run away from the class क्लास से भाग जाना ।	Go and talk to the teacher षिक्षक से बात करना

5. Understanding the self

What are the 3 good qualities and 3 bad qualities about yourself?

आप में 3 अच्छे गुण और 3 कमियाँ क्या हैं?

a. My best qualities are मेरे सबसे अच्छे गुण हैं	b. My bad qualities are मेरे बुरे गुण हैं

6. Think creative!

Describe the following in one sentence (except ice cream and tea)

एक वाक्य में निम्नलिखित का वर्णन करें। (आइसक्रीम और चाय को छोड़कर)

6b1. _____ 6b2. _____

7. Be logical

Winter सर्दी				
Pollution प्रदूशण				

Select 2 things you relate with the words provided.

दिए गए शब्दों के साथ जुड़े दो चित्रों का चयन करें।

8. Let's solve!

Complete the following problem sums

निम्नलिखित समस्या प्रश्नों को पूरा करें।

1. If you have 10 apples and your friends has 5 apples and your teacher has 5 apples. How many apples do you have in all?

   यदि आपके पास 5 सेब हैं और आपके दोस्तों के पास 5 सेब हैं और आपके षिक्षक के पास 5 सेब हैं। कुल कितने सेब हैं?

   ii. 15 iii. 25 iv. 20 v. 30

9. What would you do?

Read the statements given below and tick 'Yes' (if you agree) and 'No' (if you disagree).

नीचे दिए गए वाक्यों को पढ़ें और 'हाँ' पर टिक करें (यदि आप सहमत हैं) और 'नहीं' (यदि आप असहमत हैं) ।

S/N	Statement	Response	
		Yes	No
1.	It is a bad habit to play for a long time on weekdays सप्ताह के दिनों में लंबे समय तक खेलना एक बुरी आदत है ।		
2.	In some cases, it is okay to cheat in an examination to avoid getting scolded by parents later कुछ मामलों में माता–पिता द्वारा बाद में डांटे जाने से बचने के लिए परीक्षा में नकल करना ठीक है ।		

10. Listen and understand: ActivityPl

(We read out a short paragraph on a moral based story and ask them to answer the following questions:

एक बार एक राजा था जो केवल जीवन में अमीर बनना चाहता था। एक दिन एक बूढ़ा ज्ञानी गाँव आया और राजा से मिला। राजा ने उसे अपने महल में रहने का प्रस्ताव दिया। बदले में बुद्धिमान व्यक्ति ने उसे एक वरदान दिया द्य राजा ने इच्छा की कि वह जो कुछ भी छुए वह सोने में बदल जाए। बुद्धिमान व्यक्ति ने राजा को अपनी इच्छा दी। राजा बहुत खुष हुआ और उसने सब कुछ सोने में बदल दिया। लेकिन जल्द ही वह भूखा था, लेकिन उसने जो भी खाना उठाया वह सोने में बदल गया। वह बहुत दुखी हुआ। उसने अपनी इच्छा को दूर करने के लिए बुद्धिमान व्यक्ति से भीख मांगी। उसने राजा को उसकी इच्छा प्राप्त करने में मदद की। राजा अब फिर से खुष था।

There was once a king who only wanted to get richer in life. One day an old wise man came to village and met the king. The king offered him to stay in his palace and the wise man in return gave him a wish. The king wished that whatever he touched turns to gold. And so he was granted. The king was very happy and he kept making everything turn to gold from tables to chairs. But soon he was hungry, but any food he picked up turned to gold. He was very sad and unhappy. He begged the old man to take his wish away. He helped the king get his wish. The king was now happy again.

1. What did you learn from the story?
   vkius dgkuh ls D;k lh[kk\
2. What would you have wished for?
   vkidh D;k bPNk gksrh\

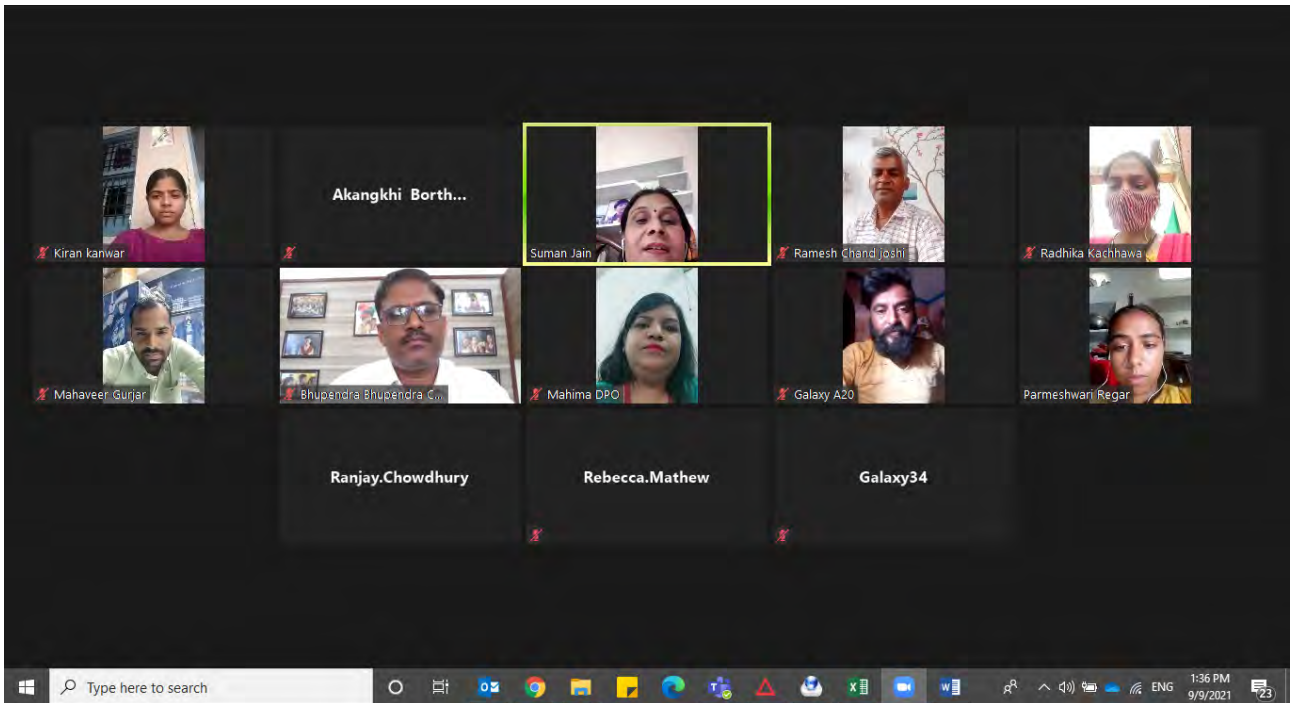
6.2 Photos from the field

Educate Girls' team with students

Discussion with Parents of students enrolled in school

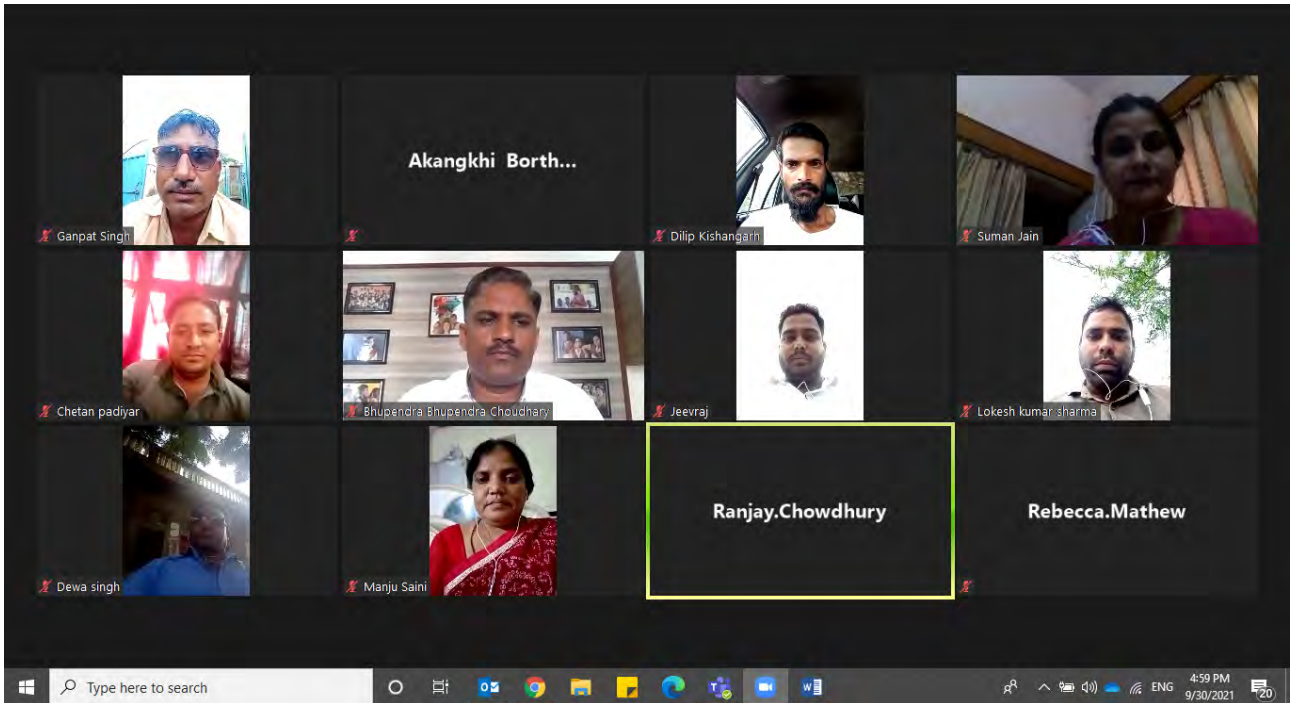
Discussion with SMC members and principal

Discussion with Team Balika



Discussion with PRI members

Discussion with GKP trainers



6.3 Schedule of school visits

S/N	Day	Name of the school	Location
	04 October, 2021	GUPS Silora	Silora
	05 October, 2021	GGUPS Delwara	Jawaja
	05 October, 2021	GUPS Bayla	Jawaja
	06 October, 2021	GUPS Motipura	Bhinay
	06 October, 2021	GUPS Khedi	Bhinay
	06 October, 2021	GUPS Amargadh	Bhinay
	06 October, 2021	GUPS Govliya	Bhinay
	06 October, 2021	GUPS Ruppara	Bhinay
	06 October, 2021	GUPS Gajja Nadi	Bhinay
	08 October, 2021	GUPS Nayagaon	Silora
	08 October, 2021	GUPS Bichu Choda	Jawaja
	08 October, 2021	GUPS Ramavas	Jawaja
	08 October, 2021	GPS Bhensapa	Jawaja
	08 October, 2021	GUPS Tihari	Silora
	09 October, 2021	GUPS Khandach	Silora
	09 October, 2021	GPS Gordhanpura	Silora

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NSE Foundation

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NSE Foundation

RASHTRIYA NETRA YAGNA PROGRAMME

IMPACT EVALUATION STUDY 2021-22

TABLE OF CONTENTS

ABOUT THE STUDY

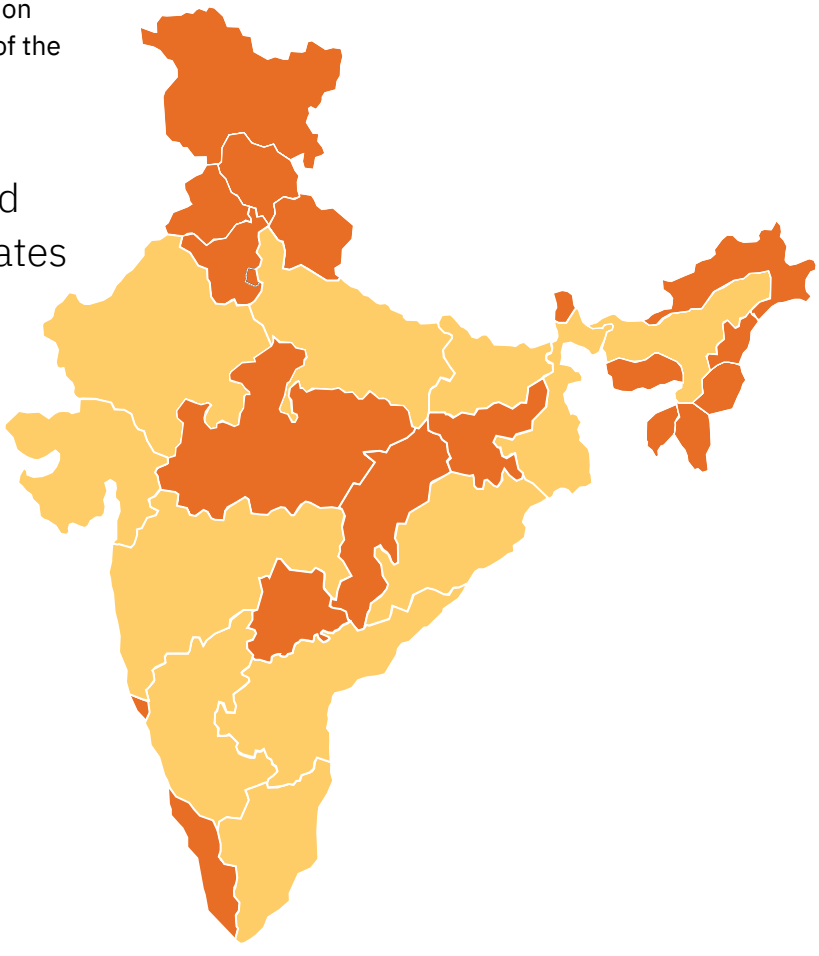
NSE Foundation presents a report evaluating its elder care intervention implemented between FY18-20. NSE and its subsidiaries believe in exemplary innovation and the zeal to tread unexplored paths. This belief is extended to its Corporate Social Responsibility (CSR) activities as well, where they cater to the most vulnerable sections of society and demonstrate unique models for mitigation of complex social issues.

Elder care is one such key focus area under NSE Group CSR actualised by NSE Foundation. Through this intervention, NSE Foundation aims to enhance the physical, social, and mental well-being of disadvantaged ageing populations by improving access to livelihood, empowering them through Elder Self-Help Groups (ESHGs), healthcare interventions, and Elder Enrichment Centers. Through this report, NSE Foundation reflects on its mission through its support of the Rashtriya Netra Yagna programme.

The programme has been implemented by Vision Foundation of India with the support of NSE Foundation across 11 states in India.

An external agency was engaged to evaluate the programme's impact which reported reported qualitative socio-economic changes in elderly citizens due to increased access and awareness to quality eyecare.

NSE Foundation implemented the programme across 11 States in India



EXECUTIVE SUMMARY

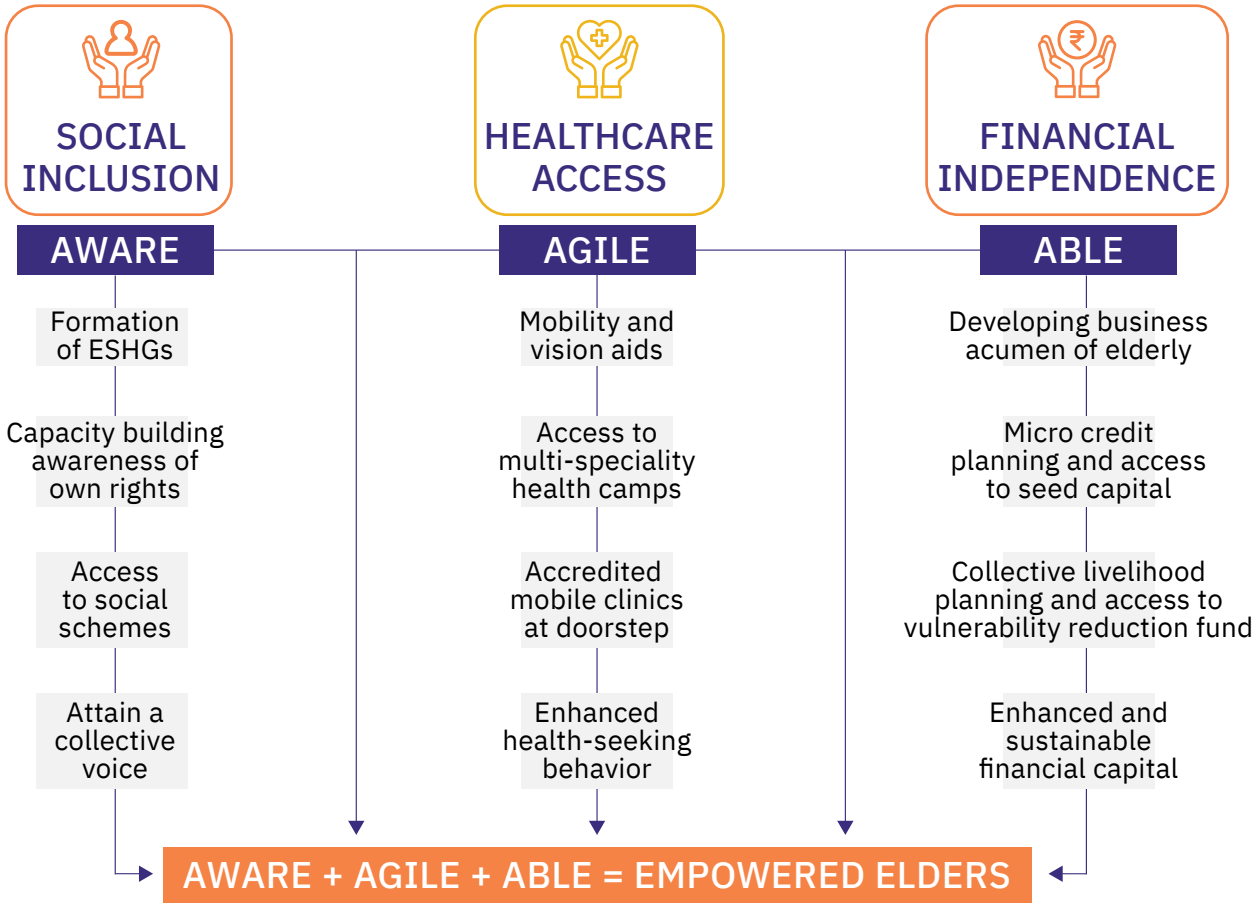
ABOUT NSE FOUNDATION

NSE Foundation is a Section 8 company that undertakes CSR activities of the National Stock Exchange of India Limited and its subsidiaries (NSE Group), with a broad vision to enhance the well-being of vulnerable and marginalised communities. The NSE Group constantly works to improve the financial well-being of people at large through a committed approach to offering investment products that suit the varied needs of the population. It further believes that the economic and social well-being of the community is closely interlinked to their habitats and their surrounding environment. Consequently, the NSE Foundation strives to improve the quality of life of its identified beneficiaries, thereby creating inclusive societies, while meeting the social and environmental responsibilities of the NSE Group.

THE ELDERCARE MODEL

There has been an increase of nearly 34 million elderly persons in 2021 over the population census of 2011. This number is expected to increase by 56 million by 2031[1]. Given the increase in the number of seniors, NSE Foundation has selected Eldercare as a primary focus area to carry out the social responsibility interventions. NSE Foundation looks to improve the economic, social, and financial status of disadvantaged aging populations. The objective is to increase access to livelihood and empower people by creating Elder Self-Help Groups (ESHGs), implementing healthcare interventions, and building Elder Enrichment Centers. The philosophy of NSE Foundation's Eldercare Model is to empower senior citizens by making them aware, agile and able (AAA+). The intervention acknowledges that visually disabled elders face a three-dimensional disruption in social, health, and economic aspects which should be solved in a structured and systematic manner.

NSE FOUNDATION'S ELDER CARE MODEL



ABOUT THE RASHTRIYA NETRA YAGNA PROGRAMME

Currently, around 1.1 billion people in the world live with a vision impairment and 90 percent of these are concentrated in low- and middle-income countries.[2] India is home to more than 137 million people who have near vision loss and 79 million who suffer from impairment.[3] According to the National Blindness and Visual Impairment Survey 2015-19[3] cataract (71 percent) and refractive error (13.4 percent) were the major causes of visual impairment among the population above the age of 50 years. Cataract, a form of age-related vision loss, is responsible for nearly 51 percent of blindness globally, as per the World report[4] on vision by the World Health Organization (WHO) leading to approximately 771 million people across the world suffering from loss of vision that could be avoided.

[1] https://www.bqprime.com/business/in-charts-how-india-is-ageing

[2] https://idronline.org/the-link-between-blindness-and-poverty/

[3] https://idronline.org/the-link-between-blindness-and-poverty/

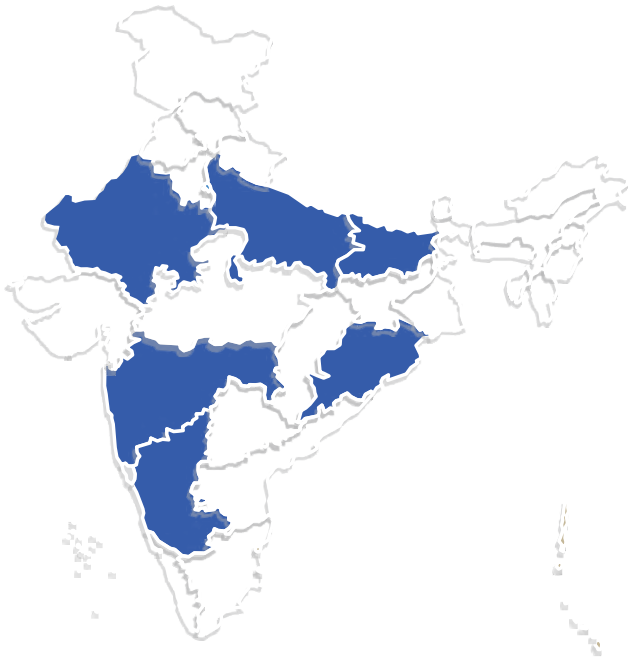
[4] https://apps.who.int/iris/rest/bitstreams/1257940/retrieve

The Rashtriya Netra Yagna Programme has an overarching purpose which includes providing physical treatment for cataract patients and influencing the associated psychological impact to help resurrect confidence and self-dependence. This is based on the assertion that while age-related visual impairment is a physical affliction, it also has an adverse effect on the social, emotional, and economic front of the patient. According to a study conducted by the Mission for Vision (MFV), elderly people affected by cataracts also suffer from other psychological problems. The study showed that the prevalence of depression and generalized anxiety increases among adults with cataracts.[5]

The NSE Foundation implemented the programme through the Vision Foundation of India in 2018 to address reversible blindness and treat vision impairments in 7,240 senior persons across 11 Indian states through a programme called 'Rashtriya Netra Yagna.' This programme endeavors to improve the vision of elders and align with the programme principles of the NSE Foundation. The initiative leverages a network of eye hospitals and other non-governmental organisations (NGOs) to hold eye-health camps and aid with surgery and post-surgical care for the elderly. The need for the programme was driven by three critical factors:

- **Awareness:** In a published study on awareness about cataract, encompassing subjects from India, China, Hong Kong, South Korea, and Australia, it was observed that approximately 30 percent were not aware of the serious repercussions of leaving age-related cataract untreated.[6] They were not aware that it could lead to irreversible visual impairment and blindness.
- **Accessibility:** WHO recommends a ratio of 1 ophthalmologist per a population of 20,000, however, the all-India ratio is 1 per a population of 100,000. The figures are even lower for rural areas with 1 ophthalmologist per a population of 250,000. Of the total surveyed patients under this study, 74 percent of them would have to traverse more than 10 km to reach a hospital for a check-up where, at most times, facilities for screening and surgeries would not be available.
- **Affordability:** The average cost of multifocal eye surgery in India ranges between INR 50,384 to INR 80,752.[7] This is exclusive of post-operative medical care and travel expenses. Of the surveyed respondents, 88.8 percent could not have afforded cataract surgery, due to low household income or lack of appropriate source of income.

In 2020, the NSE Foundation engaged with Sattva Consulting Pvt. Ltd. to conduct an impact evaluation of the programme. The study was undertaken across six locations (Bihar, Rajasthan, Maharashtra, Odisha, Karnataka and Uttar Pradesh) of the 11 intervention States. The objective of this assessment was to understand how inclusive and high-quality eye care has the potential to improve the social, economic, and emotional well-being of elderly individuals' and empower them to lead healthier lives.



**Inclusive of six states out of eleven beneficiaries states, thus, covering 54.5 percent of the target states*

[5] https://idronline.org/the-link-between-blindness-and-poverty/

[6] https://indianexpress.com/article/lifestyle/health/awareness-on-cataract-low-in-elderly-survey-4974406/

[7] https://www.healthprice.in/cataract-multifocal-cost-in-india/

Sattva conducted case study interviews with a sample of 80 elderly citizens. The sample selected was a statistical representation of the total number of beneficiaries. The states of Maharashtra, Karnataka, and Odisha were selected based on the highest number of cataract surgeries conducted, COVID-19 restrictions, hospital mobilisation needs, and the availability of stakeholders. Additionally, case-study interviews were conducted with 44 female and 36 male elderly citizens and 331 beneficiaries survey in 6 states across India.

KEY FINDINGS FROM THE IMPACT EVALUATION STUDY

A. INDIVIDUAL EMPOWERMENT

The Rashtriya Netra Yagna programme improved the vision of elderly citizens thereby reducing their dependence on others.

An article by Mission for Vision, explores the linkages between poverty and blindness and its exponential impact on patients from low-income backgrounds as access and affordability act as an impediment. Lack of vision results in limited to no employment, which invariably pushes people further into the cycle of distress.[8]

Under the Rashtriya Netra Yagna programme 96 percent of the elderly citizens reported regaining complete vision which helped them move around freely and perform basic day-to-day activities in their house. Moreover, they felt confident in their surroundings and could function well enough without the support of any family member or their partner after the surgery. Of the literate respondents, 45.5 percent of them were able to see with glasses and 38.6 percent were able to read without glasses after recovering from vision impairment.

Overall, an improved vision resulted in reducing dependency, increasing self-reliance, and providing them a chance for meaningful engagement with society.

> "I'm happy that I can see better now and can manage my financial transactions on my own. Moreover, I can manage my day-to-day activities and have started attending more community programmes."
>
> Rathiya Deuri
> 62 Years, Jaraka, Dist. Jajpur, Odisha.

B. SOCIAL EMPOWERMENT

Regaining the ability to see has encouraged and empowered elderly citizens to participate actively in the community and contribute to social engagements

More than 95 percent of the elderly respondents reported participating in community initiatives and 76 percent of them acknowledged greater interactions with their families, especially with their grandchildren. 60 percent of them have restarted using digital devices such as mobile phones in their daily use.

Respondents highlighted that they were able to overcome social exclusion and stigmatisation that they had suffered from earlier due cataract blindness. As they became more self-reliant, their ability to contribute to social structures such as family and participate effectively in the community, increased. Restoration of their eyesight helped them reconnect with their families and motivated them to contribute towards personal and community building.

[8] https://idronline.org/the-link-between-blindness-and-poverty/

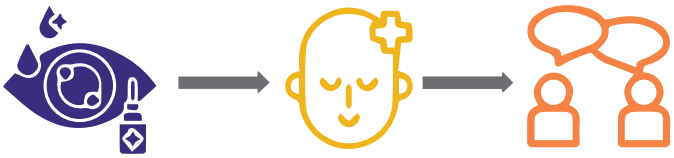
> "I can use my mobile phone conveniently for managing communication and reading the newspaper which has helped me be more connected with the world around me."
>
> Paramsing Naik
> 70 years, Dist. Nandurbar, Maharashtra

C. HEALTH EMPOWERMENT

Restoration of vision has improved the physical and mental well-being of the underprivileged elderly population

There are multiple studies that note a correlation between a decline in mental and physical health and a loss of vision. Stress often caused by fear of isolation, inability to access and afford treatment and loss income in the elderly. In a few cases, stress also has an adverse effect on the potential recovery of the patient with implications on other health indicators.

After the surgery, 93 percent of the respondents in the quantitative study reported a significant improvement in their mental health and greater motivation for personal and communistic progress due to individualised health interventions. Besides, it was observed through qualitative study that as a result of their peers' improved vision, the demand for eye care services consistently increased in these regions.



> "I was helpless and suffering from depression due to poor vision. The surgery has given me a new life and I can now live confidently."
>
> Bhagawad Satya Komkani
> 78 years, Dist. Nandurbar, Maharashtra

D. ECONOMIC EMPOWERMENT

The Rashtriya Netra Yagna programme has increased employment opportunities of elderly citizens on the back of improved vision thereby enhancing their quality of life

In a study conducted by Aravind Eye Care System in the Madurai region of Tamil Nadu, 85 percent of men and 58 percent of women who had lost their jobs as a result of blindness regained employment following cataract surgery.[9]

According to the quantitative study, 88 percent of respondents who were employed prior to their vision loss were able to return to their previous professions and function independently as a result of better vision following surgery. From the discussions with the community workers and doctors across the 4 hospitals, it was found that many of the elderly citizens had retired from their work-life at an early age (40s and 50s) due to their poor vision. Post-surgery, due to the improvement in vision, people even in their 60s were able to go back to work.

Furthermore, 11 percent of the beneficiaries who returned to work post the surgery, reported an increase in their income. The reported average increase in their income was 18.64 percent.

> "Due to cataract, I was not able to work for 9 months. I also had to leave the agriculture sector and stay at home. Post the surgery, I am able to continue my passion and the income is back to what it was."
>
> Peda Narsappa
> 67 Years, Dist. Bengaluru, Karnataka

[9] https://idronline.org/the-link-between-blindness-and-poverty/

QUANTITATIVE STUDY: IMPACT IN NUMBERS

80 percent
gained good eye vision after surgery

70 percent
manages their day to day activities without the support of their family members

93 percent
improved their mental health due to vision gained

95 percent
participate in community initiatives

88 percent
were able to return to their previous employment

QUALITATIVE STUDY: IMPACT IN NUMBERS

32 percent
regained complete vision

96 percent
able to function independently

63 percent
had greater motivation and hope, impacting their outlook on life

46 percent
felt more positive about attending community engagements

53 percent
had more awareness and access to affordable eye care

THE WAY FORWARD

This study evaluated the on-ground implementation processes undertaken by Vision Foundation of India from 2018 to 2020 and impact achieved through the project. Recommendations based on the evaluation include:

- Creating a robust database system which can enable leveraging of data-based insights on major causes of cataract, health implications, suggested remedies, and characteristics of those impacted. The data collected has the potential to become a vital source of knowledge for government healthcare programmes.

- Strengthening the delivery model to achieve greater coordination and cross-collaborative learning between on-ground implementation partners. This will enable partners to align on best practices, discuss challenges, and deliberate on potential solutions. Exchange of ideas will also help explore solutions for seeking financial leverage from existing government healthcare providers.

- Enforcing follow-up mechanisms to track and conduct pending surgeries of elderly citizens who have undergone treatment in only one of their affected eyes so far. Referral systems for non-cataract ailments among elderly citizens at eye-health camps can help detect other forms of blindness. The model can also focus on community-led action to boost surgery demand by engaging with stakeholders such as the Sarpanch and Gram Panchayat members to influence and mobilise the elderly community for surgeries.

ABBREVIATIONS

AIIMS	All India Institute of Medical Sciences
BKKY	Briju Krushak Kalyan Yojana
CSR	Corporate Social Responsibility
CT	Computer tomography
ECG	Electrocardiogram
ENT	Ear, Nose, And Throat
FGD	Focus Group Discussion
GDP	Gross Domestic Product
HR	Human Resources
IEC	Independent ethics committee
IDI	In-depth interviews
IOL	Intraocular Lens
LFA	Log Frame Analysis
M&E	Monitoring and Evaluation
MIS	Management Information Systems
NGO	Non-Governmental Organisation
PME	Project Monitoring and Evaluation
PPE	Personal Protective Equipment
MV	Mission for Vision
NSE	National Stock Exchange
RNY	Rashtriya Netra Yagna
SC	Scheduled Caste
SDG	Sustainable Development Goal
SOP	Statement of Purpose
VFI	Vision Foundation of India
WHO	World Health Organization

NSE FOUNDATION'S ELDER CARE MODEL - INTRODUCTION

ABOUT NSE FOUNDATION

NSE Foundation is a Section 8 company that undertakes the CSR activities of the National Stock Exchange of India Limited and its subsidiaries (NSE Group), with a broad vision to enhance the well-being of vulnerable and marginalised communities. NSE Group constantly works to improve the financial well-being of people at large through a committed approach to offer investment products that suit varied needs of the population. The Group further understands that the economic and social well-being of the community is closely interlinked to their habitats and their surrounding environment. Consequently, the NSE Foundation strives to improve the quality of life of its identified beneficiaries, thereby creating inclusive societies, while meeting the social and environmental responsibilities of the NSE Group.

The current CSR discourse has moved beyond mere investments to respond to the dynamic social, ethical, and environmental trends of society. Transformation led by businesses, ancillary trusts and foundations is now focusing on understanding the interconnections at the macro level of society and ecosystems and changing its strategy to optimise the outcomes for the larger social and environmental systems.

NSE Foundation has supported more than 75 projects across multiple Indian states, impacting more than eight lakh (8,00,000) beneficiaries through various programmes. The Foundation ensures sustainability of these projects by aligning all programmes to state and local governing bodies and leaving room for innovation and customisation to suit the local context. The programmes are implemented through partners with domain expertise and a presence in the identified geographies and are closely monitored by empanelled agencies with expertise in the social and development sector. Progress is measured periodically through systematic social and financial audits comprising both qualitative and quantitative output indicators.

NSE Foundation implements its activities in six core focus area with an emphasis on Education, Elder Care, and Sanitation and Safe Drinking Water.

STATUS OF VISION IMPAIRMENT IN THE ELDERLY POPULATION OF INDIA

Currently, around 1.1 billion people in the world live with a vision impairment and 90 percent of these are concentrated in low- and middle-income countries.[10] India is home to more than 137 million people who have near vision loss and 79 million who suffer from impairment.

According to the National Blindness and Visual Impairment Survey 2015-19 cataract (71 percent) and refractive error (13.4 percent) were the major causes of visual impairment among the population above the age of 50 years.[11] Cataract, a form of age-related vision loss, is responsible for nearly 51 percent of blindness globally, as per the World report on vision by the World Health Organization (WHO) leading to approximately 771 million people across the world suffering from loss of vision that could be avoided.[12] India was the first country to launch the National Programme for Control of Blindness in 1976 with the aim to reduce blindness prevalence to 0.3 percent by 2020[13].

However, the estimated prevalence of blindness still stands at 1.99 percent, severe visual impairment at 1.96 percent, moderate visual impairment at 9.81 percent, and moderate severe visual impairment at 11.77 percent. Bijnor in Uttar Pradesh has the highest population suffering from blindness (3.67 percent) and visual impairment (21.82 percent), followed by Warangal in Telangana and Nalbari in Assam with differences of less than one percent.

The Visual Impairment Survey also revealed that blindness was more pronounced among illiterates (3.23 percent) than literates (0.43 percent) and more prevalent in rural populations (2.14 percent) as compared to urban populations (1.80 percent). Furthermore, refractive errors (near or far sightedness) was found to be responsible for 70.6 per cases of early visual impairment. The coverage of cataract surgery was 93.2 percent in men and 91.9 percent in women aged above 50. As per the survey, around 40 percent of cataract surgeries were performed in Government facilities, while the rest took place in private or non-profit facilities. Overall, 57.8 percent cases had very good visual outcomes, while the rest were good, borderline or even poor[14].

1.1 billion

people worldwide, with vision impairment

137 million

people in India with near vision loss

2 percent

of the population in India suffer from blindness

51 percent

people worldwide suffer from Cataract

Cataract

is more pronounced in rural population and among illiterates

[10] https://idronline.org/the-link-between-blindness-and-poverty/

[11] https://npcbvi.gov.in/writereaddata/mainlinkfile/file341.pdf

[12] https://apps.who.int/iris/rest/bitstreams/1257940/retrieve

[13] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3562965/

[14] https://npcbvi.gov.in/writereaddata/mainlinkfile/file341.pdf

NSE FOUNDATION'S ELDER CARE MODEL

The "National Policy on Senior Citizens 2011[15] advocates the values of an age-integrated society, wherein the formal and informal social support systems can be strengthened enhancing the family's capacity to take care of senior citizens." The policy emphasises the importance of ageing in the comfort of one's own home, to facilitate and sustain dignity in old age. The thrust should be preventive rather than curative, with institutional care as the last resort. It is recognised that care of senior citizens must remain vested in the hands of the elders themselves or in the family. Additionally, NSE Foundation's detailed understanding of the elderly segments and review studies from the field, led to the discovery that not all elders are retired "from any activity" and are willing to take responsibility and ownership of their growth. This formed the theme of NSE Foundation's elder care model as "Empowerment of the elderly, by the elderly".

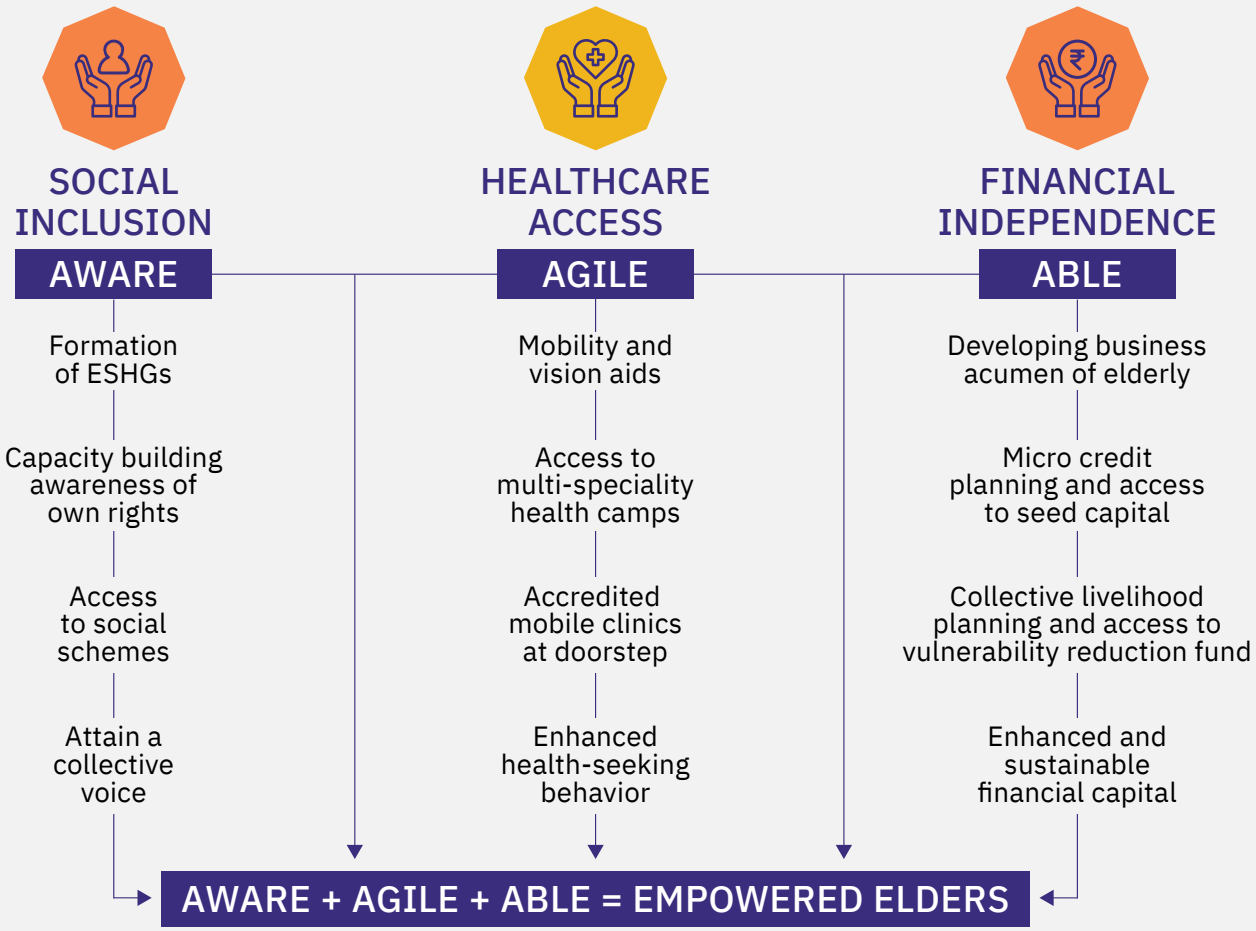
Drishti Eye Hospital, Dist. Aurangabad

The philosophy of the elder care model is to empower senior citizens by making them aware, agile and able (AAA+). The intervention acknowledges that visually disabled elders face a three-dimensional disruption on social, health, and economic aspects which should be solved for in a structured and systematic manner. The model, therefore, banks on collective and formalised action by the elderly and for the elderly to enable a complete transformation by:

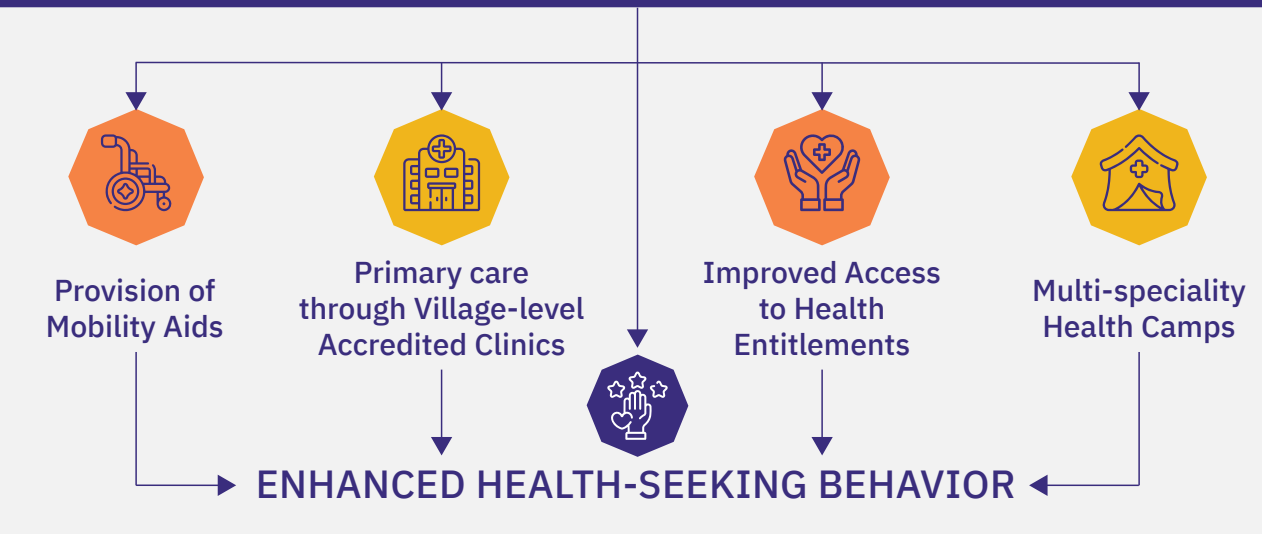
- Enhancing awareness and access to existing government welfare provisions including pensions and healthcare
- Creating a platform for linkages to support social, emotional well-being and maintain the dignity of the elderly, and
- Using the collectives to amplify the voices of the elderly for advocacy on their needs.

[15] https://pib.gov.in/newsite/PrintRelease.aspx?relid=77868

NSE FOUNDATION'S ELDER CARE MODEL



NSE FOUNDATION'S HEALTHCARE INTERVENTIONS



HEALTH INCLUSION PROGRAMME WITHIN NSE FOUNDATION'S ELDER CARE MODEL

The Health Inclusion Programme facilitates adequate access to healthcare and palliative care addressing vision and mobility challenges of the elderly to enhance their active participation in community life. This approach is adopted with the twin objectives of enhancing health status and reducing exorbitant healthcare-expenditure. NSE Foundation and its partners converge with state health missions at the district level to enhance access of elders to health services.

Health security is further promoted through participation of local institutions such as Anganwadis, women and elders' institutions, and healthcare centres. The Health Inclusion Programme aims to achieve the following objectives:

1. Elders have access to adequate healthcare services, particularly vision and mobility
2. Elders have access to government healthcare schemes and benefits
3. Elders have access to palliative care services at the community level through support from community led groups who foster the spirit of 'elder for elders'
4. Elders enhance their health-seeking behaviour

To achieve these outcomes, the Foundation undertakes key activities as described below:

Provision of vision and mobility-related aids to elderly

In this programme, NSE Foundation and its local partner agency collaborated with lens manufacturers to provide intraocular lens (IOL) surgeries and polycentric knee braces for elders in the community. The beneficiaries are identified through participatory processes and referred to specialist camps for services. The important combination of vision and mobility aids assists elders in being active in the community resulting in a higher morale.

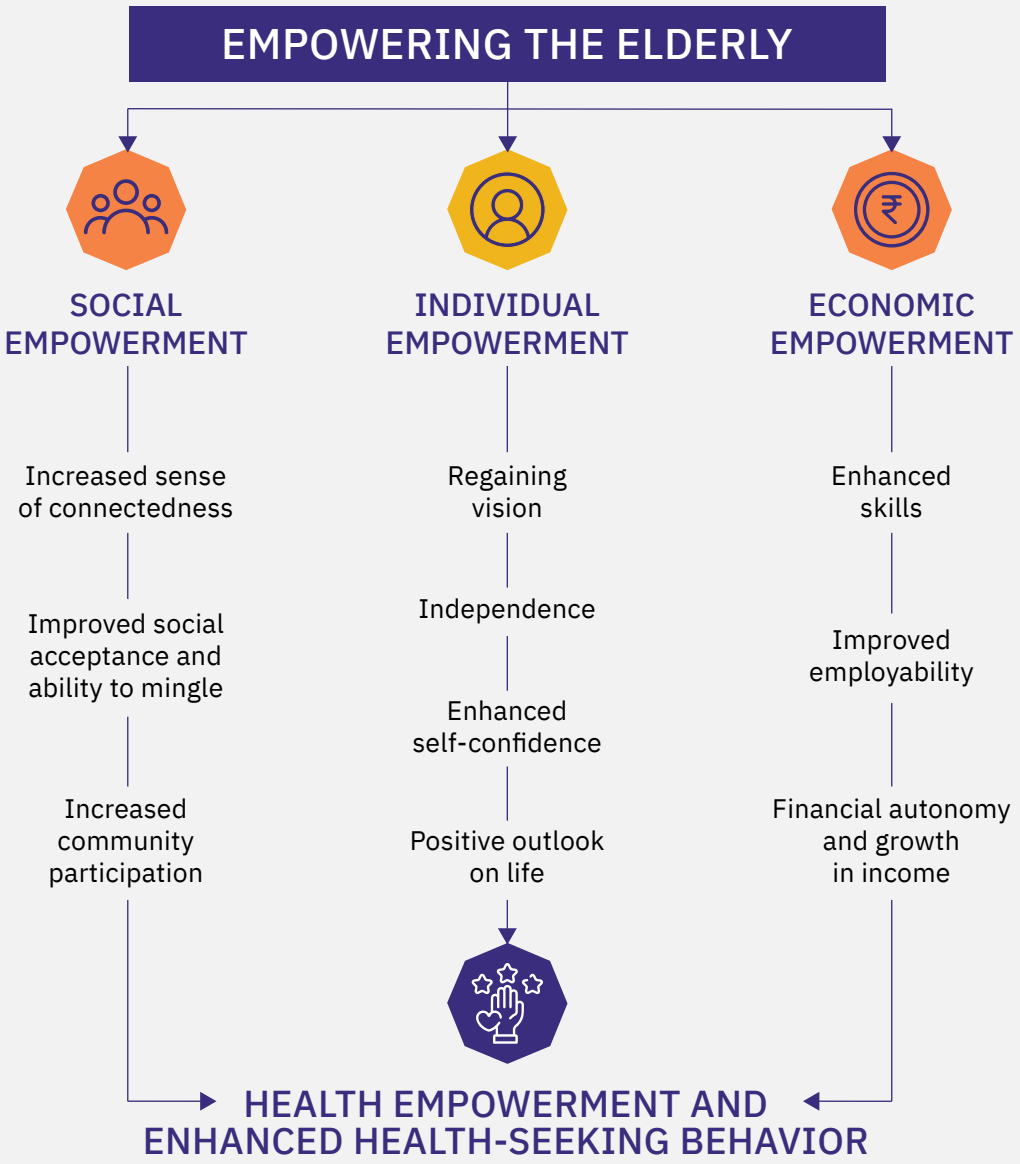
Multi-specialty health camps

NSE Foundation collaborated with the local health system to facilitate deployment of multi-specialty health camps at the community level. While NSE Foundation covers the treatment costs, it is the elderly who manage the logistics. This fosters a sense of accountability, belongingness, and ownership amongst the elders while also encouraging health-seeking behaviour.

Village-level accredited clinics for primary and palliative care

A complementary intervention is the setting up of village-level clinics that serve as the primary access for basic healthcare services. The programme also includes palliative care services which are elder-led but supported by younger parahealth professionals. Volunteers are capacitated on crucial health issues for the elderly, enabling them to become first responders, providing crucial home-based palliative care for the most vulnerable/unwell elderly.

The programme interventions adapted to NSE Foundation's AAA+ outcomes are as follows:



CONNECTING THE DOTS: RASHTRIYA NETRA YAGNA

Since 2018, NSE Foundation has focused on instituting comprehensive community development programmes and projects in several districts of the country. Since elders in each of these districts have multi-layered vulnerabilities; the approach, built upon the original model of Social - Health - Economic empowerment, has been suitably customised and adapted to meet their requirements across different regions. For one of these initiatives, NSE Foundation has partnered with Vision Foundation of India (VFI) in their 'Rashtriya Netra Yagna' programme which helps address reversible blindness and treats eye diseases for the elderly.

With NSE Foundation's support, the programme, aligned with the government scheme, "National Programme for Control of Blindness", has steadily increased its outreach to around 7,240 elderly citizens across both rural and urban parts of India.

KEY OBJECTIVES OF THE PROGRAMME

1. To enhance and ensure the quality of eye care provided for elderly

2. To prevent the occurrence of blindness to the maximum extent possible

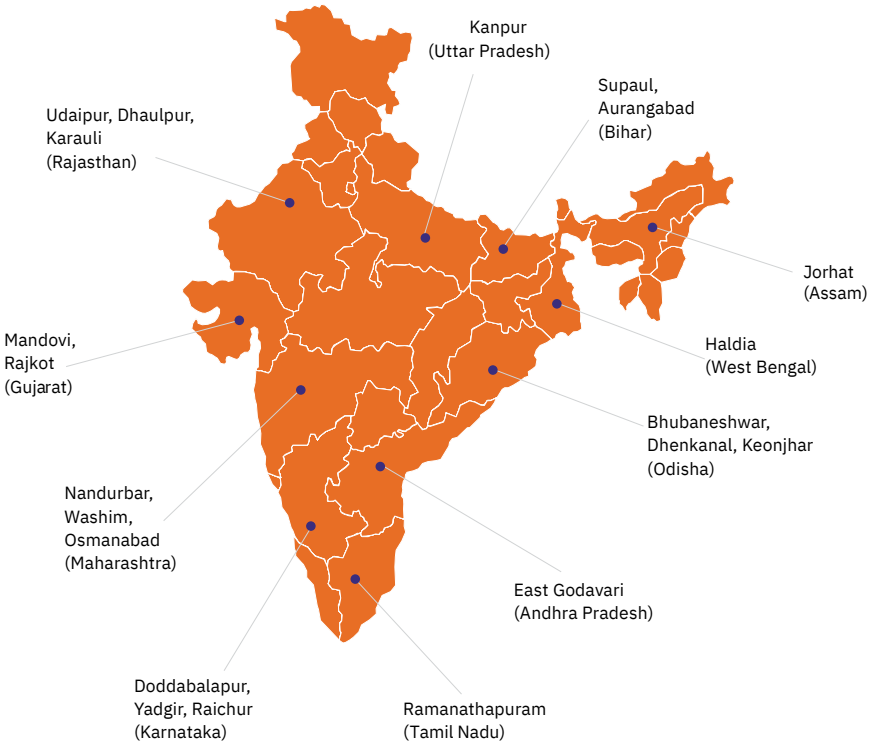
3. To reduce treatable blindness and treat eye diseases for elderly from the lower socio-economic strata especially from rural areas

4. To leverage a network of partner eye hospitals and NGOs located across India, ensuring funds are used for the benefit of patients and no contribution is made towards capital expenses, resulting in optimum utilization of underutilized infrastructure /facilities

OUTREACH

11 states were selected for the NSE Foundation programme with partner VFI. In each of the locations, elderly community members were mobilised through eye-health camps and referrals from local hospitals or NGOs.

Between 2018-2020, under this elder care initiative, the programme successfully carried out 7,240 cataract surgeries for marginalised elderly citizens across several states.



RESEARCH METHODOLOGY AND APPROACH

NSE Foundation engaged Sattva Consulting, a third-party assessor to conduct an impact evaluation of the programme.

OBJECTIVES OF THE IMPACT ASSESSMENT STUDY

- To assess programme efficacy on quotients of creating awareness, making eye healthcare accessible and affordable to the beneficiaries
- To assess programme impact on beneficiaries (physical, social, economic dimensions)

RATIONALE

The six hospitals in the study were chosen based on the following criteria:

1. Hospitals that have recorded the highest number of surgeries conducted by the implementation team
2. COVID-19 restrictions and mobilisation of field data teams across locations
3. Balanced gender representation in the study

METHODOLOGY

Sattva conducted the impact evaluation study using a descriptive design approach to gather valuable impact related insights from a 360-degree perspective. A mixed-methods approach was used consisting of quantitative (case study interviews) and qualitative (focused group discussions) research techniques, and in-depth interviews (IDIs). The methodology for the impact evaluation exercise encompassed developing a set of research questions which would help in drawing out relevant conclusions within the scope of research.

DATA SOURCES

To understand the impact of the program from a 360 degree perspective 360-degree perspective, primary and secondary data sources were used for the impact evaluation.

PRIMARY SOURCE OF DATA	SECONDARY SOURCE OF DATA
· Survey data collection · Qualitative data collection · IDIs and FGDs with different indirect stakeholders · Case study discussions with elderly citizens	Programme documents and data on beneficiaries maintained by the NGOs Documents defining programme's progress, periodic status reports etc., to analyze the progress made by beneficiaries and the process followed by VFI in achieving the same

1

DESCRIPTIVE STUDY

Sattva conducted the impact evaluation study using a descriptive design to gather valuable insights from a 360-degree perspective

2

CROSS-SECTIONAL APPROACH

A cross-sectional design was used wherein the data from the target group was collected at a single point of time to assess the outcome of the programme

3

MIXED METHOD APPROACH

A mix of quantitative and qualitative research method was used to understand the impact of the programme

STUDY APPROACH

Sattva conducted the impact evaluation in the following phases. At each phase of the study, frameworks were developed and shared with NSE Foundation and VFI for inputs and feedback.

STAKEHOLDERS FOR IMPACT EVALUATION

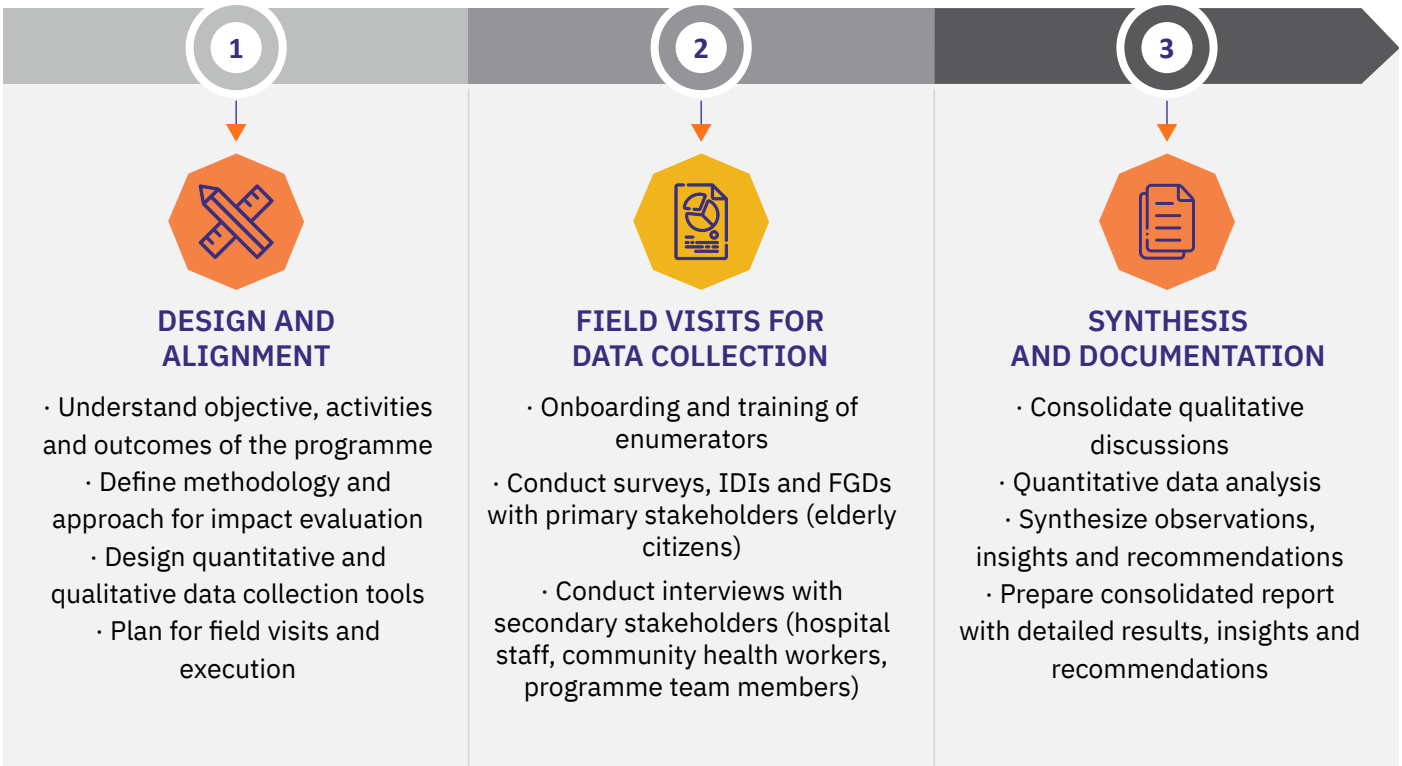
The primary stakeholders for the study were the elderly citizens, who were directly impacted by the interventions while the secondary stakeholders were those who were involved in the coordination and implementation process and enabled the effective planning, management, and delivery of the programme such as the hospital staff, community health workers, the doctors, nurses, and the VFI programme implementation team.

DESIGN OF DATA COLLECTION TOOLS

The case study interview tool was designed to capture qualitative insights and survey tools were designed for quantitative from the elderly who were a part of the programme. It focused on understanding their awareness levels about the ailment and the treatment sought, the impact on their ability to read and function independently after undergoing the surgery, as well as improvement in their quality of life.

The in-depth interview (IDI) and focused group discussion (FGD) guides were designed for hospital staff, community health workers, nurses and programme implementation team. Secondary beneficiary data on outreach, gender ratio, age, and type of ailment was collated and analysed for the set of 7,240 elders who benefited from the programme.

Phases of Impact Evaluation



QUANTITATIVE STUDY

SELECTION OF HOSPITALS

Sattva's research team, selected 3 out of the 21 hospitals that worked in partnership with Vision Foundation of India (VFI) for administering eye healthcare and conducting cataract surgeries on the basis of their availability for the study and the number of targeted beneficiaries served. The hospitals were:

- Nayonika Eye Care Hospital, Bengaluru (Bangalore), Karnataka
- Drishti Eye Care Hospital, Aurangabad, Bihar
- Ratan Jyoti Netralaya, Gwalior, Madhya Pradesh

LIMITATIONS AND CHALLENGES

- **COVID Restrictions**

  Given the covid restrictions in hospitals, and the overstretched healthcare systems only a few hospitals consented to participate in the study & few could support reaching out to the actual beneficiaries. The study covered a convenience sample of 331 reported beneficiaries. At Drishti & Ratan Jyoti Hospitals, on field surveys were conducted, while in the Nayonika Hospital the data collection was through a virtual survey.

- **Identification and mobilisation of beneficiaries**

  The Sattva team faced difficulties in locating beneficiaries as there were no identifiable personal records of beneficiaries in the hospitals. Due to lack of data on patients' addresses, it wasn't feasible to do a door-to-door data collection in Aurangabad & Gwalior after the first day. This limited the number of patients approached for the study, much below the proposed numbers.

Documents of the organization reviewed to get a comprehensive picture

1 **NEED ASSESSMENT**

Systematic set of procedures that were used to determine needs of target population

2 **RISK MITIGATION STRATEGY**

· List of activities, or steps, to reduce the probability and/or adverse risk
· Creation of a contingency plan to deal with the risk, should it occur

3 **LOG FRAME ANALYSIS**

Document highlighting
· Project objectives
· Activities
· Resources
· Potential risks
· Means of verification

4 **ANNUAL REPORT 2019-20**

Report highlighting yearly activities and overall financial performance of VFI

5 **REPORTING STRUCTURE**

Document highlighting team structure and roles and responsibilities

6 **EXIT STRATEGY**

Plan of how the project will end or transform over time

QUALITATIVE STUDY

SAMPLING APPROACH

Sattva conducted case study interviews with a sample of 80 elderly Citizens (20 from each of the 4 hospitals). The sample selected was a statistical representation of the total number of beneficiaries. The steps undertaken were as follows:

STEP 1: Selection of states

The states of Maharashtra, Karnataka, and Odisha were selected on the basis of the highest number of cataract surgeries conducted, COVID-19 restrictions, hospital mobilisation needs, and availability of stakeholders.

STEP 2: Selection of hospitals and stakeholders

Out of the 21 hospitals in the programme, 4 were sampled for the study. Stakeholders at each location were shortlisted using convenience sampling, keeping in mind the lockdown restrictions and safety concerns. Care was taken to ensure that inputs of various stakeholders including members of the VFI programme team were incorporated to form a diversified and representative sample.

STEP 3: Conducting qualitative interviews and case study discussions

One-on-one case-study interviews were conducted with 44 female and 36 male elderly citizens across the four locations. These interviews were supplemented with 11 FGDs conducted with community health workers, doctors, nurses, and members of the VFI implementation team.

Outreach and Stakholder Mapping

Region	State	Population Benefitted	Secondary Data	Case Interviews
North	Bihar	492	492	20
	Uttar Pradesh	134	134	
	Andhra Pradesh	148	148	20
South	Karnataka	938	938	
	Tamil Nadu	500	500	
	Odisha	689	689	20
East	West Bengal	93	93	
	Assam	237	237	
	Rajasthan	947	947	20
West	Gujarat	558	558	
	Maharashtra	2504	2504	
TOTAL		**7240**	**7240**	**80**

Stakeholders	Sources of data	Planned interview/FGDs	Actual Interview/FGDs
Senior Citizens	Case Study discussions	80	80
Community Members	Focus group discussions	4	4
Doctors & Nurses	In-depth interviews	4	6
Project Implementation Team (Vision Foundation of India)	In-depth interviews	1	1

SECONDARY DATA ANALYSIS

Secondary research involved review and analysis of existing data to gain additional insights of the impact and relevance of the programme. Several documents of the organization were reviewed to get a comprehensive picture of the programme.

Additionally, the MIS data shared by the organization was also analysed. Other secondary documents sourced on National Health Statistics on blindness among the elderly population in India and similar programmes aimed at affordable surgeries for eye care were also included to draw out relevant insights.

ETHICAL CONSIDERATIONS

The evaluation followed the ethical protocols in all aspects and at all stages of the engagement. This included ensuring the privacy, voluntary, and consensual participation of all the interviewed stakeholders.

LIMITATIONS

- **Recall bias amongst elderly citizens:**

  There is a possibility that elderly citizens and other stakeholders that were part of the impact evaluation study faced a “recall bias” while responding to the questions. This occurs when participants in a study are systematically more or less likely to recall and relate information on exposure depending on the status of their outcome.

- **Mobilisation limitation at hospital sites in Bengaluru and Udgir**

9 case interviews (of 20) in Bengaluru and 4 (of 20) in Udgir were conducted telephonically due to the inability of the elderly citizens to visit the hospital when the team was on the field.

Dist. Nandurbar, Maharashtra

BENEFICIARY PROFILE AND PROGRAMME OUTPUTS

Programme Beneficiary Profile

REGIONAL PROFILE

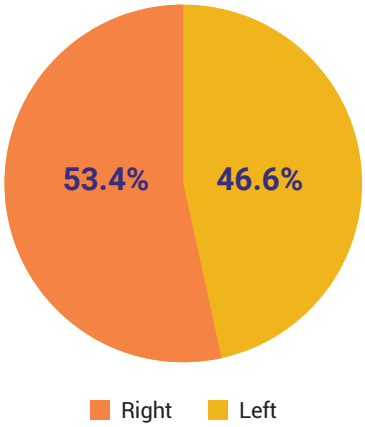
The Rashtriya Netra Yagna Programme mobilized beneficiaries through health camps conducted across 11 states. The state-wise count of beneficiaries is as follows:

State	No. of Surgeries
Andhra Pradesh	148
Assam	237
Bihar	492
Gujarat	558
Karnataka	938
Tamil Nadu	500
Maharashtra	2504
Odisha	689
Rajasthan	947
Uttar Pradesh	134
West Bengal	93
TOTAL	**7240**

SURGERY PROFILE

Out of the total beneficiaries operated on in their eye, about 53.4 percent have been operated on in their right eye and 46.6 percent in their left eye.

Surgery profile of the beneficiaries

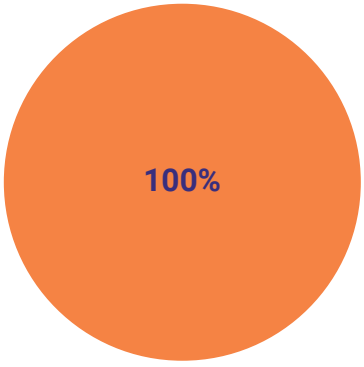


Eye Operated (n=7,240)

ECONOMIC PROFILE

100 percent of the beneficiaries fell below the poverty line and were at a severe economic disadvantage. 60 percent of the beneficiaries were employed, of which only one person was in the organized sector while the majority were engaged in farming related occupations. Of these, 87 percent of male beneficiaries and only 33 of female beneficiaries reported being employed.

Economic profile of the beneficiaries

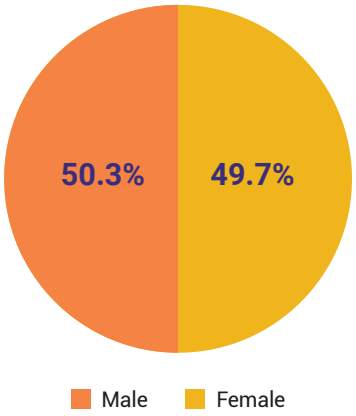


(n=7,240)

GENDER PROFILE

In terms of gender, an equal distribution can be seen between male and female beneficiaries who benefitted from the surgeries. 50.3 percent of the beneficiaries were male and 49.7 percent of the beneficiaries were female.

Gender profile of the beneficiaries

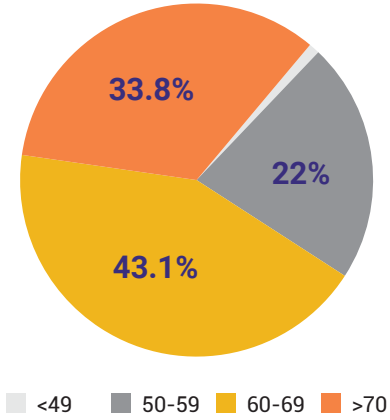


Gender Distribution (n=7,240)

AGE PROFILE

More than 76 percent of the beneficiaries were over the age of 60 years. Only 2 percent of the beneficiaries are below the age of 49 years whereas 22 percent of the beneficiaries are between the age of 50 and 59 years.

Age profile of the beneficiaries



Age Distribution (In years) [n=7240]

PROGRAMME RELEVANCE AND OUTPUTS

CURRENT CHALLENGES FACED BY THE BENEFICIARIES

1. Affordability

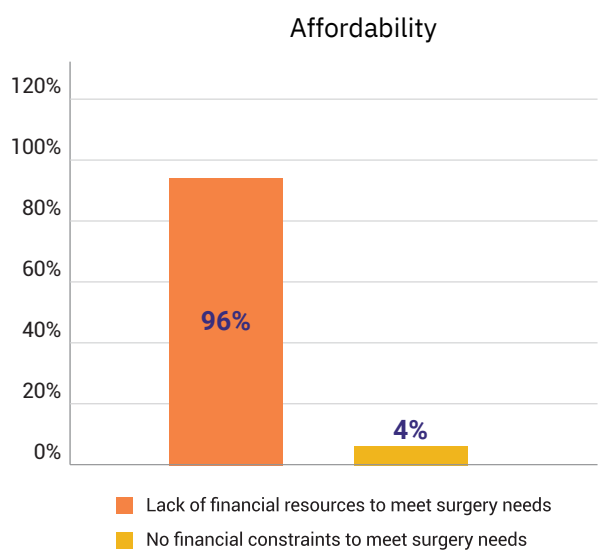
From the sample of 80 elderly citizens interviewed in the study, 96 percent said that they did not have financial resources to get a cataract operation done as private hospitals charge around INR 40,000-50,000 per cataract surgery.

2. Accessibility

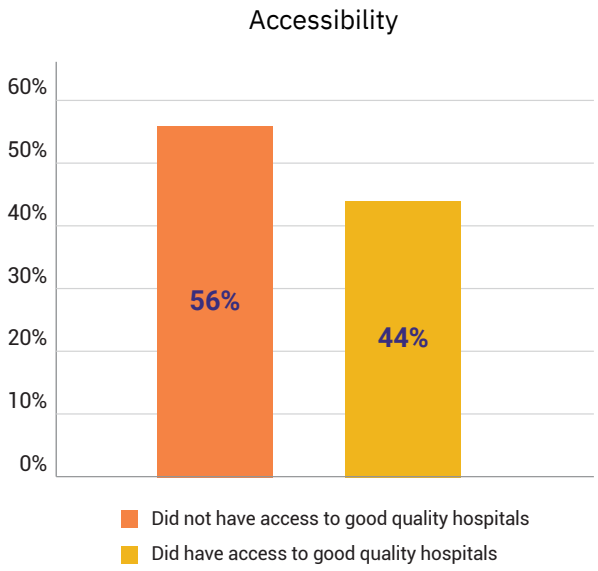
56 percent said that they did not have access to good quality private hospitals around their locality. This restricted their economic mobility in society, and increased their dependency on others for meeting their day-to-day needs. Discussions with the community and the implementation team highlighted significant gaps in the existing infrastructure and service facilities in addressing eye-health issues for the community. VFI conducted a due diligence study to assess the needs and gaps in the community in terms of access to healthcare and palliative care. It was identified through this study that only a few eye hospitals provided cataract surgeries free of cost. The limited capacity at hospitals discouraged expansion or scaling up of operations to benefit a larger number of people.

3. Social conditioning of beneficiaries

Interviews with the community and the implementation team also reflected social conditioning as a majority of elderly patients avoided surgery and relied on home remedies as cataract was accepted as an old age problem that did not require treatment.



Relevance of Rashtriya Netra Yagna Program (n=80)



Relevance of Rashtriya Netra Yagna Program (n=80)

PROGRAMME INITIATION AND IMPLEMENTATION PROCESS

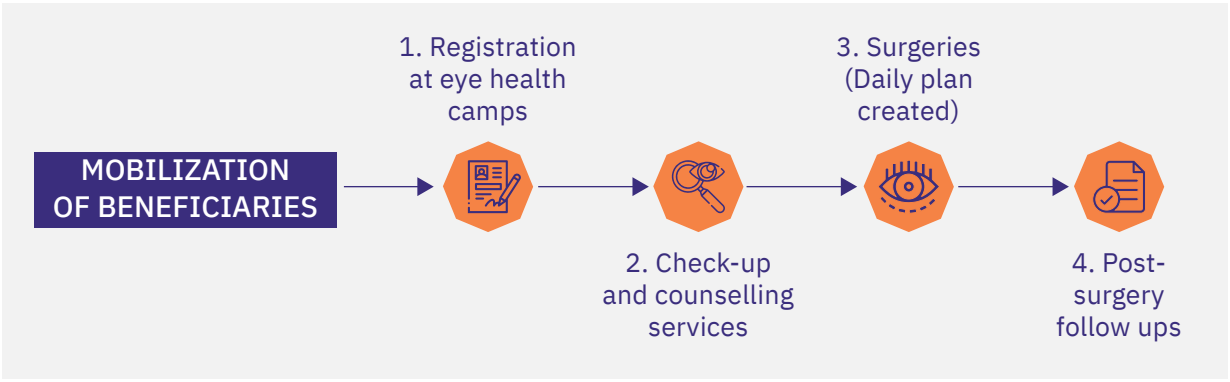
The situation thus necessitated a relevant and grounded model through which support could be provided to the hospitals to build capacity and provide quality services to elderly at scale. Given this problem statement, the programme objectives were formed to suitably address the health needs of the elderly citizens.

MOBILIZATION OF BENEFICIARIES

The Rashtriya Netra Yagna Programme mobilized beneficiaries across 11 states through community outreach by health workers, VFI associated hospitals' team and volunteers. More than 300 eye-health camps were conducted in which over 30,000 elderly citizens were screened and 7,240 surgeries were performed. In 2018, an average of 18 camps were held every month which recorded an average of 100 elderly citizens being screened per camp. In 2019, this fell to an average of 8 camps per month with an average of 90 citizens screened per camp.

YEAR	HEALTH CAMPS	SCREENING
2018	218	22902
2019	90	8173
2020	3	470
TOTAL	**311**	**31545**

PROGRAMME INITIATION AND IMPLEMENTATION PROCESS

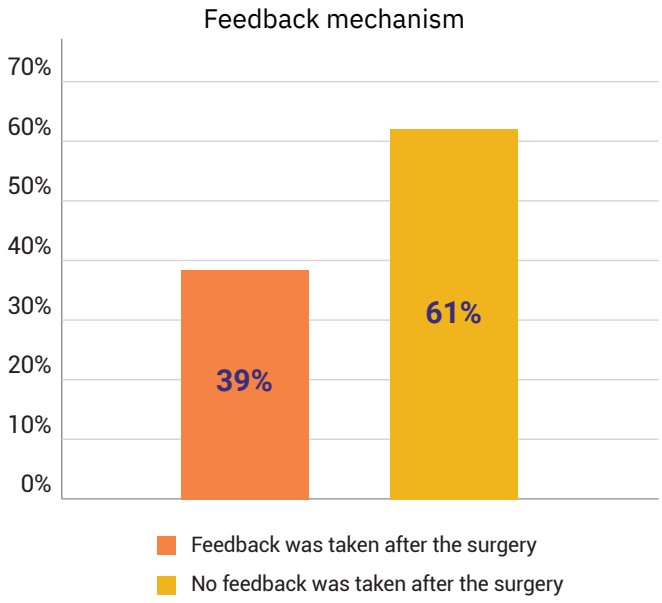


PROGRAMME IMPLEMENTATION

The following activities were undertaken during the implementation phase in consultation with VFI. Detailed documentation of the operational plan was available at every hospital visited during the study. VFI had outlined clear roles and responsibilities of the execution team for the programme, including the presence of members of the managing council (ex-brigadiers who are volunteers) and an outreach team working in close collaboration with the partner hospitals.

The programme activities were implemented on-ground with experienced professional doctors conducting the surgeries. Additionally, from the discussions with the hospital staff and review of the project documents, it was observed that community health workers as volunteers helped publicise the health camp across locations, and motivated people to visit health camps and vision centres. Anganwadi and ASHA workers also supported the arrangements of camps which helped screen the patients and refer them to the base hospitals. The camps also supported the followup processes of a patient after surgery. The partner hospitals had adequate infrastructure facilities which enabled them to provide screening, surgeries, and any post-operative care to the patients. Capacity building sessions were facilitated by the hospital for their medical staff who were motivated to drive change and support the underprivileged people by using their expertise to resolve the high backlog of cataract cases in the country.

The VFI team followed a random selection approach to identify beneficiaries and their feedback or follow up on post-operative support needed by them. During our discussions, only 31 out of the 80 (39 percent) elderly citizens mentioned giving feedback post-surgery



MONITORING AND EVALUATION

A standard reporting mechanism to measure the progress of the programme was in place. However, the process of collecting feedback was not based on any standardized framework and could be strengthened. Updates on the progress were shared daily (offline and online) by the associate hospitals. This information was consolidated and shared as per the standard monitoring framework with NSE Foundation.

Hospital Name	Eye Health Camps (Registration)	Provision of check-up & counselling services	Surgeries (Daily plan created)	Provision of post surgery follow ups
H.V. Desai Eye hospital, Nandurbar	Yes	Yes	Yes (20/day)	2 (After 1 week, 1 month)
Udaygiri Lions Association, Udgir	Yes	Yes	Yes (60/day)	4 (After 2nd, 8th, 15th and 40th day of surgery)
Bhoomika Eye hospital, Jaraka	Yes	Yes	Yes (25/day)	2 (After 1 week, 1 month)
Nayonika Eye Care Hospital, Bengaluru	Yes	Yes	Yes (15-20/day)	3 (After 1 day, 1 week, 1 month)

As a part of the monitoring process, hospitals are periodically audited by an expert committee consisting of doctors and the internal audit team of VFI. This helped VFI check on queries, quality of facilities, capture key learnings, and discuss health cases needing attention across a set of 4-5 locations at a time. Insights taken from these audits were used to improve the quality of the programme (revisions were done, further training and interactions with doctors where needed). VFI also created a detailed risk identification strategy and mitigation process which ensured smooth implementation of the programme.

PROGRAMME SUSTAINABILITY

In the long run, community ownership, capacity building of partner hospitals and strengthening of convergence mechanisms could ensure greater sustainability of the implementation programme. VFI has been established with the objective of reducing preventable blindness in India. Hence, the immediate plan is to scale up the programme for the benefit of a larger section of society over the next five years.

"There was lack of infrastructure facilities for eye check ups in the district. Besides, the services were neither affordable for people not were they aware about eye problems, which all led to the significance of starting the Rashtriya Netra Yagna programme in our hospital."

Doctors,
Kantalaxmi Shah Eye Hospital, Dist. Nandurbar, Maharashtra

"The programme has been beneficial and should be continued. Logistical support should be provided to enable check-ups in mobile vans which are spacious enough to accommodate people. Also, the project needs to enhance its coverage beyond the current districts in Odisha."

Dr. Dhaneshwar Pradhan, Dr. Bhumika Rath
Bhoomika Eye Hospital, Jaraka, Dist. Jajpur, Odisha

All surgeries were conducted with a 100 percent success rate and no accidents were reported through the course of the programme.

QUANTITATIVE STUDY

INCIDENCE OF CATARACT (WORLDWIDE & IN INDIA)

- According to the World Health Organisation (WHO), cataract is the leading cause of blindness all over the world, responsible for 47.8 percent of cases of blindness. It accounts for 17.7 million blind people worldwide. In 1999, WHO launched Vision 2020, to eliminate avoidable blindness by 2020.
- Cataract still afflicts up to 74 percent of Indian persons over the age of 60.[16]

PREVALENCE OF VISUAL IMPAIRMENT & BLINDNESS IN INDIA

As per a survey conducted by Rajendra Prasad Centre for Ophthalmic Sciences, AIIMS in 2019 under the National Programme for Control of Blindness & Visual Impairment, following are the relevant statistics:

Blindness & Visual Impairment Condition for those	percent Population
Prevalence of blindness, plus moderate & severe visual impairment in population >= 50 years	13.76 percent
Causes of blindness in population equal to or over 50 years	
Cataract	66.2 percent
Corneal Opacity	8.2 percent
Cataract surgical complications (including PCO)	7.2 percent
Major Causes of Visual Impairment in population equal to or over 50 years	
Cataract	71.9 percent
Refractive Error	13.4 percent
Cataract surgical complications	5.9 percent

Repercussions of Visual Impairment (Economic & Psychological)

- Economic repercussion – In a study by Aravind Eye Care System, Madurai (Tamil Nadu) the respondents had lost their jobs due to visual impairment. Of those who lost their job, 85 percent of the men and 58 percent of the women, regained their employment status post recovery of their vision.[17]
- Apart from the physical disability to perform their day-to-day chores, visual impairment also caused depression in 87.4 percent of the adults suffering from cataract. Anxiety was prevalent in 57.1 percent of the cataract affected adults.[18]

[16] Singh, Sumeer1,2; Pardhan, Shahina2; Kulothungan, Vaitheeswaran3; Swaminathan, Gayathri3; Ravichandran, Janani Surya3; Ganesan, Suganeswari1; Sharma, Tarun1; Raman, Rajiv1,2, The prevalence and risk factors for cataract in rural and urban India, Indian Journal of Ophthalmology: April 2019 - Volume 67 - Issue 4 - p 477-483

doi: 10.4103/ijo.IJO_1127_17

[17] https://idronline.org/the-link-between-blindness-and-poverty/

[18] https://idronline.org/the-link-between-blindness-and-poverty/

HEALTHCARE SYSTEM – THE CHALLENGES

Accessibility - Patients vs Ophthalmologists, health-care infrastructure

While the WHO recommended ratio is 1 ophthalmologist per a population of 20,000, India has a dearth of ophthalmologists. The all-India ratio being 1 per a population of 100,000. The figures are worse for rural areas with 1 ophthalmologist per a population of 250,000. Of the total surveyed patients under this study, 74 percent had to traverse more than 10 kms to hospitals where facilities of screening and surgeries weren't even available at times.

Affordability - Costs & Pricing of surgeries

The average cost of multifocal eye surgery, in the country according to a study, is in the range of INR 50,384 to INR 80,752, exclusive of the cost of post-operative medical care and travel expense. Of the surveyed respondents, 88.8 percent could not have afforded cataract surgery at this pricing, due to low household income.

Awareness - In seeking medical attention & availing benefits

In a published study on awareness about cataracts, encompassing subjects from India, China, Hong Kong, South Korea, and Australia, it was observed that approximately 30 percent were not aware of the serious repercussions of leaving age-related cataract untreated. They were not aware that it could lead to irreversible visual impairment and blindness.

Dist. Nandurbar | Maharashtra

SURVEY RESPONDENTS - DEMOGRAPHICS

47.8 percent

52.2 percent

80.6 percent
are above 60 years of age

58 percent
have no current source of income

59.8 percent
are illiterate

(Source: Survey of Beneficiaries, n=331)

BENEFICIARIES' OCCUPATIONAL PROFILE

Of the total surveyed beneficiaries more that 40 percent were daily wage labourers, 20 percent were self-employed and 20 percent were farmers with low incomes.

(Surveyed Beneficiaries – Professions, n=331)

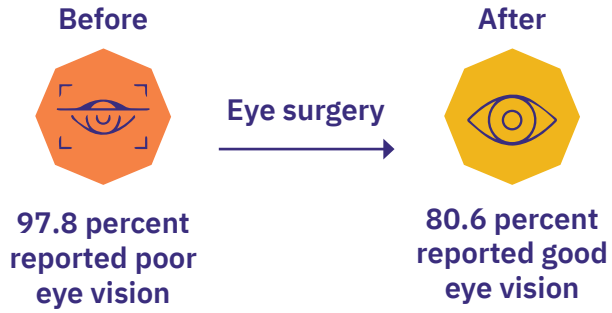
KEY IMPACTS OF THE PROGRAMME AND VOICES FROM THE GROUND

KEY IMPACT OF THE PROGRAMME: A QUANTITATIVE STUDY

IMPACT OF THE PROGRAMME

a. Individual Physical & Emotional Well Being as reported by the survey respondents

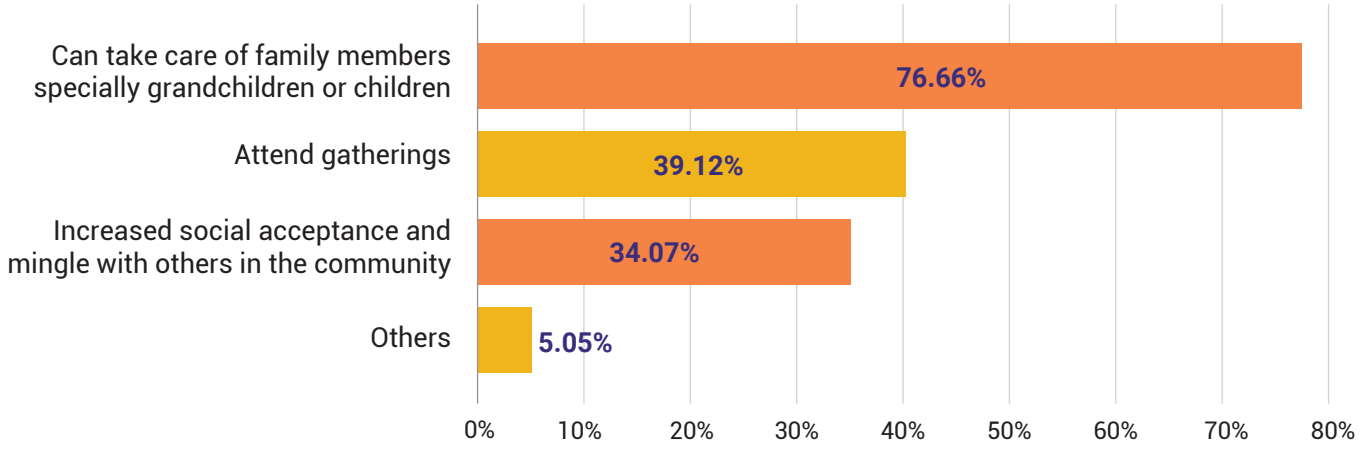
- 70 percent of the elderly citizens in the study reported feeling capable of managing their day-to-day basic activities without the support of any family member or their partners after the surgery.
- 83 percent had a positive impact on their movement around the house and felt confident in their surroundings.
- Of the literate respondents, 45.5 percent stated that they were able to see with glasses, while 38.6 percent reported that they were able to read without glasses post their surgeries.



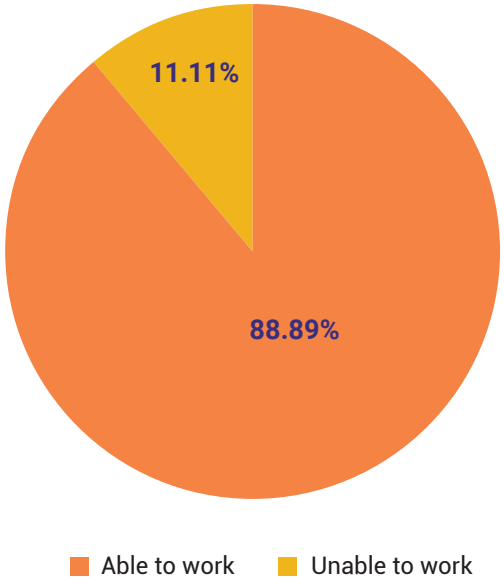
- Of the beneficiaries surveyed, 96 percent of the elderly citizens mentioned that they received post-surgery healthcare support for recovery and rehabilitation.
- Nearly 93 percent of the surveyed beneficiaries reported a considerable improvement in their mental health and a greater desire toward personal and community growth, post the recovery.

b. Social Empowerment – After having regained their vision, more than 95 percent reported participating in community initiatives. 76 percent of the surveyed elderly beneficiaries acknowledged greater interactions with their families, especially with their grandchildren.

DIFFERENT WAYS IN WHICH THE RESPONDENTS SOCIALIZE (n=317)



RESPONDENTS ABILITY TO WORK POST-SURGERY (n=117)



c. Economic Empowerment – The programme enhanced the scope of seeking suitable employment opportunities for the elderly citizens post recovery from vision impairment. Sattva's study revealed that 88 percent of the respondents who were employed before the loss of vision were able to return to their previous employment, post recovery.

11 percent of the beneficiaries who returned to work post the surgery, reported an increase in their financial status thereby improving their quality of life. On an average, the respondents also reported an increase of 18.64 percent in their income.

NSE Foundation's Rashtriya Netra Yagna Programme, worked in creating awareness, accessibility and affordability for eye care. It impacted the elderly beneficiaries by transforming their lives across the physical, emotional, social and economic dimensions.

11 percent reported an increase in income after surgery ***(n=117)***

Udgir | Dist. Latur | Maharashtra

IMPACT OF THE PROGRAMME: A QUALITATIVE STUDY

The Elder Care model aims to impact the beneficiaries across three dimensions of well-being – physical, social, and economic. Through customised health interventions, the model aims at creating a supportive environment where the elderly citizens are aware of their health issues and have access to improved healthcare services to make informed decisions. Through the programme, NSE Foundation was able to provide most elderly citizens an improved sense of self-autonomy, enabled them to carry out their daily functions independently, and increased their participation socially. Overall, the programme uplifted their economic status with many citizens reporting increased opportunities of employability.

Udgir, Dist. Latur, Maharashtra

IMPACT OF NSE FOUNDATION'S ELDER CARE MODEL ON ELDERLY

SOCIAL EMPOWERMENT

Increased social acceptance and ability to mingle

Improved community participation by **46%**

INDIVIDUAL EMPOWERMENT

Partial/complete vision restoration in **82%**

Increased independence reported by **96%**

ECONOMIC EMPOWERMENT

Ability to work independently by **84%**

Improved employability and skills by **31%**

IMPROVED HEALTH AWARENESS BY 53% AND ENHANCED HEALTH-SEEKING BEHAVIOR

KEY IMPACT -
INDIVIDUAL EMPOWERMENT

KEY INSIGHT

Rashtriya Netra Yagna programme enhanced the ability of elderly citizens to read and lead an independent life with motivation.

"Even if I was provided a surgical solution for my cataract at a low cost, I would not have been able to afford it. Now, post the surgery I'm happy that I can lead an independent life."

MANU MALIK
80 years | Jaraka | Dist. Jajpur | Odisha

"My attitude towards life has changed post the surgery. I am more confident now."

MUMTAZ
40 years | Dist. Bengaluru | Karnataka

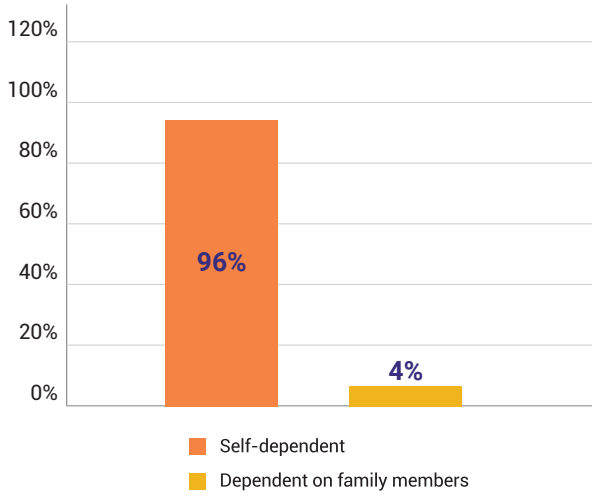
ABILITY TO READ

The Rashtriya Netra Yagna programme enabled elderly citizens to feel independent, acknowledged greater interactions with their families, especially with their grandchildren. 82 percent regained vision in at least one eye post the surgery which aided self-empowerment. 83 percent reported that they were able to read better post the surgery.

ABILITY TO BE INDEPENDENT

More than 96 percent of the beneficiaries reported that they no longer had to depend on others and were able to carry out their activities on their own. 63 percent stated that they felt confident in taking decisions, and living their lives independently. They also reported having better mental health, recovery from periodic depression, and a greater motivation toward personal and community building as direct consequences of undergoing the cataract surgery and getting back their vision.

Individual empowerment of elderly (n=80)



ABILITY TO USE DIGITAL DEVICES

60 percent of the respondents were using digital devices such as mobile phones for their daily functions before vision problems arose. After the surgery, all of them have reported being able to use digital devices again. This could potentially lead to higher digital empowerment.

VOICES FROM THE GROUND

BHAGAWAD SATYA KOMKANI
78 years | Male | Dhong | Dist. Nandurbar | Maharashtra

Mr. Bhagawad had been suffering from a vision ailment for three years. He mentioned that he had not sought medical help and had not gone to a hospital because of financial constraints. He also mentioned that there were not enough trained professionals around his village. The free medical camps in his village helped him understand his problem more and he registered for the surgery. The camp staff provided him with medicines and post-surgical support which made the experience comfortable. According to him, the surgery has helped him see and move better as well as allowed him to perform a lot of his daily household chores independently. The programme has helped him overcome major depression and he feels more motivated towards leading a good life. He can now manage his financial transactions and support the family by working extensively on the farm. He is also able to take part in community events as a result of getting back his vision.

“I was helpless and suffering from depression due to poor vision. The surgery has given me a new life and I can now live confidently.”

PHULYA VASAVE
72 years | Male | Dhong | Dist. Nandurbar | Maharashtra

Mr. Phulya had a vision ailment in both his eyes for two years. Due to financial constraints, he was unable to seek medical help and or go to a hospital. The free medical camps in his village helped him understand his problem as an early stage of cataract and he registered for the surgery. The camp staff were very professional during the surgery and also provided follow-up support.

Post the surgery, he understands how eye ailments are treatable and is now able to travel and work on his farm independently. Earlier, due to his weak eyesight, he was unable to identify currency notes. But now he can confidently manage his financial transactions on his own.

“I feel confident and independent as a result of the surgery.”

EMO PHULSING GAVIT
65 years | Female | Dhong | Dist. Nandurbar | Maharashtra

Mrs. Emo had blurred vision in both of her eyes for the past two years. Due to financial constraints, she had been unable to seek medical help. She heard about the Rashtriya Netra Yagna Programme through elders in the village. During the free medical camps, her ailment was diagnosed to be cataract and the staff recommended her to sign up for surgery.

She felt further motivated because a lot of her community members were also registering and adequate facilities were available to make her feel at ease about the surgery. As a result of the surgery, she does not have to depend on others to conduct her daily household chores or move around. She can enjoy watching television and help her family in monitoring their farming activities. She is also able to take part in community events.

“The surgery helped me to correct my vision. I can enjoy watching television again.”

RUTUHIRAJI VAVLI
70 years | Male | Dhong | Dist. Nandurbar | Maharashtra

Mr. Rutuhiraji had been suffering from cataract in his left eye for the past year. Before becoming aware of VFI’s programme, he had not asked for medical support due to financial constraints and lack of good doctors around his village. When he heard of the programme from an official of the Krishi Vigyan Kendra he attended the free medical camps in his village which helped him understand his problem better and he registered himself for the surgery. The camp staff were very professional and provided him counselling to alleviate his concerns about the surgery. According to him, the surgery has helped him to perform a lot of his daily household chores independently and be able to move around better. Additionally, he can now manage his financial transactions and support the family by working extensively on the farm. He is a regular participant in community events now and lives a comfortable and independent life. He would like to see the programme reach a greater number of people suffering similar ailments and those who are unable to avail the services.

“I can live a happy and satisfied life after regaining my vision.”

KUNI TARAI
65 Years | Female | Nayakateni | Dist. Jajpur | Odisha

Mrs. Tarai is in her 60s and had been suffering from blurred vision in both her eyes due to cataract. She wasn't able to seek medical assistance as vision treatment and surgery were not affordable. She got to know about the Rashtriya Netra Yagna programme from a public announcement made in her village about conducting a free health camp. Her cataract was diagnosed in this camp, and she soon underwent the surgery. Currently, treatment for one eye has been completed while the other still needs to be treated. She is now able to manage her daily activities and does not face any problem in watching television. She is able to attend community events like festivals, plays and dramas. However, her vision has improved in one eye while there is a persistent issue in the other untreated eye. Due to this, she still faces difficulty in reading. She wants the programme to continue and stresses that more people should be encouraged to participate in the programme.

"I was affected with cataract in both the eyes but surgery was performed only in one eye. Though my vision was improved in one eye, the blurred vision in the other one affects my ability to read."

MANU MALLICK
80 Years | Male | Tolaka Nandi | Dist. Jajpur | Odisha

Mr. Mallick who is in his 80s had been affected by a blurred vision in his left eye due to cataract. He did not seek medical assistance even when there was a good quality private hospital in his region, as he belonged to a financially backward family. He also acknowledged that his condition had worsened due to his negligence to seek medical assistance. He got to know about the Rashtriya Netra Yagna programme from community workers who did a door-to-door campaign. In the health camp organised at the panchayat office, it was diagnosed that his blurred vision was caused by cataract. Doctors did a follow-up visit to his home after the health camp. The hospital team took feedback from him post the surgery. Post the surgery, his vision has improved and he can manage all his activities alone. He looked forward to leading an independent life post the surgery and being able to contribute to his family income by working as a carpenter. He was happy being able to vote during elections.

"Even if I was provided a surgical solution for my cataract at a low cost, I would not have been able to afford it. Now, post the surgery I'm happy that I can lead an independent life."

DHRUBA MALLICK
72 Years, Male | Dist. Dholanka Lundi | Odisha

Dhruba Mallick is in his 70s and was affected by cataracts in both eyes for three years. Despite the severity of his condition, he refrained from seeking medical assistance due to financial constraints. Further, he could not avail free health as he did not have access to the Biju Krushak Kalyan Yojana (BKKY) card. He also faced the problem of unavailability of hospitals in his region. The nearest hospital was 30 kms away. He got to know about the Rashtriya Netra Yagna programme from community workers who did a door-to-door campaign in his village. He attended the free health camp which was conducted by Bhoomika hospital and his problem was diagnosed as cataract. After learning more about the programme from the community members, Mr. Mallick was ready to undergo the cataract surgery. The community members motivated him to undergo the surgery and helped in doing all the paperwork. The hospital also provided post-surgical care and eye drops for him. No feedback was taken from him post the surgery but the hospital advised him to reach out to them in case of any concerns. Post the surgery and the programme, Mr. Mallick became aware of cataract and the treatment available which has alleviated certain myths in his mind about eyecare. He has also started to actively participate in cultural functions and feels more involved with his community.

“I have been suffering from blurred vision for the past 3 years. During the free health camp conducted, I became aware that my eye problem was caused by cataract. The surgery helped me to address the blurred vision.”

GOLEKHA NANDA
70 Years | Male | Raitala | Dist. Dhenkanal | Odisha

Mr. Nanda who is in his 70s had been suffering from blurred vision due to cataract. He did not seek medical assistance even when there was a good quality private hospital in his region due to financial constraints.

He heard about the Rashtriya Netra Yagna programme from community workers who did a door-to-door campaign in his village. On the day of the camp, Nanda went to the panchayat office, and the doctors present in the camp diagnosed his problem to be cataract. The community workers arranged all facilities including his stay and food during the hospital visit. The programme helped Mr. Nanda to become aware of cataract issues as well as a few other eye problems. He understood that his blurred vision was caused by cataract and it is treatable through surgery. The surgery helped him to address his blurred vision to an extent. He can now do household activities and engage in farming activities. Post the surgery, he has also started participating in community programmes like Dola Purnima, Ram Navami, and other cultural festivals.

“I was able to undergo the surgery and regain my vision without incurring any expenditure. Thanks to the community workers and the hospital team, we were comfortable throughout the procedure. Their counselling also increased our awareness of cataract, and cataract-related issues.”

MUMTAZ
40 Years | Female | Muslim Colony | Dist. Bengaluru | Karnataka

Mumtaz is in her 40s and her vision in her left eye suffered for two years due to a cataract. Her condition was severe and she was close to partial blindness. Later on, her right eye was also affected by cataract. While she was advised to go to a hospital, she was constrained because of their limited household income. Additionally, good quality surgical and screening facilities were not available in her region.

She heard about the Rashtriya Netra Yagna programme from the Ambedkar hospital and via the local coordinator. Through the programme, she was able to undergo the surgery for her left eye. She mentioned that there were regular check-ups before and after the surgery. Feedback was also taken from her post the surgery.

After the surgery, her vision has improved from low visibility to moderate visibility. She says that her attitude towards her life has changed after the surgery and she feels confident. She is now able to read better, travel alone, and manage her daily activities. She is satisfied with the programme and has encouraged her relatives to get their eyes checked at the camp.

“My attitude towards life has changed post the surgery. I am more confident now.”

SHEEMA JAAN
56 Years | Female | Old Pinsion Mohalla | Dist. Bengaluru | Karnataka

Sheema Jaan who is in her 50s had been affected by cataract in her left eye. She had difficulty seeing and identifying things with her left eye but she was not aware about the extent of her condition and the available treatment.

Additionally, her financial situation made it difficult for her to undergo the surgery. Mrs. Jaan attended the health camps where her eye check-ups were done before and after the surgery. The hospital team explained to her all the precautions that she needed to take during the entire procedure and gave her eye drops and safety glasses. Her feedback was also taken after the surgery.
After the surgery, she has regained her vision and leads an independent life. She is able to do most of her activities without anyone’s help. She has also suggested that her relatives participate in the programme as it will help them diagnose similar issues and address it before it gets too late. She wants the programme to continue and her suggestion is to enhance the reach of the programme by conducting more camps in nearby hospitals for other villagers.

“Thanks to the programme, my eye issue was diagnosed. Before the health camp, I was not aware that I had cataract.”

PARAMSING NAIK
70 years | Male | Khairave | Dist. Nandurbar | Maharashtra

70-year-old Mr. Paramsingh had been suffering from cataract in both his eyes for around two years. He had not asked for medical support due to financial constraints and a lack of awareness about the treatment. He was heavily dependent on others for help in his daily activities or travel. He registered herself for the free surgery at the organised medical camps in her village when the community workers suggested it. While undergoing the surgery, he mentioned how the staff at the hospital took adequate care, provided food, transport facilities, and other necessary check-ups which ensured a comfortable experience for him.

As a result of the surgery, Mr. Paramsingh is now able to see things clearly and can also read the newspaper. He uses his mobile phone and can identify currency notes with much greater ease. His corrected vision helped him to go to the market and manage finances independently. While earlier his vision restricted him from taking up additional responsibilities, he now monitors the farm activities and helps in managing them effectively. He also mentioned how he has been able to take a greater interest in community festivals.

“I can use my mobile phone conveniently for managing communication and reading the newspaper which has helped me to be more connected with the world around me.”

DAYARAM FAKIRA GAVIT
55 years | Male | Khairave | Dist. Nandurbar | Maharashtra

Mr. Dayaram is a 55-year-old farmer who had cataracts in both his eyes for around three years. He had not asked for medical support due to financial constraints and a lack of awareness about the treatment. He was heavily dependent on others to help him carry out his daily activities or travel.

On the reference from the community workers, he registered himself for the free surgery at the organised medical camps in his village. While undergoing the surgery, he mentioned how the staff at the hospital took adequate care, provided counselling and other necessary check-ups which ensured him to have a comfortable experience.

As a result of the surgery, Mr. Dayaram is now able to see things clearly and can also identify different current denominations with ease. Further, his corrected vision helps him carry out his daily wage work duties more efficiently. While earlier his vision restricted him from taking up additional responsibilities, he sometimes also takes up night shifts to get additional income and support his family.

He further mentioned how he has been able to take a greater interest in community festivals and meets friends more regularly. He hopes that the programme can continue and build greater awareness about cataract surgery amidst the interior parts of the country and amongst the poor.

“After undergoing the cataract surgery, I feel confident and satisfied in doing my day-today responsibilities. I can also work in the night shifts.”

DUARI MALIK
80 Years | Male | Tolaka Nandi | Dist. Jajpur | Odisha

Mr. Malik who is in his 80s had been affected by cataract in one of his eyes. His financial constraints deterred him from undergoing the required treatment for his eyes. He said that he would not have been able to undergo the surgery without the Rashtriya Netra Yagna programme.

He got to know about the free health camp from community workers who did a door-to-door campaign in his village. His cataract condition was also diagnosed from the free health camp. He says that the community members motivated him to undergo the surgery and convinced him of its importance. He had undergone the surgery for one eye and the hospital supported him with the medicines as well. The hospital team had taken feedback from him post the surgery.

The cataract surgery has helped Mr. Malik to improve his vision. The programme also helped in identifying the problem in his other eye which would have gone undetected otherwise. He can now read with the operated eye and he is also able to go out sometimes. However, he still faces difficulty in some of his daily activities as his eyes are watery and due to the vision problem in the other eye.

“Though I still find it difficult to do things on my own, I’m happy that my vision got better in at least one eye.”

SITA MALIK
70 Years | Female | Tolaka Nandi | Dist. Jajpur | Odisha

Mrs. Malik who is in her 70s had been affected by blurred vision in both her eyes due to cataract. Even when she had trouble seeing, she refrained from seeking medical assistance due to her financial constraints. She said that hospital services were not affordable to her family as she did not have access to the Biju Krushak Kalyan Yojana (BKKY) card. She got to know about the Rashtriya Netra Yagna programme from a leaflet that was distributed in her village.

As informed by the community workers, she went to the panchayat office to attend the free health camp. Her cataract issue was diagnosed from the health camp and the doctors advised her to undergo the surgery. She says that the community members motivated her to undergo the surgery and made her very comfortable. Eye check-ups were done before and after the surgery. The hospital also provided her with post-surgical care and medicines. Post the surgery, Mrs. Malik has no vision problems. She can recognise coins which helps her manage financial transactions on her own. She can also read and finds herself more aware of eyecare after receiving the same herself. She has also started to engage in community programmes like cultural and religious activities.

“The surgery was done with utmost care and I have been able to regain my vision completely. I was also provided with travel, food, and accommodation during the procedure which made the experience very comfortable.”

PURNACHANDRA PRADHAN
75 Years | Male | Solagadia | Dist. Jajpur | Odisha

Mr. Pradhan is in his 70s and had been suffering from blurred vision in both of his eyes due to a cataract. He was aware of the treatment but was looking for something affordable and this was not available in a nearby private hospital in his region. Community workers from his village informed him about a free health camp as part of the Rashtriya Netra Yagna programme. He went to the panchayat office where the camp was organised and the doctors present in the camp identified his problem as cataract.

He underwent the surgery after receiving adequate support and counselling from the community workers. The team also provided him with post-surgical care and eye drops. No feedback was taken from him post the surgery. Today, Mr. Pradhan's vision has not improved significantly, and he said that the surgery was not successful. He is having difficulty reading bus boards, billboards, newspapers, and other things. He is also not able to do his daily activities properly or attend social gatherings since his vision is still blurred and he is also suffering from other health problems. He wants the programme to be improved and him to get access to better and more suited surgical services if possible. He also thinks that more people should be encouraged to join the programme.

"Post the surgery, my vision has not improved and I face difficulty in doing my day-to-day activities."

RANGADHAR BEHERA
70 Years | Male | Nihalprasad | Dist. Jajpur | Odisha

Mr. Behera, a 70-year old farmer had been suffering from cataract in his left eye for one and a half years. He had difficulty in seeing due to blurred vision and watery eyes.

Despite realising this, he did not seek medical assistance from a nearby private hospital since he found it unaffordable. He also lacked awareness about the possible treatment of his condition. He first heard of the Rashtriya Netra Yagna programme and free health camps through the community workers in his village.

This led him to register himself in the panchayat office where the camp was organised. On diagnosis, the community workers counselled him to undergo cataract surgery. They also provided post-surgical care and eye drops. Post the surgery, his vision has improved, and this has helped him read better, watch television, and manage his daily activities on his own. He, however, continues to face difficulties due to watery eyes. He wants the programme to continue and says that more people should be encouraged to participate in the programme. He also requested additional support in getting treatment for his watery eyes.

"My vision improved slightly after the surgery, but my eyes still feel watery, and this causes a lot of difficulty. I would appreciate it if the treatment could address the issue of watery eyes."

KHAMAROON
43 Years | Female | Dist. Bengaluru | Karnataka

Mrs. Khamaroon is a 43-year-old female and has been suffering from a vision issue in her left eye. She did not seek treatment for her condition due to financial constraints and a lack of access and availability of quality health care services in her village.

The process of registration for the Rashtriya Netra Yagna programme was very simple where she was required to provide the Aadhaar card. Her cataract issue was diagnosed during the check-up conducted as part of the programme. She was given eye drops and glasses as a part of the post-surgical support.

Post the surgery, with the improvement in vision, she could return to her work. She is now also able to read and ride a bicycle.

"With the improvement in vision, I have been able to return to my workplace."

MEHRU NISA
70 Years | Female | Kaval Byarasandra | Dist. Bengaluru | Karnataka

Mehru Nisa had been suffering from vision problems due to a cataract issue in her right eye. She was not able to read or identify people. She did not do the surgery earlier as it was not affordable and she had fears about undergoing it.

Additionally, there was no good quality hospital with scanning and surgical facilities in her region. She learnt about the free health camps conducted near her home through the community health workers. She gained more information about her condition in the camp and-was reassured about the quality of service. After the surgery, there were regular check-ups and verbal feedback was also taken. Her vision has improved after the cataract surgery and she can see and identify everything. She is also able to read bus boards and can watch television. She is an active participant in all social gatherings of her community.

"I was not able to identify people before the surgery. Post the surgery, I am able to see everything clearly."

Nayonika Eye Care Hospital, Dist. Bengaluru, Karnataka

BHIMSEN BEHERA
65 Years | Male | Ria | Dist. Jajpur | Odisha

Mr. Behera is in his 60s and had been affected by cataract. This had a direct impact on his ability to engage in farming activities. Being unaware of the treatment and his financial constraints, he did not take any medical help before the programme. He got to know about the Rashtriya Netra Yagna programme from a public announcement made in his village.

Post the same, he attended the camp and on diagnosis got the surgery from the designated hospital. He said that the community health workers motivated him to undergo the surgery and provided him with medicines from the hospital at no cost. As a result of the surgery, he is now able to regain his vision and is more aware of the importance of eye-health. He is now able to do his daily activities without any help, read better, manage his cash transactions, and watch television. He is also increasingly engaging in community events.

“I’ve been able to regain my vision and manage my financial transactions independently.”

MALIULLA
78 Years | Male | Dist. Bengaluru | Karnataka

Mr. Maliulla is a 78-year-old who had been suffering from cataract in his left eye for six years. He did not seek medical assistance due to poor access and availability of health care services in his village. Also, his financial constraints and family problems did not let him seek the treatment.

He got to know about the health camp and the Rashtriya Netra Yagna programme from the community workers. His cataract was diagnosed during the eye check-up conducted in the camp. The hospital team supported him with post-surgical care and medicines. Post the surgery, his vision has improved and he is able to run his chicken stall efficiently. This has helped improve the financial condition of his household. He is also able to read, travel independently and manage his financial transactions. He wants the programme to continue and benefit more people. He had informed the people in his community about the programme.

“The improvement in my vision post the surgery is enabling me to work efficiently and support a family member suffering from cancer.”

DUHITA SENAPATI
65 Years | Female | Dist. Jajpur | Odisha

Mrs. Senapati is in her 60s and had been affected by blurred vision in her left eye due to cataract. She did not seek medical assistance and felt the surgery to be unaffordable. She also did not have access to Biju Krushak Kalyan Yojana (BKKY) card and this prevented her from availing of free services at any local hospital. She heard about the free health camps through the community workers who provided her with more information about her condition and suggested the need for surgery. She has completed the treatment and bought spectacles on the doctor's advice. She also said that feedback sessions and follow-ups were conducted for her post the surgery. After the surgery, Mrs. Senapati's vision has not been cured completely. She is still facing difficulty reading bus boards, billboards, newspapers and often has irritation in her eyes. She can manage her daily activities and financial transactions alone but is looking for more support to get rid of her vision problem completely. Currently, on advice of the doctors, she has started visiting the hospital more often to get the pending treatment.

"I can manage my financial transactions on my own but would need more support on the remaining treatment for my eyes."

BASANTI MALIK
55 Years | Female | Nayakateni | Dist. Jajpur | Odisha

Mrs. Malik who is in her 50s had been suffering from blurred vision due to cataract in her left eye. Despite the same, she did not seek medical assistance as she was not aware about the treatment and found it unaffordable. She got to know about the Rashtriya Netra Yagna programme from a public awareness campaign and a subsequent health camp in her village. She underwent the surgery after diagnosis in the camp and felt supported throughout the procedure by the community health workers. Post the surgery, her vision got better but she reported that there is still some blurriness in both eyes including the one that was treated. She faces difficulty in reading due to the blurred vision and is also not working.

"Though my vision got better with the surgery in my left eye, I continue to have issues with the other untreated eye."

KOILI DEHURY
62 Years | Female | Nayakateni | Dist. Jajpur | Odisha

Mrs. Koili who is in her 60s, had been affected by blurred vision in her left eye, due to cataract. She could not afford medical assistance. Before being introduced to the Rashtriya Netra Yagna programme, she thought that the existing hospital services were not affordable unless one had a Biju Krushak Kalyan Yojana (BKKY) card. She got to know about the Rashtriya Netra Yagna programme from a public announcement made in her village and pamphlets distributed by the local community health workers. Her cataract was diagnosed from the health camp conducted at the panchayat office.

Post the surgery, she can read better, watch television, and manage her financial transactions. However, even though her vision is better, she often complains of irritation in her eyes. This has limited her ability to work. She hopes to get this corrected with some support from the medical staff in Jaraka. She wants the programme to continue and says that more people should be encouraged to participate in the programme.

“Though my vision got enhanced post the surgery, I sometimes find it difficult to see and there is irritability in the eyes which makes it difficult for me to work. “

BATA MALIK
75 Years | Male | Tolakanandi | Dist. Jajpur | Odisha

Mr. Malik who is in his 70s, had been suffering from blurred vision in his left eye due to cataract. While there was a good quality private hospital in his region, he did not seek medical assistance as it was not affordable. He got to know about the free health camp conducted in his village from the community workers. The camp provided him information about the Rashtriya Netra Yagna programme through information leaflets.

His cataract issue was diagnosed from the camp based on which he underwent the surgery. Post the surgery, medicines were also provided to him from the hospital. The programme helped him to become aware about eye treatment and improve his vision. He can read, watch TV, and do his daily activities independently. He has also been able to venture outside independently. However, he also mentioned that there are times when he faces eye irritability. He hopes to resolve this with some support from the hospital staff.

“I’m happy that my vision improved with the surgery. I can now read, watch TV and travel on my own.”

PREMANANDA ROUT
78 Years | Male | Raitala | Dist. Jajpur | Odisha

Mr. Rout had been suffering from a cataract issue for more than three years. His financial constraints prevented him from seeking medical assistance. He says that he could not have done the surgery without the help from the Rashtriya Netra Yagna programme. Community workers from his village informed him about a free health camp. He also heard public announcements in his village about the programme.

The programme team motivated him to undergo the surgery and they also provided other facilities like stay and food. Eye check-ups were conducted before and after the surgery and the team also provided him with post-surgical care and medicines. Post the surgery, Mr. Rout was quite happy as his vision had improved and laceration had reduced.

He is now able to read better and go out without anyone's support. Earlier, he had to depend on others to manage his financial transactions but now he can manage it alone. Post the surgery, he often participates in community events. He is also able to watch television and use other digital devices. The programme also made him aware of hospitals providing support for cataract surgeries, and he knows how to deal with vision impairment if any of his family members get affected.
He wants the programme to be continued as it will help a lot of people to improve their vision especially, those suffering from financial constraints.

"The surgery has solved a lot of problems in my life and now I can lead an independent life. I am happy that the surgery has improved my vision and reduced the visible laceration."

PUNDLIK KUDAJI GOTE
70 years | Male | A/P-Tondgaon | Dist. Washim | Maharashtra

Mr. Gote had blurred vision in both his eyes, due to which, he had to depend on others for his day-to-day activities. Hailing from a financially-backward family, vision treatment and surgery were not affordable as he had to depend on private hospitals for the same while the government hospitals were not close by and further, did not have the necessary surgical facilities. During the free health camp conducted in his village, his blurred vision in both of his eyes was diagnosed as a cataract issue.

After learning more about the programme from the community members of Udaygiri Lions Hospital, Mr. Gote was ready to undergo cataract surgery. He received medical assistance at the free health camp and then a screening was conducted at the Udaygiri Lions hospital before his surgery. He says that the community members motivated him to undergo the surgery and helped in doing all the paperwork.

Further, the hospital provided him with post-surgical care and medicines. As a result of the programme, he has been ableto lead a more independent life and said that people have started respecting him and giving him additional responsibilities to look after their house or livestock (cows). He has also started to actively participate in the community programmes post the surgery. He wishes the programme to continue and benefit other people. It would be further helpful to increase the transportation facilities to the hospitals for the elderly and increase the number of free health camps.

"I'm excited as I can now lead an independent life. I can do my financial transactions on my own now and I'm grateful to the programme that helped in correcting my vision."

TRIMBAK KESHAV KHOLGADE
72 years | Male | A/P-Tondgaon | Dist. Amravati | Maharashtra

Mr. Kholgade is a 72-year-old retired school teacher from Washim district of Maharashtra who had both his eyes affected by cataract. The same had deeply affected his ability to pursue his passion for reading and conduct his day-to-day activities. He had not attended to the condition as he was not confident of the quality of infrastructure in the government hospitals. He was diagnosed with cataract during the eye screening done in the free health camps.

The community workers and hospital staff were helpful with the procedure and made him understand the importance of the surgery. His interaction with community workers and hospital staff gave him clarity and conviction about the quality of service and expertise available. Post the surgery, Mr. Kholgade feels that he is now able to read better.

He spends his time reading his favourite books and can also read newspapers. He also carries out his financial transactions and day-to-day activities independently. Being satisfied with the efficiency of programme implementation and quality of service available at Udaygiri Lions Hospital, Mr. Kholgade wished the programme to continue and more people benefited from it. He also suggested increasing the transportation facilities to the hospitals for the elderly.

“Rashtriya Netra Yagna Programme has helped me to regain my vision. I can now read my favourite books and newspapers and refresh my mind.”

PIRAJI SHANKAR HIVRAL
90 years | Male | A/P- Vilegaon | Dist. Latur | Maharashtra

Mr. Hivral, who is 90 years old, had been affected by cataract in both his eyes. He was struggling to travel alone since his vision was blurred in both eyes. Before the programme, he had not approached any hospital for medical assistance since he could not afford private hospitals in his town and government hospitals did not have surgical facilities or specialised doctors. From the free health camps conducted in his village, it was diagnosed that his blurred vision was caused by cataract.

After getting free medical assistance through the health camps and further information from the community workers of Udaygiri Lions hospital, Mr. Hivral decided to avail the free surgery from the same hospital. He had to provide only Aadhaar card copy and mobile number while the community workers took care of all the procedures. He was quite relieved that after the surgery he is now able to see clearly and manage his financial transactions alone. Earlier, people used to cheat him as he was not able to read the numbers on the currency notes clearly. Further, he is able to travel alone and engages in different activities independently. He also mentioned that he can now attend social events and has found greater acceptance and respect amongst his community. In his opinion, the programme should be continued, so that more people like him who cannot afford the surgery can benefit from the programme and lead a self-reliant life.

“After the surgery, my vision was restored in my left eye, and I can freely travel. I’m awaiting an operation on my right eye.”

KHAJURA TARAI
70 Years | Female | Mandara | Dist. Jajpur | Odisha

Mrs. Tarai who is in her 70s, had been suffering from blurred vision in her left eye due to cataract. She had not sought any medical assistance due to a lack of motivation. She got to know about the Rashtriya Netra Yagna programme from leaflets that were distributed in the village and attended the free health camp. After doing the eye check-up in the camp, she underwent cataract surgery. Post the surgery, her vision has improved.

“I did not seek medical assistance for a cataract in my left eye due to lack of motivation. But the free health camp helped me in overcoming it and I’m happy that my vision has improved post the surgery.”

RAMA MALIK
75 Years | Female | Lahara | Dist. Denkanal | Odisha

Mrs. Rama Malik who is in her 70s, had been suffering from blurred vision in her left eye due to cataract. Though the surgery had helped address the eye problem to an extent, her vision is still blurred, and she feels a general weakness which may or may not be linked to the eye issue.

“Though the surgery had helped me address the eye problem to an extent, my vision is still blurred.”

Dist. Latur, Maharashtra

GANGUBAI LAKSHMAN GOTE
81 Years | Female | Todgaon | Dist. Amravati | Maharashtra

Mrs. Gote is a woman in her 80s who had been suffering from blurred vision in her eyes. Before the surgery, she faced poor access and availability of health care services in her village. The process of registration for Rashtriya Netra Yagna programme was very simple where she was required to provide only her Aadhaar card. Her cataract issue was diagnosed during the check-up conducted and the hospital team provided her with counselling which made her confident for the surgery. Mrs. Gote said that without the programme her cataract issue would have gone undetected. Post the surgery, with the improvement in vision, she is able to read, travel and manage her financial transactions.

“With the improvement in vision, I am now able to enjoy watching television and read books.”

LAXMIBAI LIMBALE
60 Years | Female | Dist. Osmanabad | Maharashtra

Mrs. Limbale is a 60-year-old female who was affected by blurred vision in her eyes. Her eye condition went undiagnosed for a long period. Finally, her condition was diagnosed as cataract during the check-up conducted as part of the programme. The hospital team provided her counselling which made her confident for the surgery and medicines were also provided by the team. She mentioned that there was no follow-up or feedback mechanism.

The programme made her aware of the condition of cataract, other similar eye problems, and the possible treatment. This has prepared her to support the situation of a family member getting affected by a similar eye issue. Post the surgery, with the improvement in her vision she is now able to lead an independent life. She believes that this programme should continue to help the underprivileged as an affordable solution to getting rid of their cataract condition and live an independent life.

“The programme made me aware of eye issues and the possibility of getting them treated.”

Dist. Bengaluru, Karnataka

WAMAN HANUTA KURE
75 Years | Male | Dist Jajpur | Odisha

75-year-old Mr. Waman Kure had been suffering from a vision problem in both his eyes. There were no nearby hospitals or facilities such as eye scanning and surgery available in his village and he did not have the finances to undergo expensive treatment in private clinics. The cataract issue was in the starting stage when it was diagnosed by doctors as part of the eye-health camps conducted under the Rashtriya Netra Yagna programme

Mr. Kure found the registration process quite simple and required him to submit the Aadhaar card. The counselling provided by the hospital team during the programme helped Mr. Kure in improving his confidence towards the surgery. Currently, the treatment is ongoing and he finds the experience quite satisfying. The programme made Mr. Kure aware of his eye condition and the possible treatment. He also mentioned that the programme was an efficient solution to his problem of not finding a specialist in the nearby village. He believes that this programme should continue to help the underprivileged through an affordable solution to their eye issues.

“My outlook towards life and career has improved post the surgery because of the improvement in my vision.”

VYANKAT KUMBHAR
81 Years | Male | Dist. Nandurbar | Maharashtra

81-year-old Mr. Kumbhar had been suffering from cataract in his eyes. Before the surgery, he faced the issue of poor access and availability of health care services in his village. His financial constraints also did not let him seek treatment for his condition. The cataract issue was in the starting stage when it was diagnosed by doctors in the eye-health camps.

Mr. Kumbhar found the registration process quite simple as it required him to submit the Aadhaar card and his photograph. Further, the counselling provided by the hospital team during the programme helped Mr. Kumbhar in improving his confidence towards the surgery. Mr. Kumbhar said that without the programme his cataract issue would have gone undetected. Being in the first stage of the cataract, the surgery helped him to quickly regain his vision and subsequent confidence about his eyesight. Post the surgery, Mr. Kumbhar can read books and newspapers with ease. However, his experience in using a mobile phone and other digital devices is still limited.

“I feel happy that I can go back to my daily life the way it used to be before the eye problem.”

KACHRU LONKAR
80 Years | Male | Dist. Nandurbar | Maharashtra

Mr. Kachru Lonkar is an 80-year-old male who had been facing problems with his vision and this prevented him from living his life and carrying out his responsibilities with confidence. He said that it was difficult to find good eye specialists and surgical facilities easily in and around his village. On hearing about the free health camps, Mr. Kachru underwent the process of registration for the Rashtriya Netra Yagna programme and found the process efficient.

His cataract issue was diagnosed during the checkup conducted and the hospital team provided him counselling which made him confident about undergoing the surgery. The programme has helped Mr. Lonkar to become aware of the cataract issue in good detail. Post the surgery, his vision has improved but he did not see any change in his employment opportunities. Further, he now feels confident to visit the bank and manage his financial transactions independently.

“After getting my vision corrected, I can now go to the market and carry out day-to-day activities like earlier.”

SHANTABAI NARAYAN SARKALE
65 Years | Female | Dist. Nandurbar | Maharashtra

Mrs. Shantabai is a 65-year-old woman from Shirsam in Hingoli who was suffering from irritation in her eyes and blurred vision. But she was not aware of the cause of the condition nor had the resources to help diagnose the same. Further, the nearest hospital was around 23 km away and did not have adequate surgical facilities. After being recommended for the Rashtriya Netra Yagna programme, Mrs. Shantabai registered herself in the health camp using her Aadhaar card and photograph.

She was also provided access to counselling sessions which helped her in building confidence for the surgery. The treatment was completed with minimal complications, and she was also provided with transportation facilities while undergoing treatment. The surgery has helped her to improve her vision and she is now able to read and watch television during her leisure time. She manages her financial transactions too which provides her with relief and self-reliance. Further, she has been able to travel with the family and meet community members making her feel more engaged and motivated about her life.

“For those who are not aware of the condition of their eyes, programmes like the Rashtriya Netra Programme are a lifeline.”

SUBHASH JAWALE
81 Years | Male | Dist. Nandurbar | Maharashtra

Aged 65, Mr. Subhash Jawale had a condition of blurry vision in his eyes that had hampered his living conditions. There was a lack of specialist doctors and hospitals around him, and he was unable to understand the cause of his condition and the aligned treatment. He was informed of the Rashtriya Netra Yojana by the local doctors who said that the service might be able to provide the treatment that he needed.

After registering in the health camps using his Aadhaar card details, Mr. Subhash underwent a check-up. During the same, the condition of cataract was noted by the doctors. He was informed about the surgery procedure and the follow-up services. After undergoing the surgery, Mr. Subhash has improved vision and is now able to read books and newspapers. Through counselling, the programme has helped him in improving his confidence and he would recommend the programme to all the people in the community.

“This programme has helped me a lot in being able to read and enjoy the things I like along with regaining my confidence.”

PIRAJI HIVRALE
81 Years | Male | Dist. Ratnagiri | Maharashtra

Mr. Hivrale who is in his 80s had been suffering from vision issues in both of his eyes. He could not seek medical assistance for his treatment and surgery as available services were not affordable. He got to know about the Rashtriya Netra Yagna programme from the local doctors.

The registration process for the programme was simple and required him to produce only his Aadhaar card details. Mr. Hivrale’s condition was diagnosed by the doctors as an early stage of cataract, and he was recommended surgery. Post-surgery, Mr. Hivrale has made a fast recovery and said that he was able to go back to living his life the way it was before the complications. He believes that this programme should be made with a long-term view of helping the poor who cannot afford such surgeries or are lost in the process of navigating through hospitals and specialists. Further, through the specific counselling services, the programme has helped him in improving his confidence.

“When the Rashtriya Netra Yojana was suggested to me by local doctors, I believed that I finally had a chance of regaining the confidence that I had lost owing to my poor eyesight.”

BHAGVANT TANAJI KALUBANDE
81 Years | Male | Dist. Osmanabad | Maharashtra

Mr. Kalubande who is in his 80s was having difficulty seeing due to the cataract in his eye. He could not get complete medical care since his hometown did not have hospitals having requisite specialised eye services for scanning and surgery.

Two months after the problem emerged, Mr. Kalubande heard about the Rashtriya Netra Yagna programme from a doctor and joined the programme through registration. Currently, he is undergoing treatment and noted his satisfaction with the quality of services provided. Before the surgery, counselling was done to boost the confidence and the hospital also provided him with medicines. However, there were no follow-ups after the surgery. In the past, Mr. Kalubande's outlook and career were very low since he had to depend on others due to his vision problem. While the surgery helped him to regain his vision, it also helped to regain his confidence. Post the surgery, Kalubande feels more motivated and is quite happy to lead an independent life.

"My outlook about life and career was very low earlier and this has changed considerably after the surgery"

LIMBAJI BASVANTA KUNALE
70 Years | Male | Dist. Osmanabad | Maharashtra

Mr. Kunale who is in his 70s had been affected with blurred vision in both his eyes due to cataract. Mr. Kunale had thought about seeking medical treatment to address his eye problem but the hospitals available in his hometown were private hospitals which were not affordable. Mr. Kunale's blurred vision was diagnosed as cataract in the free health camp conducted in his village under the Rashtriya Netra Yagna Programme. The community workers from Udaygiri Lions hospital gave him more information on the programme and his condition. They also motivated him to undergo the surgery after helping him with the screening and registration process. Regular follow-ups were taken by the hospital team and the team also provided him with post-surgical care and medicines. Before the surgery, Mr. Kunale was not very confident in attending social gatherings or approaching people in general. Post the surgery, he is confident about himself as he is able to see better and can live independently. Mr. Kunale actively participates in social gatherings now. He is also able to manage his financial transactions and day-today activities without any support. His suggestion for the betterment of the programme and a larger outreach is to arrange transportation facilities to the hospital if possible so that people who cannot afford the travel can also benefit from the programme.

"People used to ignore me earlier thinking that I would seek some help due to my vision issues. Now I'm an independent person walking confidently and grateful for the programme to make this happen "

KEY IMPACT -
INDIVIDUAL EMPOWERMENT

KEY INSIGHT

Rashtriya Netra Yagna programme has enhanced elderly citizens' confidence to engage productively in social engagements and has improved their engagement with the community.

"I'm now able to do all sorts of activities like going out, reading, watching television, attending social events, and so on with ease."

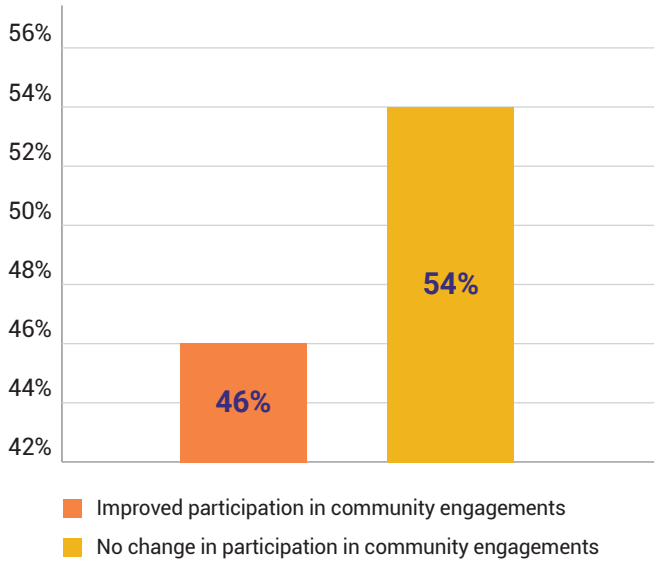
BHAGYADHAR BEHARA
57 years | Jaraka, Dist. Jajpur, Odisha

According to a paper in American Political Science Association, social empowerment is understood as the process of developing a sense of autonomy and selfconfidence that enables individuals to act collectively in changing social relationships and institutions.

The Rashtriya Netra Yagna programme has enabled elderly citizens to first empower themselves in terms of self-dependence, thereby leading to productive participation in social engagements.

Overall, 46 percent reported being able to participate actively in community activities. For remaining beneficiaries there was no change in community engagement as they used to participate in social gatherings even before the surgery. Moreover, medical issues due to old age or lack of interest were the other reasons reported for lower community participation.

Community participation among elderly (n=80)



"I am really happy that my vision was completely restored post the surgery. I feel inspired to help others by joining the volunteer taskforce of the programme and building awareness about cataract."

ROSY MARY
51 years | Dist. Bengaluru | Karnataka

VOICES FROM THE GROUND

ROSE MARY
51 Years | Female | Dist. Bengaluru | Karnataka

Mrs. Rose who is in her 50s had been suffering from blurred vision in her left eye due to cataract for more than two years. However, she did not seek medical assistance as the treatment and surgery was not affordable and there were no good quality hospitals available in her region.

She got to know about the Rashtriya Netra Yagna programme from the coordinator assigned by the hospital in her area and the coordinator advised her to attend the health camp.

After due registration, certain tests to test her eyes and blood pressure were conducted as standard procedures. There were regular follow-ups and checkups even after the surgery. As a result of the surgery, she has regained her vision completely and is leading an independent life. She wants the programme to continue and is ready to pursue people around her to join the programme if more health camps are organised.

"I am really happy that I was able to regain my vision completely by undergoing the surgery. I feel inspired to help others by joining the volunteer taskforce of the programme and build awareness about cataract."

RATHIYA DEURI
62 Years | Male | Dist. Jajpur | Odisha

Mr. Deuri who is 62 years old is engaged in farming activities and had been affected by a blurred and blocked vision in his left eye due to cataract. He refrained from seeking medical assistance due to financial constraints even when a good quality hospital was available in his region. He got to know about the Rashtriya Netra Yagna programme from community workers who did a door-to-door campaign in his village. Mr. Deuri attended the free health camp organised at the panchayat office where he was diagnosed with cataract. After learning more about the programme from the community members, Mr. Deuri underwent the surgery.

He was also provided with quality post-surgical care and medicines. No feedback was taken from him after the surgery. Post the surgery and the programme, he became aware of cataract issues and other eye problems as well. He understood that the eye problems that were troubling him in the past had been caused by cataract and it is treatable through surgery. He can see better and manage his financial transactions on his own. He watches television and when needed can also use a mobile phone. He also started to participate in community functions post the surgery.

"I'm happy that I can see better now and can manage my financial transactions on my own. Moreover, I can manage my day-to-day activities and have started attending more community programmes."

ETYA DEDIYA KOKANI
66 years | Male | Dhong | Dist. Nandurbar | Maharashtra

Mr. Etya had been suffering from a cataract in his right eye for the past two years. He had asked for medical support at a civil hospital and the doctor there introduced him to the Rashtriya Netra Yagna programme. As a result, he attended the free medical camps in his village which helped him understand his problem more and he registered himself to undergo the surgery. The camp staff were very professional and provided preand post-surgery eye checkups. They also provided other facilities like food and travel during the surgery procedure.

According to him, the surgery has helped to perform a lot of his daily household chores independently and is also able to move around without support from others. Further, he can now manage his financial transactions and can enjoy watching television in his leisure time. While he is not engaged in any incomegenerating activity due to his age, he supports his family members working on the farm as possible. He is a regular participant in community events now and lives a comfortable and independent life. He wishes the programme to reach a greater number of people suffering
similar ailments.

“I interact and meet more people confidently after getting my vision corrected from the surgery.”

MOHAMMED ISMAIL SHARIF
64 Years | Male | Dist. Bengaluru | Karnataka

Mr. Sharif who is in his 60s is an imam in a masjid and is also involved in the development of the local panchayat. Earlier, he had tried to seek medical assistance from a nearby hospital, but the hospital staff did not give much attention to his problem. He believed his condition to be related to myopia and could be solved by wearing spectacles. He would not have done the surgery without the programme as the cataract would have gone undetected and other private clinics were not affordable to him. Mr. Sharif got to know about the programme from an announcement made in his masjid.

The eye camp helped him diagnose his problem as cataract and he decided to undergo the surgery. He also mentioned there were regular follow-ups after the surgery and the hospital team was very approachable. As a result of the surgery, he is now able to lead an independent life and feels his work productivity has improved. He is also able to use his mobile phone which was not possible for him before the surgery. By building awareness about cataract, he is also able to help his relatives and friends seeking similar treatments. So far, he has referred around 7 of his relatives to the programme and has helped alleviate their myths about the surgery. He wants the programme to be continued and plan for a larger outreach by conducting more health camps in his village.

“Without this programme, my cataract issue would have been left undiagnosed and I would have continued wearing glasses. I’m now able to lead an independent life and I can guide others in my village on cataract issues”

BHAGYADHAR BEHERA
57 Years | Male | Dist. Jajpur | Odisha

Mr. Behera is a 57-year-old farmer who had been severely affected by cataract in both his eyes. He did not do the surgery earlier since it was difficult for him to bear the cost. He got to know about the Rashtriya Netra Yagna programme from a public announcement in his village. He attended the free health camp organised in the panchayat office and underwent the surgery for one eye. The hospital team explained to him the precautions that needed to be taken post the surgery.

Post the surgery, Mr. Behera's vision improved, and he is now able to go out, read, watch television and attend social events. Further, he can continue to engage in farming and contribute to his family income. He wants the programme to continue and said that more people should be encouraged to participate in the programme. His suggestion for the improvement of the programme was to enable the provisioning of better-quality eye-lens to the elderly citizens undergoing the surgeries.

"I'm now able to do all sorts of activities like going out, reading, watching television, attending social events, and so on with ease."

SHAIKH JANI
65 Years | Male | Dist. Osmanabad | Maharashtra

Mr. Shaikh Jani is 65 years old, and he could not see in both his eyes. There were no nearby hospitals or facilities such as eye scanning and surgery available in his village. Also, Mr. Jani did not undergo the surgery earlier because of financial constraints. The cataract was diagnosed by the doctors during the Rashtriya Netra Yagna programme and it was in the early stages. He came to know about the Rashtriya Netra programme from one of the hospitals in Hingoli.

The process was very simple according to him where was required to submit just his Aadhaar card. The counselling services provided during the programme also helped him to gain the confidence to undergo the surgery. Currently, some aspects of his treatment are still going on. The programme has helped Mr. Kure to detect the cataract issue which otherwise would have gone unnoticed, and the surgery improved his vision. Post the surgery, he is able to read, watch television and is also able to manage his financial transactions. He wants the programme to continue as it will help more people who cannot afford such surgeries or are lost in the process of looking for affordable hospitals and specialists.

"The doctors in the programme have helped me a lot throughout my surgery and afterward also with the counselling. This made the whole experience hassle-free for me."

SHANKAR PARSHA PAWARA
70 years | Male | Dist. Nandurbar | Maharashtra

Shankar is a farmer who had been affected with cataract in both eyes for around three years. He had difficulty seeing clearly as his vision was blurred and watery. He did not seek medical assistance before the programme since existing facilities were not affordable and accessible.

He came to know of the Rashtriya Netra Yagna Programme through the ASHA workers who made him aware of the registration process in the eye check-up camps being conducted near his village. After the surgery, can see better and is also able to do all farm-related activities without taking support. Post the surgery, he is also actively involved in community engagements and can manage his financial transactions. He wishes the programme to reach a greater number of people suffering similar ailments by increasing its centres.

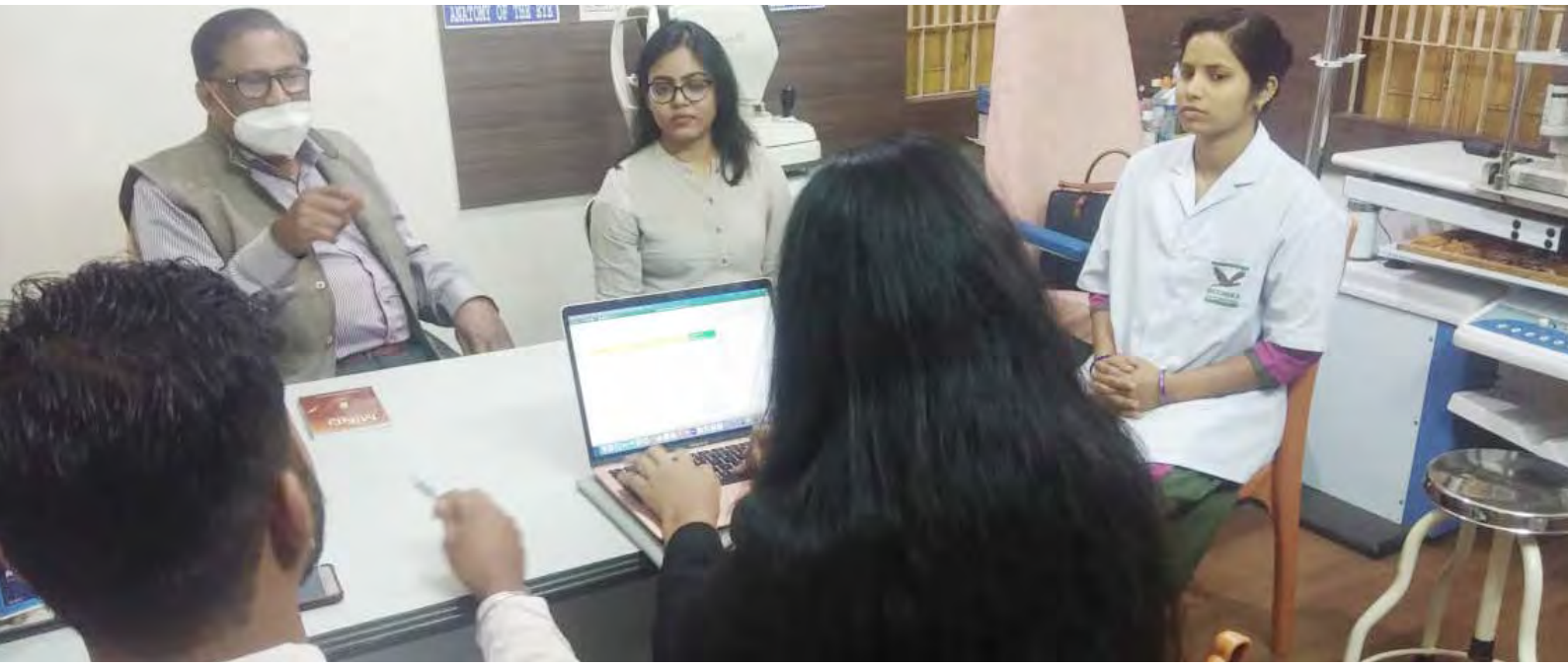
"I feel more connected and involved in my community by participating in events and festivals post-surgery."

ABDULLAH
80 Years | Male | Dist. Bengaluru | Karnataka

Mr. Abdulla, an 80-year-old male, had been suffering from cataract in both his eyes. He did not seek treatment for his condition due to financial constraints and poor access and availability of health care services in his village.

His cataract was diagnosed during the eye check-up conducted as part of the programme. Surgery was done for both of his eyes. The hospital team further supported him with the post-surgical care, provision of medicines and glasses. Mr. Abdullah said that without the programme his cataract issue would have gone undetected. Post the surgery, with the improvement in vision, he can read, ride his bicycle, and do his work more efficiently.

"I have tried to spread the information about the programme as I wish others also to benefit from the programme as I did. I was able to address vision problems in both of my eyes through this programme."



Jaraka | Dist. Jajpur | Odisha

RADHAKRISHNIAH SETTY
78 Years | Male | Dist. Bengaluru | Karnataka

Mr. Setty is 78 years old and was working in the nut and bolt business. He had cataract in both his eyes but had not sought medical help as his hometown did no have good quality hospitals with adequate scanning or surgical facilities.

He came to know about the Rashtriya Netra Yagna programme from the urban slum camp conducted every week by Nayonika Eye hospital. Before the surgery, eye check-up and some other tests were conducted. Post the surgery, the team also took feedback and had regular follow-ups with him. His vision has improved, and he is able to lead an independent life. Mr. Setty says that the information given to him by the hospital team throughout the programme made him aware of eyehealth problems. Recently, he has also suggested the programme to a relative suffering from dimness in vision. He wants the programme to be continued and benefit other people. His suggestion to improve the programme is to increase the outreach to other places like his village.

“I’m now aware of eye-health and vision issues through the awareness sessions and have started suggesting the programme to other people.”

TULASIBAI BANSODE
81 Years | Female | Dist. Osmanabad | Maharashtra

Mrs. Tulsibai is a woman who could not see clearly from both her eyes before joining the programme. She lived in an area where even though the hospital was close, it did not provide the necessary facilities for eyecare. Further, she did not have adequate finances to afford her treatment. After being recommended by local community workers, Mrs. Tulsibai attended the health camps and later underwent the cataract surgery at the designated hospital in Udgir.

After the treatment, she can see with both her eyes and found the overall treatment to have helped her become more aware of eye-care. Through counselling, the programme also helped her in improving her confidence and becoming more self-reliant as an individual.

“I can see clearly and feel more aware about eyecare after undergoing the surgery. I would recommend this programme to all my community members. “

Udgir | Dist. Latur | Maharashtra

VITTHAL MORE
81 Years | Male | Dist. Washim | Maharashtra

81-year-old Mr. More was not able to see with either eye. The nearest hospital to him was 10 km away and it did not have adequate surgical facilities. Further, he could not afford the good quality services of a private hospital. He came to know about the Rashtriya Netra Yagna programme from one of the hospitals in Hingoli. He was in stage 1 of the cataract when it was diagnosed in the health camp conducted in his village.

The counselling services provided during the programme had helped him gain confidence for undergoing the surgery. Currently, some aspects of his treatments are still going on. Post the surgery, his vision has improved, and he can navigate around easily. The improvement in vision has also brought in more balance in his life as he carries out his daily responsibilities independently. He also mentioned that his eye condition would have gone undetected without this programme.

"The Rashtriya Netra Yagna programme is extremely helpful for the underserved people in my community by providing them with affordable healthcare."

SOUMITRA PATHADE
65 Years | Female | Dist. Washim | Maharashtra

65-year-old Mrs. Soumitra found herself in a difficult situation where a lack of good eyesight prevented her from going about her day-to-day life normally. She was not aware of the cause of the same and had limited access to affordable and quality health care. The nearby hospital was around 23 km away and did not have basic surgical facilities. After around 2 months and being recommended for the Rashtriya Netra Yagna programme, Mrs. Soumitra registered herself in the health camp using her Aadhaar card and photograph. She was also provided access to counselling sessions which helped her in building confidence for the surgery.

The treatment was completed with minimal complications, and she was also provided with transportation facilities while undergoing her treatment. As a result of the surgery, her vision has improved but she still finds slight difficulty in reading newspapers and other print materials. Experience in using a mobile phone and other devices is still limited but she can manage her finances more independently due to the corrected vision. She is also able to go out with her family and engage more in community events and festivals.

"I can confidently travel and move across town to meet my friends and family after getting the surgery. I feel a greater sense of self-reliance and control over my life."

RAMLING KATGAAVE
81 Years | Male | Dist. Osmanabad | Maharashtra

Mr. Ramling could not see clearly through both his eyes. The government hospitals did not have adequate infrastructure and he could not afford the treatment of private hospitals. After being recommended, Mr. Ramling registered himself in the health camps and the initial diagnosis showed a case of cataract. He was informed about the surgery, the requisite treatment post-surgery and was provided with counselling as procedural measures. This convinced him about the quality and dedication of the professionals, and he underwent the cataract surgery.

After the treatment finished, he could see with both of his eyes and found the overall treatment quite effective. He found it to be an efficient solution also to the problem of finding a specialist around him.

“This programme should be made available to all who are underserved and are unaware about their eye ailments.”

SAYYED FAYYAZ
48 years | Male | Dist. Osmanabad | Maharashtra

48-year-old Sayyed Fayyaz had blurred vision and watery eyes for around three years. His only source of income was from driving an auto rickshaw but owing to his health, he could not drive the rickshaw at night. This significantly impacted his income and he started having financial troubles. To improve his situation, he underwent an operation for his right eye at the cost of Rs. 4000 at Bowring Hospital. The treatment could not be repeated on the left eye due to financial concerns and this prevented him from getting his vision corrected completely.

He came to know about the K J Halli Camp Centre through a community health worker. He underwent an eye test and post-diagnosis also underwent an operation on the left eye. He further went for a checkup and has done follow-up visits too. After the surgery, Mr. Fayyaz’s vision has improved, and he can see long distances with ease. He does not need to depend on others to do his daily routine and can drive his rickshaw at night, thus helping him increase his income. He has also become more careful about his eyes and visits the doctor regularly.

“I like the programme and how it helps people who cannot afford such services.”

KEY IMPACT -
ECONOMIC EMPOWERMENT

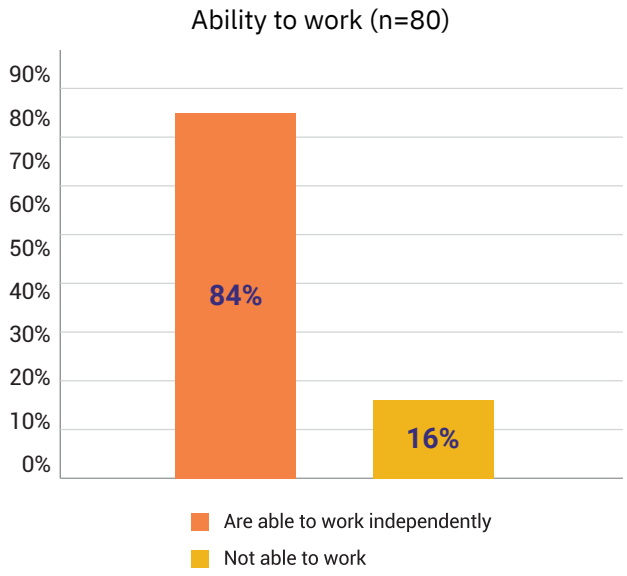
KEY INSIGHT

Rashtriya Netra Yagna programme has helped enhance the quality of life of elderly citizens due to an increase in employability.

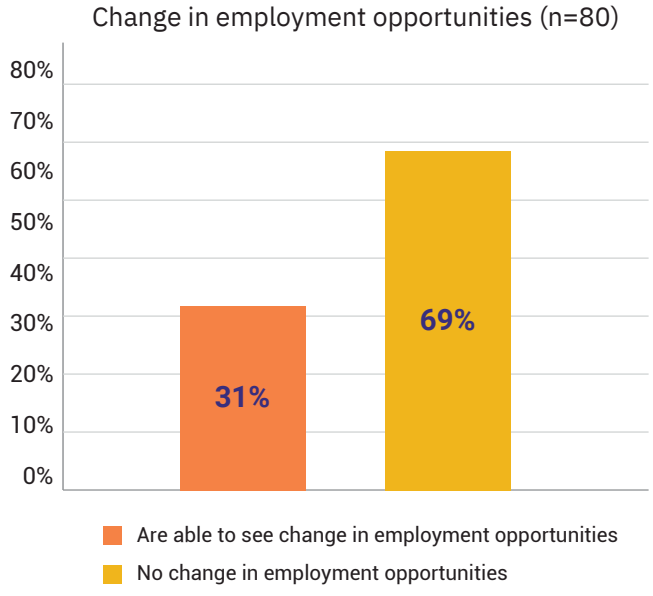
"Some people who had quit their job post detection of the disease have now restarted their businesses and are contributing much more to their family incomes. The feeling of financial independence has helped people lead better quality lives post the surgeries."

DR. SHREEDHAR
Nayonika Eye Hospital | Dist. Bengaluru, Karnataka

84 percent of the elderly citizens included in the study were able to work independently after the cataract surgery while 31 percent were able to see a change in employment opportunities. Eye surgeries engendered a sense of increased economic autonomy. About 56 percent of elderly citizens were carrying out their financial transactions independently before vision problems arose. After the surgery, all of them have reported being able to carry out these transactions independently.



From the discussions with the community workers and doctors across the 4 hospitals, it was found that many of the elderly citizens had retired from their work life at an early age (40s and 50s) due to their poor vision. Post-surgery, due to the improvement in vision, people even in their 60s were able to go back to work.



VOICES FROM THE GROUND

ERAVATI VADILAL KOKANI
65 years | Female | Nimboni | Dist. Nandurbar | Maharashtra

Mrs. Eravati had been suffering from cataract in her left eye for around two years. Before hearing about the Rashtriya Netra Yagna programme, she had asked for medical support in the local civil hospital but due to financial constraints, the concerned doctor had referred her to the programme. She attended the medical camps in her village which helped her understand her problem and she was motivated to register herself and undergo the surgery. Counselling was provided by the staff and adequate care and necessary check-ups ensured her to have a comfortable experience while she visited the hospital.

As a result of the surgery, Mrs. Eravati has regained her ability to see even distant objects. She can provide support on the farm as a daily wage labourer and sell the produce in the nearby markets. She can also carry out her daily household chores independently and watch television in her leisure time. She has started to take a greater interest in community events. She hopes that the programme can continue and build greater awareness about eye ailments and the corresponding treatment especially amongst the underprivileged.

“I have started selling rice and other produce grown on farms due to my ability to see and travel independently.”

BHIJA JHALU KOKANI
75 years | Female | Nimboni | Dist. Nandurbar | Maharashtra

Mr. Bhija had been suffering from cataract in both her eyes for the past three years. She had not asked for medical support due to financial constraints and because the hospitals near her village did not have quality eye-care facilities. She attended the medical camps in her village which helped her understand her problem more and she was motivated to register herself and undergo the surgery. The affordable quality service and professional staff provided the necessary preand post-surgery eye check-ups which made her feel comfortable.

As a result of the surgery, Mrs. Bhija has regained her ability to see even small objects. She can perform her daily household chores independently and even watch television in her leisure time. Recently, she has also started to sell vegetables from her farm. She is a regular participant in community events now and has had a very satisfactory experience with the programme. She recommends the surgery to other community members suffering from similar ailments.

“I have started selling vegetables grown on my farm after the surgery.”

RADAKYA TULSHA KOKANI
65 years | Male | Nimboni | Dist. Nandurbar | Maharashtra

Radakya had been suffering from cataract in both his eyes for three years. He had not asked for medical support due to financial constraints and supposed lack of good doctors around his village. He attended the medical camps in his village which helped him to understand his problem and he was subsequently motivated to register and undergo the surgery. The staff at the hospital also took adequate care and performed the necessary check-ups which ensured him of having a comfortable experience.

As a result of the surgery, Mr. Radakya can provide support on the farm and travel to nearby markets for conducting any transactions. He can also carry out his daily household chores independently. He has started to take greater interest in the community events. He hopes that the programme can continue and build greater awareness about eye ailments and the corresponding treatment especially amongst the underprivileged.

“I feel more confident and independent about managing my daily chores and can support my family with additional income.”

NATHABAI DIWANJI GAVIT
65 years | Female | Khairave | Dist. Nandurbar | Maharashtra

65-year-old Nathabai had been suffering from cataract in both her eyes for around two years. Before becoming aware of the Rashtriya Netra Yagna programme, she had not asked for medical support due to financial constraints and poor living conditions. She was completely dependent on others for her day-to-day activities and did not know if her condition was treatable. On the reference from the community workers, she registered herself for the free surgery at the organised medical camps in her village. While undergoing the surgery, she mentioned how the staff at the hospital took adequate care and necessary checkups which ensured her to have a comfortable experience.

As a result of the surgery, Mrs. Nathabai is now able to see things clearly and can independently travel to the farm or the local markets to buy groceries. The ability to be independent and assisting her family makes her feel happy and more motivated as an individual. While earlier her vision restricted her from taking up additional responsibilities, she can now contribute to the household income through her support on the farm. She further mentioned how she has been able to take a greater interest in community events. She hopes that the programme can continue and build greater awareness about eye ailments and the corresponding treatment especially amongst the underprivileged.

“I can take up additional responsibilities and significantly contribute to my household income due to my ability to see clearly.”

SARASWATIBAI MARATHE
55 years | Female | Khairave | Dist. Nandurbar | Maharashtra

55-year-old Mrs. Saraswatibai had been suffering from cataract in both her eyes for around four years. She had not asked for medical support for her eyes due to limited awareness about the treatment. She was working as a daily wage labourer and her financial condition further restricted her from getting surgery or any other treatment for her eyes. On the reference from the community workers, she registered herself for the free surgery at the organised medical camps in her village. While undergoing the surgery, she mentioned how the staff at the hospital took adequate care and necessary check-ups which ensured her to have a comfortable experience. As a result of the surgery, Mrs. Nathabai is now able to see things clearly and can independently travel to her workplace every day. She is also managing her financial transactions better and with minimal supervision. While earlier her vision restricted her from taking up additional responsibilities, she can now contribute to the household income through her support on the farm. She further mentioned how she has been able to take a greater interest in community events. She hopes that the programme can continue and build greater awareness about eye ailments and the corresponding treatment especially amongst the underprivileged.

“The ability to be independent and assist my family financially makes me feel happy and more aspirational towards my future.”

PRAMILABAI MARATHE
65 years | Female | Khairave | Dist. Nandurbar | Maharashtra

65-year-old Mrs. Pramilabai had been suffering from cataract in her left eye for around a year. She had not asked for medical support due to financial constraints and poor living conditions. She also was not aware of the right treatment for her condition. On the reference from the community workers, she registered herself for the free surgery at the organised medical camps in her village. While undergoing the surgery, she mentioned how the staff at the hospital took adequate care and necessary checkups which ensured her to have a comfortable experience.

As a result of the surgery, Mrs. Pramilabai is now abl to see things clearly and can independently travel to her workplace. She believes her work opportunities have increased and is hopeful to be a more significant contributor to her family’s welfare. Further, her corrected vision helps her identify currency notes better and hence, manage her finances independently. While earlier her vision restricted her from taking upadditional responsibilities, she can now contribute to the household income through her support on the farm. She further mentioned how she has been able to take a greater interest in community events.

“I can take up additional re-sponsibilities and significantly contribute to my household income due to my ability to see clearly.”

MANIKRAO FARSHA PAWARA
62 years | Male | Genda | Dist. Nandurbar | Maharashtra

Mr. Manikrao is a farmer who had been affected with cataract in both his eyes. He had difficulty seeing clearly, as his vision in both of his eyes was blurred due to cataract. He did not seek medical assistance before the programme since existing facilities were notaffordable. He came to know of the Rashtriya Netra Yagna Programme through Samata Foundation who helped him in understanding his ailment further. The community workers also counselled him during this time about the need for the surgery which motivated him to register with the organisation.

After the surgery, he is now able to see better and is even able to do all farm-related activities without taking support. He is also actively involved in community engagements, can manage his financial transactions,

and can operate on his mobile phone for different activities. Further, the hospital is also providing him post-surgical care and medicines. Overall, he stated that he now feels better equipped in dealing with medical eye ailments in his family.

I am able to manage my financial transactions independently after the surgery."

TIVALI JEHANGIR PAWARA
65 years | Female | Genda | Dist. Nandurbar | Maharashtra

Lack of medical facilities and poverty had limited Mrs. Tivali in understanding her eye condition. She had been suffering from blurred vision for three years. She came to know about the free health camps being conducted in her village through the community workers. The health check-up helped her identify the cataract and she registered herself with the programme. She was very satisfied with the quality of service and gave commendable feedback to the support staff.

According to her, the surgery has helped her become more aware of eye ailments and live a more fulfilling life. She can now identify currency notes clearly, carry out her transactions and support her family in day-to-day activities. Post the surgery, she has also used her potential to work on the farm and engage in labour work to get additional income. She wishes the programme to reach a greater number of people suffering similar ailments and are unable to avail of services.

"I can now recognise currency notes as a result of getting back my vision."

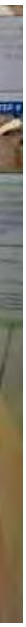
Udgir | Dist. Latur | Maharashtra

SALIMA BI
60 Years | Female | Dist. Farukhnagar | Haryana

Mrs. Salima who is in her 60s earns her living by rolling beedis. Her job was affected since she had been affected by cataract in both her eyes. She was not able to see clearly due to her cataract issue and her vision was affected for around two years. Mrs. Salim could afford consultation charges but not the cost of the cataract surgery which deterred her from seeking medical support for her problem. She came to know about the programme from the health camp conducted in the local masjid. The registration involved a very simple process where her Aadhaar card and two photographs were collected. Further, additional check-ups of measuring her blood pressure and sugar levels were done by the hospital.

She feels motivated after her surgery as her vision has improved and she is now able to do her old job faster and more efficiently. She is also able to read, watch television and cook with ease. The programme also made her aware of eye-health and understand that cataract is treatable through surgery. She wants the programme to be continued and reach more people.

"My job of rolling beedis was affected with my cataract issue but the surgery has helped me become quicker at my job and earn better."



PEDA NARSAPPA
67 Years | Male | Dist. Bengaluru | Karnataka

Mr. Narsappa who is 67 years old was working as a daily wage labourer before getting cataract. He was not able to walk at a normal pace and had to quit work for nine months which impacted his income. His cataract was diagnosed from the taluk hospital in his hometown, but the facility did not have scanning and surgical facilities. The taluk hospital referred him to the district hospital, but he did not want to get treated from there. He came to know about the Rashtriya Netra Yagna programme and got his eyes checked from the free health camps conducted.

After the camp, a follow-up was done by the camp co-ordinator post which he underwent the surgery for one of his eyes. After the surgery, his eyesight improved, and he has been able to go back to his earlier profession. His earnings have become the same as before enabling him to live a good quality life. He is also able to go out with ease and without anyone's support. He wants the programme to be continued and benefit other people. His suggestion is to increase the frequency of health camps to every 3 months, instead of 6 months. He also mentioned that it would have been helpful if a health centre was there close to his village for easy access.

"Due to cataract, I was not able to work for 9 months. I also had to leave the agriculture sector and stay at home. Post the surgery, I am able to continue my passion and the income is back to what it was."

NANA VASAVE
71 years | Male | Khairave | Dist. Nandurbar | Maharashtra

65-year-old Mr. Vasave had been suffering from cataract in his left eye for around two years. He had not asked for medical support due to financial constraints and a lack of awareness about the treatment. He was heavily dependent on others to help him carry out his daily activities. On the reference from the community workers, he registered himself for the free surgery at the organised medical camps in her village. While undergoing the surgery, he mentioned how the staff at the hospital took adequate care, provided food, transport facilities, and other necessary check-ups which ensured him to have a comfortable experience.

As a result of the surgery, Mr. Vasave is now able to see things clearly and can independently travel around as necessary. Further, his corrected vision helped him to go to the market and manage finances independently. While earlier his vision restricted him from taking up additional responsibilities, he can now contribute to the household income through his support on the farm. He further mentioned how he has been able to take a greater interest in community events.

“I can now work now work on my farm more efficiently due to my ability to see clearly and also make significant contributions to the household income.”

KEY IMPACT -
INDIVIDUAL EMPOWERMENT

KEY INSIGHT

Rashtriya Netra Yagna programme has increased awareness and access to eyecare facilities amongst the elderly and helped address the myths around cataract

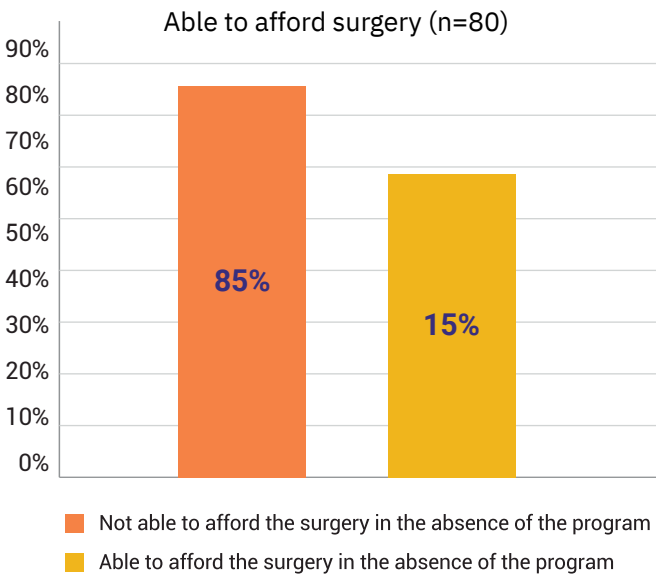
"The number of people opting for cataract surgeries has increased with the implementation of the programme. People are motivated to undergo the surgeries as they are convinced by volunteers and the beneficiaries in turn are motivating other people. The cascading effect of this will benefit healthcare demand in the long run."

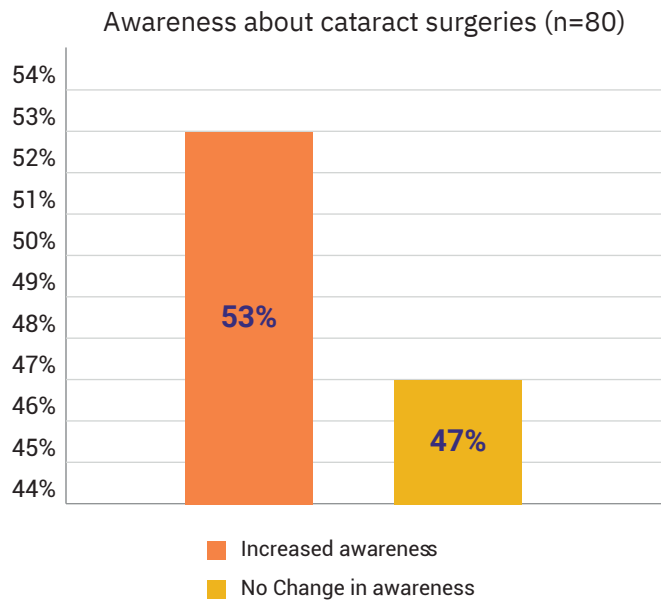
KISHORE CHANDRA BEHERA
Community Health Worker | Jaraka, Dist. Jajpur | Odisha

A majority of the elderly citizens were under the impression that the condition is not treatable since it is an old age condition, or could lead to other complications. More than 85 percent of the elderly citizens in the study mentioned that they wouldn't have been able to afford the surgery had it not been for VFI. Many of them didn't seek medical assistance even if they were aware of problems in their vision. A large majority of 96 percent reported financial constraints as the reason for not seeking medical help in spite of being aware of problems in their vision. The second major reason for not seeking assistance was lack of awareness. NSE Foundation's Elder Care model has successfully addressed these key barriers thereby improving the health status of the elderly. The Foundation paid for the entire cost of the surgery, without other financial collateral expected from the government or the families.

82 percent of the elderly citizens who were part of the study regained complete vision in at least one eye, post the cataract surgery. It is also significant that 100 percent of the surgeries were successful, with no reported accidents or surgical failures.

53 percent of the 80 elderly citizens who were part of the interview reported having greater access and awareness about the issue of cataract and the aligned treatment and facilities available. Out of this, 20 percent are even spreading awareness to their peers by referring them to the programme.





KOMALA DEVI
66 Years | Female | Dist. Bengaluru | Karnataka

Komala Devi is 66 years old and has been working in the garment industry for the past 15 years. She had developed cataracts in both her eyes and so had difficulty reading or working efficiently. She had reached out to two hospitals for the treatment and one of them had agreed to do the surgery for free. However, she was not able to undergo the surgery due to lack of documentation, specifically having a Yashaswini card.

Mrs. Devi got to know about the free health camps conducted as part of the Rashtriya Netra Yagna programme from the local MLA office in her region. The process of registration was not complex, and she only needed to provide an identity proof. Regular followups were done even after the surgery which enabled a close monitoring of her health. The surgery has helped her improve her vision, read, and do her day-to-day activities independently. She can travel alone and manage her financial transactions without anyone's help. Recently, she started working for a tailor by helping in sewing buttons and hooks and this has given her some financial support. She is now looking forward to get back to her profession full-time. She had a good experience with the programme and suggests increasing the number of health camps in Horamavu.

"I'm able to focus on my tailoring skills and am learning how to sew buttons and hooks that would not have been possible without the surgery. This has enabled me to better support my family via higher earnings."

VIJAYAN
57 Years | Male | Dist. Bengaluru | Karnataka

Vijayan is in his 50s and had worked in the panipuri business. He was suffering from cataract in both his eyes. Even though he had noticed his eye problem for more than a year, he could not seek medical assistance as the surgery was not affordable. He also mentioned that his hometown has only one clinic with only one doctor on service and lack of scanning and surgical facilities.

Mr. Vijayan heard about the Rashtriya Netra Yagna programme from a friend. He attended the free health camp and registered himself using his Aadhaar card and a photo. His vision was checked during the camp and surgery was performed soon after. After the surgery, follow-ups were done after a week, in 15 days, and after a month. The surgery helped Mr. Vijayan to improve his vision due to which he is now able to work more efficiently. He does not face any difficulty in reading the bus signs, billboards, newspapers, etc. He also mentioned using digital devices like mobile phones which proved difficult to use before the surgery when he had a blurred vision.

"I'm excited that I can use mobile phones now post the surgery as well as read the bus boards and billboards which were not visible to me earlier."

CHANDRAMMA
65 Years | Female | Dist. Bengaluru | Karnataka

Chandramma who is 65 years old had been affected by cataract in her left eye. Her right eye was also affected by cataract, and she got it treated by doing surgery from Narayana hospital. She delayed the surgery for the left eye since she was able to see clearly with one eye.

Her husband took her to the free health camp conducted at Nayonika hospital since she still was facing vision problems. She needed to provide only an Aadhaar card and photo to avail the free surgery under the programme. Her feedback was taken after the surgery and follow-ups were done to monitor her health. Mrs. Chandramma is now able to see, read better and can go out after her surgery. Post the programme, she started to visit the hospital more regularly and is not hesitant to see doctors anymore.

“My vision is better now, and I can go out easily. The programme also helped me in having a better awareness of eye-health and I’ve started referring it to my neighbours as well.”

SAROJA LAKSHMI
60 Years | Female | Dist. Bengaluru | Karnataka

Saroja Lakshmi who is in her 60s had been affected by cataract in both of her eyes. Initially, she guessed that her condition could be myopia as she was unable to see distant objects and hence, did not feel the need of getting her eyes checked. Also, there was a lack of access to specialised hospitals around her that provided scanning and surgical facilities.

She got to know about the free health camp conducted as part of the Rashtriya Netra Yagna programme through a relative. Her cataract was diagnosed during these camps and information was provided about the subsequent treatment. Further, medical assistance was given from the camp and free surgery was conducted. Apart from correcting her vision, Mrs. Lakshmi feels that the surgery has helped her understand the importance of regular eye check-ups and she advises the same to her family and friends. She suggested the programme expand its reach and solve vision issues for many more others like her.

“I had been facing difficulty in seeing things from a distance. Post the surgery, I can see objects even from a distance and now I understand the importance of getting eye check-ups done regularly.”

PAWARA

55 years | Female | Genda | Dist. Nandurbar | Maharashtra

Fifty-five-year-old Govali had been suffering from a blurry vision in both her eyes for around a year. Due to limited resources and transport facilities to nearby hospitals, she could not get medical assistance before the Rashtriya Netra Yagna Programme.

She came to know of the programme through the SHG meeting in her village and then registered herself when the eye-health camps were conducted. During the health camps, eye screening was done, and counselling support provided which gave her motivation to get the surgery. As a result of the same, she is now able to do a lot of her daily activities in her household and on the farm. She is also carrying out financial transactions independently. Overall, she is very satisfied with the programme and wishes it to reach a greater number of people who are currently suffering similar ailments in her tehsil.

"I heard about the Rashtriya Netra Yagna programme through the village self-help group meeting. On understanding about the affordable surgery, I immediately registered myself and attended the check-up camps set up by the community health worker."

SULOCHANA

66 Years | Female | Dist. Bengaluru | Karnataka

Sulochana who is in her 60s had cataract in both her eyes, resulting in dim and double vision. She had difficulty in seeing herself in the mirror clearly, watching television, and reading. Hailing from a financiallyn backward family, vision treatment and surgery was not affordable for her, and had been living off a meagre pension of around 1,000 rupees per month. Her vision problem was diagnosed as cataract from a hospital when she tried to seek medical assistance. However, the high fees prevented her from getting the surgery.

She heard about the Rashtriya Netra Yagna programme through one of the organisers of the health camps. The registration process was smooth, and she underwent the surgery at the assigned hospital. The hospital team also provided post-surgical care but there were no follow-ups after the surgery. Post the surgery, she can see and read better. She is also able to watch television, which was not possible earlier. She has also started to attend social gatherings in her community.

"I have been suffering from vision issues for the past five years. Thanks to the programme, I am able to see a lot better after the cataract surgery"

C SHANTI
78 Years | Female | Dist. Nagavarpalya | Karnataka

Shanti is 78 years old and had been affected with cataract in both of her eyes. She was not aware about her ailment, had financial constraints and did not have access to quality hospitals with scanning and surgical facilities. She got to know about the free health camp at Nagavarapalya as part of the Rashtriya Netra Yagna programme from an acquaintance and she was able to avail the benefits from the programme by providing only an Aadhaar card and photo for the registration.

The hospital staff took care of her throughout the process and ensured eye check-up after her surgery The cataract surgery helped Mrs. Shanti to regain her vision. She can read, carry out her day-to-day activities and lead an independent life.

“I am happy that I was able to regain my vision. Thanks to the programme, now I am aware of the importance of eye check-ups.”

ADHIAMMA
67 Years | Male | Dist. Bengaluru | Karnataka

Adhiamma is a 62-year-old farm labourer who had been affected by cataract in both her eyes. Cataract had had a direct impact on her income, and she could not work without support from others. She had been noticing her vision problem for around a year, but she was not aware that her eyes were affected by cataract. While she could afford the surgery, she felt that there were no good quality hospitals that could provide specialised services like scanning and surgery around her.

She came to know about the Rashtriya Netra Yagna programme through the free health camp conducted in her neighborhood. After getting diagnosed, she registered for undergoing the surgery for one eye. During the treatment, she was provided with other facilities like transportation and additional check-ups for blood pressure and sugar. She also had regular follow-ups after the surgery and the resource person from her village arranged a transportation facility for her every time. After the surgery, her vision has improved, and she can now manage her household chores without any help. She feels more motivated as an individual with independence and has rejoined her earlier job as a farm labourer. She mentioned that it would be great if more such camps are conducted in her village as no nearby hospitals are providing specialized services.

“Because of a blurry vision, I couldn’t go to work which had an adverse effect on my income. Now, I can farm without any difficulties because of an improvement in my vision.”

MOTIRAM GOHE
81 Years | Male | Todgaon | Dist. Jajpur | Odisha

Mr. Motiram is an 81-year-old male who had blurry vision and was not able to see clearly with both his eyes. Also, the closest hospital to his village did not have basic facilities such as scanning and surgery. After being recommended to the programme, Mr. Motiram registered himself for the surgery by providing his Aadhaar card and an initial check-up helped the doctors identify the cataract in his eyes. A further process of counselling helped him in improving his confidence and be prepared for the surgery.

After undergoing the surgery, Mr. Motiram noted being more aware of his eye condition and the available treatment. Further, his vision has improved, and he has been able to go back to doing his day-to-day activities on his own. The service has also provided a fast-track solution to his problem of finding a specialist in the nearby villages. However, upon completing her surgery, he said that the follow-up could have been better.

“Earlier, I couldn’t step out of my home, or even approach my friends, but a corrected vision has enabled me to overcome this issue.”

CINERAMA
85 years | Female | Dist. Anantapur | Andhra Pradesh

Cinerama, aged 85 years, worked as a daily wage labourer but spent most of her time taking care of her grandchildren. She was diagnosed with cataract and had blurred vision for around two years. As a result, she was unable to walk steadily and needed support from her family. For all her ailments, she relied on the Hinduri Taluk hospital. Despite having doctors, only consultation services were available, since it was a taluk level hospital. She approached the district hospital and had undergone a cataract surgery for her right eyes after which she had been living with partial vision.

Cinerama was referred to the camp conducted by Nayonika Eye Hospital and she underwent the surgery for her left eye. The camp staff took her eye screening and checked her blood-pressure through an ECG machine. The surgery was successful and she was advised to follow precautions like using eye drops and use certain other medicines. After the surgery, she has regained her vision and can take care of her family. She is also able to watch television in her leisure time. Presently, she is not working and spends her time looking after her grandchildren. She has also referred the programme to many people, particularly the young, and encouraged them to have regular eye check-ups. However, there have been no camps for the past 2 years, and so she hopes that the programme will be continued and more frequently.

“The programme should be continued and scaled up so as to reach a larger number of people in underprivileged communities.”

CONCLUSION

CONCLUSION

Based on the data from field visit observations across four locations and interactions with the elderly citizens. The Sattva team presents the following recommendations to strengthen and scale up the intervention:

1. BUILD ORGANISATION CAPACITY TO INCREASE REACH AND DISSEMINATE KNOWLEDGE

VFI should enhance their engagement with the network hospitals to build capacity of the healthcare ecosystem in a sustainable manner. Incorporating a robust monitoring framework will enable quality databased insights on major causes of cataract, health implications, suggested remedies, and characteristics of those impacted. This could become a vital source of knowledge to potentially advise government healthcare programmes. Systematic mapping exercises could be undertaken to reach more underserved and aspirational communities of India. These measures could catapult VFI to the position of a leader in eye-health.

2. STRENGTHEN DELIVERY MODEL TO ACHIEVE PROGRAMME OBJECTIVES

Cross-collaborative learning between implementation partners: Creating an opportunity for quarterly or halfyearly meetings and workshops for core team members of all the hospital partners to align on best practices, discussions on challenges and deliberation on potential solutions. This platform can be used to share quarterly updates with VFI including the key activities undertaken, challenges and steps taken to overcome them as well as plans for the next quarter.

Referral systems for non-cataract detected ailments at eye-health camps: The programme was entirely focused on reducing the prevalence of cataract blindness. No provisions were made to treat individuals who came to the screening camps with other types of eye disorders. Thus, there may have been a steady and more obvious neglect of other causes of blindness. With infrastructure support for referral services, early detection, and treatment of eye ailments will be possible.

Diversification to ensure financial sustainability in model: Currently, the programme is funded by CSRs and other funders within the Indian ecosystem. Long-term planning could ensure diversification across multiple sources including alignment and support from existing government healthcare providers.

Enable follow-up mechanisms to conduct pending surgeries: Amongst the 80 elderly citizens who were part of the study, 47.5 percent reported having received surgery in only one eye, even though many reported problems in both eyes. Many still don't have full vision in both eyes. 18 percent of elderly citizens in the study continue to need additional care due to persistent condition of watery eyes, blurred vision, and spectacles to see clearly. To enable improved impact, this mechanism could be strengthened in two ways:

1. Compulsory feedback forms and follow-ups to check on the eye-health of the beneficiaries that can be implemented digitally or through telephonic calls
2. Partner hospitals to deploy their health workers and appoint local community leaders to help mobilise information on health status and feedback of beneficiaries in case they are difficult to reach digitally.

3. FACILITATE COMMUNITY-LED REFERRALS TO INCREASE AWARENESS AND ACTION

Along with the government and partner hospitals, the key influencers for the elderly are those beneficiaries in their village or from other villages around them who have the experience of undergoing the surgery and experiencing more fulfilling lives. Onboarding these past beneficiaries (belonging to neighbouring villages and who speak in the target elderly citizen's native language) as experts who can narrate their story and share their experience of undergoing the cataract surgery, can significantly impact the thought process of the potential patients. This will reassure them to seek surgery.

The Rashtriya Netra Yagna programme has provided elderly citizens access to improved vision at an affordable cost by creating awareness of eye health, providing treatment for cataract, and ensuring post-surgery care.

After the implementation of the programme, a positive impact on the elderly citizens' lives was observed across the dimensions of physical and emotional health, individual self-reliance and confidence, social acceptance, participation, and economic empowerment. An improved health and vision has given them more confidence in engaging within their family and community.

The programme has had a positive impact on the physical, emotional, and financial well-being of the beneficiaries which is also conducive of a better quality of life.

Drishti Eye Hospital, Dist. Aurangabad | Maharashtra

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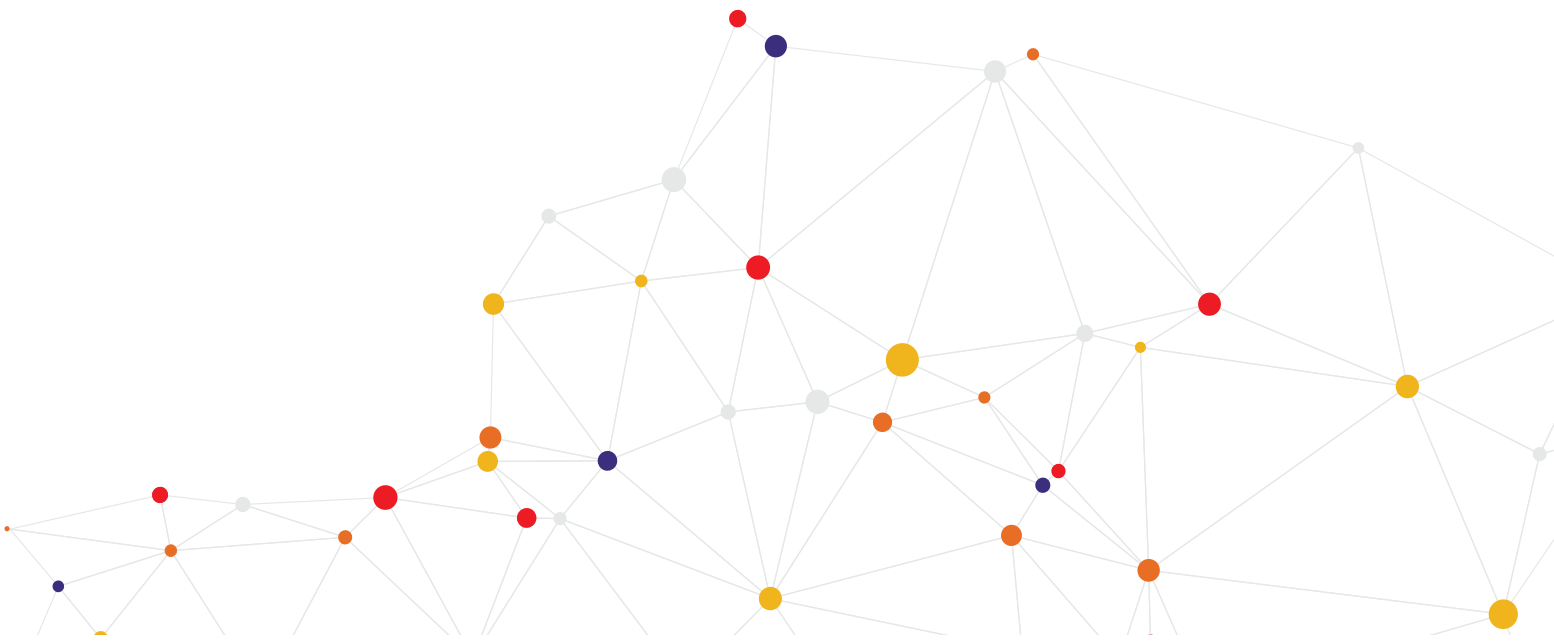

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The study included an evaluation of the Rashtriya Netra Programme that has been implemented by Vision Foundation of India as part of NSE Foundation’s social responsibility initiative, to improve the physical and mental well-being of the underprivileged elderly population by improving access to cost-effective eye-health care services, awareness of legal and financial rights, emotional and social support.

We would like to extend our sincere thanks to the NSE Foundation team including Mrs. Rema Mohan and all the other members of the CSR team who extended their wholehearted cooperation in accomplishing the study at different levels. Our team is immensely grateful for the valuable guidance and support extended by Vision Foundation of India including Mr. Mahinder Purwani, Dr. Chilshu Chandran, Mr. Afzal Varaliya and their entire team, for their priceless cooperation and for offering valuable suggestions and inputs during the field work.

The study team extends its warm thanks to the hospital staff of all the four locations which were included in the study and the elderly citizens, who shared their experiences, thoughts and suggestions and their valuable time during the execution of the study.

ABOUT

SEE THE FEELING, FEEL THE SIGHT
VISION FOUNDATION OF INDIA

Vision Foundation of India empowers these people by giving them eye care free of cost, through its art, novel infrastructure and advanced instruments. It firmly believes that lack of money should never be the reason for loss of vision. VFI provides free eye checkups and surgeries to the downtrodden of the society. High-quality eye care and innovative medical technology is still beyond the reach of most afflicted people in the country. The foundation therefore renders its helping hand by providing them high quality eye care free of cost, through modern infrastructure and equipment.

The Rashtriya Netra Yagna Programme was launched in 2015 as an enduring focus project of the Vision Foundation of India (VFI), an NGO founded in 1993 by Dr. Kulin Kothari with a firm belief that lack of money should never be the reason to prevent better eyecare. Good quality eye care and medical technology is still beyond the reach of most afflicted people in the country. VFI empowers the destitute from all parts of India by giving them eyecare free of cost, through state-of-theart infrastructure and medical equipment. While there are many charitable eye hospitals in India conducting camps and performing surgeries free of charge, many of them are underutilised because of various reasons. VFI partners with them for specific projects and financially supports these activities under Rashtriya Netra Yagna Programme.

www.visionfoundationofindia.org

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Annexure 1:

RESEARCH FRAMEWORK

Sub-theme	Key Research Questions	Indicators
Relevance	What are the needs identified for the beneficiaries with respect to the need for the programmes?	• Need assessment process followed to understand the status of senior citizens • Present quality of surgeries in hospitals without the intervention
	Are the project objectives and activities aligned to the needs identified for the beneficiaries?	• Identified objectives of the programme • Alignment of objectives of the programme among the programme implementation team and the stakeholders
	Was there any process or system defined to select the beneficiaries for the programme?	• Selection criteria of elders • Selection criteria of target location"
Effectiveness	• Is there a well-defined and standardized process to map the programme activities outcome indicators for the programmes ? • Is there a well-defined and standardized process for the programme activities?	• SOPs • LFA or theory of change • Qualification of the team alignment on the programme implementation • Process of different activities conducted"
	• Is there well-defined process to identify and document the key risks for the programmes? • Are there risk mitigation strategies in place and document	• Documented risk and mitigation plans • Common understanding of risk at all levels
	• Are systems and processes well defined to implement the on ground? • Are the roles and responsibilities of the programme team clearly defined and aligned? • Is there a standardized process to monitor the progress of all the programmes? • Is there a well-defined and standardized process to take feedback from the beneficiaries during and after the programme?	• M&E framework and reports • Stakeholders and frequency of data collected • Data based decisions (MIS System)

Sub-theme	Key Research Questions	Indicators
Sustainablity	• Has the project enhanced the demand for cataract surgeries amongst the community members? • Has a clear strategy for operational, institutional, and financial sustainability of the project been defined and incorporated in the project design?"	• Elders are able to function with low dependence on programme implementation team • Convergence possibilities explored to continue engagement in the long run and reduce financial dependence on funder • Community ownership established"
Impact	**Short term impact**	• Increase in awareness regarding cataract and reduction in myths amongst community member • Access to cataract sugeries has increased in target community • Improved productivity of the senior citizens
	Medium term impact	• Increase in citizen's ability to understand and read • Increase in general physical health and ability to function well • Improvement of senior citizen's emotional well-being • Increase in community participation and engagement of citizens"
	Long term impact	• Improved household income and standard of living of elderly

Annexure 2:

PROGRAMME FRAMEWORK

Activities	Coordinating with partner hospitals to onduct camps	Informing the concerned NGO partner of NSE to mobilize community by giving them the details of the camp	Surgery records procured from the partner hospital(s) on monthly basis and assessed with photographs and identity proofs	
	Timely quality assurance and monitoring mechanism will be implemented	Identify new areas and hospitals to associate and reach more locations		
Outputs	Partner hospitals are upgraded, equipped, operational	Provision of services for all eye diseases	Conduct outreach camps every month	Provide treatment for eye diseases
Outcomes	To increase use of opthalmic services because of increased awareness			

Data Collection Tool - Elderly Citizens

	Key Research Questions	Research Questions
Relevance	• What are the needs identified for the beneficiaries with respect to the need for the programmes? • Are the project objectives and activities aligned to the needs identified for the beneficiaries?	• How accessible or how distant is your nearby hospital? Do you think it provides all the services you need? • Does the hospital have full time availability of doctors and does it have other facilities like scanning and surgical possibilities? • How do you look at the pricing of the services there and how affordable is it for you? • In the past 1 year, have you made use of the hospital services? If no, why not? • Are you aware of the Rashtriya Netra Yagna project? How did you know about the programme? • Do you think you would have gone for the surgery, without this programme or the NGO? Would you have opted for it and if yes, did you find it affordable? • When did you identify that you had a vision problem and when was it diagnosed as a cataract issue? • How severe was your issue? Were both your eyes affected with cataract and what was the stage when you diagnosed it? • Did you go for medical assistance when you identified you had a vision problem? If not, why? Please do explain what prevented you from seeking medical assistance. • If you had been under treatment, please narrate your experience - did you continue the treatment or did you stopped it in the middle, why?
Effectiveness	• Is there a well-defined and standardized process to map the programme activities outcome indicators for the programmes? • Is there a well-defined and standardized process for the programme activities?	• Could you please narrate the registration process and services rendered by the hospital team? Were there adequate follow ups done after treatment? • Were there eye check-ups prior to and after the surgeries? Were there any activities or sessions they carried out to make you comfortable as well as confident to go for the surgery? Did the provide post surgical care and medicines? • How do you evaluate the services of the hospitals associated with the project? • Was any feedback taken after surgery?

	Key Research Questions	Research Questions
Impact	**Short term impact**	• How do you think your awareness towards eye care and infections has changed after getting the surgery? • Do you face any trouble reading bus boards, billboards, newspapers and other things after your surgery ? Please share the experience.
	Medium term impact	• Do you have to depend on others in going out or doing day to day activities after the surgery? • Did you manage your financial transactions independently or did you depend on someone else when you had the cataract issue? What is the status now? • Are you able to use digital devices like smartphones, TVs, laptops etc after the surgery? • Do you feel that the eye vision surgery has changed your motivation and aspiration towards your life and career? Please explain how
	Long term impact	• In the past few years after surgery, have you been able to get employed? Did youexplore any alternative sources of livelihood? If yes, please elaborate. • If yes, has your present condition helped in improving the family income? • How often do you participate in community gatherings and other social functions? Do you feel more involved in the community after getting better eyesight?
Recommendations	**Long term impact**	• What do you think can be done for the betterment of the programme? • Do you think that the programme should be continued and more people should be benefited from it?

Data Collection Tool - Hospital Team and Community Workers

	Key Research Questions	Research Questions
Relevance	• What are the needs identified for the beneficiaries with respect to the need for the programmes? • Are the project objectives and activities aligned to the needs identified for the beneficiaries? • Was there any process or system defined to select the beneficiaries for the programme?	• What according to you are the different kinds of eye problems that the community face in general and how do they address it? • Do you find any gap in the infrastructural and service facilities in addressing the community eye health issues and what are they? • How often do you think people in the community accessed the hospital for eye healthproblems before the implementation of the programme and what are the services the hospital used to provide for them? Do you think that the services were affordable for them ? • Has the hospital observed any sort of reluctance from the people's side to go for surgeries even after diagnosing cataract issues through eye check-ups and other screening methods? • If such a trend is observed, have you looked into the reasons behind that and can you please explain about it if you have done that? • How did the NGO propose the programme and what made you decide to take this up? • How do you think the beneficiaries were selected for the programme? Please do mention the criterion or criteria that was mentioned by the VFI team
Effectiveness	• Is there a well-defined and standardized process to map the programme activities outcome indicators for the programmes? • Is there a well-defined and standardized process for the programme activities?	• How equipped is the hospital to manage the cataract surgeries that line up and what are the facilities that the hospital have? Do you have to rely on any other institutionfor surgical or pre-surgical support? • What are the procedures the hospital follows for onboarding beneficiaries, scheduling surgeries and in providing post surgical care? • How frequent are the surgeries done and do you have any planning strategy for it and is it being done in consultation with the NGO? • Who were the people assigned to perform the surgeries? Are they experienced medical staff of the hospital itself or were they provided by the NGO? Was there any training sessions conducted by the hospital/NGO for them? Could you identify any of the reasons that made them join the programme? • Do you provide any sort of counselling in preparing the beneficiaries for the surgery? • Do you provide any sort of post surgical care including follow -up check ups, medications and therapies for the beneficiaries of the programme? • Did the the hospital team approach the beneficiaries after the surgery to take feedback? What was the mechanism followed to do so? • Are you providing the surgeries and medical support at the same cost that the hospital carries it out in general or is it being given at a reduced cost considering that the programme is implemented for a cause?"

	Key Research Questions	Research Questions
Effectiveness	• Is there well-defined process to identify and document the key risks for the programmes? • Are there risk mitigation strategies in place and documented?	• Is there a well-defined process to identify and document the key risks for the programmes? • How did the COVID situation affect programme implementation? • Was there any strategy adopted to cope-up with the situation? • Any other risks identified and the risk mitigation strategies • Timely delivery of services • Are the roles and responsibilities of the programme team clearly defined and aligned?
Impact	**Short term impact**	• Have you observed any difference in the number of cataract surgeries taken up by the hospital before and after the Rashtriya Netra Yagna programme? • Has the programme been successful in creating awareness on eye health issues among the community members and making them access medical services? • Do you have any statistics on vision improvement among the beneficiaries?
	Medium term impact	• Are the beneficiaries exploring better livelihood options with improved vision post the surgery? Do you find any notable differences among them? • Do you think that the improved vision post the surgery helped the beneficiaries in the betterment of reading and in accessing digital services as well?"
	Long term impact	• Do you think that the beneficiaries are supporting their family and did you come to notice any increase in the household income of the beneficiaries post the surgery with their vision improvement? • Has the programme helped the beneficiaries in a better community participation and social engagement? • Did you see referrals from beneficiaries for other people in the community to take the surgery?"
Sustainability	• Has the project enhanced the demand for cataract surgeries amongst the community members? • Has a clear strategy for operational, institutional, and financial sustainability of the project been defined and incorporated in the project design?	• Do you have any support from the local government and collaboration with any other NGO other than VFI in running the programme? • Are you planning to continue running the programme even if VFI opts out from it and will you be providing the services at the same rate that you are charging with the programme? • Do you have any plans to collaborate with any other organisation to ensure the continuation of the programme?
Recommendations		• Do you think that the programme should be continued and more people should be benefited from it? Do you think there are things that could be done to improve the implementation and impact of the programme?

Data Collection Tool - Programme Team

	Key Research Questions	Research Questions
Relevance	• What are the needs identified for the beneficiaries with respect to the need for the programmes? • Are the project objectives and activities aligned to the needs identified for the beneficiaries? • Was there any process or system defined to select the beneficiaries for the programme?	• What are the health care services available at the village level? • How are the health care institutions at the village level priced? • Is there any hospital having a cataract surgical facility in the target location? If yes, how many? • If yes, is the quality of service satisfactory? What is the per patient cost? • Have you done any preliminary study among the target population? • If yes, how was the study conducted? Did you approach the people in the locality or did you collect information from the government authorities or local NGOs? Could you please elaborate on that? • Was there any selection criterion followed to select the target locations? If yes, what was the selection criterion used to identify the beneficiary locations? • Were there any selection criteria followed to shortlist the beneficiaries of Rashtriya Netra Yagna Programme? If yes, on what basis the beneficiaries were selected for the programme?"
Effectiveness	• Is there a well-defined and standardized process to map the programme activities outcome indicators for the programmes? • Is there a well-defined and standardized process for the programme activities? • Is there well-defined process to identify and document the key risks for the programmes? • Are there risk mitigation strategies in place and documented? • What is the budget allocation vis-a-vis actual utilization on ground? • What are different cost heads for various project activities?	• Please take us through the process of identifying and onboarding beneficiaries, selecting hospitals, scheduling surgeries and post surgical processes? • How many surgeries were planned? Please give duration of planning and actual achievement vs target? • How was data on surgery completion and post care recorded? Was there an effective M&E process to record inputs, outputs and outcomes achieved? • Is there an LFA document capturing the overall implementation model? • Were you constantly collecting feedback from the beneficiaries for reviewing and changing the implementation process of the project/ did you follow a consistent model for implementation? • Were any changes implemented based on the insights from M&E and feedback from beneficiaries? • Is there a well-defined process to identify and document the key risks for the programmes? • How did the COVID situation affect programme implementation? • Was there any strategy adopted to cope-up with the situation? • Any other risks identified and the risk mitigation strategies • Timely delivery of services • Are the roles and responsibilities of the programme team clearly defined and aligned? • Are there any monitoring measures to compare the difference between the allocated fund and the actual fund utilised as well as the number of surgeries planned and those executed and the number of beneficiaries who are being provided with post surgical care? Is there any system to document all these?

	Key Research Questions	Research Questions
Impact	**Short term impact**	• Have you conducted any awareness campaign among the community members prior to or during the launch of the programme? • Were there any pre-existing beliefs or myths associated with cataract issues or in general with regard to eye care or surgery? How did the programme alleviate these issues? • Could you observe any behavioural changes among the target population post the awareness campaign like proactive/Reactive measures, general check-up vs ailment related check, rise in surgical cases etc? • If yes, has the awareness programme or the programme led to an increase in access to healthcare services? • Has the programme resulted in an increased demand/usage for cataract surgeries and eye care services? If yes, by how much did it increase?
	Medium term impact	• Can elders as a result of the surgery now see and do things on their own? Are they able to read long texts independently? What makes you think so? • Do elders as a result of the surgery feel more confident and aspirational towards life? • Do you feel they have a better sense of self and mental well being?
	Long term impact	• Could you also identify people exploring better livelihood options post the surgery - becoming entrepreneurs, accessing jobs, exploring alternative sources of livelihood and becoming independent and self reliant in lives? • Do you know of people who have been able to use technology and digital media related career tracks after the surgery? Are they using technology for financial payments? • Have you observed any change in the household income of the beneficiaries post the surgery? • Do you see a rise in community engagement and participation in social functions of elders post the surgery?
Sustainability	• Has the project enhanced the demand for cataract surgeries amongst the community members? • Has a clear strategy for operational, institutional, and financial sustainability of the project been defined and incorporated in the project design?"	• Has the project enhanced the demand for cataract surgeries amongst the community members? • During the implementation of the programme, has there been convergence established with government authorities, hospitals, and other NGOs and local organisations to ensure sustainable implementation of the programme? • Have you devised an exit strategy for the programme? Please elaborate on it - Mention whether the team is planning to follow an immediate exit plan or a phased plan and in what way? • How does the exit strategy accommodate operational sustainability of the programme? • What are the key sources the team has identified to ensure the financial sustainability of the programme?

Annexure 3:

SURVEY BENEFICIARIES

NSE Foundation Elder Care Impact Assessment			
#	Question Type	Question Title	Options
Basic Information			
1	Text	Name	
2	Number	Age	
3	Choice	Gender	Female
			Male
			Others
4	Choice	Education Qualification	Primary school
			Middle school
			High school
			Graduation
			Post-Graduation
			No education
5	Choice	Occupation	Farmer
			Tailor
			Daily wage labourer
			Agricultural labourer
			Driver
			Shopkeeper
			Teacher
			Unemployed
			Retired
			Others <>
		If others, please specify	

NSE Foundation Elder Care Impact Assessment			
#	Question Type	Question Title	Options
6	Choice	Annual Income	Below 5,000
			5,001-10,000
			10,001-20,000
			20,001-30,000
			30,000-50,000
			50,000-70,000
			70,000-1,00,000
			1 lakh and above
			Unemployed
			Retired
			Pension
7	Choice	Hospital	Nayonika Eye Care Hospital
			Drishti Eye Care Hospital
			Ratan Jyoti Netralaya
8	Choice	Location	Bengaluru, Karnataka
			Aurangabad, Bihar
			Gwalior, Madhya Pradesh
9	Choice	Problem Diagnosed	Cataract
			Cataract Blindness
10	Text	Eye vision prior to surgery	
11	Text	Eye vision after surgery	
Output			
Awareness			
12	Choice	Are you aware of the Rashtriya Netra Yagna project?	Yes
			No
13	Choice	How did you come to know about the programme?	Through family/friend
			Village Panchayat
			Municipality official
			Hospital
			Social worker
			Medical camp
			Through other patients
			Others <>
		If others, please specify	

NSE Foundation Elder Care Impact Assessment			
#	Question Type	Question Title	Options
Accessibility			
14	Choice	How far is the most nearby eye-hospital from your house?	Less than 10kms
			10-20kms
			20-30kms
			30-40kms
			40-50kms
			50kms and more
15	Choice	Do you think it provides all the services that is required for any eye treatment like scanning/surgeries/medicines?	Yes
			No
			I don't know
16	Choice	Does the hospital have full time availability of eye specialist?	Yes
			No
			I don't know
Affordability			
17	Choice	Would you have availed the surgery services if provided at low cost?	Yes
18	MCQ	If No, then what could you possibly have managed?	No
			Consulting fee
			Consulting and medicines fee
			Financial help/loan to support all hospital expenses
			Use health insurance if any
			None of the above
			Others <>
		If others, please specify	
Programme Effectiveness			
19	Choice	Were you able to understand and make use of the registration process and services rendered by the hospital team?	Yes
			No
			I don't know
20	Choice	Were there eye check-ups prior to and after the surgeries?	Yes, both the times
			Only before surgery
			Only after surgery
			Not at all
21	Likert Scale	How do you evaluate the services of the hospitals associated with the project?	"Likert Scale 1-5"
22	Choice	Was any feedback taken after surgery by the Rashtriya Netra Yagna Team?	Yes
			No
			I don't know
Impact			

NSE Foundation Elder Care Impact Assessment			
#	Question Type	Question Title	Options
Health			
23	Choice	After the surgery, were you provided post surgical care and medicines?	Yes
			No
			I don't know
24	MCQ	Post-eye surgery, how has your reading conditions improved?	Able to read without glasses
			Able to read with glasses
			Able to read newspapers
			Able to read billboards and street signs
			Still can't read anything
			Not literate
			Others <>
		If others, please specify	
Individual			
25	Choice	Post your eye surgery, do you feel your mental well being has gotten better?	Yes
			No
26	MCQ	If Yes, then how?	Day to day activties keep you occupied
			Decrease in depression, anxiety, and other psychological problems
			No distress related to vision loss
			Increased sense of connectedness with others
			Others <>
		If others, please specify <>	
27	MCQ	Post-eye surgery, how comfortable are you in moving/traveling alone?	Able to move around the house
			Able to walk or go up or down steps
			Able to take walks around neighbourhood
			Able to take public transport to travel
			Able to drive/ride
			Others <>
		If others, please specify <>	
28	MCQ	Post your eye surgery, how your dependence on others has changed?	Able to do day to day house activities
			Can perform the basic self-care activities
			Can take care of financial transactions
			Able to take medication on your own
			Others <>
		If others, please specify	
29	Choice	Post-eye surgery, are you able to use digital devices like smartphones, TVs, laptops, etc?	Yes
			No
			Not applicable

NSE Foundation Elder Care Impact Assessment			
#	Question Type	Question Title	Options
Social			
30	Choice	Post-eye surgery, are you comfortable in socialising with others?	Yes
			No
31	MCQ	If Yes, then how do you socialise?	Attend gatherings
			Can take care of family members specially grandchildren or children
			Increased social acceptance and mingle with others in the community
			others <>
		If others, please specify	
Economical			
32	Choice	After surgery, have you been able to work?	Yes
			No
			Not applicable
33	Text	After surgery, has there been an increase in your income?	
34	Number (Percentage)	If yes, what is the average percentage increase in your current income from pre surgery income?	
Suggestions for improvement			
35	MCQ	Any inputs / suggestions / areas of improvement for the betterment of the programme?	Post-surgery medication/care should be given
			More medical camps should be organised
			More awareness campaigns should be organised
			Others <>
		If others, please specify	

Annexure 4:

RISK MITIGATION STRATEGIES OF THE PROGRAMME LAID OUT BY VFI

INTERNAL RISKS AND STRATEGIES

Human Resources (HR)issues: Lack of human resources and unskilled HR were identified as one major roadblock to his programme. To mitigate this issue, it was ensured that two representatives were made available at each associate hospital. Also, it was ensured that these representatives were properly qualified and trained to undertake the job

Financing: Any disruption in fund flow could be a risk to the programme. To combat this, continuous and ongoing reporting was made to the donor, ensuring smooth flow of funds from them.

Limited capacity: The hospitals were assigned specific targets, wherein failure to achieve them could be a potential risk. To tackle this, the targets were assigned depending on the statistics of the need of the community and the capacity of the hospitals.

Monitoring: The associate hospitals were located in various parts of India and monitoring the activities was a major challenge. To mitigate this issue, monthly reports were asked from the hospitals that enclosed all details of the patients and the treatment with the identity proof and required documents.

EXTERNAL RISKS AND STRATEGIES

Community-level challenges: Lack of awareness among the population was one of the risks identified which could have led to low attendance in the camps. To mitigate this, IEC activities for engagement and awareness building were undertaken by the associate hospitals to mobilise more people.

Lack of external aid: Unavailability of any sort of help from external players could have been a risk. To mitigate this, active engagement with stakeholders were undertaken. The programme took the assistance of HELPAGE INDIA to identify the cases and to organise the camps. To influence people, engagement with social workers was also made by the associate hospitals.

NSE Foundation

KERALA FLOOD RESPONSE PROJECT

Rebuilding Lives: Towards Safe Drinking Water and Community Resilience

IMPACT EVALUATION STUDY 2020-21

ABBREVIATIONS

BCC – Behaviour Change Communication
CAPI – Computer Assisted Personal Interview
CE – Civil Engineer
COVID-19 – Coronavirus Disease 2019
DDMA – District Disaster Management Authority
DPR – Detailed Project Report
IEC – Information, Education and Communication
FC – Field Coordinator
FI – Field Investigator
FLW – Frontline Worker
FS – Field Supervisor
HVRA – Hazard Vulnerability Risk Assessment
IDI – In-depth Interview
KAP – Knowledge, Attitude and Practices
KSDMA – Kerala State Disaster Management Authority
KSDMPo – Kerala State Disaster Management Policy
KSEOC – Kerala State Emergency Operations Centre
LRM – Landslide Risk Management
MIS – Management Information System
PAPI – Pen and Paper Personal Interview
RIDP – Risk Informed Development Planning
RKDP – Rebuild Kerala Development Plan
TOR – Terms of Reference
SSQ – Semi-Structured Interview
SQ – Structured Interview
WASH – Water, Sanitation and Hygiene

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At NSE Foundation, we would like to thank everyone who has contributed to our endeavour to carry out CSR activities on behalf of NSE Group. First and foremost, we are grateful to the NSE Foundation Board, which plays a key role in providing guidance and support at all stages of CSR activities. We would like to thank each of our directors for their time, valuable inputs, enthusiasm, and encouragement to the team.

We are also grateful for the advice and support of the Board and CSR Committee members of the NSE Group subsidiaries, the senior management of NSE Group, as well as our colleagues from various departments at NSE. Central, State and district administration officials contributed their ideas, thoughts and inputs to the design and field monitoring of the programme, for which we are immensely thankful. We acknowledge the tireless efforts of each and every community worker and field staff, who worked, often against great odds, especially during the pandemic, to ensure the smooth roll out and success of our programmes.

We are also appreciative of the efforts of the programme monitoring and evaluation (PME) agency, KPMG. This study and report would not have been possible without the support of the TRIOs team. A special thanks to the many individuals who have supported the vision of NSE Foundation for equitable and inclusive development and participated in our journey to achieve these.

FOREWORD

National Stock Exchange of India Limited (NSE), India's leading stock exchange, is committed to inclusive growth and prosperity. It believes that every individual, irrespective of the divisions in society, has an equal right to resources, and to be included in the country's development story. When a person's economic and social status improves, the community prospers, and by extension, the nation.

With this guiding principle, the group, through NSE Foundation, the implementing arm of its CSR initiatives, endeavours to improve the quality of life in the most disadvantaged communities. In doing so, it plants the seeds of transformation and inclusion.

The Foundation partners with the government, NGOs, multilateral bodies and academic institutions, to inspire, nurture, empower and sustain the aspirations of the communities it serves. Its projects plug gaps in social, economic and educational development in some of the most inaccessible geographies. From a larger standpoint, it also contributes to the fulfilment of the United Nations' Sustainable Development Goals.

Over the past few years, the Foundation has made steady progress in its core intervention areas of primary education, safe drinking water and sanitation, elder care, skill development, environmental sustainability, health & nutrition and disaster relief in underserved rural and urban communities.

NSE Foundation's district transformation programmes are currently implemented in the aspirational districts of Nandurbar (Maharashtra), Karauli (Rajasthan), Ramanathapuram (Tamil Nadu), Kiphire (Nagaland) and Birbhum (West Bengal), which was on NITI Aayog's initial list. Through its programmes, the Foundation has reached over 12 lakh children, women, youth, and the elderly in more than 100 districts of Maharashtra, Madhya Pradesh, Rajasthan, Jharkhand, Telangana, Kerala, West Bengal, Tamil Nadu, Odisha, Assam and Gujarat. Apart from major presence in rural regions of the country, projects in urban districts of New Delhi, Kolkata, Chennai, Mumbai and Ahmedabad are also undertaken.

In the recent times, India has faced various disasters including the worldwide pandemic of COVID-19. NSE Foundation's efforts through disaster relief and rehabilitations programmes has been to equip the affected communities and stakeholders to respond effectively to crisis scenarios. This includes interventions at various levels including immediate relief in the form of food, rations & other day to day essentials, repair & retrofitting, behaviour change communication of students & school staff. The long-term disaster response protocol includes trainings for communities, government bodies, and creation of disaster response protocol to combat the impact of any future disasters.

One such project undertaken by NSE Foundation was ***'Rebuilding Lives: Towards Safe Drinking Water and Community Resilience'*** implemented in 5 districts of Kerala, namely Wayanad, Alappuzha, Pathanamthitta, Idukki and Thrissur after the disaster due to the floods in 2018.

Project aimed at providing access to safe drinking water for the flood affected communities by installing Community Water Filters (CWFs) and Household Filters and build capacities of the affected communities and stakeholders on addressing water quality issues. One of the project intervention was to build capacities of concerned government departments and stakeholders on water quality testing, treatment and landslide risk mitigation and management.

NSE Foundation believes that strong partnerships and participatory programmes can bring transformational changes and build a stronger and resilient future for all.

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EXECUTIVE SUMMARY

Kerala or the "**land of coconuts**" as is its literal translation, is one of the most developed states of India with the highest HDI (Human Development Index), but which also makes it more vulnerable to disasters (both manmade and natural) like cyclones, floods, landslides, earthquakes, droughts etc. Kerala suffers from a great contradiction too for a state which is extremely water abundant but its villages have been going thirsty, slump in groundwater recharge and sinking groundwater forcing farmers to commit suicide[1]. It is a multi-hazard prone state with past experiences with disasters like coastal erosion, epidemics and lightening. This has been on account of various factors like global warming and resultant climatic variations as well as issues of sand mining, release of chemical affluents in water bodies, rapid urbanization, high population density and inefficient waste disposal that have added to the possibilities of chemical and industrial disasters. According to the laws of economics, regions or pockets with higher HDI have higher coping capacity but greater is the cumulative loss potential and thus a higher degree of risk. Hence, Kerala is exposed to a higher degree of disaster risks as compared to the rest of the country.

The Kerala flood of 2018 was the worst in a century and was aggravated due to torrential rain and landslides that resulted due to the release of excess water from 37 dams across the state leading to water logging of important urban centres, coastal and low-lying areas. These floods were among the five major extreme flooding events of the world resulting in huge socio-economic losses including destruction of infrastructure, loss of lives and livelihoods as well as the displacement of millions from their native land.

Since the onset of the floods RedR India, a humanitarian relief organization, was actively engaged in relief, response and recovery work in Kerala. They trained their volunteers in responding to the disaster. They also conducted a study on impact of floods on elderly population.

RedR India submitted a proposal to NSE Foundation in September 2018 regarding a project to address the need of accessibility of drinking water and capacity building of community members and frontline functionaries in 5 worst affected districts, namely Wayanad, Alappuzha, Pathanamthitta, Idukki and Thrissur. The project was approved in 2018 and the agreement was signed between RedR India and NSE Foundation in the same year.

Under the "**Enhancing post-disaster Rehabilitation and Recovery through Provision of Safe Water in Kerala**" project, RedR India was supported by NSE Foundation over a period of 12 months in year 2018 and 2019 to provide access to safe drinking water for the flood affected communities by installing Community Water Filters (CWFs) and Household Filters; to build capacities of the affected community and administration on water quality, testing and treatment and to build institutional capacities on safe drinking water and disaster risk management for strengthening preparedness and recovery of communities affected by Kerala floods.

The impact assessment study for the above project was conducted by TRIOs and study method included literature review of the project documents, discussions with project implementation team members; development of study tools and primary data collection from beneficiaries and key stakeholders including user committee group members, the Kudumbashree and Health department personnel PRI members etc.

Based on triangulation and analysis of data from all the sources the key findings and recommendations are presented in this Report.

[1]Jayan, T.V. (2004). Water Woes in Wet Kerala. Down to Earth. Available at https://www.downtoearth.org.in/coverage/water-woes-in-wet-kerala-11259

EXECUTIVE SUMMARY

Observations from the field indicate that out of the 15 sites where the team made field visit to observe the functionality of the CWFs and also to assess the involvement of the User Committee Group members in the Operation and Maintenance of the filter, only 2 filters were operational Pandulam Thekkekara ward 1 (Perumpulickal), Pathanamthitta and Kayalpuram, Pulinkunnu Gram Panchayat Ward 12, Alleppey. As per the study findings, there were multiple reasons for the non-functionality of the filters such as limited understanding of user committee members on handling O&M issues like low flow rate, bad odour and taste, pump breakdown and leakages etc. At many sites stakeholders also shared that these filters were meant for usage in immediate post flood situations, hence after the normalization of flood situation they discontinued and kept it for future use (if similar flood disaster occurs). Pump break down was the most common hardware issue, followed by choking of the inlet pipe with mud, due to which, the filter use was discontinued.

The operators on 7 out of 15 sites shared that the community members were willing to contribute a small amount for the upkeep of the filter. However, at present, no such user fee collection model was in place in any of the sites.

In terms of the quality of training on Water Quality Testing and Treatment allotted to the Kudumbashree and Health Department personnel, all the respondents rated the training as excellent. 54% of the respondents went ahead to train other members of the community. 97% of the respondents were aware of the correct method of preparing 1% mother chlorine solution. 70% of the respondents were aware of the use of H2S vial as an indicator of bacteriological contamination in water. All the respondents were aware of the means of measuring turbidity and pH.

Discussions with the PRI members about their training on Landslide Risk Mitigation revealed that 70% of them received handholding support from RedR India to further share their learnings with other community members. 50% of the respondents agreed to have shared their learnings with other community members. 95% of them agreed that the training was useful in case of future disasters.

Interview with the community members in Koipuram a large census village in Tiruvalla, Pathanamthitta district in the state of Kerala

Assessment of infrastructure installation

Chapter 1: Introduction

1.1 Background
Kerala Floods and Landslides 2018

Between June and August 2018, Kerala witnessed its worst flood in a century.[2] The State received an excess rainfall of 96% during the period from 1st to 30th August 2018, and 33% during the entire monsoon period till the end of August[3]. Excessive rainfall occurred in three consecutive spells – from May to August. This was the worst flooding in the history of Kerala since 1924. The torrential rains triggered several landslides and forced the release of excess water from 37 dams across the state, aggravating the flood impact. These floods were among the five major extreme flooding events in the world between 2015-2019[4]. The total economic losses were estimated at Rs.31,000 crore.[6]

Figure 1 : District Map of Kerala highlighting the districts with high number of landslides and floods were reported after August 2018 floods

According to state government reports, 1,259 out of 1,664 villages spread across its 14 districts were affected. The seven worst hit districts were Alappuzha, Ernakulam, Idukki, Kottayam, Pathanamthitta, Thrissur, and Wayanad. Nearly 341 landslides were reported from 10 districts, namely - Pathanamthitta, Alappuzha, Kottayam, Idukki, Ernakulam, Thrissur, Palakkad, Malappuram, Kozhikode and Wayanad.[5]

The devastating floods and landslides affected 5.4 million people, displaced 1.4 million people, and led to 483 deaths.[6] They caused widespread destruction of infrastructure – roads, bridges, schools, public buildings and houses, and affected the livelihood of thousands. Around 1186 houses were fully damaged, 19,588 houses were partially damaged. Availability of drinking water was severely hit due to landslides that damaged nearly 317,000 dug wells.[7]

It is also estimated that 95,000 household latrines were damaged.[10] The aftermath of the floods brought drinking water crisis due to contamination of wells, damage to a pumping station and disruption of pipe water supply.

[2]Source: Additional Memorandum Kerala Floods-2018 1st August to 30th August 2018, Disaster Management Authority, Government of Kerala Available at: https://sdma.kerala.gov.in/wp-content/uploads/2019/08/Memorandum2-Floods-2018.pdf
[3]Source: https://frontline.thehindu.com/dispatches/article29530296.ece
[4]Source: Source: Kerala Post Disaster Needs Assessment Floods and Landslides August 2018, Government of Kerala, October 2018 https://sdma.kerala.gov.in/wp-content/uploads/2019/03/PDNA-report-FINAL-FEB-2019_compressed.pdf
[5]Source: Kerala Post Disaster Needs Assessment Floods and Landslides August 2018, Government of Kerala, October 2018 https://sdma.kerala.gov.in/wp-content/uploads/2019/03/PDNA-report-FINAL-FEB-2019_compressed.pdf
[6]Source: https://indianexpress.com/article/india/483-dead-in-kerala-floods-and-landslides-losses-more-than-annual-plan-outlay-pinarayi-vijayan-5332306/
[7]Source: Humanitarian Response in Kerala: Revitalising and Upgrading of Schools Infrastructure Idukki-Kerala Project Completion Report 2019 https://cydaindia.org/wp-content/uploads/2020/09/PLAN-INDIA-CYDA-Kerala-Flood-Response-Report-4-1.pdf

1.2 Impact of Floods and Landslides on Water, Sanitation and Hygiene

After the flood water receded from the worst affected districts, the communities in 5 districts– Wayanad, Idukki, Pathanamthitta, Alappuzha and Thrissur, faced a drinking water crisis due to contamination of wells and damage to pumping stations in the flood-hit areas. Open dug wells of individual households which provided water to majority of the population of Kerala were severely impacted because of the floods. Super-chlorination was adopted by the government to clean water bodies, especially wells. Apart from the difficulty of drying the wells, dead reptiles, insects, e-waste and garbage floating in the water also hindered the cleaning process. Remoteness of the location of tribal communities and settlements added to the difficulty of the situation. Further, the pump sets and motors in most of these wells were ruined due to flooding, making it a costly affair to get the wells fixed. Hence communities in relief camps depended upon tanker lorries to address their water needs in this crisis.

The wards in the areas that were coastal and low lying were almost entirely submerged during the floods. This resulted in slushy water entering the houses and clogging sanitation pits and wells, which were the primary source of water for the households. Piped water systems were also disrupted (Image below from various locations in Kerala).

Water-logging

Damaged sanitation units

Destroyed well

Contaminated well

Figure 2 : WASH challenges post 2018 floods and landslides

1.3 About the Project

Since the onset of the floods, RedR India, a humanitarian relief organization, was actively engaged in relief, response and recovery work in Kerala. They trained their volunteers in responding to the disaster. They also conducted a study on impact of floods on elderly population.

RedR India submitted a proposal to NSE Foundation regarding a project to address the need of accessibility of drinking water and capacity building of community members and frontline functionaries in 5 worst affected districts, namely Wayanad, Alappuzha, Pathanamthitta, Idukki and Thrissur.

RedR India was supported by NSE Foundation over a period of 12 months in two phases. The details of the phases are indicated in the table below as:

Table 1 : Phase wise information of RedR India Project

Phase	Timeline	Activities
1	October 2018 to December 2018	• Providing water filters to worst affected areas • Building capacity of frontline workers on water quality testing and treatment.
2	February 2019 to April 2019 with extension period till October 2019	• Developing technical inputs to address long term water issues • Building capacities in the field of landslide risk mitigation • Strengthening institutions to incorporate risk-informed development planning

The objectives of the project in the 2 Phases are indicated below:

Table 2 : Objectives of the RedR India Project supported by NSE Foundation

Phase	Timeline	Activities
1	October 2018 to December 2018	• To provide access to safe drinking water for the flood affected communities • To build capacities of the affected community and administration on water quality, testing and treatment
2	February 2019 to April 2019 with extension period till October 2019	• To build institutional capacities on safe drinking water and disaster risk management for strengthening preparedness and recovery of communities affected by Kerala floods

The impact assessment of the project has been conducted by TRIOs.

[8]Source: https://www.undp.org/sustainable-development-goals

[9]Source:https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf

1.4 Project Alignment with SDGs

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity[8]. The 17 SDGs are integrated-they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. Countries have committed to prioritize progress for those who are farthest behind. The SDGs are designed to end poverty, hunger, AIDS, and discrimination against women and girls. The goals which the project aligns with are indicated in the figure below[9]:

Goal 1.5: By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate related extreme events and other economic social and environmental shocks and disasters

Goal 13.1: Strengthen resilience and adaptive capacity to climate related hazards and natural disasters in all countries

Goal 13.3: Improve education awareness raising and human and institutional capacity on climate change mitigation adaptation impact reduction and early warning.

Goal 3.9: By 2030, substantially red uce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

Goal 6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

Goal 6.2: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation paying special attention to the needs of women and girls and those in vulnerable situations

Goal 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and Minimizing release of hazardous chemicals and materials, halving the proportion of untreated Wastewater and substantially increasing recycling and safe reuse globally
Goal 6.b: Support and strengthen the participation of local communities in improving water and Sanitation management

Figure 3 : Project alignment with SDGs

[8]Source: https://www.undp.org/sustainable-development-goals
[9]Source:https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf

1.5 About Partners

RedR India

The Registered Engineers for Disaster Relief- is a non-profit organization that relieves suffering in disasters by selecting, training and providing competent and efficient personnel to humanitarian aid agencies worldwide.

It is a part of the RedR Federation, which maintains the roster of trained professionals and specialists for humanitarian work who are available to assist, governments and extend support in a crisis and build resilience. The RedR has a global reputation for development and presentation of high-quality training and technical support services for the humanitarian aid and disaster risk reduction sectors. The organization has offices in Australia, India, Indonesia, Malaysia and the United Kingdom and it consistently promotes disaster risk reduction and emergency response capacities and systems through capacity building projects, training courses, studies and research, advocacy and technical support to various government and non-government organizations in India, Central, South and Southeast Asia, Asia Pacific region and parts of Africa. RedR India was supported by the NSE Foundation to provide technical support in response to the 2018 Kerala floods.

RedR India's base is in Pune from where they actually conduct their programs in and around India. Kerala was one of their various program locations. Post the project completion, they did not have regular and full-time presence in terms of permanent staff or any professional member. And most importantly, by the time TRIOs approached RedR for the Impact Assessment, the actual programme staff who managed the Kerala Floods Response project had moved on from the organisation, which impacted the timeline of the assessment (TRIOs) team. However, the existing staff did provide as much information as they could generate from records, institutional memory, their associates and members presence in Kerala.

KPMG

As the External Auditor of this project, KPMG audited the programmatic as well as the financial aspects. The programmatic aspects included hardware and BCC components of the project. The Financial aspects included the expenditure, variance, fund recommendation as per requirement. KPMG also provided support in standardising the DPR and estimate formats and making model DPR documents.

1.6 Research Organization

This impact assessment study was conducted by **TRIOs Development Support Private Ltd. (TRIOs)**. TRIOs is an ISO 9001: 2015 certified research and consultancy organization, registered with the Government of India as Udyam MSME. Established in March 2010, TRIOs provides research, consultancy and advisory services to national and international organizations including Central and State Governments, UN agencies, national and international NGOs as well as private and corporate sectors to accelerate socio-economic development. TRIOs works in thematic areas of WASH, health, nutrition, education, livelihood, rural development, and market research. Over a decade, the organization has established its credibility as a quality service provider and has built its reputation through client centred approaches and innovative solutions to clients. Since inception the organizations has successfully completed more than 125 assignments for more than 60 clients in the country. Details about the TRIOs Team are indicated in Annexure 1.

Conducting the monitoring and follow up training in Pulinkunnu village of kasargod

Chapter 2: Research Tools and Methodology

2.1 Study Objectives

The objective of the Impact Assessment conducted by TRIOs are as follows:

TO ASSESS

- Accessibility to safe drinking water facilities for the communities after the flood-2018
- Quality and functioning of water filter installed
- Quality of capacity building/ training to the affected communities and administration on water quality, testing and treatment and practice of the training on ground.
- Quality and the impact of capacities building measures with 280 communities and FLW as trainers on safe drinking water for future emergencies.
- Quality of skill building training and technical support on disaster risk management of key stakeholders at local self-government, district and state levels for risk-informed recovery and preparedness actions
- Outputs, outcome of the project
- Impact of the project on local, community and system/ government levels
- Program design and efficacy provide the information of the above assessment in the form of a printed report containing details in the form of narratives, case stories, testimonial, graphs, tables, info graphics, pictures, and other content

2.2 Approach and Methodology

To realize the objectives of the assignment, a comprehensive evaluation study was conducted covering the beneficiaries, implementors and key stakeholders in project eco systems. The study focused on assessing the quality of processes / activities undertaken and measuring the impact of various project interventions. Process Evaluation and Impact Evaluation was conducted as part of the study. The various activities and tasks under the study were implemented in three phases i.e., Phase-I (preparatory activities), Phase -II (data collection phase) and Phase -III (analysis and report writing phase).

IDI with stakeholder

Evaluation Themes

The end-line assessment (both process and impact assessment) was conducted focussing on 5 themes of evaluation i.e., Relevance, Efficiency, Effectiveness, Impact, Sustainability as mentioned in the TOR. For this purpose, we used the principles and guidelines of OECD DAC[10] criteria for the evaluation.

The details of key research questions on each theme are described below as:

- **Relevance of the project** i.e., the extent to which the objectives and design of the project was/are relevant to the needs of beneficiaries, donor, and government.
- **Efficiency of the project** i.e., the level of efficiency in implementation of the project as intended and if the monitoring activities were appropriate and adequate.
- **Effectiveness of the project** i.e., to assess if the project achieved its specific objectives and to what extent; what were the key drivers and challenges that influenced the outcomes.
- **Sustainability of the project** i.e., whether the activities and strategies have been adequate to develop sustainable model and meet sustainable goals.

[10]https://www.oecd.org/dac/evaluation/eval-criteria-faq.htm

EVALUATION TYPES

A. Process Evaluation

The process evaluation was carried out mainly through review of project MIS and progress reports (targets vs achivements) and consultaion / interviews with NSE Foundation Project Team, RedR India Project Team and stakeholders involved in implementation such as teachers/ Principals.

The MIS data and periodic reports as shared by RedR India, KPMG and NSE Foundation Team was reviewed to measure the achivement vis a vis targets and milestome in log frame and project operational plan. The information on conceptualization/background of project, planning, staffing, capacity building, BCC material development and dissemination, financial management, key strategies and activities for the project implementaion, stakeholder engagement processes, monitoring and reporting, sustanability measures, challenges, learnings, success stories and best practices etc. was collected through interview with the relevant stakeholder/ partner. The partner/ staff category wise checklist of questions was developed by core team of TRIOs and in-depth interviews will be conducted with them using telephone / skype or other online communication platform.

B. Impact Evaluation

Evaluation of project outcomes was conducted using both quantitative and qualitative evaluation methodologies. This included surveys and In-depth Interviews with stakeholders at the multiple levels. The information for evaluation will be collected from various sources by the following methods:

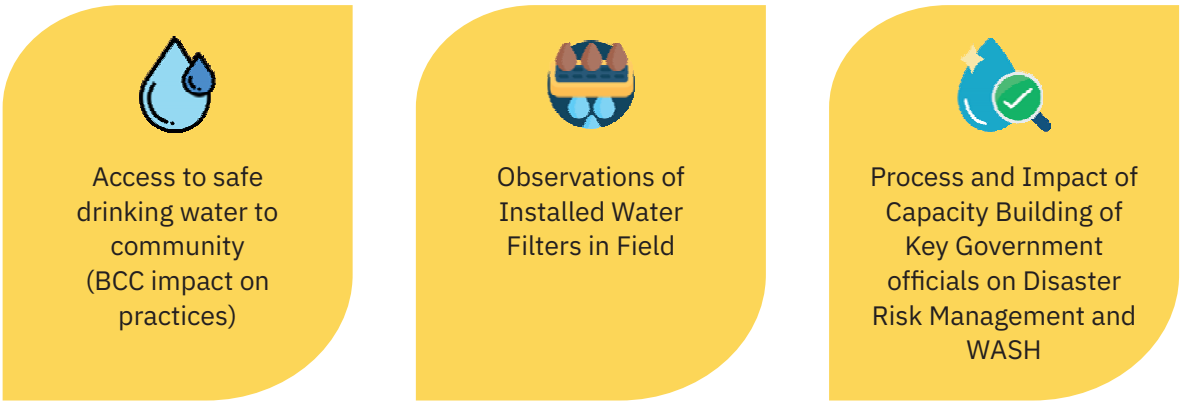


Figure 4: Methods adopted under Impact Evaluation

The project objective wise key target groups interviewed, and key area of enquiry is described in the table shared in Annexure 2.

Documentation of Learnings

The contraints and learnings in implementing the project as well as achievements, good practices, case studies, testimonial of stakeholders and narartives etc. were identified during the information collection from various stakeholders and project implemeting teams. The information was validated through triangualtion from various sources and documented so that the same could be disseminated to stakeholders and can be used in the future interventions.

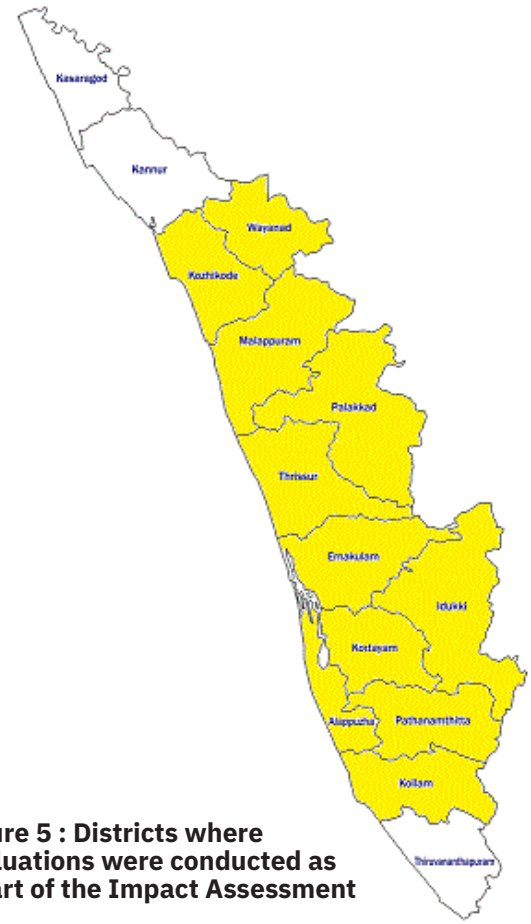


Figure 5 : Districts where evaluations were conducted as a part of the Impact Assessment

Study Area

Evaluation was conducted covering project locations in 11 districts i.e., Ernakulam, Thrissur, Idukki, Pathanamthitta, Alappuzha, Wayanad, Palakkad, Malappuram, Kollam and Kozhikode along with a state level assessment.

Physical field visits were conducted in – Pathanamthitta, Kollam and Alappuzha where structural observations of the community water filters were made. Apart from this, in these 3 districts, KAP survey was conducted with 170 beneficiaries who made use of the water from the Community water filters. Interviews were also conducted with User Committee Group members.

Telephonic interviews were conducted with the frontline workers and PRI members who were trained on different aspects like Water Quality Testing and Treatment, and Landslide Risk Management respectively.

2.2 Study Methodology

The study was conducted using mix of desk review, quantitative, qualitative, and observational methods. The 20 project intervention sites where community water filters were installed, and related communities were covered through secondary data analysis and through qualitative interactions with stakeholders. The primary data was collected from 15 sites and its associated communities. The study was designed to measure before and after impact particularly for infrastructure intervention. For software (BCC/ IEC) component, retrospective impact assessment approach was adopted which involved enquiry from key respondents about the pre and post intervention scenario and the change perceived by them.

2. 3 Sampling

The initial sample designed under the project aimed to cover all the 20 community water filter units located in Pathanamthitta, Alappuzha, Wayanad, Thrissur and Kollam. However, discussions with the RedR Team revealed that the Community Water Filter units in the interior forest ranges in Thrissur were difficult to visit and would require permission from State Conservator which is a time-consuming process. Since RedR India had already moved out of Kerala post the project completion in 2019, TRIOs had limited support in conducting the field surveys. Hence, the sampling strategy was reworked upon in consultation with NSE Foundation team.

Instead of covering 20 sites where the Community Water Filtration units were installed, field visits were made to all the 15 filters installed Pathanamthitta, Alappuzha and Kollam. However, instead of covering the

initial sample of 170 community members and user committee members, our team covered an increased sample of 190 in these 15 locations.

The biggest challenge that the field team faced while conducting interviews with the district level government functionaries was that most of them had retired or had transferred to a new location. The current DDMA officials could not reveal their current information without a letter from the District Collector's office. This made availing information about the government functionaries extremely difficult.

The following table indicates the sample that was covered in each study district. Apart from the observations and interviews indicated below, PAPI based telephonic IDIs were conducted with KPMG Team, RedR India Project Manager, NGO Trainer and NSE Foundation Team.

The field team visited Pathanamthitta, Alappuzha and Kollam to make structural observations of the Community Water Filter Units and conduct interviews with household beneficiaries and user committee group members.

The proposed distribution of sample units, beneficiaries and stakeholders and basis of distribution is summarized in the table given below:

Table 3 : Sample Coverage

S. No.	Units/ Stakeholders	Basis of Sample Distribution	Data Collection Technique and Tool	Total Sample
1	Household Beneficiaries	27% of the 700 beneficiary families	CAPI based structured questionnaire	**170**
2	Water Filter	15 locations	CAPI based observation checklist	**15**
3	Community based/ FLW trainers on safe drinking water for future emergencies	25% of 280 communities	CAPI based Semi-Structured, Questionnaire (SSQ)	**70**
4	Local Self Government functionaries/ Lead / Master Trainers	2 from each project district	CAPI based, telephonic SSQ	**40**
5	District Level Government Functionaries	District Planning Department	PAPI based, telephonic SSQ	**1**
6	State level government official	KILA	PAPI based, telephonic IDI Checklists	**1**
7	Project Auditors	KPMG Team		**2**
8	Project Manager	Red R India		**1**
9	NGO Trainers			**2**
10	NSE Foundation Team	Project Nodal		**1**
11	Case Studies	2 in project area	Case guidelines	**2**

Table 4 : District wise sample covered

Sample Coverage Indicated in Columns						
Name of District	Community Water Filter	Beneficiaries	Training on Water Quality Testing & Treatment	Training on Landslide Risk Mitigation	District Level Government Functionaries	State Level Officials
Wayanad			**10**	**5**		
Malappuram			**10**	**5**		
Palakkad			**10**	**5**		
Thrissur			**10**	**5**	**1**	
Ernakulam			**10**	**5**		
Pathanamthitta*	**10**	**140**	**10**	**5**		
Alappuzha *	**4**	**56**	**10**			
Kozhikode				**5**		
Idukki				**5**		
Kottayam				**5**		
Kollam*	**1**	**14**				
Revised Proposed Sample Size						
	15	**190**	**70**	**40**	**1**	**1**
Basis of Sample Distribution						
	15 CWFs in Alappuzha, Pathanamthitta and Kollam district	27% of total water user families and members of User Groups	25% of 280 communities and FLWs	5 from each project district	As per availability	
Stakeholder/Unit						
	Community Water Filter	Families using the Water Filters User Committee Group members	Health Dept Personnel Kudumbashree Personnel	PRI members, community members, volunteers	District Planning Officer	Kerala Institute of Local Administration
Data Collection Technique and Tool						
	CAPI based observational checklist	CAPI based Structured Questionnaire	CAPI based telephonic Semi-structured Questionnaire	CAPI telephonic based SSQ / PAPI based telephonic SSQ	PAPI based telephonic SSQ	PAPI based telephonic IDI checklists
Method of data collection						
	Field Visit	Field Visit in Alappuzha Kollam, and Pathanamthitta	Telephonically	CAPI telephonic based SSQ	Face-to-face interview	Face-to-face interview
***** Districts where field visits were conducted for on-site observation of Community Water Filters and discussions were held with the User Committee Group members and other beneficiaries.						

2.4 Research Tools

Quantitative assessment was carried out using semi-structured questionnaire through CAPI based technique on Google forms with household beneficiaries, user committee group members who were using the community water filters, and frontline functionaries who were trained on water quality testing and treatment. WASH Infrastructure assessment was conducted using an Observation Checklist. Interviews with district level and state level functionaries were conducted using semi-structured questionnaire / checklist.

2.5 Study Limitations

1. Phase 2 of the project had finished in October 2019. A nation-wide lockdown was imposed on March 25th, 2020. Kerala continued to be a COVID-19 hotspot throughout the duration of the Impact Assessment Study which made the physical presence of the Field Team at the project site challenging.

2. Post the project completion, RedR India had no presence in Kerala which made it difficult for TRIOs team to make site visits as well as meet government officials for conducting IDIs. The information shared by the RedR Team regarding the site location of the Community Water Filters was not comprehensive enough for the Field Team to locate the sites in the absence of a team member of RedR Team.

3. The initial sample of conducting structural observations in the 4 districts where Community Water Filters were installed was revised from 20 to 15 post discussion with the RedR Team which revealed that the Community Water Filter units in the interior forest ranges in Thrissur were difficult to visit and would require permission from State Conservator which is a time-consuming process.

4. Apart from COVID-19, orange alert was issued due to torrential rains since the month of October in Idukki, Pathanamthitta, Alappuzha, Kottayam and Kollam. This further stalled the field visit.

5. Most of the RedR Team members who had implemented this project back in October 2018 had already left the organization, which made coordination with them a time-consuming process.

Infrastructure observation in Niranam Panchayat Ward 7 in Tiruvalla district of, Kerala

Conducting the monitoring and follow up training in Pulinkunnu village of kasargod

Chapter 3: Secondary Interpretations

3.1 Literature Review

Kerala, also known as "*God's own country*", is a land blessed with several natural resources. It is bordered by Tamil Nadu to the south and east, Karnataka to the north and northeast, and the Arabian Sea to the west. With an area of 38,863 km² and a population of 3.34 crore, it is the 13th most populous state in India with an overall population density of 860 per square kilometer[11]. Kerala is home to almost 3% of India's population, and its land is three times more densely settled than the rest of the country[12]. It consists of 14 Districts, 152 Blocks, 941 Panchayats[13], 1553 Villages[14], 87 Municipalities and 6 Corporations.

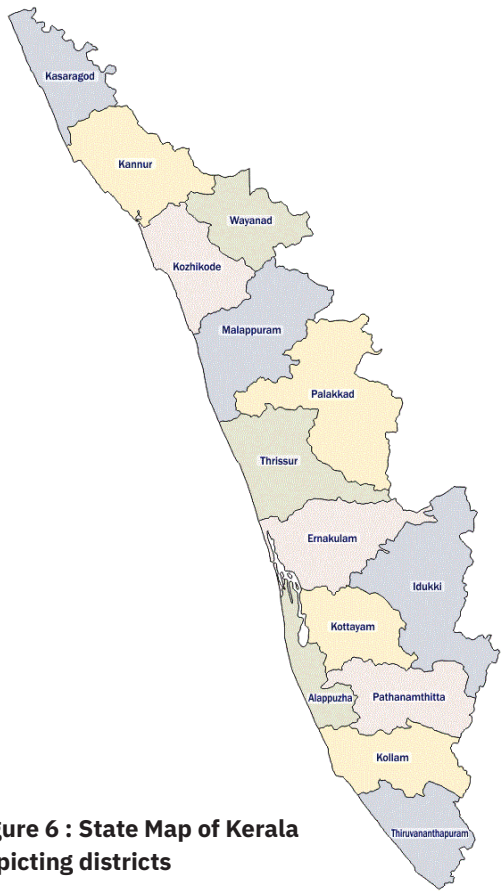


Figure 6 : State Map of Kerala depicting districts

The state has 44 rivers, of which only 3 are east flowing. It is divided into three zones, namely the high land, the mid land and the low land including the coastal plain. It has a tropical climate, the dominant climatic phenomena being the monsoons called the South-West (June to September) and the North-East (October to December) monsoons, the former is more significant than the latter with respect to the amount of rainfall (80% of total rainfall)[2].

Kerala has a Human Development Index (HDI) of 0.79 which is the highest in the country[15]. HDI is a composite index of consumption rate (proxy to purchasing power), education and health, is an indicator of the socio-economic vulnerability of the population. The higher the HDI, the higher is the coping capacity, but greater is the cumulative loss potential and thus a higher degree of risk. Thus, Kerala has a higher degree of disaster risks as compared to the rest of the country[6].

DISASTERS IN KERALA

Kerala is a multi-hazard prone state. The state experiences heavy rainfall and flood during southwest monsoon, with subsequent damage to life and property. Drought conditions have also become more frequent during the pre-monsoon period and at times with the failure of southwest monsoon and / or northeast monsoon. Coastal erosion along the coastal areas is very severe, necessitating frequent evacuation and rehabilitation of the coastal people. Incidences of biological disasters such as epidemics, pest attack are also on the rise. Fatalities in road and rail accidents, manmade accidents, lightning and boat capsizing incidents are very high in the state.

[11]Source: https://www.indiatoday.in/education-today/gk-current-affairs/story/indian-states-with-highest-population-1358414-2018-10-08

[12]Source: Kerala State Disaster Management Authority. (2010). Kerala State Disaster Management Plan Profile.
Available at: http://www.kerenvis.nic.in/WriteReadData/UserFiles/file/49412317-Kerala-Disaster-Management-Plan-Profile-India.pdf

13Source: https://dop.lsgkerala.gov.in/en/article/158

14Source: https://vlist.in/state/32.html

15Source: Kerala State Disaster Management Authority. (2016). Kerala State Disaster Management Plan 'towards a safer State. Thiruvananthapuram: Kerala State Disaster Management Authority.

Landslide or landslip is another hazard of the hilly regions of the state. The tsunami that struck Kerala Coast in 2004 has added a new dimension to the disaster scenario of the state as most of the low lying and mid land areas in the State are having an altitude of only 4-6 meters[16].

The State is also vulnerable to cyclone and experiences high winds due to the westward movement of cyclonic storms crossing Tamil Nadu coast. The fact that Kerala falls under earthquake Zone III makes the state vulnerable to earthquakes of magnitude of 6.5 or more.

Possibilities of chemical and industrial disasters and disasters like dam burst also cannot be ruled out. The threat of global warming and its resultant climatic variations such as inter seasonal variations in rainfall, environmental issues and rise in sea level increase the vulnerability of the state. Issues related to rapid urbanization and waste disposal are assuming a gigantic proportion.

The high density of population of 860 people/km2 (2011 Census), narrow roads, high density of road network, density of coastal population and the general higher standard of living of the public as compared to the rest of the country are factors that increase the vulnerability of the population to disasters.

The Kerala State Disaster Management Policy defines disaster as '*a serious disruption of the functioning of a society caused by a hazard or otherwise, having widespread human, material or environmental and other losses, which exceed the ability of the affected society to cope using its own resources*'[17]. The term 'disaster' includes the following events.

IDI with youth in Koipuram, a large census village in Tiruvalla, Pathanamthitta district in the state of Kerala

[17]Source: Kerala Disaster Management Authority. (2020). Kerala State Disaster Management Policy
Available at: http://www.indiaenvironmentportal.org.in/files/DMPolicy.pdf

Table 5 : Categorization of Disasters[5]

Category No.	Category Name	Description
1	Water and Climate related disasters	a) Flood b) Drought c) Costal erosion d) Thunder and Lightening e) Cyclone and Storms
2	Geologically related Disasters	a) Landslides and Mudflows b) Earthquakes c) Dam failures d) Tsunami e) Dam bursts
3	Chemical Industrial and Nuclear related disasters	a) Leakage of hazardous materials at the time of their manufacture, processing and transportation. b) Disasters due to manufacture, storage, use and transportation of products, pesticides etc and waste produced during the manufacturing process
4	Biological related disasters	a) Epidemics b) Cattle epidemics c) Food poisoning d) Pest attacks
5	Man-made disasters	a) Forest fire b) Urban fire c) Village fire d) Festival related disasters e) Road, Rail and Air Accidents f) Boat capsizing g) Oil spill h) Major building collapse i) Serial Bomb blast j) Illicit Liquor Tragedy k) Drug abuse l) Drowning m) Tanker lorry mishaps n) Pollution (water, air and soil) o) Family suicides p) Environmental disasters q) Communal riots r) Stampede

[18]Source: Source: Rebuild Kerala Development Programme: A Resilient Recovery Policy Framework and Action Plan for Shaping Kerala's Resilient, Risk-Informed Development and Recovery from 2018 Floods, May 2019 Available at: https://rebuild.kerala.gov.in/reports/RKDP_Master%2021May2019.pdf

Table 6 : Population in Kerala prone to different hazards

Hazard	Number of taluks prone	Susceptible area (km^2)	Population exposed
Landsides	50	5,619.7	2,799,482
Floods	75	6,789.5	7,795,816
Coastal Hazards	24	289.7	313205

The following table shows the susceptible/vulnerable areas and population exposure to major hazardous phenomena in the State[18]:

State's Response to Disasters

Kerala State Disaster Management Authority

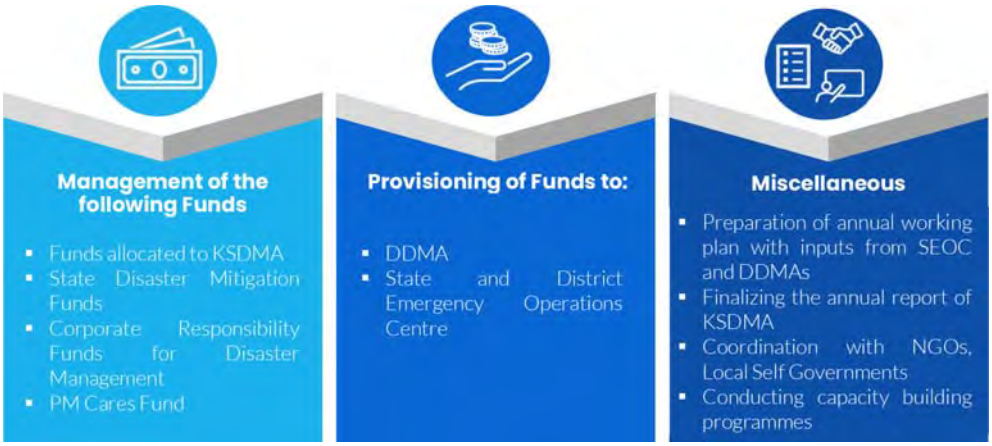
State Disaster Management Authorities are statutory bodies constituted under the Disaster Management Act, 2005 (Central Act 53 of 2005). Kerala State Disaster Management Authority (KSDMA) is a statutory non-autonomous body under the Chairmanship of the Chief Minister of Kerala. The first KSDMA was constituted in May 2007.

KSDMA envisages a *Disaster Safe* State through the formulation and endorsement of an integrated State Disaster Management Policy. The policy affirms appropriate balance and inter-relationship with the 'National Policy on Disaster Management' and 'Disaster Management Act, 2005' and ensures coordination amidst all agencies related to Disaster Management such as National Disaster Management Authority, National Disaster Management Framework, State Departments, Panchayati Raj Institutions, NGOs and Private Sector.

Responsibilities

KSDMA acts as the nodal agency for preparedness and capacity building measures and monitors the preparedness of the State for various disasters. Its other responsibilities include:

- Develop and constantly update a Master Disaster Management Plan for the State in furtherance of the State DM Plan Profile to enable the State and District administrations, departments and the community to prepare for and to respond systematically and effectively to disasters.
- Analyze different types of hazards and assessment of vulnerabilities and risks of the State for developing detailed prevention, mitigation and preparedness measures would be part of State DM Plan.
- Create and maintain a comprehensive repository of manpower, machinery and other resources for being easily accessible to the relevant authorities to facilitate quick contact with people and availability of resources on the onset of a disaster.



[19]Source: SDMA website available at https://sdma.kerala.gov.in/introduction/

KSDMA Composition

As per Section 3 of the Kerala State Disaster Management Rules (KSDMR), 2007 the KSDMA is composed of ten (10) members, chaired by Chief Minister and convened by Additional Chief Secretary, Revenue and Disaster Management. The Chief Secretary (inter alia Chairperson of the State Executive Committee) is the Chief Executive Officer of KSDMA. Additional Chief Secretary, Revenue and Disaster Management is the Head of the Department of KSDMA[20].

Kerala State Emergency Operations Centre (KSEOC)

On 20 January 2014 the Government converted HVRA Cell as the State Emergency Operations Centre (SEOC). It is the 'state nodal office for the collection, compilation and analysis of any data necessary for disaster risk assessment from all government departments and institutions on a no cost basis. Technical matters and emergency operations are managed by Kerala State Emergency Operations Centre (KSEOC).

All administrative matters related to the SEOC are made by the State Executive Committee (SEC) of KSDMA. Its day-to-day affairs are managed by Head, State Emergency Operations Centre. The SEOC is permitted to collect any data from any Government Institution in the state on a no cost basis. Head of KSEOC is the Member Secretary of KSDMA.

Responsibilities

- It is also the research and technology laboratory of the SDMA and directly functions under the Additional Chief Secretary, Revenue & Disaster Management.
- It implements number of research and data collection projects and is also entrusted with the preparation of the State and District Disaster Management Plans.
- It also manages the GoI-UNDP project on Enhancing Institutional and Community Resilience to Disasters and Climate Change (2013–2017), Kerala.
- Conduct and regularly update the HVRA of the state
- Prepare the State and District DM Plans
- Conceptualize and implement hazard early warning systems
- Create and maintain the disaster database of the state
- Undertake research projects on topics relevant to disaster risk reduction
- Foster research collaboration with external agencies
- Emergency Coordination
- Preparation of calamity memoranda for submission to Government of India

[20] Source: Kerala State Disaster Management Authority. (2016). Kerala State Disaster Management Plan 'towards a safer State. Thiruvananthapuram: Kerala State Disaster Management Authority.

KSEOC Composition

It is staffed with a multi-disciplinary scientific team, presently 16 members strong, spread over 6 districts. It is headed by State Relief Commissioner (SRC) inter alia Additional Chief Secretary, Revenue & Disaster Management. The SRC is assisted by officers of the SEOC. The day-to-day functions of SEOC are managed by a Head (Scientist) and are assisted by a trained team of Hazard Analysts. The administrative and financial functions of the SEOC are regulated by the State Executive Committee through Additional Chief Secretary, Revenue and Disaster Management. Organogram of SEOC is as given below:

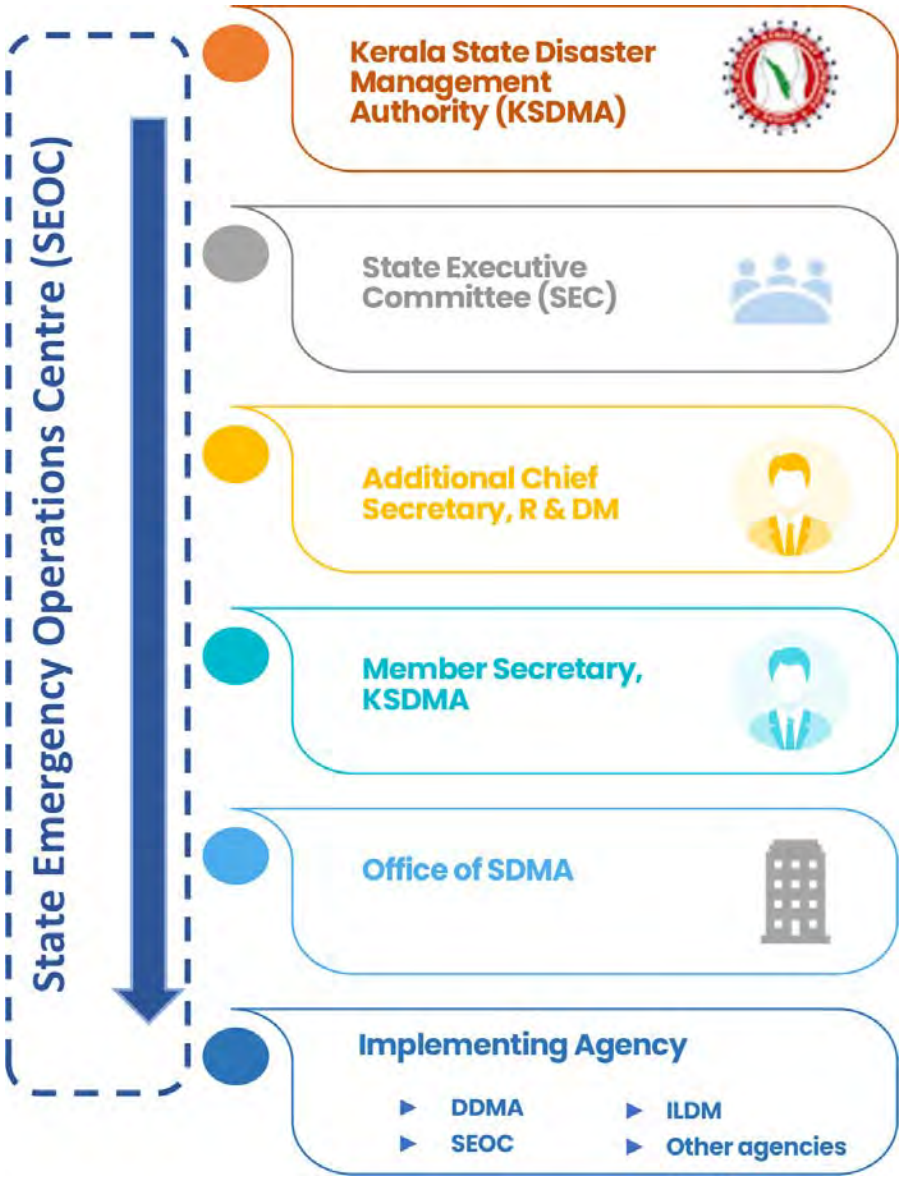


Figure 7 : Organogram of State Emergency Operations Centre

In accordance with Section 18 (2) (a), the Kerala State Disaster Management Authority (KSDMA) has prepared the Kerala State Disaster Management Policy (KSDMPo) and published vide GO (MS) No. 240/2010/DMD dated 19-06-2010. The policy shall be revisited once in 10 years.

Nodal Departments Responsible for Handling Hazards

At the state level, the government has assigned nodal responsibilities to specific departments for coordinating disaster-specific responses vide Section 6.5 of the KSDMPo, 2010. Preparedness, response, recovery and mitigation of a particular disaster will be as per the Departmental Disaster Management Plan prepared under Section 39 of the DM Act, 2005 of the respective department. The following figure indicates all the nodal departments that are responsible when various hazards take place:

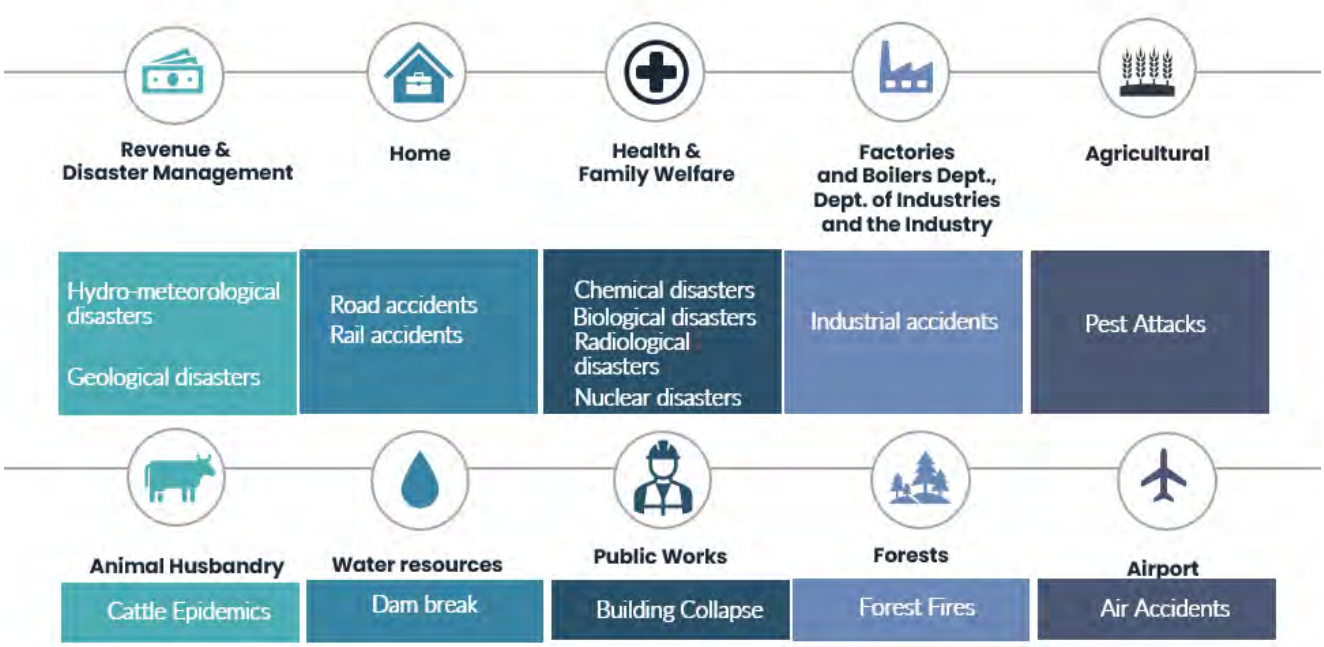


Figure 8 : Nodal Departments and the various hazards they handle

District Disaster Management Authorities

Kerala has 14 DDMAs, one per district. DDMA is an institution constituted as per the National Disaster Management Act 2005 at the district level to ensure effective management and response to any disaster. It has the following structure:

Table 7 : DDMA Structure[21]

S. No.	Units/ Stakeholders	Technique and Tool
1	District Collector	Chairperson
2	District Panchayat President	Co-Chairperson
3	Deputy Collector (Disaster Management)	Member
4	District Police Chief	Member
5	District Medical Officer Health	Member
6	Divisional Officer, Fire and Rescue	Member
7	Executive Engineer, Major Irrigation	Member

[21]Source: https://kollam.nic.in/en/disaster-management/

DDMA Responsibilities

- Implement disaster management measures in accordance with NDMA and SDMA
- Coordinate and monitor the implementation of a National Policy, State Policy, National Plan, State Plan, District Plan and a Disaster Management Plan.
- Identify areas in the district vulnerable to disasters and undertake measures for prevention of disasters and mitigation.
- Direct authorities at district and local level to undertake measures for disaster mitigation
- Assess state's capabilities of disaster response.
- Review the preparedness measures and direct concerned departments to bring preparedness measures to the required levels for responding effectively to disasters.
- Organize and coordinate specialized training programmes for officers, employees and voluntary rescue workers.
- Review district level development plans and provide technical assistance wherever needed.
- Examine construction in an area to monitor if the standards for the prevention of disaster mitigation for construction are being followed.
- Identify buildings to be used as relief centres or camps and make arrangements for water supply and sanitation.
- Establish stockpiles of relief and rescue materials.
- Ensure that disaster management drill is carried out periodically.

Disaster Relief Projects in Kerala

Rebuild Kerala Development Plan

In response to the floods of 2018 GoK initiated the Rebuild Kerala Mission which looked into the need for different projects to be undertaken as part of the flood recovery process. In March 2019, the Rebuild Kerala Mission published the draft Rebuild Kerala Development Program for public consultation.

To recover from the floods in a resilient and sustainable manner, it was felt that a traditional approach to recovery and reconstruction would be insufficient. The State not only had to address the fundamental drivers of floods but also better prepare for future disasters. This would be through the development of an inclusive and comprehensive roadmap for a green and resilient Kerala.

To facilitate this process, the Government established the Rebuild Kerala Initiative (RKI) to "bring about a perceptible change in the lives and livelihoods of its citizens by adopting higher standards of infrastructure for recovery and reconstruction, and to build ecological and technical safeguards so that the restructured assets could better withstands floods in the future"[19]. The RKI is the dedicated State-level institutional modality for formulating and coordinating the implementation a Resilient Kerala. Through establishing the RKI, the GoK puts in place a streamlined and transparent process of decision making for the comprehensive and resilient recovery and rebuilding from the 2018 floods.

The RKI's mandate is to develop, coordinate, facilitate and monitor the Rebuild Kerala Development Programme (RKDP) through a participatory and inclusive process. The RKDP constitutes the State's strategic roadmap for a Green and Resilient Kerala. The RKDP encompasses crosscutting and sector-

[19]Source: Rebuild Kerala Development Programme: A Resilient Recovery Policy Framework and Action Plan for Shaping Kerala's Resilient, Risk-Informed Development and Recovery from 2018 Floods, May 2019 Available at: https://rebuild.kerala.gov.in/r eports/RKDP_Master% 2021May 2019.pdf

based policy, regulatory and institutional actions as well as priority investment programs that are critical for resilient and sustainable recovery and rebuilding of the State. It aims to catalyze rebuilding of Kerala in a way that addresses key drivers of floods and other natural disasters and climate change risks and strengthens preparedness against future disasters. Through the RKDP, the GoK aims to ensure a resilient recovery and development pathway for a Nava Keralam.

Objectives of RKDP

"To enable Kerala's resilient recovery and catalyse transformational shift towards risk-informed socioeconomic development through supporting sustainable communities, institutions, livelihoods and putting in place major infrastructure."– G.O.(P)No.16/2018/P&EA

The RKDP aims to rebuild Kerala in a speedy and effective manner. The goal is to rebuild Kerala in a way that ensures i) higher standards of infrastructure, assets and livelihoods for resilience against future disasters (ii) build individual, community and institutional resilience to natural hazards while fostering equitable, inclusive and participatory reconstruction that builds back better.

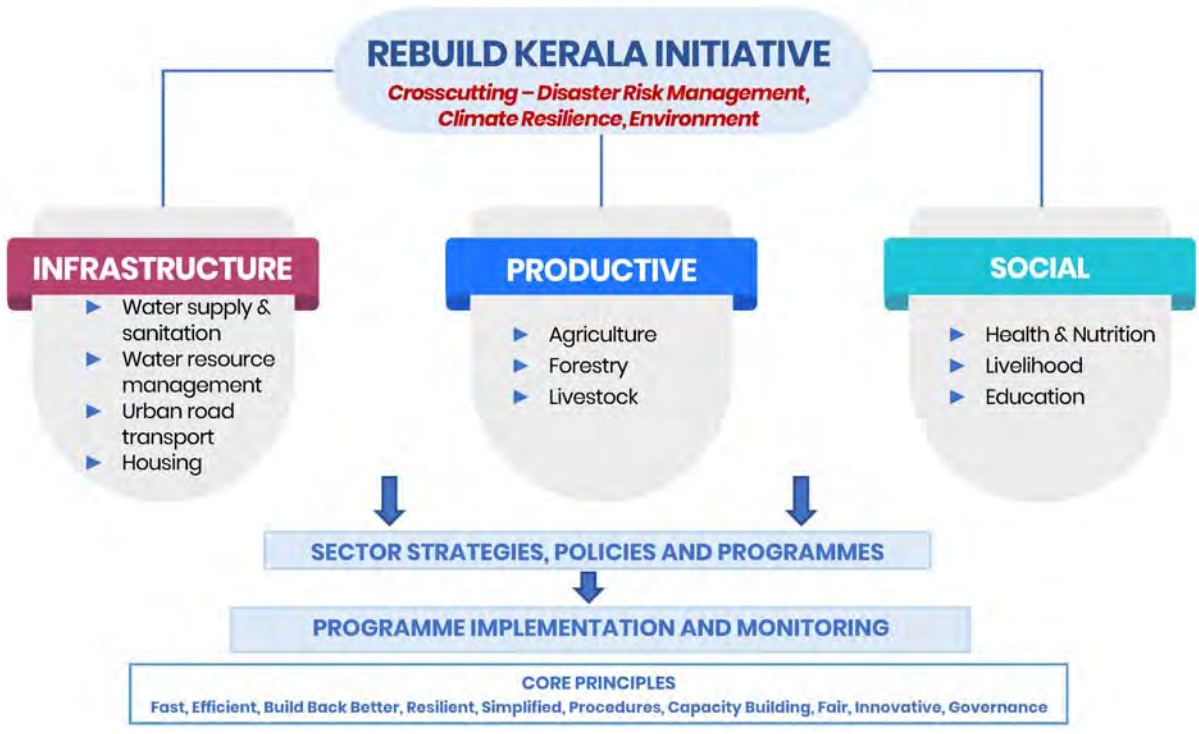


Figure 9 : Cross cutting objectives of RKI

Ecological safeguards and standards would be built into the structures that will be constructed to equip new and restored assets to better withstand the onslaught of floods and other natural hazards in the future. The RKDPP also emphasizes the necessity to improve sectoral mainstreaming of disaster risk reduction measures and strengthen disaster risk management capabilities across the state machinery. The aim is to rebuild a resilient Kerala, wherein state institutions, infrastructure, citizens and their livelihoods are safely protected from extreme weather events.

UNDP 2013-17

Government of India collaborated with UNDP to enhance institutional and community resilience to disasters and climate change in 2013. Community disaster management plans were prepared in Munrothuruthu and Peringara villages of Kollam and Pathanamthitta districts respectively.

Training needs assessment was conducted in the health sector of the state. 2012 community members and 1119 government officials were trained under this project.

Prathyudhanam 2019

KSDMA through UNDP mobilized INR 8.5 Crores through non-governmental sources for 5000 flood affected weaker families in Pathanamthitta, Idukki and Wayanad with INR 16,500 per family. Prathyuthaanam is a pioneering scheme where additional financial assistance is provided to disaster affected people with compounded vulnerability and it truly upholds the tenet of "Leave No One Behind. Beneficiaries of the project were:

- Families with cancer patients, dwelling in houses that experienced at least 15% damage in Kerala Floods 2018
- Families with dialysis patients, dwelling in houses that experienced at least 15% damage in Kerala Floods 2018
- Families with bedridden, differently abled members, dwelling in houses that experienced at least 15% damage in Kerala Floods 2018
- Widowed mothers with minor children dwelling in houses that experienced at least 15% damage in Kerala Floods 2018

UNDP Shelter Hubs Project

Between November 2018 to June 2019, 10 facilitation centres were established and operated with the financial support of UNDP Shelter Project in Kerala in Pathanamthitta, Idukki and Wayanad with the aim of providing technical assistance to multiple stakeholders involved in house reconstruction such as beneficiaries, masons, contractors etc.

The activities of shelter hubs focused on promoting disaster resilient and sustainable construction practices through consultancy, outreach, advocacy, networking and resource mapping. With Habitat Technology Group as the implementing agency, within a period of eight months, shelter hubs a) Provided on-site technical assistance to 3597 flood affected house owners and b) Oriented 934 masons (including 369 Kudumbashree women masons), 203 house owners, 60 contractors and 373 civil engineering diploma students in disaster resilient and sustainable construction practices.

Mapping landslides by geological survey ofi ndia 2018

Post Kerala floods 2018, the Government directed the Geological Survey of India (GSI) in September 2018 to map the landslides that occurred in the floods. GSI in priority deployed 10 teams, each with two Geologists to immediately survey the landslide sites and proposed the sites that are inhabitable such that the families dwelling there could be facilitated for relocation. In total 1626 landslides were investigated. Based on the site-specific investigations, GSI recommended 689 dwelling units to be relocated. The Government made the vulnerability linked relocation plan applicable to the dwelling units which were identified as vulnerable by GSI.

Rapid assessment of safety of areas affected by landslides/debris flows 2019

Officers of Mining and Geology, Ground Water and Soil Conservation Departments were paired into 49 teams and trained by KSDMA with the assistance of landslide experts and Geological Survey of India. Each team had one Geologist and a Soil Conservation Officer. The teams were deployed in 9 districts. In total 719 sites were investigated. Based on the site-specific investigations, the teams recommended dwelling units at 411 sites to be relocated. The Government made the vulnerability linked relocation plan applicable to the dwelling units which were identified as vulnerable by these teams.

UNICEF 2019

KSDMA launched a project in partnership with UNICEF in 2019 titled "**Mainstreaming Disaster risk resilience**". The thrust areas of the project were:

i) Child Centred Risk Informed Planning

ii) School Safety Training Programmes - were conducted involving disaster affected schools from 11 districts covering 398 schools and officials from education department

iii) Strengthening Inter Agency Group activities.

A state level workshop on child centric risk informed programming was held on 16-17 of December 2019. A state level workshop on networking for DRR and climate change adaptation was organized for civil society organizations on 7 March 2020

Sphere india 2019-20

Disaster Management Act, 2005 highlights the importance of NGOs in disaster risk reduction. KSDMA collaborated with Sphere India in 2019 to –

i)Update District Disaster Management Plans of all 14 districts

ii)Create an institutional framework of NGO collaboration

All 14 districts formed Inter Agency Groups (IAGs) under their respective DDMAs for NGO coordination. A total of 420 NGOs spread across Kerala are now a part of the IAG network of DDMAs.

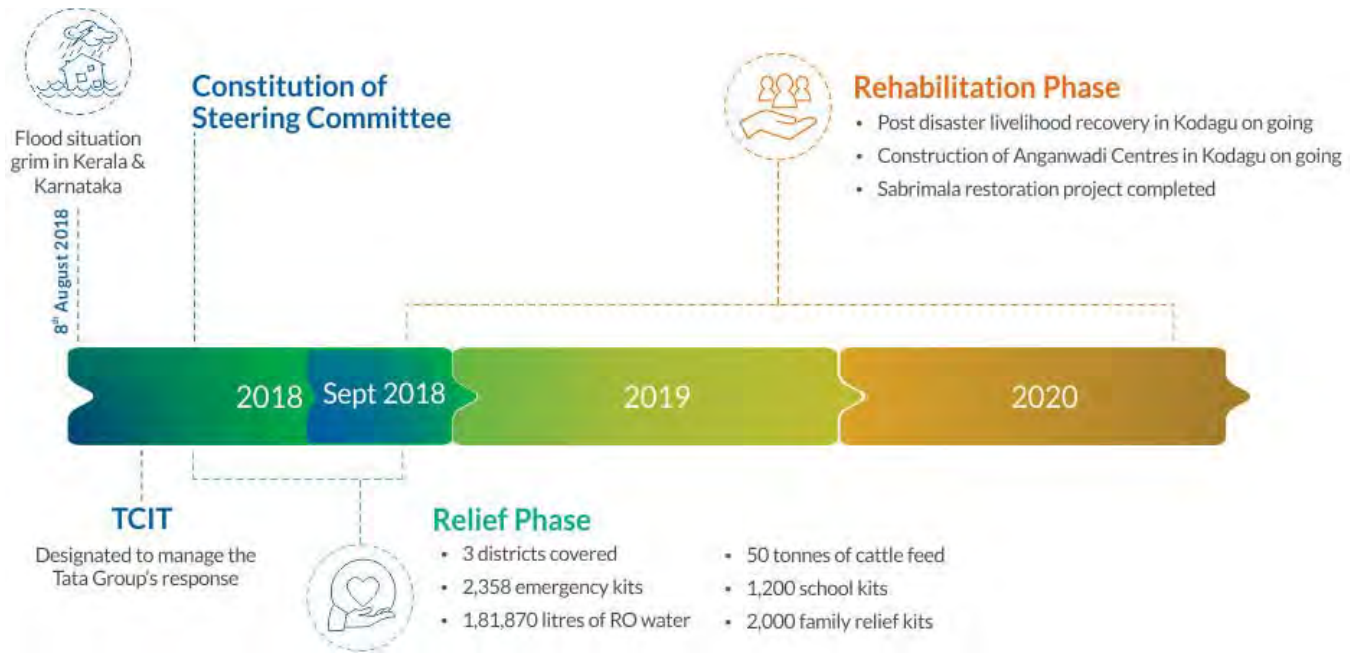


Figure 10 : Timeline of activities conducted under Tata Floods Response Program – Kerala and Karnataka

Rebuilding Kerala 2018 – Habitat for Humanity

Habitat India mobilized to facilitate relief and recovery operations for affected families hitting the ground in August 2018. The intervention was multi-pronged, aimed at ensuring that basic needs were met through Humanitarian Aid Kits and First Responders' Kits, to aid in clean-up for those returning to their homes through Habitat Tools Banks, Water Filters to avert the risk of water-borne diseases and Conditional Cash Transfers to plug unmet gaps[23].

IDI with stakeholder in Thattayil village near Pandalam in the Pathanamthitta district, state of Kerala

[23]Source: https://www.habitat.org/sites/default/files/documents/RebuildingKerala-OneYearReport.pdf

3.2 Model of NSE Foundation's Kerala Flood Relief Project

Story of Project Implementation

The central government has designated the Kerala floods 2018 as Level 3 constituted as "Calamity of severe nature". Discussions with the RedR India team revealed that since the onset of the floods, their team was actively engaged in relief, response, and recovery work in Kerala.

RedR India submitted a proposal to NSE Foundation in September 2018 regarding a project to address the need of accessibility of drinking water and capacity building of community members and frontline functionaries in 5 worst affected districts, namely Wayanad, Alappuzha, Pathanamthitta, Kollam and Thrissur. The project was approved in September 2018 and the agreement was signed between RedR India and NSE Foundation in September 2018.

RedR India was supported by NSE Foundation over a period of 12 months in two phases -

Phase 1: October 2018 to December 2018

- Providing water filters to worst affected areas.
- Building capacity of frontline workers on water quality testing and treatment.

Phase 2: February 2019 to April 2019 with extension period till October 2019

- Providing water filters to worst affected areas.
- Building capacity of frontline workers on water quality testing and treatment.

The beneficiaries reached through these activities are indicated below:

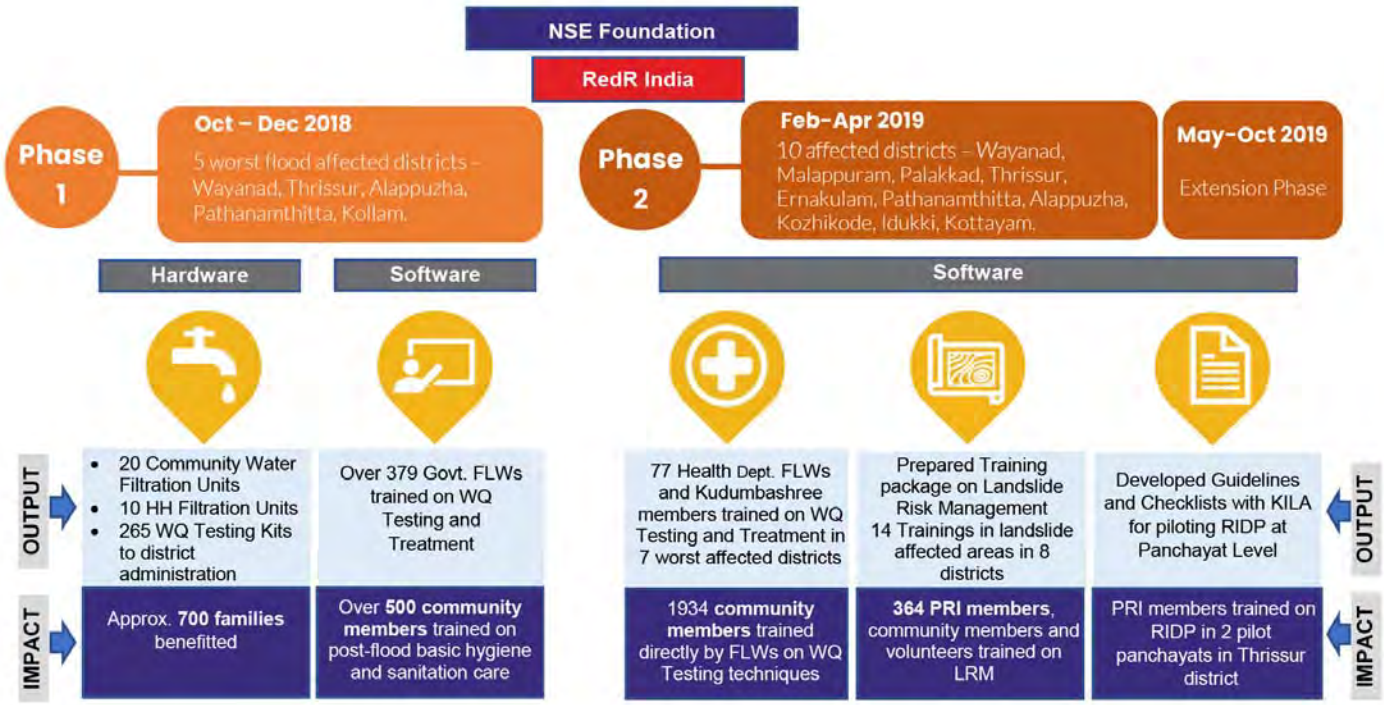


Figure 11 : Model adopted under the RedR India Project supported by NSE Foundation

3.3 Project Activities/Interventions

NSE Foundation in collaboration with RedR India was involved in providing community-based relief in the 11 flood affected districts in Kerala. The project involved two phases of humanitarian aid and addressed the following: -

- Need for accessibility to safe drinking water
- Capacity building of community members
- Providing technical expertise to state and district officials
- Institutionalizing knowledge on disaster resilience in communities

The relief work under the project involved giving scientific and technical expertise mixed with indigenous knowledge to train actors and stakeholders as well as community members and villagers. The intention behind these efforts were to "leave no one behind" and to make the information sharing and dissemination democratic, inclusive and participatory. These operations aimed to raise awareness on water quality, sanitation, hygiene, and landslide risk mitigation to better prepare communities for future disasters in the state particularly with respect with water usage and health and hygiene practices. A detailed description of activities conducted over the 2 phases of the project. in each intervention district is indicated in the map below.

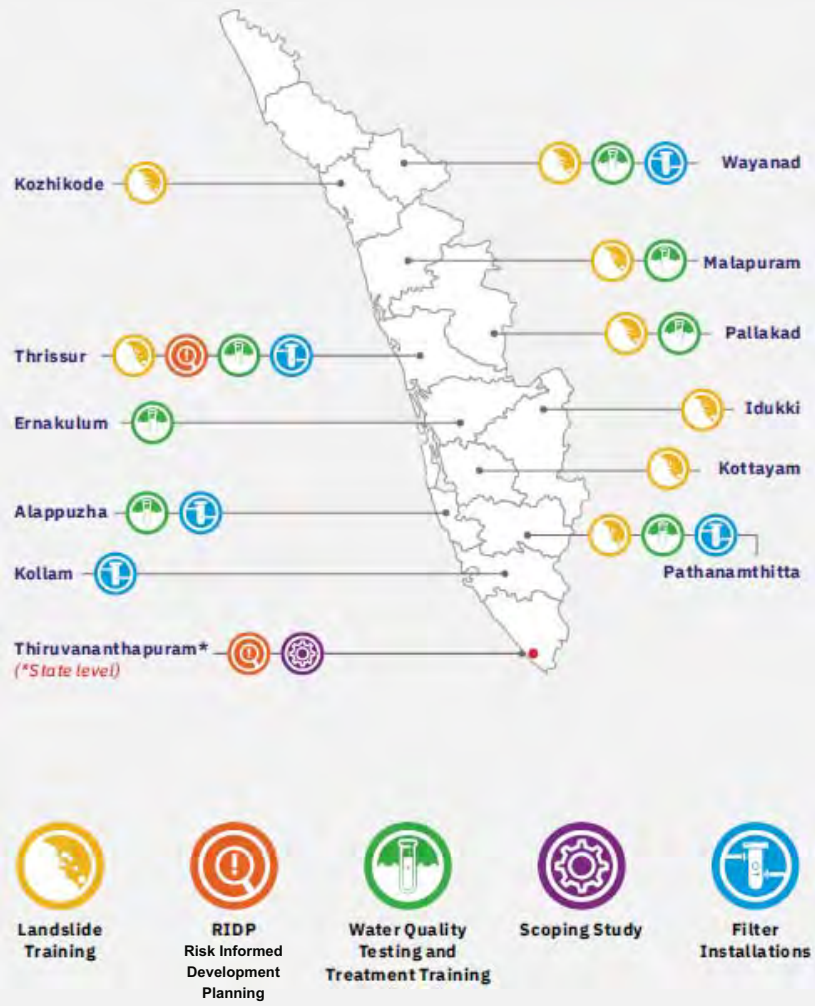


Figure 12 : District Wise Activities in the 2 Phases of the Project

3.4 Indicators

The following table has been compiled after desk review of the project reports and other documents shared by NSE Foundation, RedR India and KPMG team.

Table 8 : Log Frame Table

Objective	Activity	Outcome	Impact
1. To provide access to safe drinking water for the flood affected communities	Securing Community Wells with Water Filtration Systems in 5 worst flood affected districts	Reduced risk of water-related diseases in the 5 worst flood affected districts by provision of safe drinking water	Improved health status
2. To build capacities of affected community and administration on water quality testing and treatment	Capacity Building of frontline workers on Water Quality Testing and Treatment	Increased awareness of community members on importance of clean water and testing techniques through trainings received from frontline workers.	Increased capacity of indirect beneficiaries (frontline functionaries - officials of water supply, health and forest departments)
3. To build institutional capacities on safe drinking water and disaster risk management for strengthening preparedness and recovery of communities affected by Kerala floods	Landslide Risk Management for Panchayati Raj Members Developing guidelines and checklists on risk informed development planning	Increased preparedness of Panchayat leaders with respect to managing landslide related risks	Increased attention towards disaster risks by the administration

3.5 Monitoring Mechanism

The project followed a 3-Tier Monitoring and Reporting mechanism.

At RedR Level

Red-R Project Manager was responsible for day-to-day monitoring of hardware and software activities, provide technical inputs when needed, conduct regular visits to project site.

- The Project Manager coordinated regularly with –
- Project Officer, Water Quality and Treatment Team
- Landslide Risk Management Team
- Risk Informed Development Planning Team
- Consultants, Water Governance and Advocacy Team

Monthly Progress Report were prepared by the RedR team and submitted to KPMG and NSE Foundation.

At KPMG Level

As the External Auditor of this project, KPMG audited the programmatic as well as the financial aspects. The programmatic aspects included hardware and BCC components of the project. The Financial aspects included the expenditure, variance, fund recommendation as per requirement. KPMG also provided support in standardising the DPR and estimate formats and making model DPR documents.

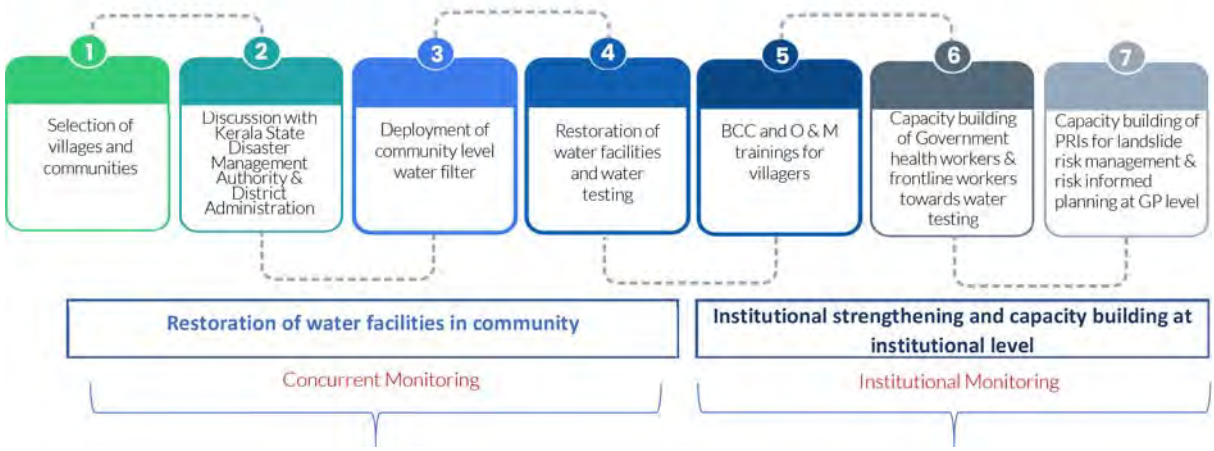


Figure 13 : Monitoring Mechanism adopted by KPMG

It set up a governance mechanism with RedR India wherein RedR India was supposed to submit monthly reports by the 7th of each month and quarterly reports by the 15th of next quarter. KPMG also conducted quarterly programmatic and financial review through field visits and desk reviews for verification of activity coverage on sample basis such as DPRs, and recommendations for fund release. Programmatic and financial reports were submitted to NSE Foundation along with program strengthening observations and recommendations

- Restoring & Revitalizing Community Water Facilities
- Convergence with Government and key institutions by building capacity of officials through trainings to health department workers, frontline workers and PRI members.
- Community engagement and capacity building of villagers through trainings on water testing and operations and maintenance of water filter.

The PME processes adopted by KPMG helped strengthen the project documentation across the project lifecycle. Also, during the project, one monitoring visit was also conducted by KPMG to examine the progress of activities.

At NSE Foundation Level

Monthly discussions were held by RedR India with NSE Foundation and KPMG regarding project progress. NSE Foundation also provided technical inputs both programmatically and financially through site visits and review.

Mid-Term Project Review was conducted by NSE Foundation in November 2018 to provide recommendations for Phase-II of the Project. NSE Foundation Team visited Phase I project beneficiaries in February 2019 to observe the progress of the project.

The following figure indicates the 3-Tier Monitoring and Reporting Mechanism

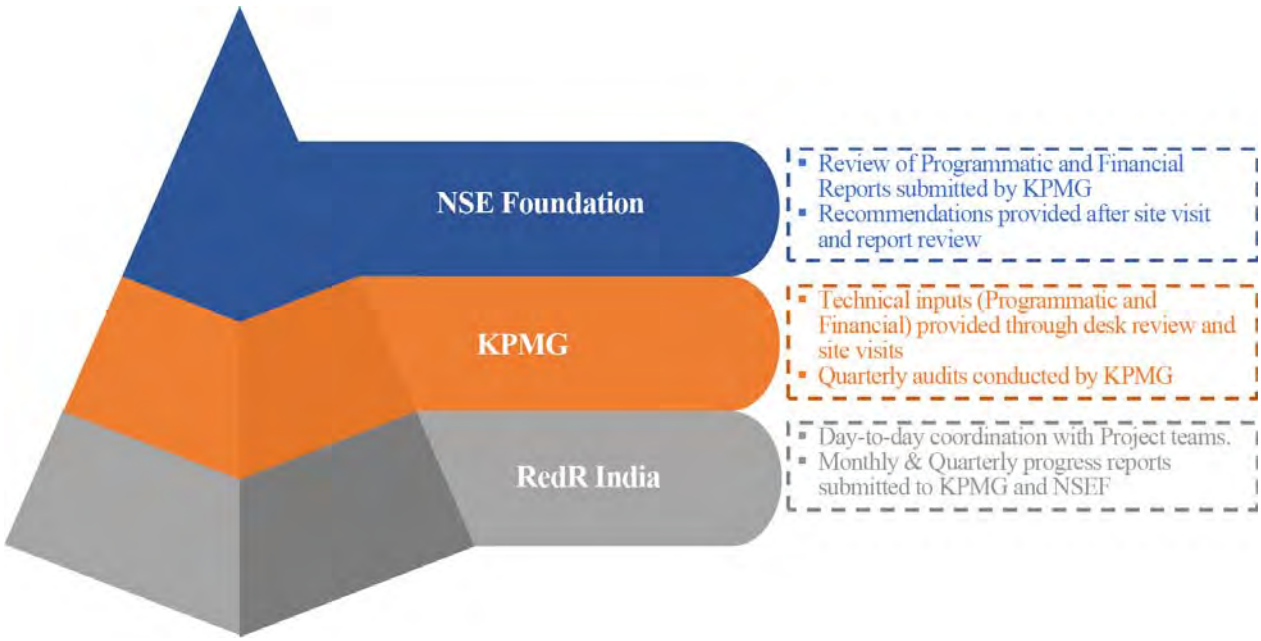
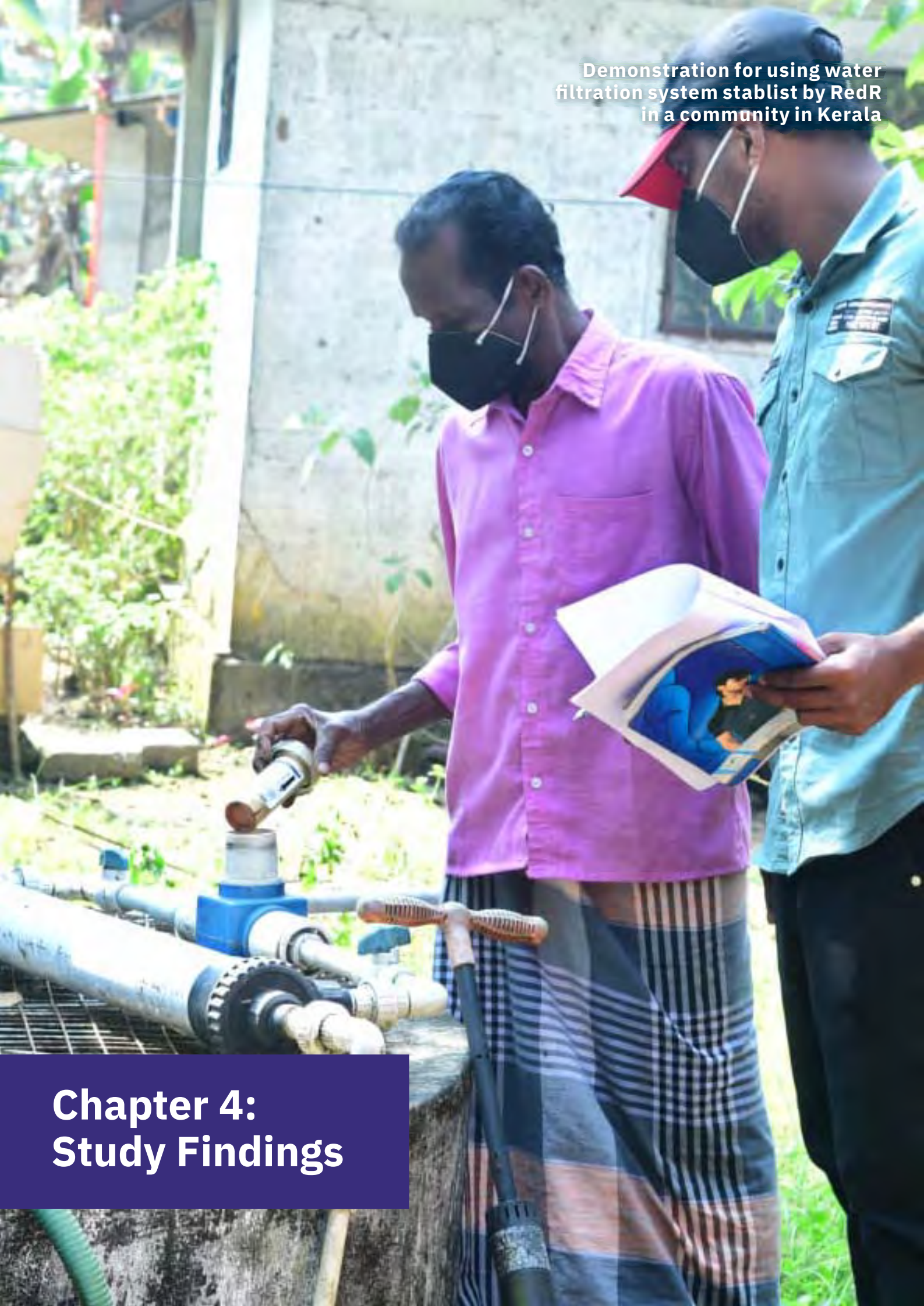


Figure 14 : Monitoring and Reporting Mechanism adopted in the project



Demonstration for using water filtration system stablist by RedR in a community in Kerala

Chapter 4: Study Findings

4.1 Process Evaluation Findings

The section below describes in detail all the processes involved along with their timelines, outputs and outcomes

Project Phase 1:
1ST OCTOBER – 31ST DECEMBER 2018

ACTIVITY 1: Securing Community Wells with Water Filtration Systems

Key Stakeholders: Forest Department, Government of Kerala and District Legal Services Authority
Timeline: October 2018 (1 month)
Processes Involved:

- Identification of Forest Areas and under-served locations demonstrating water quality testing and training.
- Consultations with forest dwellers, SC/ST groups and Gram Panchayats.
- Installation of 20 Community Water Filtration and Treatment Systems in 5 districts – Wayanad,
- Pathanamthitta, Kollam, Alappuzha and Thrissur
- Distribution of 10 household filters in tribal hamlet of Thrissur
- Formation of User Groups and Handover of CWF units
- Periodic Monitoring
- Training of community members on:
- Operations and Maintenance of Community Water Filter Units
- Basic hygiene and sanitation care
- Reorientation on Operation and Maintenance of Community Water Filter Units.

Output:

- 20 Community Water Filters and 10 Household Filters installed in 5 worst flood affected districts.
- 10 water safety (quality and treatment) trainings delivered in the communities.
- 32 trainings conducted on hygiene promotion, water quality operations and maintenance of the filtration units.

Outcome:

- Over 500 community members trained on post-flood basic hygiene and sanitation care.
- 693 families provided with access to safe drinking water by installation of 20 Community Water Filters and 10 Household Filters.

Table 9 : Output Indicator Mapping with respect to improving access to safe drinking water component

S. No.	Indicator	Planned Numbers	Achieved Numbers	Achievement (%)	Means of Verification
1	No. of Community Water Filters Installed	**20**	**20**	**100%**	Project Closure Report January 2018 shared by RedR India
2	No. of Household Water Filters Installed	**10**	**10**	**100%**	Project Closure Report January 2018 shared by RedR India
3	No. of Household Water Filters Installed	**10**	**10**	**100%**	Project Highlights Report - January 2019 shared by RedR India
4	Number of trainings on hygiene promotion, water quality operations and maintenance of the filtration units	**32**	**32**	**100%**	Project Closure Report January 2018 shared by RedR India
5	No. of community members trained on post-flood basic hygiene and sanitation care	**500**	**Over 500**	**100%**	Kerala Floods Rebuilding Lives: Towards Safe Drinking Water and Community Resilience Report
6	Number of families provided with access to safe drinking water	**400**	**693**	**Over 100%**	Project Highlights Report - January 2018 shared by RedR India

ACTIVITY 2: Capacity Building of Frontline Workers and Communities on Water Quality Testing and Treatment

Key Stakeholders: Kudumbashree and Health Department, Government of Kerala
Timeline: October- December 2018
Processes Involved:

- Delivery of 1 day Training module through orientation and demonstration in 5 districts
- Handover of list of Master trainers and other participants to the Government
- Training Modules Development and Translation in Malayalam
- Training Evaluation
- Distribution of Water Testing Kits to Participants
- Delivery of Training
- Participants Mobilization
- Feedback, Adaptation and Enhancement for future training

Output:

- 10 Trainings conducted for capacity building of frontline workers on Emergency Water Quality
- Testing and Treatment in 5 districts
  265 Chlorine testing equipment distributed to the district administration in these 5 districts

Outcome:

- Over 379 Government Frontline workers trained in Thrissur, Pattanamthitta, Wayanad, Alappuzha and Ernakulum districts.

Table 10: Output Indicator Mapping with respect to training frontline workers on water quality testing and treatment in 5 districts

Output Indicators					
S. No.	Indicator	Planned Numbers	Achieved Numbers	Achievement (%)	Means of Verification
7	No. of water quality testing kits provided to district administration in 5 districts	**250**	**20**	**Over 100%**	RedR-NSE Project Highlights Report January 2019
8	No. of trainings on water quality testing and treatment in emergencies	**10**	**10**	**100%**	
9	No. of frontline workers trained on water quality testing and treatment	**140**	**379**	**Over 100%**	

Mid-Term Project Review

NOVEMBER 2018

Project Review and Recommendations for Phase II of Project were discussed in the mid-term review

ACTIVITY 3: Provision of Technical Support on WASH to District Administration in 5 districts

Key Stakeholders: UNICEF India and Government of Kerala
Timeline: October 2019-January 2020
Processes Involved:
In collaboration with UNICEF India and Government of Kerala, strengthened line department capacities on WASH Response and Recovery Actions and supported post-disaster needs assessment in Alappuzha, Idukki, Wayanad, Ernakulum and Pathanamthitta districts with deployment of eight WASH Specialists.

Outcome:

The detailed proposal and project was shared with district administration and local organizations in Kerala for piloting and mainstreaming

Some of the key tasks undertaken by the WASH Specialist in three districts – Pathanamthitta, Alappuzha and Idukki are indicated in Annexure 4.

Activity 4: Technical Support for Strengthening Water Safety and Water Sources Development

Key Stakeholders: Kerala Water Authority, District Planning Department, and Haritha Mission
Processes Involved:
Deployed WASH specialists to undertake study on low-cost technological and innovative solutions to ensure access to safe drinking water to flood affected communities. The work involved meeting with various stakeholders and resulted in the development of a detailed proposal and project plan for making wells as safe drinking water resources.

Outcome: The detailed proposal and project was shared with district administration and local organizations in Kerala for piloting and mainstreaming.
Some of the key tasks undertaken by the WASH Specialist in the three districts – Pathanamthitta, Alappuzha and Idukki are indicated in Annexure 4.

Project Phase 1:
FEBRUARY – OCTOBER 2019

NSE Foundation Team Visit to PHASE-1 Beneficiaries – February 2019

The roadmap of the project with the key activities against the respective timelines is indicated in the Fig below as:

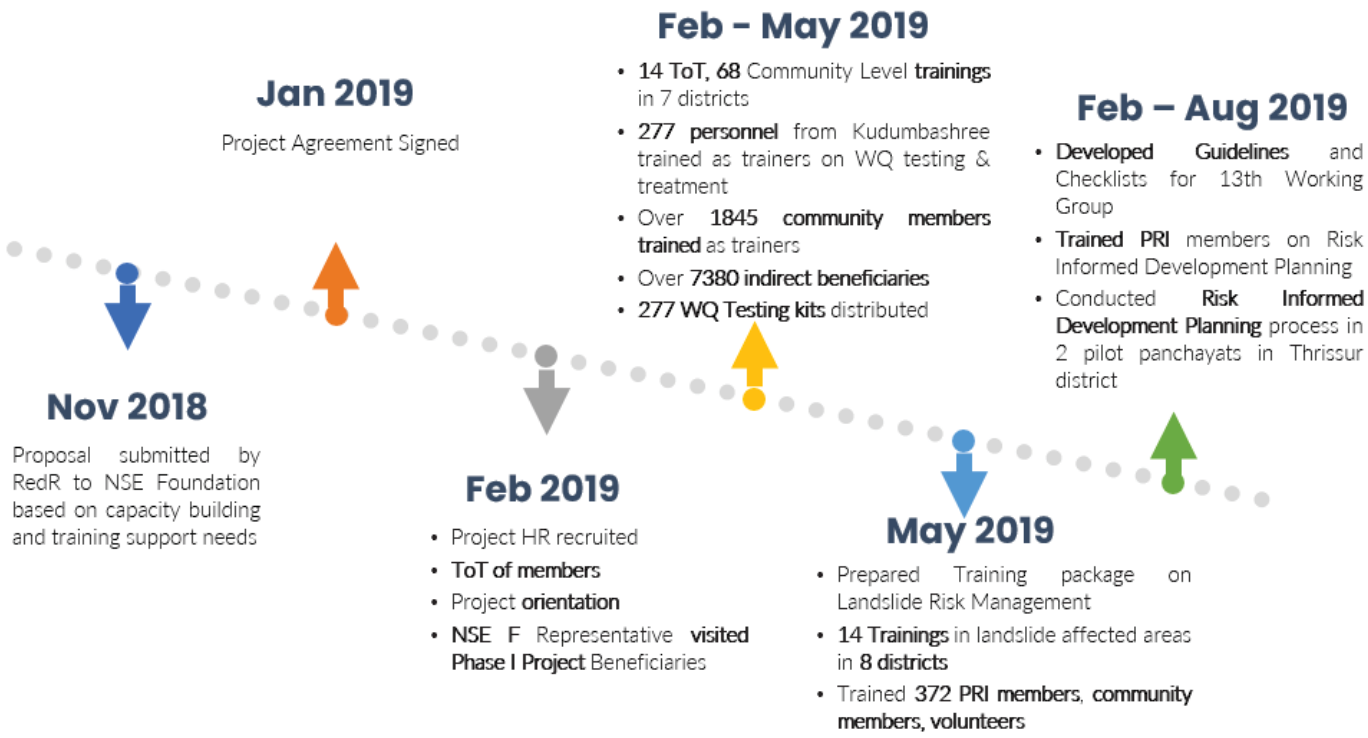


Figure : The section below describes each of the activities stated above in detail -

Activity 5: Capacity Building of Frontline Workers on Water Quality Testing and Treatment

Key Stakeholders: Kudumbashree and Health Department, Government of Kerala
Timeline: February to May 2019
Processes Involved:

- Developed Training Package on Water Quality Testing and Treatment in Kerala Context
- 4 Day ToT training through classroom and field level practice in 7 districts - Wayanad, Ernakulum,
- Alapuzzha, Pattanamthitta, Malapuram, Palakkad and Thrissur

Output:

- **14** ToT Training and 66 Community Level Training completed in 7 districts
- 277 personnel from Health Department and Kudumbashree trained as trainers on water quality testing and treatment

Outcome:

- More than 1934 community members trained by new trainers
- More than 7300 community members benefited indirectly

Table 11 : Output Indicator Mapping with respect to ToT training of frontline workers on water quality testing and treatment in 7 districts

S. No.	Indicator	Planned Numbers	Achieved Numbers	Achievement (%)	Means of Verification
1	No. of water quality testing kits provided to district administration in 7 districts	**250**	**277**	**Over 100%**	Kerala Flood Response Phase II Project Closure Report - October 2019
2	No. of ToT trainings on water quality testing and treatment in emergencies	**14**	**14**	**100%**	Kerala Flood Response Phase II Project Closure Report - October 2019
3	No. of frontline workers trained on water quality testing and treatment	**140**	**277**	**Over 100%**	Kerala Flood Response Phase II Project Closure Report - October 2019
4	No. of handholding trainings conducted at community level for their trainers to test their skills	**66**	**66**	**100%**	Kerala Flood Response Phase II Project Closure Report - October 2019

Activity 6: Landslide Risks Management Training for Panchayati Raj Members

Key Stakeholders: Geohazards India, District Disaster Management Authorities, UNDP, Don Bosco College of Social Work, District Legal Services Authority and Panchayati Raj Institutions
Timeline: February to May 2019
Processes Involved:

- Delivery of 1-day classroom and field training in 8 districts – Palakkad, Mallapuram, Kozhikode, Kottayam, Thrissur, Pattanamthitta, Idukki and Wayanad
- The objective of this training was to orient PRI members and community members on the various aspects of landslide including the basic concepts, causes, effects and types of landslide accompanied with its mitigation measures and management.
- Training Modules Development and Translation in Malayalam
- Participants Mobilization
- Delivery of Training
- Training Evaluation
- Feedback, Adaptation and Enhancement for future training

Output:

- Trained 364 PRI members, community members and volunteers
- 277 Water Quality and Testing Kits distributed

Table 12 : Output Indicator Mapping with respect to training PRI members on Landslide Risk Mitigation in 8 districts

Output Indicators					
S. No.	Indicator	Planned Numbers	Achieved Numbers	Achievement (%)	Means of Verification
1	No. of trainings on Landslide Risk Mitigation	**14**	**14**	**100%**	Kerala Flood Response Phase II Project Closure Report - October 2019
2	No. of PRI members, government officials, engineers and community members trained	**364**	**364**	**100%**	
3	No. of Panchayats trained on Landslide Risk Mitigation	**15**	**15**	**100%**	Kerala Flood Response Phase II Project Closure Report - October 2019

Activity 7: Strengthening RIDP at Gram Panchayat Level in Thrissur district

Key Stakeholders: Kerala Institute of Local Administration, Eriyad Gram Panchayat and Thekkumkara Panchayat, Thrissur district
Timeline: February to August 2019
Processes Involved:

- Developed guidelines and checklists on RIDP for 13th Working Group on Biodiversity, Disaster Management and Climate Change and undertake pilot at 2 Gram Panchayats.
- Liaison with key stakeholders at district and selected Panchayat
- Review of Literature on disaster risk management and LSG planning processes in Kerala
- Developed Training manual for undertaking community processes for RIDP
- Developed Guidelines: developed risk analysis checklists for select panchayat-level Working
- Groups for risk-informed planning
- Pilot Training for Panchayat members on the training manual
- Undertook Risk Assessment and Hazard Analysis at Gram Panchayat level by applying guidelines and checklists
- Developed Panchayat Plans through consultation meetings with 13th working group of Panchayats
- Vetted and hand over of Risk informed Panchayat Plans to District Administration and KILA in Thrissur
- Handover of list of trained personnel to District Administration

Outcome:
PRI members trained on RIDP in 2 pilot panchayats in Thrissur district

The summary table of all the output indicators mapped are indicated in the table in Annexure 3.

Challenges faced in project implementation

Discussions with the RedR India team revealed that the implementation of the project faced certain challenges as listed below -
1. While working with local government, district administration and forest department officials were critical to the sustainability and scale of different interventions as these were sources of delay and stoppages in some cases. Managing these relationships in an effective manner was crucial to completing activities.
2. A number of workdays were lost due to continuous strikes and hartals in the state. Pathanamthitta district witnessed more of these disruptions than other districts.

Despite these challenges, as planned most of the project components ended by May 2019. However, there was an extension for the RIDP component due to election and recurring flood during the project phase. The project finally completed with the Stakeholder consultation in October 2019. Following this, all the project documents related to RIDP were handed over to KILA.

4.2 Impact Evaluation Findings

This section of the report conducts an impact assessment and stock-taking by TRIOs regarding the installation of the Community Water Filters (CWFs), Training of Frontline Workers on Water Quality Testing and Treatment, and Landslide Risk Mitigation (LRM) training for PRI members in several districts of Kerala in the wake of the 2018 floods.

TRIOs field team made site visits between December 2021 to January 2022, to observe the CWFs units that were installed in Pathanamthitta, Alappuzha and Kollam. Apart from observation of the filters, interviews were conducted with –

i) 190 CWF beneficiaries and User Committee Group members
ii) 70 frontline workers (Kudumbashree and Health Department officials) who were trained on Water Quality Testing and Treatment in Emergencies
iii) 40 PRI members who were trained on Landslide Risk Mitigation (LRM)
iv) KILA Consultant and District Planning Officer

Installation of Filters and Community Orientation

The CWFs were supposed to provide safe and clean drinking water to the community members particularly those in the far flung and inaccessible areas of the nation's southernmost state. Discussions with the RedR India team revealed that a robust selection criterion was adopted to ensure that the districts that were adversely affected by the floods and landslides namely, Pathanamthitta, Alleppey, Kollam and Thrissur were taken up on priority. The socio-demographic profile of the villages and settlements in these districts where the CWFs were installed ranged from 25-100 people and included tribal communities like Kadars and forest dwellers as well as marginalized communities like the SCs and

OBCs apart from multi-caste and multi-religious villages.

The key findings made during the field visits are indicated below. The detailed summary of findings based on observation of the CWFs and discussion with the CWF operator and user committee members from these 15 sites is indicated in Annexure 5.

Key Findings

i. Out of the 15 CWFs observed, only two were still functional –
Kayalpuram, Pulinkunnu Gramapanchayath, Alleppey
Pandulam Thekkekara Ward 1 (Perumpulickal), Pathanamthitta

ii. The main reasons behind dysfunctionality of the remaining filters were –

- Pump of the filter got jammed
- Inlet pipe eventually got choked with mud
- Drop in the water level of the source due to drought
- Operators and User Committee members took low ownership of maintaining the CWFs
- Piped Water Supply connections further reduced dependence of the CWF

iii. All the CWF operators who were interviewed agreed that User Committee Groups were formed. However, in some cases when the User Committee Group members moved to other villages, no new members were appointed to replace them, thereby reducing the community ownership of the CWFs.

iv. Despite a training by the RedR India team to Operate and Maintain the CWF, in the absence of a refresher course, the operators had low recall of addressing CWF issues related to low flow rate, pump break down, leakages, low residual chlorine.

Community Water Filter Beneficiaries and User Committee Group Members

Current Drinking Water Scenario

- Protected wells are the main source of drinking water (42%) followed by piped water into dwelling (28%) and piped water into yard/plot (12%).
- In terms of current challenges faced by HHs with respect to drinking water, respondents said that they encountered many which include, insufficient quantity (36%), followed by water unavailability (31%), unsafe drinking water (23%), improper functionality of supply point (26%), bad odour (16%), and long waiting time at water point (20%). Other reasons attributed to water related issues dealt with various elements of contamination like dirt (20%), chemicals (13 %), insects (6%) as well as high cost (5%) and distance of water point (7%) as indicated in the graph below.

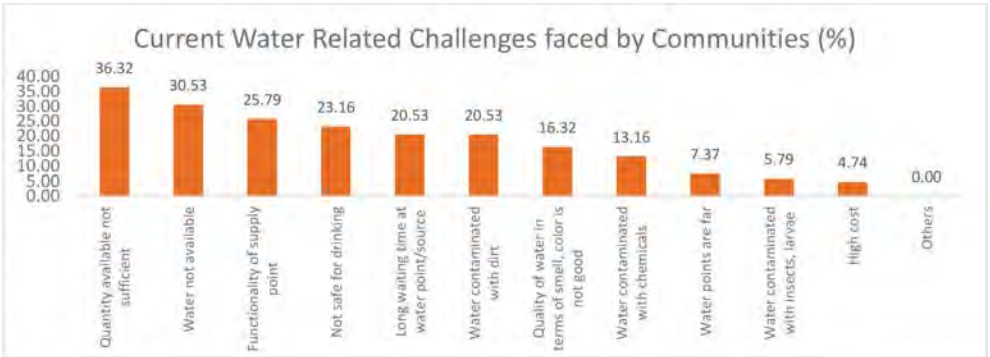


Figure 15 : Current water related challenges faced by the community based on discussions with community members and user committee group members

Training of Community Members regarding Functioning of CWFs

- 35% of the respondents attended the training on functioning of the CWFs and out of them, 32% found the training to be useful while 68% found it to be partially useful.
- 92% of the respondent recalled the O&M of filters as the topic that was discussed in the training, followed by water testing techniques (68%). The graph below indicates the other topics discussed in the training as recalled by the respondents.

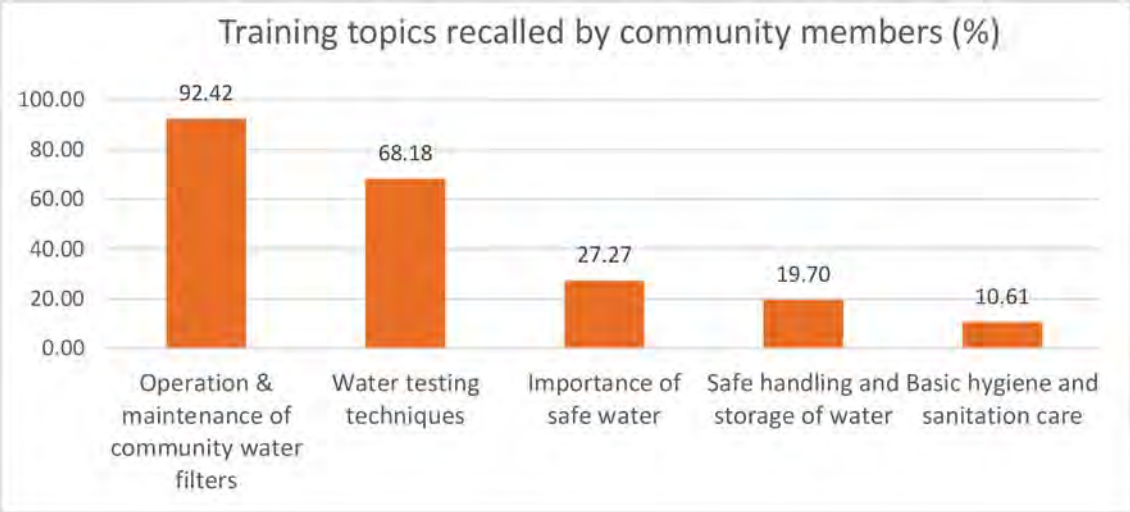


Figure 16 : Training topics during project implementation as recalled by the community members

Formation of User Committee Group

- 92% of the respondents agreed that a User Committee Group was formed for smooth functioning of the Community Water Filter
- 82% of the respondents were members of the User Committee Group
- With respect to awareness about responsibilities of the members of the User Committee Group, majority of the respondents (91%) agreed that the main responsibility of the members was to look after the O&M of the filters, followed by testing water quality (19%).

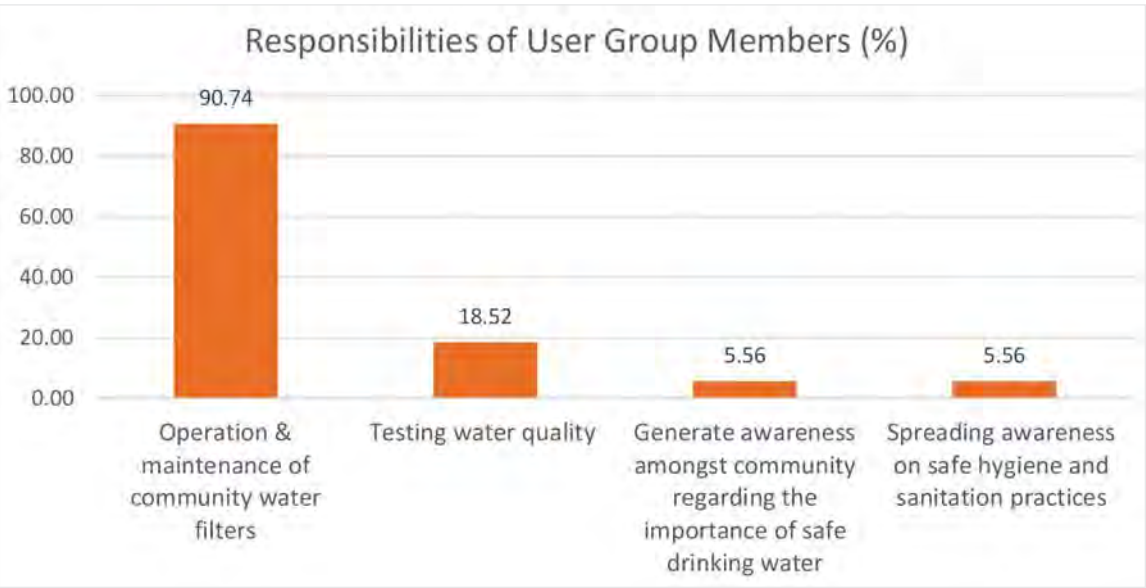


Figure 17 : Understanding of the responsibilities of User Committee Group members by the community

KAP of community regarding Drinking Water

- **Awareness on storage of drinking water:** 83% of the respondents were aware of the correct practices of storing water. (72% stated storing container at an elevation and 11% stated that water should be stored in a clean container with a lid).
- **Awareness on handling of drinking water:** With respect to handling drinking water, 70% of the respondents were aware of the correct ways of handling water (which involved using a tap attached to the vessel/container and using a glass with a handle or a ladle). 30% stated dipping hands through mugs or glass, which was the incorrect practice.
- **Awareness on treatment methods of drinking water**: Majority of the respondents (98%) stated boiling as a method of water purification, followed by using electric water filters (34%) and alum (24%), amongst others, as indicated in the graph below.

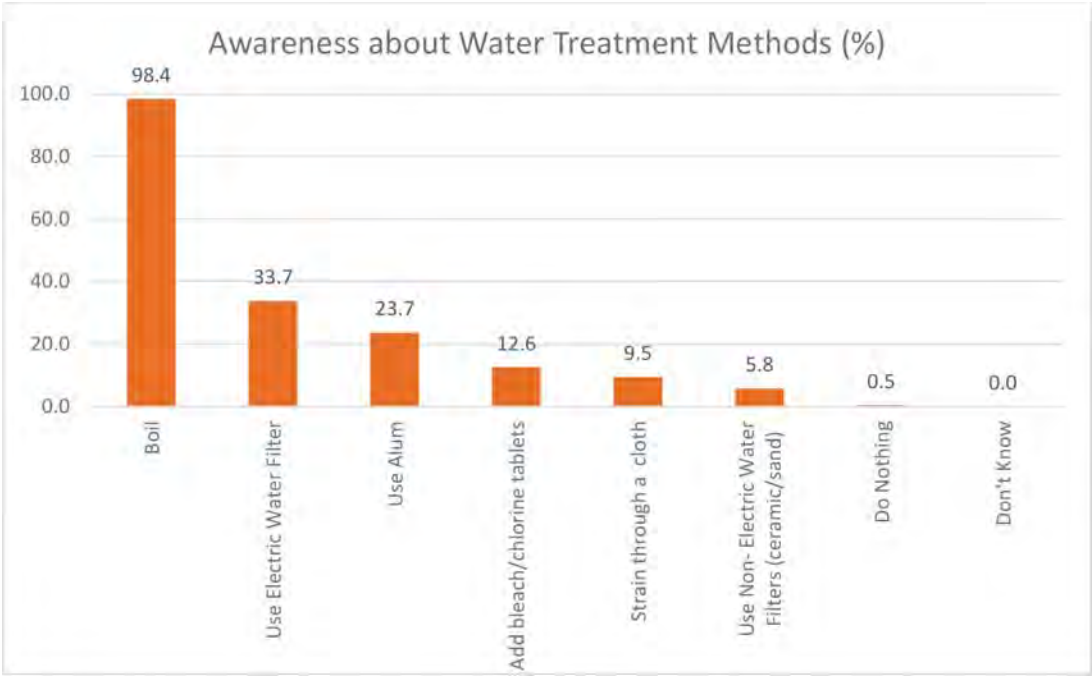


Figure 18 : Awareness amongst community members regarding water treatment methods

- Awareness of the consequences of consuming unsafe water: Around 80% of the respondents were aware of getting waterborne diseases after consumption of unsafe water, 17% were of the opinion that nothing happened while around 4% didn't know about the aftermath.
- Of the respondents who were aware of the waterborne diseases, 100% of them were aware of diarrhoea as a waterborne disease, 25% were aware of cholera, 5% were aware of fluorosis, 2.6% were aware of typhoid and only 0.7% were aware of dysentery.

Practices related to drinking water

- Practice of treating drinking water at home: 98% of the respondents did treat drinking water at home. Of these, boiling (94%) remained the most commonly practiced method of treating water at the HH level, followed by use of electronic water purifiers (3.8%), use of non-electric water filters (1.6%) and adding bleach/chloring tablets (0.5%).

Training on Water Quality Treatment and Testing with Kudumbashree and Health Department Personnel

The key findings from the interviews of the 70 FLWs which included Health Inspectors, Junior Health Inspectors, ASHA workers, Kudumbashree members, Local NGO members, Panchayat members, Kerala Water Authority members and Community members are presented below:

Quality of Training

- 99% of the respondents rated the training as Excellent, 1% rated it as Good.
- 100% of the respondents rated the preparation and professionalism of the facilitators at training as Excellent
- None of them faced any challenge w.r.t the understanding of the sessions and therefore had no suggestions for improvement.
- All the respondents felt that the training was useful in future emergencies and the reason for the same was shared unanimously as the practical knowledge of water treatment in emergency which was imparted in the training.

Topics Covered

All the respondents had attended all the sessions and further recalled the following topics that were discussed in the training

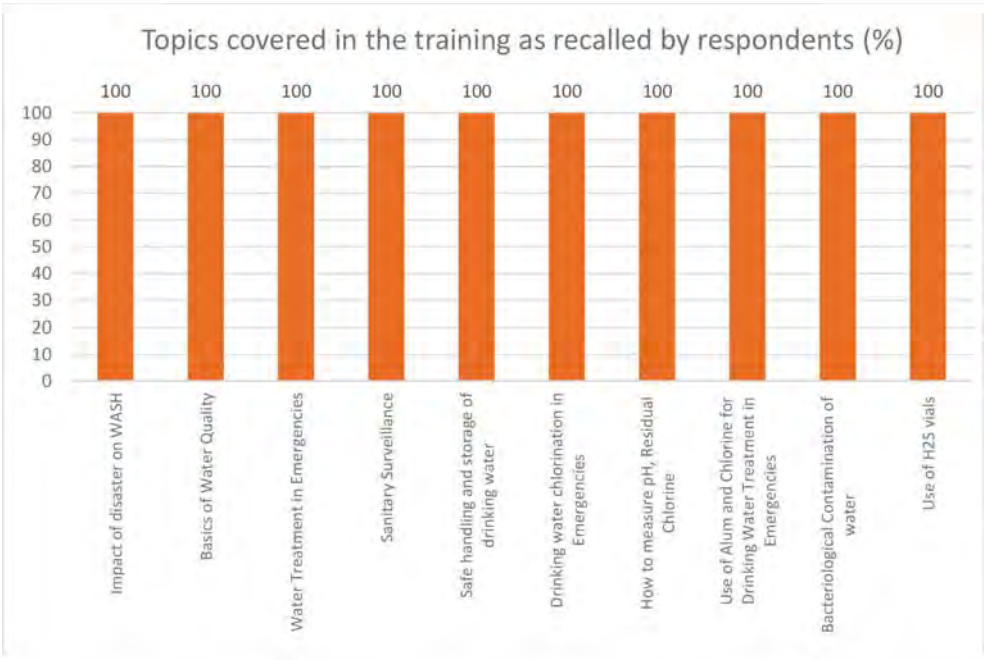


Figure 19 : Topics covered in Water Quality Testing and Treatment training as recalled by the frontline workers

Awareness on Water Treatment and Testing Techniques during emergencies

- 97% of the respondents were aware of the method of preparing 1% mother chlorine solution
  Only 11% of the respondents recalled how to prepare 1% alum solution
- 70% of the respondents knew that H2S vial was used an indicator of bacteriological contamination in water.
- All the respondents were aware of the means of measuring turbidity and pH

Training Material Used

Almost all the respondents recalled the use of Water Quality Testing Kits, Brochures, Handouts, PPTs, AVs, Quizzes, Demonstration of WQ Testing Kits as the training materials used during the training.

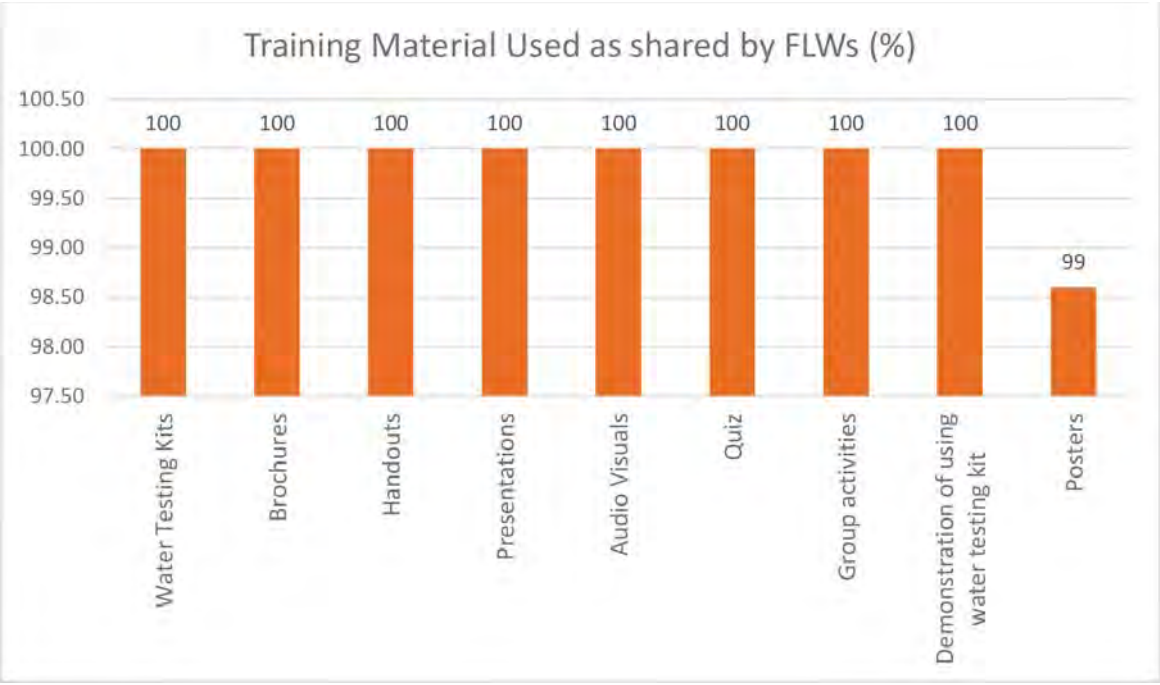


Figure 20 : Types of training materials used during the training as recalled by the frontline workers

Sharing the learnings further

- 54% of the respondents trained other people after receiving the training
- 95% of these respondents trained community members, 70% trained family members and 3% trained other Kudumbashree members
- Of the respondents who further trained others– safe handling practices of drinking water was the topic shared by all the respondents, followed by water treatment in an emergency (98.6%), safe storage practices (98.6%) and water quality testing (98.6%)

Landslide Risk Mitigation Training with PRI members

- 100% of the respondents had attended the training and all the sessions
- 100% of the respondents rated the training and the preparation and professionalism of the trainers as Excellent
- All of them unanimously agreed that the duration of training was appropriate, and the training was conducted in Malayalam
- No challenges were faced during the training
- All of them recalled that the topics discussed were Understanding landslides; Major factors responsible for landslides; Types of landslides; Local specific landslide mitigation measures

Training Material Used

Majority of the respondents (98%) recalled the use of training materials such as Brochures, handouts, PPTs, photographs, AVs and Landslide Susceptibility Maps as training material used by the trainers.

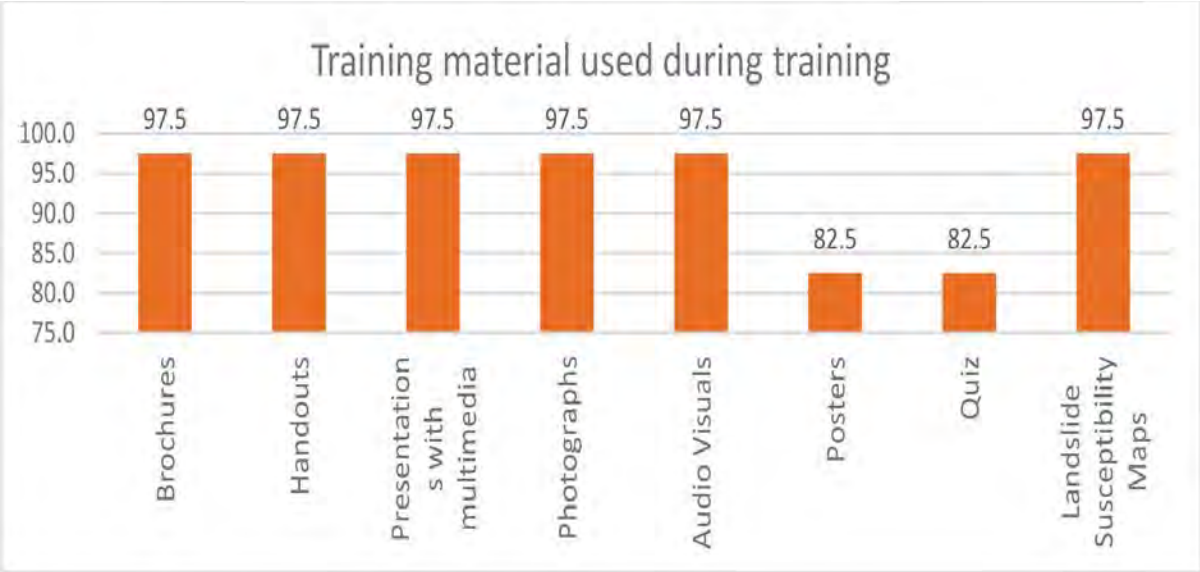


Figure 21 : Types of training materials used as a part of landslide risk mitigation training as recalled by the PRI members

- Quiz had a lower efficacy and effectiveness, as opposed to the remaining training materials
- 85% of the respondents agreed to have received the following training material post training (graph)
- All the respondents found the training material to be useful

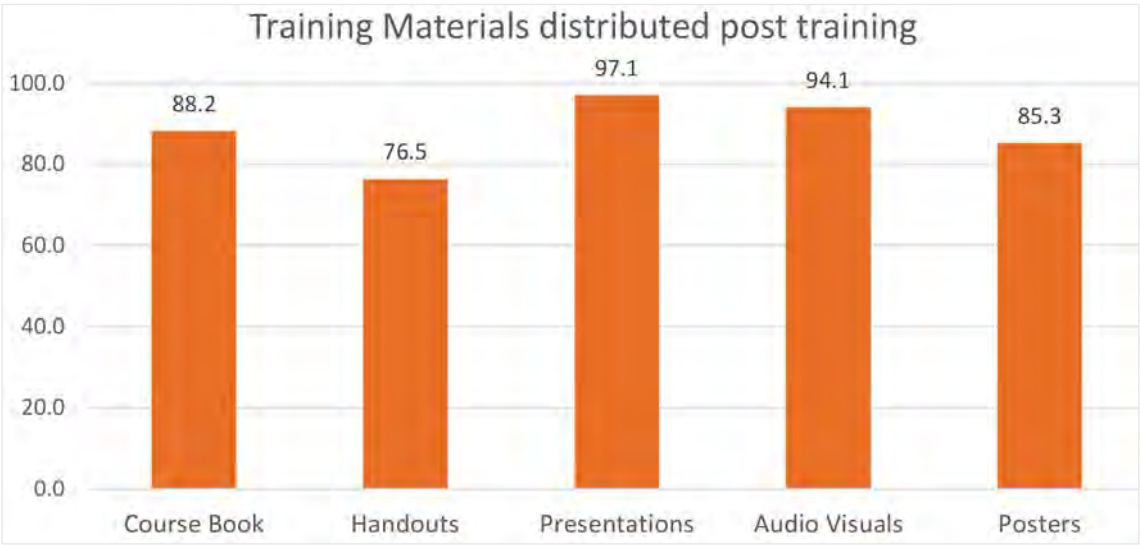


Figure 22 : Training materials shared with the PRI members post training

Suggestions to improve training material

- 41% of the respondents had suggestions to improve the training material post orientation
- Simplification of language in the material was the major suggestion, as shared by 57% of these respondents, followed by making it target audience specific (36%) and use of Malayalam as the language of the material shared (36%).

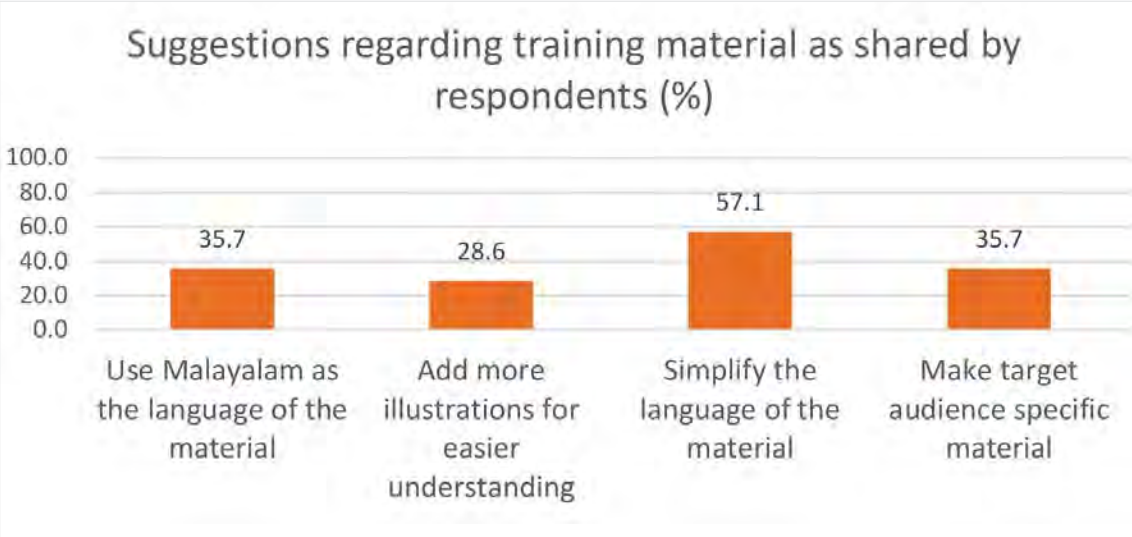


Figure 23 : Suggestions made by the PRI members to further improve the training material

Sharing the learnings further

- 50% of the respondents trained other people after receiving the training which included ward members and other community members (50%), students (20%) and Kudumbashree members (20%)
- 70% of the respondents agreed to have received handholding support from RedR India while sharing the learnings further
- Local specific landslide mitigation measures remained the most common topic shared (80%) followed by understanding landslide (10%) and factors responsible for landslides (10%).
- 95% of the respondents agreed that the training will be useful in case of future landslides.
- The aspects of the training that will be most useful in the future is the practical knowledge of the factors responsible for landslides (45%), apart from landslide mitigation measures (43%).

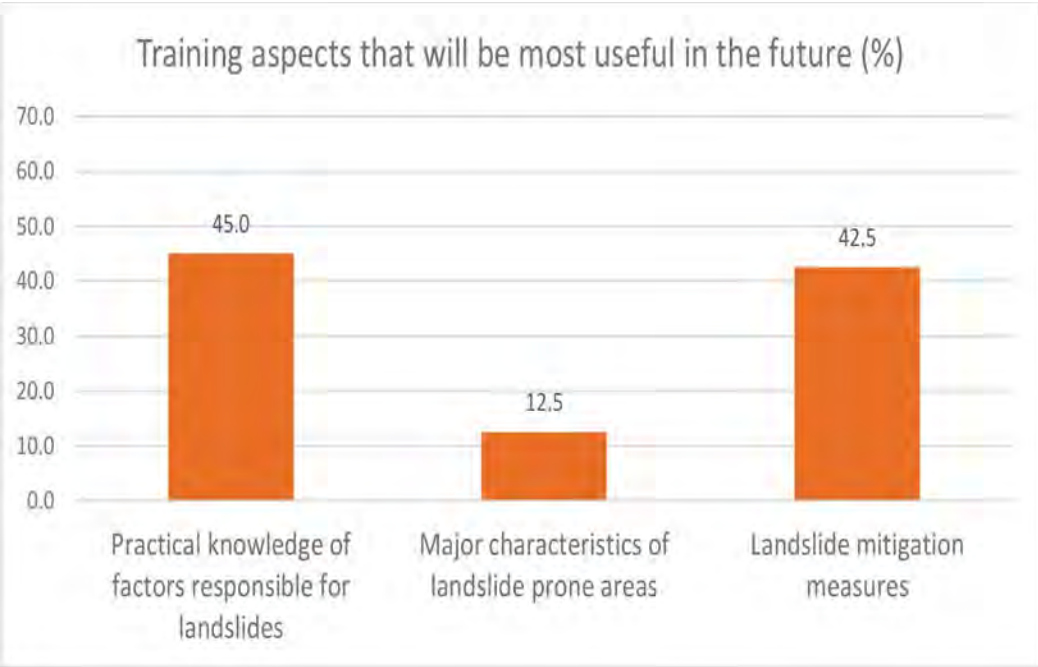


Figure 24 : Training aspects which were found to be most useful for the future by PRI members

All the findings which were made as a part of the impact evaluation have been summarized in table below.

Table 13 : Summary of impact evaluation findings

Output Indicators	
User Committee Group Members and Beneficiaries	
I. No. of Community Water Filters (CWFs) observed installed in study sites	**15**
ii. No. of CWFs still functional	**2 (13%)**
iii. Percentage of respondents who attended the training on hygiene promotion, WQ operations & maintenance of filtration units	**35%**
iv. Percentage of community members who found these trainings useful	**100%**
v. Percentage of respondents who agreed that a User Committee Group was formed	**92%**
vi. Percentage of respondents who were aware of the correct practice of storing drinking water	**83%**
vii. Percentage of respondents who were aware of the correct practice of handling drinking water	**70%**
viii. Percentage of respondents who were aware of the correct practice of treating water	**98%**
ix. Percentage of respondents who were aware of the consequences of consuming unsafe water	**80%**
x. Percentage of respondents who did practice treating drinking water at home	**98%**
Kudumbashree and Health Department Personnel – Water Quality Testing and Treatment Training	
I. Percentage of respondents who reported the quality of the Water Quality Testing and Treatment by RedR India to be Excellent	**99%**
ii. Percentage of respondents who reported the preparation and professionalism of the training facilitators as Excellent	**100%**
iii. Percentage of respondents who were aware of the correct method of preparing 1% mother chlorine solution	**97%**
iv. Percentage of respondents who were aware of the correct method of preparing 1% alum solution	**11%**
v. Percentage of respondents who were aware of the use of H_2S vial as an indicator of bacteriological contamination	**70%**
vi. Percentage of respondents who further trained others	**54%**
vii. Percentage of respondents who trained community members on the training topics discussed under the Water Quality Testing and Treatment Training	**95%**
PRI members – Landslide Risk Mitigation Training	
I. Percentage of respondents who attended the training	**99%**
ii. Percentage of respondents who reported the preparation and professionalism of the training facilitators as Excellent	**100%**
iii. Percentage of respondents who trained community members on the training topics discussed under the Landslide Risk Mitigation Training	**97%**
iv. Percentage of respondents who agreed to have received handholding support from RedR India in sharing the learnings further	**11%**
v. Percentage of respondents who agreed that the training was useful in case of future disasters	

State and District Level Officials

IDI with Government Officials
Dr. Jos Raphael, KILA Consultant, in conversation with our State Coordinator, explaining to him the various unique aspects of the project.

This section highlights the key observations made by state as well as district level officials who were involved in the project. Discussion with the KILA Consultant, Dr. Jos C Raphael, brought to the fore that certain aspects of the project were extremely unique- "The project gave more emphasis to water quality instead of water quantity, which led to a fair improvement in the drinking water situation and eventually improved the quality of drinking water. Also, capacity building on disaster management, especially of Kudumbashree, was the major innovation under the project". According to him, the project was a collaborative effort between the NGOs and the government. However, despite the efforts, lack of sustainable maintenance by the communities had led to the breakdown of the filters. He suggested that proper Operation and Maintenance Monitoring of the Community Water Filters is an aspect that needs to be strengthened. There is also a need to involve local governments in this process to ensure sustainability of the project.

In our discussion with the District Project Officer, District Planning Department, Ms. Noushaba Nas P.P., a few interesting points came up. She shared that the direct involvement of the District Collector in the project helped to speed up the approval taking process.

On being asked about the usefulness about the project, she stated – *"The project was very helpful to ensure the availability of safe drinking water for rural people. The water quality testing trainings and the Community Water Filter's Operation and Maintenance training were particularly very good and useful. Such trainings helped build the capacity of the Kudumbashree members to further improve the operation of the project*

IDI with Frontline worker
Ms. Noushaba Nas P.P., District Project Officer, District Planning Department, in conversation with our State Coordinator

4.3 Convergence

The project saw strong convergence at various levels with the state government, national and international organizations, grassroot organizations like Panchayati Raj Institutions (PRIs), local self-government member, coming together to provide the flood and landslide hit communities with safe drinking water. It also built the capacity and resilience of the community members, Kudumbashree and Health Department personnel and also the PRI members to emerge from the crisis and build resilient communities and a New Keralam.

The model involved participation of community members, PRI members, local authorities and welfare groups to identify the risks faced by the communities and develop plans to mitigate, prevent or prepare for them through development of small schemes or actions which is budgeted in the Gram Panchayat development plan.

4.4 Contributions

In terms of monetary contribution for the Operation and Maintenance of the Community Water Filter, the operators of 7 out of 15 CWFs stated that the communities were willing to pay a small amount for the same. However, there was no mechanism established yet for the collection of this amount.

One of the good practices observed in terms of contributions was in Pandulam Thekkekara Ward 1 (Perumpulickal), where the community members were actively involved in the water supply system. The users contributed money for building a shed for the water filter. Apart from this, the community took active measures to clean the well, which is the main source of water for the filter.

On the basis of the field findings, it was analyzed that the biggest support that was needed by the User Committee Group (UCG) members was timely monitoring of the filters by the officials from RedR India or other state government authorities. Despite the training, in the absence of a refresher course, there was limited understanding of the operators regarding mitigation measures to be adopted in case of challenges like low flow rate, low residual chlorine, pump breakdown and leakages. Also, refresher training courses

4.5 Innovation

Moments of crisis and extreme desperation have also led to innovative practices by individuals and community. Kerala has always been a water abundant state and was dependent on its wells, surangams, tanks and rivers which were a major source of irrigation and potable drinking water and where almost every house has a well or at least shares one with a neighbor. It was in the post flood situation in 2018 that the importance of wells and clean drinking water arose as the CWFs began to go inactive for reasons cited before.

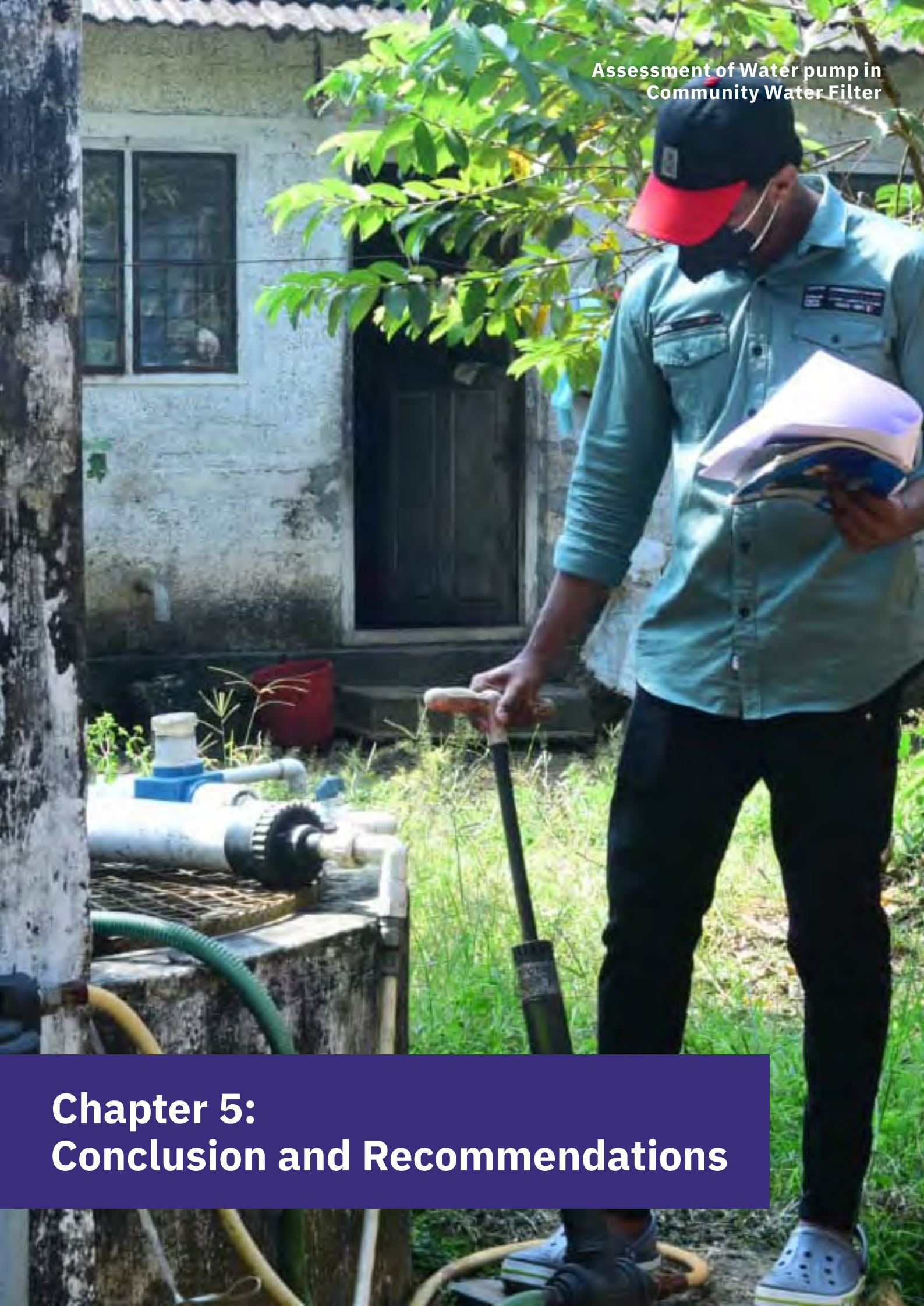
Under the project, attempts were made to instill sustainability practices like imbibing a 'culture' of water conservation in the community and to act purposefully to recharge the ground water table apart from testing of water samples and checking water quality. Hence, the community soon tried to get back to the basics and indigenous source of using potable drinking water and for any other domestic use. The wells were cleaned using the technical expertise provided by the authorities, experts and officials and became usable again.

At the community level, efforts were made to keep the Community Water Filter (CWF) functional, as

observed in Pandulam Thekkekara Ward 1 (Perumpulickal), Pathanamthitta. The CWF here was installed in October 2018 and is still functional even today. The primary reason behind the functionality of the filter was that the O&M manual of the filter was still referred to by the operator, a member of the user committee group, in case of any issues. The micron filter cartridge was replaced once in every 6 months. The operator was well aware about the proper way to do chlorine dosing, cleaning the micron cartridge, and occasions of replacing the chlorination cartridge. Apart from this, the community took active measures to clean the well, which is the main source of water for the filter. It was also shared that the community members were actively involved in the water supply system. The users contributed money for building a shed for the water filter.

It is important to incentivize this model and organize exposure visits of the team (operator and user committee group members) to neighboring sites where the filter was installed in order to share their experience so that others can also learn from this model

Benefits shared by community member in Koipuram a large census village in Tiruvalla, Pathanamthitta district in the state of Kerala



Chapter 5:
Conclusion and Recommendations

5.1 TRIOs commentary on the project and its impact

Between June and August 2018, Kerala witnessed the worst flooding since 1924. The State received an excess rainfall of 96% during August 2018, and 33% during the entire monsoon period till the end of August. The torrential rains triggered several landslides and forced the release of excess water from 37 dams across the state, aggravating the flood impact. Availability of drinking water was severely hit due to landslides that damaged nearly 317,000 dug wells. It is also estimated that 95,000 household latrines were damaged. The aftermath of the floods brought drinking water crisis due to contamination of wells, damage to a pumping station and disruption of pipe water supply.

Since the onset of the floods RedR India was actively engaged in response and recovery work through the provision of technical support. RedR India was supported by the NSE Foundation over a period of 12 months in two phases (Phase 1- Oct-Dec 2018, Phase 2- Feb 2019-April 2019, with extension period till October 2019).

The Phase 1 focused on providing access to safe drinking water by provision of filters in remote communities and build the capacities of the communities on water quality testing and treatment. The Phase 2 focused on building institutional capacities on safe drinking water and disaster risk management for strengthening preparedness and recovery of communities affected by Kerala floods.

Under Phase 1, by identifying socially and economically excluded communities in hard-to-reach locations which were adversely impacted by floods and landslides and installing community water filters there, RedR India and NSE Foundation were able to provide access to safe drinking water to the most marginalized sections of the society.

Under Phase 2, to build institutional capacities on safe drinking water and disaster risk mitigation, RedR India provided technical expertise to the FLWs, concerned departmental staff, NGOs and other stakeholders in coming together to work as a team and help realise the goal of a new and resilient Kerala. The technical help offered was multi-pronged and involved various national and international agencies that engaged in their specific sector of expertise. It also involved institutionalizing knowledge on disaster management and building resilience in communities.

All the activities planned under each of the phases were achieved in a timely manner. Most of the Phase 2 components ended by May 2019 however, there was an extension for the RIDP component due to election and recurring flood during the project phase. The project finally completed with the Stakeholder consultation in October 2019.

Some of the key observations made by TRIOs post the desk review, consultations with RedR India team, state government officials and field visits are as follows -

I) Access to Safe Drinking Water through provision of Community Water Filters (CWF)

During the field visit it was observed that out of the 15 CWFs, only two were still functional:

Kayalpuram, Pulinkunnu Gramapanchayath, Alleppey

Pandulam Thekkekara Ward 1 (Perumpulickal), Pathanamthitta

The main reasons behind non functionality of the remaining filters, as reported by the operators were-

- Pump of the filter got jammed
- Inlet pipe eventually got choked with mud
- Water level of the source decreased due to drought
- Operators and User Committee members took low ownership of maintaining the CWFs
- Piped Water Supply connections further reduced dependence of the CWF
- At many sites stakeholders also shared that these filters were meant for usage in immediate post flood situations, hence after the normalization of flood situation they discontinued and kept it for future use (if similar flood disaster occurs).

All the CWF operators who were interviewed agreed that User Committee Groups were formed. However, in some cases when the User Committee Group members moved to other villages and no new members were appointed to replace them, thereby reducing the community ownership of the CWFs. Hence eventually, the model collapsed.

Also, the community members were unaware of the annual O&M cost incurred for running the CWFs. In most cases, when the water quality testing was done, the results were not shared with the community. Despite a training by the RedR India team to O&M the CWF, in the absence of a refresher course, the operators had low recall of addressing CWF issues related to low flow rate, pump break down, leakages, low residual chlorine.

WASH infrastructure and facilities require regular O&M without which they will become dysfunctional, and will can be deployed in disaster situation. Further lack of community's capacities in handling O&M issues can hamper its sustained usage.

To address this challenge, it is suggested to introduce proper monitoring of operation and maintenance of the CWFs by state departments, local body governments and PRIs. It is also necessary to have refresher courses on addressing CWF breakdown issues by the government. In order to improve community ownership of the water supply system, a contributory model needs to be introduced. Under this model, the community would contribute for the operation and maintenance of the filter. Contributions can be made to the user committee group members and monitoring of these funds can be done by the head of the Gram Panchayat to maintain transparency.

ii) Building institutional capacities on safe drinking water and disaster risk management

Water Quality Testing and Treatment Training

In terms of the quality of training on Water Quality Testing and Treatment allotted to the Kudumbashree and Health Department personnel, all the respondents rated the training as excellent. 54% of the respondents went ahead to train other members of the community. 97% of the respondents were aware of the correct method of preparing 1% mother chlorine solution. 70% of the respondents were aware of the use of H2S vial as an indicator of bacteriological contamination in water. All the respondents were aware of the means of measuring turbidity and pH.

Key Recommendation: Based on the feedback from the participants and line departments, it was felt that the training knowledge needs wider dissemination amongst frontline workers. There is a significant knowledge gap which could be addressed by training workers at the district level. In addition, there is an

enhanced sense of awareness of water quality amongst the general public combined with a lack of institutional mechanisms to test and disseminate water quality.

iii) Landslide Risk Management Training

Discussions with the PRI members about their training on Landslide Risk Mitigation revealed that 70% of them received handholding support from RedR India to further share their learnings with other community members. 50% of the respondents agreed to have shared their learnings with other community members. 95% of them agreed that the training was useful in case of future disasters.

Key Recommendation: There is need to build capacity of local bodies in affected areas to deal with landslide risk. Corrective steps would include identification of high-risk areas, monitoring of these areas for early warning/signs of landslides, general awareness on kinds of landslides and causes, mitigation steps to restore ecological balance and slope stabilization. Given the high devolution of power to PRI's in the state, they are the most relevant entity on the ground that can act to mitigate future landslide risk.

IDI with Frontline worker

5.2 Impact Stories

Good Practices adopted by the User Committee Groups

1. Pandulam Thekkekara ward 1 (Perumpulickal), Pathanamthitta

The filter at Pandulam Thekkekara Ward 1 (Perumpulickal) was installed in October 2018 and is still functional even today. It catered safe drinking water to 96 people. It has a design capacity of 700 litres/hour. At the time of installation, the water source for the filter was the Gram Panchayat's public pipeline. However, due to the difficulty in pumping water to high level places the source was replaced to a public well nearby.

Water filter at Pandulam Thekkekera in Perumpulicakal designed with a capacity of 700 litres/hour

The primary reason behind the functioning of the filter was that the O&M manual of the filter was still referred to by the operator, a member of the User Committee Group, in case of any issues. The micron filter cartridge was replaced once in every 6 months. The operator was well aware about the proper way to do chlorine dosing, cleaning the micron cartridge, and the time of replacing the chlorination cartridge. Apart from this, the community took active measures to clean the well, which was the main source of water for the filter. Also, the community members were actively involved in the water supply system. The users contributed money for building a shed for the water filter. A key suggestion made by the operator was that the user committee should collect a lower amount of money from the users for the operation and maintenance of the filter which would help ensure sustainability of the filters.

2. Kayalpuram, Pulinkunnu Gram Panchayat Ward 12, Alleppey

Also known as the Vayalat Community Water Filter, it was set up in October 2018 to cater to the drinking water needs of 75 people right after the floods. The filter was used continuously for one month post its installation after which, it is used occasionally. In the initial one month of its operation, the filter was maintained by the operator.

Vayalat Community Water Filter set up in 2018 which is still functioning

Despite facing issues of mud choking the inlet pipe and the pump getting jammed, the operator was able to conduct maintenance activities by following the manual. Even today, all the parts of the filter are well connected. The only issue that the operator faces is that of low flow of water and the low pump pressure. The community members were willing to contribute partially for the operation and maintenance of the filter.

5.3 Glimpses from the field

1. Aranmula Gram Panchayat, Ward 7, Pathanamthitta

Dysfunctional CWF due to break down of pump that drew water from the main source

Disfunctional CWF in Arammula Gram Panchayat Ward 7 in Pathanamthitta

2. Chennaikunnu, Ward 11, Pandalam Thekkekara Gram Panchayath, Pathanamthitta

Dysfunctional CWF due to leakages in the inlet pipe as a result of which the pipe was removed and parts of the CWF stored in a nearby house.

Disfunctional CWF in Chennaikunnu Ward 11 in Pathanamithitta

3. Mullumala Colony, Paravanthur Gram Panchayat, Kollam

Dysfunctional CWF due to depleting water levels in the well and hence dismantled.

Disfuntional Well in Mullumala of Kollam

4. Thattakadu, Kadapra Koipuram, Gram Panchayat, Ward 10 (2), Pathanamthitta

Taste and smell issues (excessive chlorine) led to non-usage of the filters. Also, one month post installation, the parts (micron-filter cartridge and chlorinator) went missing.

Micro filter cartridge and chorinator missing in installed water filter

5. Nukathala Koipuram Gram Panchayat, Ward No. 10, Pathanamthitta

Dysfunctional CWF due to jammed pump and most members of the User Committee Group members leaving the village. Also, most of the community members have access to private wells. Therefore, no efforts were made to restore the dysfunctional CWF.

Dysfunctional community water filter due to jammed pump

6. Thattakadu, Kadapra Koipuram, Gram Panchayat, Ward 10 (1), Pathanamthitta

CWF remained functional for 6 months after installation in 2018. The User Committee Group was active and functional within the same period. Decline in the level of groundwater was the main reason behind the filters becoming dysfunctional. Community here is willing to contribute a small amount for the O&M of the filter.

Filters become dysfunctional due to depletion of water level

7. Niranam Gram Panchayat Ward 7, Pathanamthitta

CWF remained functional for a year, post which the CWF pump got jammed, thereby making it dysfunctional. Till now, all the parts of the filter are well connected. Also, piped water supply connections introduced in the village further led to decreased ownership related to the CWF.

Dysfunctional water filter in Niranam Gram Pnachayat 7 Pathanamthitta

8. Niranam Gram Panchayat 7 & 8, Pathanamthitta

CWF remained functional for 6 months after installation in 2018. The User Committee Group was active and functional within the same period. Decline in the level of groundwater was the main reason behind the filters becoming dysfunctional. Community here is willing to contribute a small amount for the O&M of the filter.

Non Functional water filter in Niranam Gram Panchayat Ward 7 and 8 in Pathanamthitta

9. Niranam Gram Panchayat 8, Pathanamthitta

CWF was functional only for a month post which the pump got jammed and the filter became inactive. However, all the parts of the filter are still well connected even today.

The ownership of the user committee members reduced with time due to increase of piped water supply connections.

Functional Weter filter in Niranam Gram Panchayat 8, Pathanamthitta

10. Pandulam Thekkekara ward 1 (Perumpulickal), Pathanamthitta

CWF was still functional due to proactiveness of the Operator, a member of the User Committee Group, and the beneficiaries.

Well functioning Water filters and pumps in Pandulam Thekkekara ward 1, Pathanamthitta

Efforts made by the community to keep the source (the well) clean.

Dysfunctional water filter in Kattathi due to dropped water level
In Kattathi, Pathanamithitta

12. Irumpanam Kainakary,Kainakary Gram Panchayat, Alleppey

CWF used only for a month post installation, after which the pump stopped working. Soon it was replaced by piped water supply.

Non functional CWF in Irumpanam Kainakary, Alleppey

13. Kainakary South, Kainakary Grama Panchayat

CWF remained functional for 6 months since installation till the inlet pipe got choked with mud.

Choked inlet pipe of CWF in Kainakary South, Alappuzha

14. Pulinkunnu Grama Panchayat Ward no. 2, Alleppey

CWF remained active for 2 years post installation and became dysfunctional only when the well water level dropped in May 2020. Also, the pump of the filter was jammed.

CWF Functional till May 2022

15. Kayalpuram, Pulinkunnu Gram Panchayat Ward 12

CWF was functional and was used occasionally. The current issue with the filter was low water pressure and jammed pump.

Dysfunctional CWF in Kayalpuram, Kollam due to low water pressure and jammed pump

Annexure

Annexure 1: TRIOs Team

A multi-disciplinary Core Team was appointed for the Impact Assessment. The Core Team had experience of working on thematic areas of WASH and disaster mitigation and management. They were also experienced in conducting impact evaluations involving communities and institutions including schools. They have worked in Kerala in the past and were familiar with the local conditions, stakeholders, and government systems in the state.

The Field Team was also mobilized but due to the COVID-19 situation in Kerala, an alternate strategy was adopted for covering the sample.

The Core Team and Field Team composition is indicated in the organogram below:

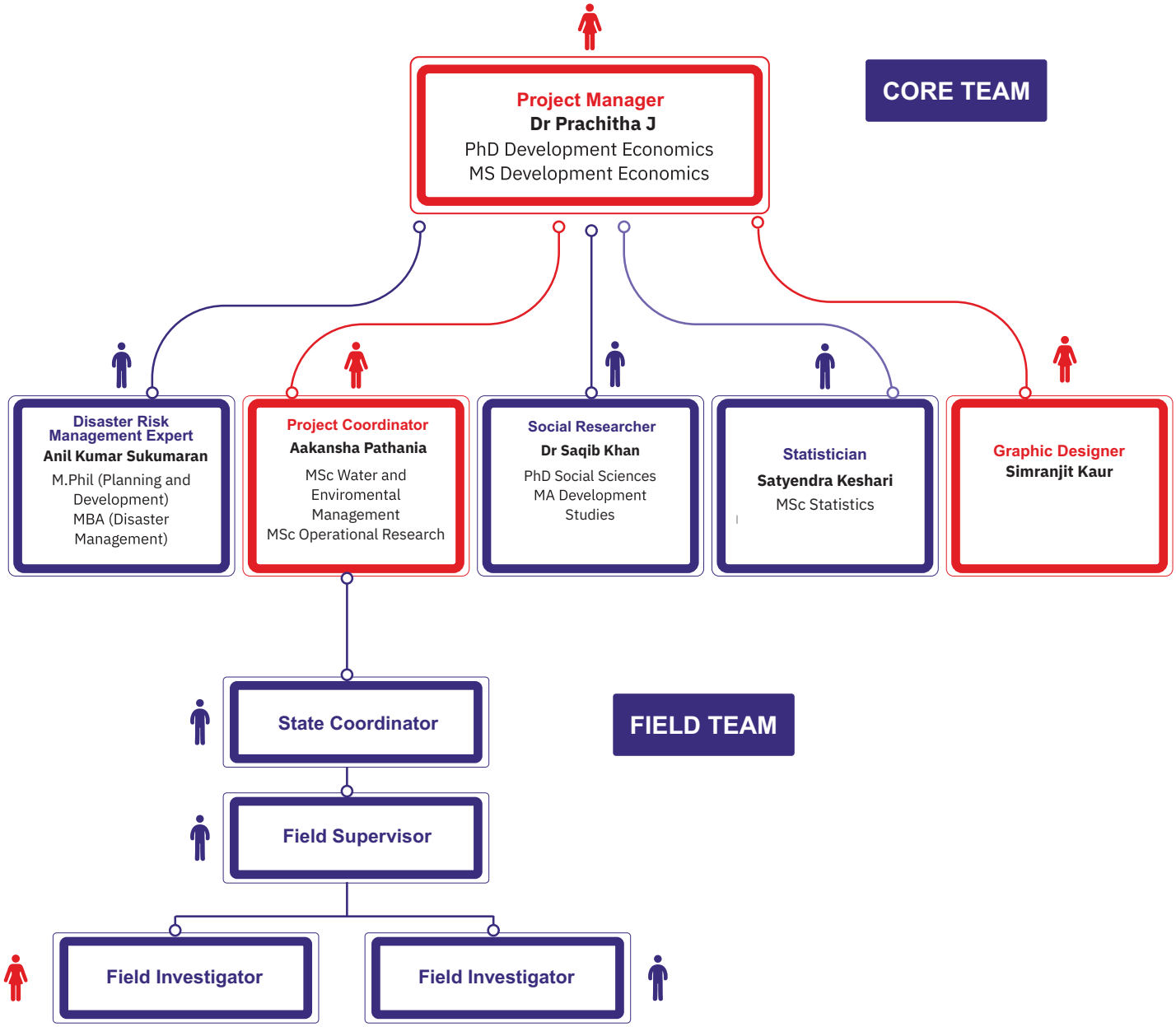


Figure: Core Team and Field Team members

Note: Back end technical support was provided by *TRIOs*

Annexure 2: Project component wise area of enquiry

Table 14 : Project component wise area of enquiry

Key Project Components	Target Group/ Stakeholder	Key Area of Enquiry
Access to safe drinking water in community (emergencies sue to floods)	Household Heads/ Water Committee members	• Respondent's Characteristics- such as family size, members socio economic background etc. • Access to drinking water source of drinking water, place of sources, time required to fetch the drinking water, quantity of drinking water required and availability, problem, water quality (physical observations), practices related to water storage, handling and treatment Functionality of primary source, details of secondary source of drinking water vis a vis flood and non-flood situations, water terrif, functionality and • other aspect of water user committee etc. **Section-II** • Benefits, rating, preferences of IEC/BCC and WASH infrastructure improvement (water filter) • Willingness to continue the WASH promotion in future • Issues/challenges and suggestions
Status and functionality of the Water Filter Installed	Field Based observations of infrastructure using observation checklist (the community perspective was to be captured in HH survey)	• Status and functionality of the water filters installed in project location vis a vis initial plan/DPR/ guideline and gaps (if any) • Quality of drinking water available after filtration (physical verification through taste, colour and smell) • O&M mechanism and its management including user charges etc. • Adequacy of the water filter vis a vis requirement in locality • Water testing report (if available from government/ other labs) • Cleanliness/ hygiene at water filter point etc. • Issues/ suggestions
Capacity Building/ Technical Assistance to government on disaster risk management and safe drinking water in emergency		**State/ District Level officials** • Overall policy framework and institutional mechanism on safe drinking water and disaster resilience at the state and district level • Type of inputs provided to state/ district under the project and its usefulness for system strengthening, sustainability elements of project etc. Challenges and suggestions etc. **Lead / Master Trainers, FLW community Level Trainers** • Process of planning of trainings, training calendar, roles responsibilities of various level of trainers • Efficacy and adequacy of trainings in terms of contents, duration, methodologies, resource persons, venue and logistics • Training evaluation records/ pre post / feedback analysis • Target vs achievements in various categories and levels of trainings, monitoring mechanisms • Review of quality of material and documentation done in trainings • Out come and impact of training on the beneficiaries in the pied (government functionaries' perspective) Challenge/ Issues/ suggestions
Project Design Planning and Efficacy and Quality of Process	NSE Foundation team Implementing Partner Team Desk Review	• Review of background material, log frame, theory of change, MIS (target vs achievements), background of project, planning, implementation of activities, monitoring, budgets, reporting, stakeholder feedback etc.
Sustainability Learnings, and Opportunities etc.	Triangulation and analysis of data from all above sources	• Sustainability aspects, learnings, success stories and challenges and suggestions • Success stories, best practices • Emerging opportunities etc.

Annexure 3: Summary Table of Mapping of Output Indicators

Output Indicators					
S.No.	Indicator	Planned Numbers	Achieved Numbers	Achievement (%)	Means of Verification
1	No. of Community Water Filters Installed	**20**	**20**	**100%**	Project Closure Report January 2018 shared by RedR India
2	No. of Household Water Filters Installed	**10**	**10**	**100%**	Project Closure Report January 2018 shared by RedR India
3	No. of water safety (quality and treatment) trainings delivered in districts	**10**	**10**	**100%**	Project Highlights Report - January 2019 shared by RedR India
4	Number of trainings on hygiene promotion, water quality operations and maintenance of the filtration units	**32**	**32**	**100%**	Project Closure Report January 2018 shared by RedR India
5	No. of community members trained on post-flood basic hygiene and sanitation care	**500**	**Over 500**	**100%**	Kerala Floods Rebuilding Lives: Towards Safe Drinking Water and Community Resilience Report
6	Number of families provided with access to safe drinking water	**400**	**693**	**Over 100%**	Project Highlights Report - January 2018 shared by RedR India
7	No. of water quality testing kits provided to district administration in 5 districts	**250**	**265**	**Over 100%**	
8	No. of ToT trainings on water quality testing and treatment in emergencies	**14**	**14**	**100%**	Kerala Flood Response Phase II Project Closure Report - October 2019
9	No. of frontline workers trained on water quality testing and treatment	**140**	**277**	**Over 100%**	Kerala Flood Response Phase II Project Closure Report - October 2019
10	No. of handholding trainings conducted at community level for their trainers to test their skills	**66**	**66**	**100%**	Kerala Flood Response Phase II Project Closure Report - October 2019
11	No. of trainings on landslide Risk Mitigation	**14**	**14**	**100%**	Kerala Flood Response Phase II Project Closure Report - October 2019
12	No. of PRI members, government officials, engineers and community members	**364**	**364**	**100%**	
13	No. of Panchayats trained on Landslide Risk Mitigation	**15**	**15**	**100%**	Project Closure Report January 2018 shared by RedR India

Annexure 4: Key Tasks undertaken by WASH Specialist in 3 districts

S. No.	District	Activity	Description
1	**Pathanamthitta**	*Organized and supported trainings on Behavior Change Communication for health workers and affected Panchayats*	In coordination with UNICEF the technical specialist organized trainings for health workers from 13 Panchayats which were the worst affected. Focussing on behaviour change communication this training was aimed at ensuring that health workers were able to effectively communicate critical lifesaving messages.
		Development of additional well treatment protocols	Despite regular well cleaning and chlorination, the water quality in wells were well below acceptable standards in several Panchayats. This was caused by contamination of groundwater which kept seeping into cleaned wells. To counter this the specialist treated the wells in a Panchayat with EM (Effective Microorganisms) Technology. This resulted in reduction of contamination levels in the treated wells to acceptable standards.
		Created guidelines for well protection septic tankand rehabilitation	Several WASH facilities that were damaged in the floods mainly wells and septic tanks. The specialist designed technical guidelines for rehabilitation of wells and septic tanks in a manner that would reduce the risk of further contamination.
		Additional capacity built on emergency water quality testing and treatment	On request of the Local Self Government Department, similar trainings on Emergency Water Quality Treatment and Monitoring for different Panchayats were organized and conducted by the specialist
2	**Alappuzha**	*Assessment of Damage to WASH systems in affected Schools*	The technical specialist worked with the district administration to conduct a survey of WASH needs in affected schools. The findings of the survey were useful to identify schools which needed urgent interventions towards the provision of drinking water.
		Assessment and Identification of Locations for deployment of UNICEF interventions including water supply systems and well rehabilitation	Working closely with UNICEF, the specialist was able to make recommendations to the agency which was looking to locate few of its interventions in the district
		Additional capacity building of KWA staff on Emergency Water Quality	Following training for frontline workers on the topic of Emergency Water Quality, the officials of Kerala Water Authority requested that an additional training be conducted for its frontline workers including pump operators. The specialist organized and conducted sessions during the one-day long training.
3	**Idukki**	*Development of Module on Landslide Risk Mitigation for Panchayats*	The specialist visited different landslide hit areas in the district and prepared a simple module on landslide risk mitigation targeted at informing Panchayat level officials on the topic and what steps could be taken to prevent it. The module aims at demystifying the concept of landslides, the different kinds of landslides, early warning signs and steps to mitigate landslide risk.
		Capacity building of Panchayat officials and leaders from 15 Panchayats on the steps for mitigation of landslide risk and water quality testing and treatment.	Based on the module prepared, the specialist conducted training sessions at the Panchayat level. These sessions covered water quality testing and treatment standards as well. As a follow up of the training, water quality testing equipment was handed over to the 15 Panchayats.
		Paper presentation on State-wide consultation on technologies for sanitation units in water-logged areas held in Alappuzha.	The specialist was invited to present a paper on the above-mentioned topic by Suchitwa Mission (Sanitation Mission of GoK) in Alappuzha. The paper which was presented was well received.
		Demonstration of Twin Pit Septic waste management systems	The prominent septic waste management system prevalent in Idukki are septic tanks. However, in the absence of septic waste disposal facilities in the district, these become significant WASH risks increasing the chance of contamination of groundwater. Twin Pit systems which are far less expensive and better at dealing with septic waste were therefore demonstrated in 20 locations across the district by the technical specialist.

Annexure 5: Summary of findings of Community Water Filters based on observation

Table: Detailed summary of findings based on observation of the CWFs and discussion with the CWF operator and user committee members

Please Note*: The green highlighted section indicates a good practice adopted by the community to sustain the use and functioning of the CWFs.*

S. No.	Location/ Gram Panchayat	District	Functional/ Non-Functional	Issues/ Challenges	Community Satisfaction with Quality	Water Quality Test Conducted	Results shared with the community	Remarks
1	Kainakary South, Kainakary Gramapanchay	Alleppey	Non-Functional	CWF was functional for 6 months since the time of installation. The inlet pipe got choked with mud which made the filter dysfunctional. User Committee eventually became inactive.	Colour - ✓ Taste - ✓ Odour - ✓	Yes	Yes	• Pump operator moved away within 3 months of CWF installation. • User Committee became inactive once the filter broke down. • Beneficiaries unwilling to pay O&M costs for the filter.
2	Pulinkunnu Gramapanchayath Ward 2	Alleppey	Non-Functional	CWF remained active for 2 years post installation and became dysfunctional only when the well water level dropped in May 2020. Also, the pump of the filter was jammed.	Colour - ✓ Taste - ✓ Odour - ✓	Yes	Yes	• Beneficiaries are willing to pay a small cost to revive the CWF. • Community primarily dependent on rainwater to meet their drinking water needs
3	Irumpanam Kainakary, Kainakary Gramapanchayath	Alleppey	Non-Functional	CWF used for a month, post which the pump broke down. Soon piped water supply was introduced in the village.	Colour - ✓ Taste - ✓ Odour - ✓	Yes. Post installation of the filter.	Yes	Beneficiaries are willing to revive the CWF to use it again. However, they are unwilling to pay the O&M cost.
4	Kayalpuram	Alleppey	Non-Functional	CWF is still functional and used occasionally, but there is issue of low water pressure and reduced power of the pump.	Colour - ✓ Taste - ✓ Odour - ✓	Yes. Before and after installation of the filter.	Yes	Beneficiaries willing to contribute partially towards the O&M cost of the filter.
5	Kadapra Koipuram Gram Panchayat Ward 10	Pathanamthitta	Non-Functional	CWF became dysfunctional within a month of installation due to the difficulty in usage of the pump which got jammed The User Committee was unable to maintain the filter as most members moved to other places.	Colour - ✓ Taste - ✓ Odour - ✓	Yes. Post Installation of the filter.	No	People have their own wells therefore, no efforts were made to maintain the CWF.

S. No.	Location/ Gram Panchayat	District	Functional/ Non-Functional	Issues/ Challenges	Community Satisfaction with Quality	Water Quality Test Conducted	Results shared with the community	Remarks
6	Thattakadu, Kadapra Koipuram Gramapanchayath Ward 10(2)	Pathanamthitta	Non-Functional	• CWF stopped being used one month post installation due to the taste and smell of chlorine in the water. The User Committee • was unable to maintain the filter. Pump broke down in • the first month itself and the user committee was unable to repair it. Various parts of the filter went missing.	Colour- ✓ Taste- × Odour- × Community reported issues of chlorine's taste and odour	Yes	No	Community members reported issues with the taste and odour of the water and then discontinued using it.
7	Thattakadu ,Kadapra Koipuram Grama Panchayath Ward 10(1)	Pathanamthitta	Non-Functional	• CWF and the User Committee fully functional for first 6 months • Decline in water level of source impacted CWF functionality. • Foot Valve broke	Colour - ✓ Taste - ✓ Odour - ✓	Yes. During installation of the filter.	Yes	Community willing to contribute for O&M of the dysfunctional filter. No mechanism in place yet
8	Pandulam Thekkekara Ward 1 (Perumpulickal)	Pathanamthitta	Functional	CWF still functional since October 2018. The source of water for the filter was changed from the panchayat's pipeline to a public well to address the pumping related challenges.	Colour - ✓ Taste - ✓ Odour - ✓	Yes. During installation of the filter.	Yes	• CWF still functional due to proactiveness of the Operator, a member of the User Committee Group, and the beneficiaries • Operator well aware of the technical functioning of the filter and refers to the O&M manual whenever needed • Efforts made by the community to keep the source (the well) clean Beneficiaries contributed to arrange for a shed for the filter
9	Niranam Gram Panchayat Ward 7	Pathanamthitta	Non-Functional	CWF functional for a year post which the filter's pump got jammed.	Colour - ✓ Taste - ✓ Odour - ✓	Yes. During installation of the filter.	Yes	Community unwilling to contribute for O&M of the CWF. Panchayat's Piped Water Supply is the primary source of water for the community

S. No.	Location/ Gram Panchayat	District	Functional/ Non-Functional	Issues/ Challenges	Community Satisfaction with Quality	Water Quality Test Conducted	Results shared with the community	Remarks
10	Niranam Gram Panchayat Ward 7 &8	Pathanamthitta	Non-Functional	CWF functional for 8 months post installation. TCWF pump was damaged during this time due to which the CWF became dysfunctional. Several parts of the filters - UF membrane and aqua plus chlorinator were lost in the 2020 floods.	Colour - ✓ Taste - ✓ Odour - ✓	Yes. During installation of the filter.	Yes	The area is flooded once in every 6 months. In every flood that hits the GP, the filter is damaged. The community is willing to contribute for the O&M of the filter if its site is changed to the hills, in order to keep it safe from damage
11	Niranam Gram Panchayat Ward 8	Pathanamthitta	Non-Functional	CWF functional only for a month post which the pump of the filter got jammed.	Colour- ✓ Taste- × Odour- ×	Yes. During installation of the filter.	No	Low community ownership due to presence of piped water supply and several households having private wells
12	Kattathi,Aruvappulam, Kallely Gramapanchayath Forest	Pathanamthitta	Non-Functional	CWF functional for 6 months post installation. Water level of the source (well) dropped and the pump got jammed due to which the filter became dysfunctional.	Colour - ✓ Taste - ✓ Odour - ✓	Yes. Post Installation of the filter.	Yes	Pump operator conducted regular maintenance in the 6 months when the CWF remained functional
13	Aranmula Grama panchayath Ward 6	Pathanamthitta	Non-Functional	CWF actively used for a year. Panchayat pipeline was the source of water. The floods of 2019 damaged the source water's pump. Due to the stoppage of water from the source, the CWF became dysfunctional. The floods of 2019 damaged the source water's pump.	Colour - ✓ Taste - ✓ Odour - ✓ Contaminants such as mud, small stones that were present in the water due to the floods were removed by the filter.	Yes. During installation of the filter.	Yes	Fully functional during 1 year, no breakdowns. O&M manual referred to address issues during this time. Community members are willing to revive the filter, however, they are not willing to contribute financially for it.
14	Chennaikunnu, Pandalam ,Thekkekara Gramapanchayath	Pathanamthitta	Non-Functional	The inlet pipe drew water from the Panchayat's 10000 Litre tank, which was the source of water. Leakages were reported in the inlet pipe due to which pipe was removed and parts of the CWF stored in a nearby house.	Colour- ✓ Taste- × Odour- × Community reported issues of chlorine's taste and odour	Yes. During installation of the filter.	No	CWF actively used for a month, after its installation in 2018.

S. No.	Location/ Gram Panchayat	District	Functional/ Non-Functional	Issues/ Challenges	Community Satisfaction with Quality	Water Quality Test Conducted	Results shared with the community	Remarks
15	Mullumala Girijan colony, Piravanthoor Panchayat, Mannarappara Forest range.	Kollam	Non-Functional	Drought faced by the Gram Panchayat after one year of the CWF installation. This led to low levels of water in the open well. Also, the pump has been inactive for the last two years.	Colour - ✓ Taste - ✓ Odour - ✓	Yes. During installation of the filter.	No. Results shared with the Forest Deptt Officials	Limited involvement of the Operator in the O&M of the CWF. Forest Department Officials involved in maintenance of the CWF

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STUDENT TEACHER EMPOWERMENT PROGRAM

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Impact Evaluation Study - 2022

Foreword

National Stock Exchange of India Limited (NSE), India's leading stock exchange, is committed to inclusive growth and prosperity. It believes that every individual, irrespective of the divisions in society, has an equal right to resources, and to be included in the country's development story. When a person's economic and social status improves, the community prospers, and by extension, the nation.

With this guiding principle, the group, through NSE Foundation, the implementing arm of its CSR initiatives, endeavours to improve the quality of life in the most disadvantaged communities. In doing so, it plants the seeds of transformation and inclusion.

The Foundation partners with the government, NGOs, multilateral bodies and academic institutions, to inspire, nurture, empower and sustain the aspirations of the communities it serves. Its projects plug gaps in social, economic and educational development in some of the most inaccessible geographies. From a larger standpoint, it also contributes to the fulfilment of the United Nations' Sustainable Development Goals.

Over the past few years, the Foundation has made steady progress in its core intervention areas of primary education, safe drinking water and sanitation, elder care, skill development, environmental sustainability, health & nutrition and disaster relief in underserved rural and urban communities.

NSE Foundation's district transformation programmes are currently implemented in the aspirational districts of Nandurbar (Maharashtra), Karauli (Rajasthan), Ramanathapuram (Tamil Nadu), Kiphire (Nagaland) and Birbhum (West Bengal), which was on NITI Aayog's initial list.

Through its programmes, the Foundation has reached over 12 lakh children, women, youth, and the elderly in more than 100 districts of Maharashtra, Madhya Pradesh, Rajasthan, Jharkhand, Telangana, Kerala, West Bengal, Tamil Nadu, Odisha, Assam and Gujarat. Apart from major presence in rural regions of the country, projects in urban districts of New Delhi, Kolkata, Chennai, Mumbai and Ahmedabad are also undertaken.

Primary Education programmes of NSE Foundation focus on improving quality of pedagogy leading to increase in learning levels among children from marginalised communities. This is achieved by making the learning process interesting and effective for children through fun activities, innovative teaching learning materials, games, visual aids, sports, singing and other activities. Most of the projects work in tribal belts and enhancing community buy-in towards importance of formal education is imperative. One such project was 'Student Teacher Empowerment Program (STEP)' in Sheopur district of Madhya Pradesh.

The programme went beyond enhancing the foundational learning outcomes and focused also on developing every child's personality by boosting confidence, increasing pro-activeness and responsiveness in class. The delivery model engaged local competent youth as Shikshan Mitra which not only gave comfort to the community but also created a skilled cadre of para teachers within the community to sustain the efforts post project closure.

This model proved valuable in the face of challenges posed by Covid-19 pandemic, since community classes continued amidst school closures and reluctance of families to send their children to school leading to continuance of education.

The programme was designed to achieve holistic and sustainable results, through collaboration with State government through Dakshata Unniyan, partnership with local administration, capacity building of principals and teachers by working with them and ensuring robust School Management Committees (SMCs) in each of the 40 intervention schools.

NSE Foundation believes that strong partnerships, participatory programmes and alignment to national goals can bring transformational changes in communities and we hope that through enhanced educational environment, we would build a better future for the children of our nation.

Acknowledgement

At NSE Foundation, we would like to thank everyone who has contributed to our endeavour to carry out CSR activities on behalf of NSE Group. First and foremost, we are grateful to the NSE Foundation Board, which plays a key role in providing guidance and support at all stages of CSR activities. We would like to thank each of our directors for their time, valuable inputs, enthusiasm, and encouragement to the team. We are also grateful for the advice and support of the Board and CSR Committee members of the NSE Group subsidiaries, the senior management of NSE Group, as well as our colleagues from various departments at NSE. Central, State and district administration officials contributed their ideas, thoughts and inputs to the design and field monitoring of the programme, for which we are immensely thankful. We acknowledge the tireless efforts of each and every community worker and field staff, who worked, often against great odds, especially during the pandemic, to ensure the smooth roll out and success of our programmes. We are also appreciative of the efforts of the programme monitoring and evaluation (PME) agency, TISS CSR National Hub and implementation partner- Learning Links Foundation (LLF). A special thanks to the many individuals who have supported the vision of NSE Foundation for equitable and inclusive development and participated in our journey to achieve these.

Table of **Contents**

Abbreviations

M.Sc.	Master of Science
NAS	National Achievement Survey
NEP	National Education Policy
NGO	Non-Governmental Organization
PE	Primary Education
PM	Project Manager
PTR	Pupil Teacher Ratio
RP	Resource Person
SC	Scheduled Caste
SEQI	School Education Quality Index
SM	Shikshan Mitra
SMC	School Management Committee
ST	Scheduled Tribe
STEP	Student Teacher Empowerment Program
TISS	Tata Institute of Social Sciences
TLM	Teaching Learning Material

EXECUTIVE SUMMARY

NSE Foundation,[1] which is a Section 8 company that undertakes the CSR activities of the National Stock Exchange of India Limited, initiated the Student Teacher Empowerment Program (STEP) to bring about systemic change across 40 government schools in Sheopur, Madhya Pradesh. NSE Foundation's project partner Learning Links Foundation (LLF) already had a presence in the district.

STEP aimed for behavioral change among the teachers, through a combination of role-modeling and capacity building. A team of 20 Shikshan Mitras (Resource Persons) were deployed to work in collaboration with 170 plus teachers across 40 assigned schools. These schools had more than 5000 children enrolled in them. The core objective included improvement in teacher capabilities to enhance learning outcomes for students in scholastic areas as well as in life skills.

The study was conducted at four levels to understand:

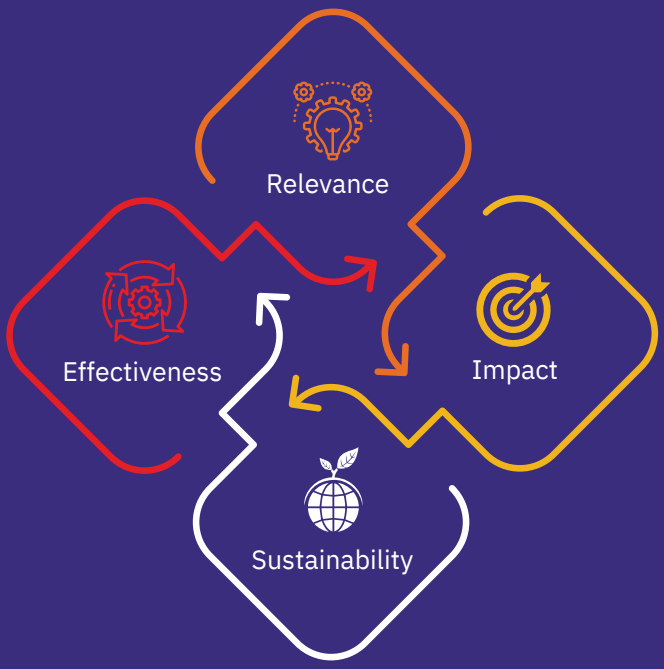
- The **relevance** of the program in assessing the extent to which the program is aligned to the needs of the community.
- The rigour of on-ground implementation, stakeholder involvement, and processes undertaken to ensure operational **effectiveness** of the program.
- The extent to which the intervention has **impacted** the lives of the beneficiaries.
- The ability of the beneficiaries to **sustain** the program financially, socially and, post the program intervention period.

The study also focuses on providing actionable recommendations to strengthen the program further.

The research design was based on a cross-sectional approach. Data was collected using a mixed method approach which included both qualitative and quantitative methods of research for data collection. For quantitative data, assessments and surveys were conducted among the

[1] https://www.nseindia.com/nse-foundation/about-us

students. For qualitative data collection, parents, shikshan mitras, project team, government officials, community volunteers, headmasters and teachers were interviewed through Focus Group Discussions (FGDs) and In-depth interviews(IDIs).



Key insights from the Impact Assessment Study

Based on the data collected from different stakeholders, the following key insights have been formulated:

Stakeholders reported an increase in attendance, enrollments and re-enrollments of drop-out students since the program intervention

- The community surveys conducted by the Shikshan Mitras, indicated that many children of age group 6 to 14 were still out of school. These out-of-school children were counselled by the Shikshan Mitras to seek school admission, leading to improved enrollments.
- Project team members indicated that the average attendance in intervention schools improved from 50-60% to 75% after the program intervention

The project enabled the teachers to pivot from traditional textbook-centric pedagogy to child-centric pedagogy.

- About two-thirds of the surveyed teachers reported having been involved with STEP for all three years with the average overall involvement at about 2.7 years.
- 99% of the surveyed teachers reported that the STEP intervention gave them the opportunities to upscale their pedagogical skills. Prior to the program, the teaching method was largely textbook centric with lectures being the sole mode of instruction. As a result of STEP, teachers have started to explore a more participative, activity-based teaching-learning model.

Post the intervention, teachers witnessed active parent participation in the school activities.

- 84% of the parent respondents reported that their involvement in there child's education has improved, While over 50% of the parents reported that they interact with the teachers on a monthly basis, 30% reported connecting with the teachers at least once in a quarter. 79% of the teachers reported low parental engagement among the parents in their child's education owing to low education levels and lack of awareness regarding the importance of education.

Chapter 1: Overview

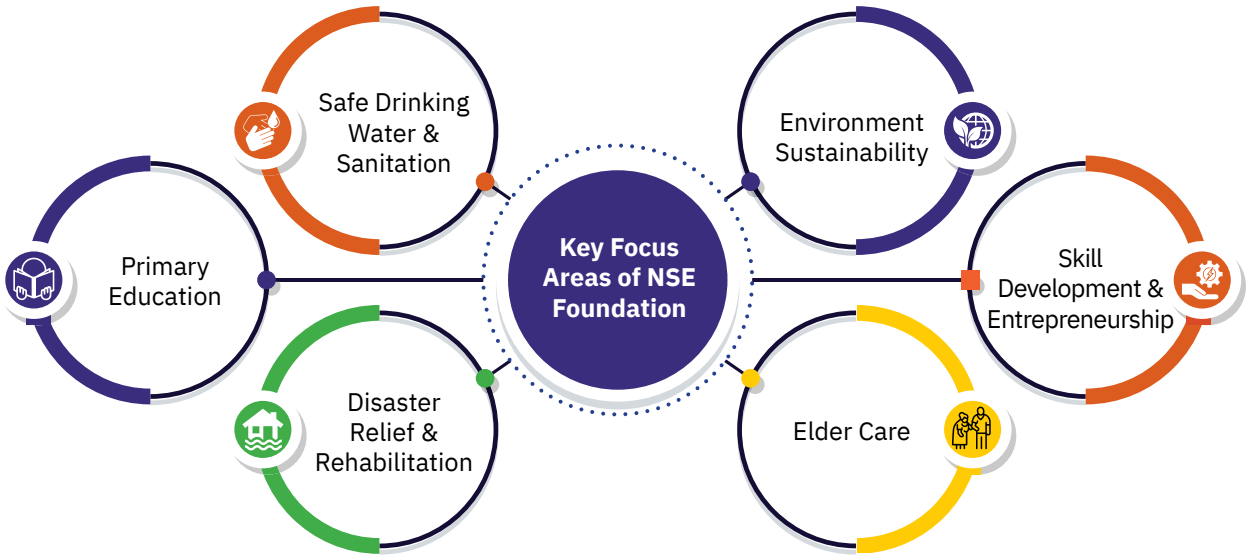
NSE Foundation

NSE Foundation undertakes the Corporate Social Responsibility activities of the National Stock Exchange of India Limited and its subsidiaries (NSE Group), with a broad vision to enhance the well-being of vulnerable and marginalized communities.

NSE Group constantly works to improve the financial well-being of people through a committed approach to offering investment products that suit the varied needs of the people.

The group further understands that the socio-economic well-being of any community is closely interlinked to their surrounding environment. It is in this context, NSE group strives to improve the quality of life of its program beneficiaries by creating inclusive societies.

Classroom make over activity done by students and teachers.



NSE Foundation follows an evidence-based approach that is strategic, participatory and is impact-driven. The foundation implements their intervention in seven core focus areas, with special emphasis on education, elder care, and sanitation and safe-drinking water.

NSE Foundation has supported over 75 projects across 10 Indian states, impacting more than eight Lakh beneficiaries through diverse programs. The foundation ensures program sustainability by aligning all programs with state and local governing bodies. The programs are implemented with the support of implementation- partners with domain expertise and a presence in the identified geographies.

Learning Links Foundation (LLF)

Learning Links Foundation is a non-profit organization dedicated to enriching lives through learning. They have a presence across all Indian states with a purpose to transform learning by unlocking its lifelong role and impact.[2]

Student Teacher Empowerment Program (STEP)

NSE Foundation initiated the Student Teacher Empowerment Program (STEP) as a part of its CSR initiative in Sheopur district in Madhya Pradesh. The main objective of the program was to bring about systemic change across 40 government schools in collaboration with Learning Links Foundation (LLF). The program operated from October 2017 to March 2021.

Demographic Background of the Target Population

The intervention district was chosen after assessing the demographics and status of education at the location.

Sheopur district has a large tribal population (~24% of total)[3]. The Saharias of Sheopur are among the lesser developed tribal groups of India. The district is quite close to the neighbouring states of Rajasthan, Gujarat and Uttar Pradesh. The forest plays a vital role in the district economy with almost 60% of the total land area under forest cover. The connectivity of Sheopur with other districts is poor as it is

[2] https://learninglinksindia.org/

[3] https://censusindia.gov.in/2011census/dchb/DCHB_A/23/2301_PART_A_DCHB_SHEOPUR.pdf

[4] Census 2011

connected by meter gauge rail only to Gwalior, though roads provide connections to Sawai-Madhopur and Baran in Rajasthan, and with Morena, Gwalior and Shivpuri districts of Madhya Pradesh. Sheopur's literacy rate is around 57%.[4], illiteracy levels are much higher amongst women, and even more among tribal populations.

District Sheopur in MP's Map

Status of Education in Target Location

The children aged between 6 to 14 years residing in Sheopur and Karahal blocks of Sheopur district were the primary beneficiaries of STEP. These children face various challenges with respect to their education indicating a need for such a program.

More than 75% of MP's population resides in rural areas and is home to the largest number of Scheduled Tribes (STs) in India, comprising approximately 21% of the total state population. The community members of Sheopur commonly work as farm labourers. The district has been affected by droughts in the last few years, which have impacted agricultural activities in the district. Lack of local employment opportunities induces many from the tribal population to migrate to Gujarat to work in the cotton fields. A few also migrate to major cities in the neighbouring states, including Ahmedabad in Gujarat, Jaipur in Rajasthan and Kanpur in Uttar Pradesh. Migration has been particularly acute in Karahal and Vijaypur Blocks of Sheopur district. This disrupts the education of children as they typically move with their families. With learning disrupted, most of these children dropout from school education altogether.

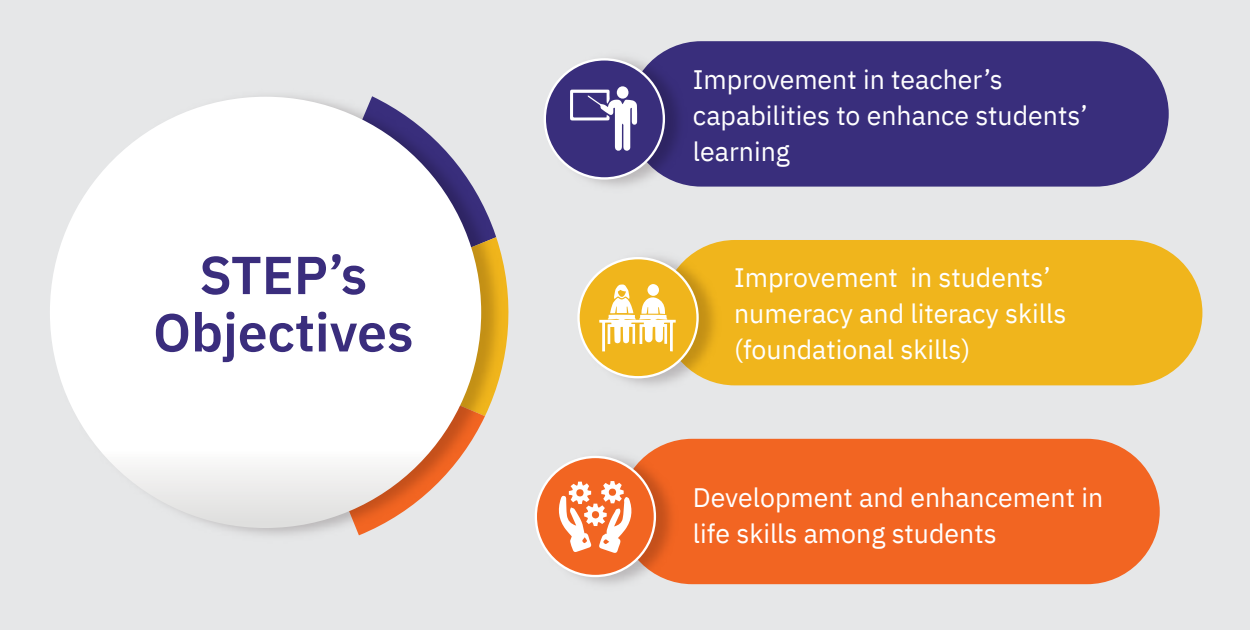
Of the 52 districts in Madhya Pradesh, Sheopur ranked 43rd in NAS 2017 assessment for both Grades 3 and 5, indicating poor learning outcomes.[5] This indicates the poor level of primary education prevailing in the district.

Student Teacher Empowerment Program (STEP) in Sheopur, MP

NSE Foundation initiated the Student Teacher Empowerment Program (STEP) in October 2017 to bring systemic change across 40 government schools in Sheopur district of Madhya Pradesh. The program partner LLF already had a presence in Sheopur, which facilitated an understanding of the local communities and the reasons for the abysmal learning levels of the region. LLF also brought pre-existing working relationships with state education departments across different levels, which helped in aligning the program with Madhya Pradesh's existing initiatives such as Pratibha Parva. The initiative was launched in the selected primary schools across two blocks (Sheopur and Karahal) in Sheopur District. The objectives of the program are outlined in the infographic below.

Resource person engaging with the students

[5] https://ncert.nic.in/pdf/NAS/src/Madhya%20Pradesh.pdf



A preliminary study to identify the existing challenges in the schools was conducted prior to the program. According to the study, teacher absenteeism and non-functional SMCs were concluded to be the major issues.

Teachers are the most important drivers of change in any effort to bring about sustainable transformation of the education system. Many on-going teacher training programs had been ineffective as the training programs could not address the on-ground challenges faced by teachers in schools. STEP introduced a unique mentoring and monitoring approach through the Shikshan Mitras (SMs) or Resource Persons. Aiming for behavioural change among the teachers, a team of 20 Shikshan Mitras adopted an approach of role-modelling and capacity building in these schools. The SMs were managed by the project manager who reported to LLF's central team. The key stakeholders of STEP are indicated below.

2000
Plus
Parents

40
Government Schools
(26 in Sheopur Block &
14 in Karahal Block)

5000
Plus
Children

170
Plus
Teachers

20
Shikshan Mitras
& the Project Manager
Guided by the Capacity Building team and the senior management of project partner LLF

38
Community
Volunteers
running 36 Community
Learning Centres

Government
Department

The foundation engaged TISS National CSR Hub as their M&E Partner for STEP. The program's three-year contract period concluded in October 2020. Considering the additional challenges posed by COVID-19, a smooth phase-out approach was adopted, which retained the supervision and support of the Project Manager from LLF until March 2021.

Disruption due to COVID-19 in 2020

The COVID-19 pandemic affected the program for 6 to 7 months from April to October 2020, and disrupted LLF's on-ground presence for a whole year until March 2021. Since schools were shut during the lockdown in 2020, the program modified its approach and focused on two aspects as mentioned below.

- Building community ownership to ensure continuity and sustainability of learning for the children. Community Learning Centres (CLCs), or Bal Siksha Sabhas were set up under the supervision of the STEP team. Young, local community volunteers, teachers and SMCs were engaged to run these centres.
- Enhancing the reach of MP Government's Digital Learning Enhancement Program (DigiLEP) as the program helped students obtain access to DigiLEP content. Shikshan Mitras facilitated the process by connecting school authorities, teachers, parents, and students through WhatsApp groups, and by sending instructions and assignments on SMS.


NSE
हमारी
बाल शिक्षा
सभा


हमारी
बाल शिक्षा
सभा

Chapter 2:
Approach and Methodology

Objectives of the Impact Assessment study

PROVE

To assess the improvement in education of primary school children impacted by the project

- To improve access and quality of primary education to the children from disadvantaged sections, children
- To enhance the capacity of stakeholders to deliver better quality of education to the disadvantaged
- To develop a holistic educational model for strengthening and enriching the demand side of Right to Education

TO IMPROVE

- Rigor of implementation on ground to bring the intended result on time and risk mitigation strategies
- Capacity of delivery organizations on ground for effective project delivery and meeting outcomes
- Enable long term sustainability of the intervention

Study Design and Methodology

Sattva undertook a descriptive cross-sectional study where data has been collected from the beneficiaries around the previous and current status of outcome indicators to quantify the changes affected by the intervention.

Sattva conducted an impact assessment study for the program using a mixed-method approach consisting of quantitative techniques such as surveys, and qualitative research techniques such as focus group discussions (FGDs), in-depth interviews (IDIs); both primary and secondary data collection methods were used.

This helped to gather valuable impact-related insights from a 360-degrees angle across the stakeholders involved and served as a fundamental resource for providing recommendations around ways to inform the program strategy for the future.

The methodology for the impact assessment exercise encompassed developing a set of research questions based on the Organization for Economic Cooperation and Development's (OECD) Development Assistance Committee (DAC) framework to draw evidence for each program. This would further help draw out a reasonable set of conclusions within the constraints of time, availability of information and depth of the research.

Sampling and Outreach

Sattva adopted a Stratified Random Sampling approach to ensure the right representation of the population in the impact study across partner organizations for each of the interventions. The sample size was calculated using the population frame (all beneficiaries of the intervention) with 95% confidence level and 5% margin of error.

On-field data collection

Field data collection was undertaken in two phases and was conducted by trained enumerators and assessment team members. The data collection started in March 2021, but was disrupted due to the second wave of COVID-19. The remaining data could only be collected in September and October 2021. Data collection was supported by teachers and community volunteers managing the Community Learning Centres of the program. In October 2021, assessment data was collected largely from government schools, as most of the Community Learning Centres were not functioning.

The team also connected with the following stakeholders to gather insights about the program:

	Data Collection Tools Employed			
Stakeholders	Assessments	Surveys	FGDs	IDIs
Parents		134	5	
Students	832	103		
Teachers		78	3	
Principals				6
Government Officials				2
Community Volunteers				10
Project Team including Shikshan Mitras and Project Manager			3	5
Others including LLF's Senior Management, TISS and NSE Foundation				5

Ethical considerations of the study

The assessment followed the ethical protocols in all aspects and at all stages of the engagement based on the discussion with the team :

- As part of data collection, team members followed ethical protocols by explaining the purpose of the study and ensured informed consent from the participants.
- The interview sessions were conducted in an environment that ensured the privacy of respondents as per their convenience and comfort.
- The respondents were assured about the confidentiality of their personal information and the usage of data only for research purposes.
- The participation of respondents was ensured as being voluntary, and they were not compelled to answer any questions.

Limitations of the study

Covid-19 impacted not only the program, but also the assessment. The following were the key limitations imposed by the pandemic:

- Not all the teachers were available for the survey due to closure of schools in March 2021. Despite significant efforts to follow-up, only 50% participated in the survey.
- Since the project had already concluded by October 2020, some project related documents could not be accessed, and many resource personnel could not be reached.
- Learning losses due to Covid-19 would be reflected in the assessment data for students in the intervention schools.LLF's baseline and endline assessments are not comparable with Sattva's (NAS) tool. Since the last NAS report was in 2017, in the pre-covid times, it is also not comparable.

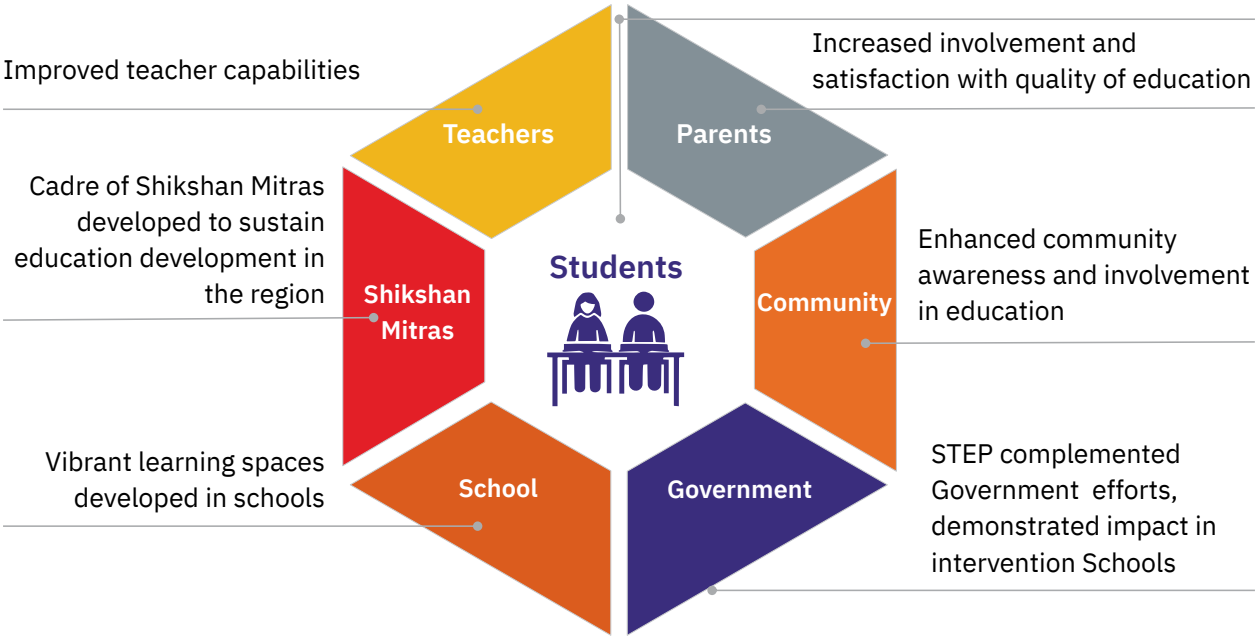
Chapter 3: Findings of the Impact Assessment Study

The following section of the report details the key results and insights of the impact assessment study across the DAC standard parameters as outlined in the framework for the study. The insights have been drawn using the 360-degree approach of data collection by gathering data from qualitative and quantitative methods by engaging with different stakeholders of the program.

This section details out the impact of STEP from the perspective of different key stakeholders, as shown in the infographic below:

Impact Snapshot

1. Generated greater student interest, offered holistic development
2. Improved enrollment, attendance and involvement of students



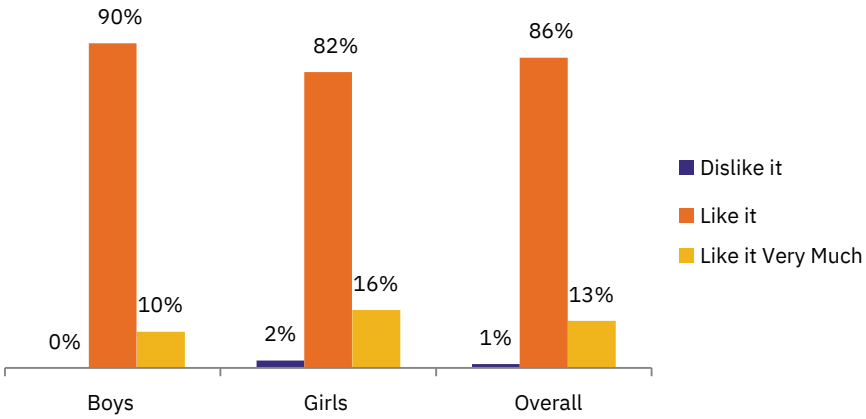
Students

1. Stakeholders reported significant improvement in students' participation in learning activities; the program offered avenues for holistic development and improved the quality of education

- By conducting a variety of extracurricular and group activities, the STEP program focused on scholastic and holistic development of children.
- 86% of the student respondents reported that they enjoyed attending school while almost all students understood that their classroom learnings can be applied outside school.

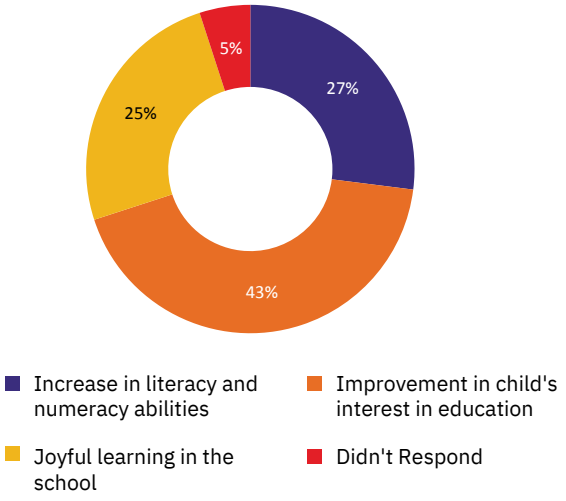
Resource person co-teaching the students with the teacher

Students' response regarding how much they like going to school (% boys, girls, overall) (N 103)



- As per teacher respondents, focus on extracurricular activities had a spill-over effect on students' interest in scholastic activities and general behaviour. Prior to the program, children did not observe common courtesies like greeting teachers or seeking permission to step out of class
- Almost half the parent respondents (43%) felt that the program created more interest in education. 27% and 25% of the parents reported observing improvements in their child's literacy and numeracy skills respectively. Teacher respondents also reported that students finished their homework/assignments in time more often.

Changes observed in child's learning as reported by parent respondents (N 134)



- Teachers' observed a significant behavioral change through the way students conducted themselves at school. The headmasters highlighted that the quality of education in intervention schools had improved as a result.

2. Though the program successfully inculcated foundational literacy skills amongst students; there remains scope for improvement in learning outcomes for higher grades.

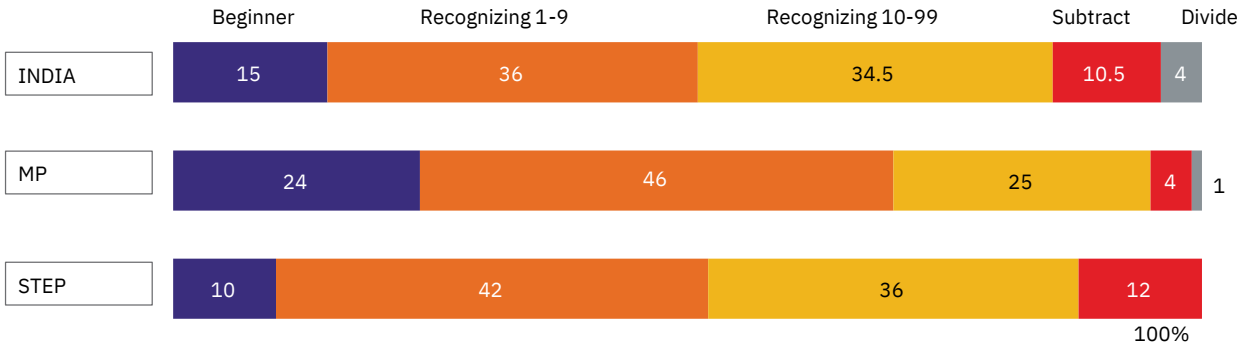
- To assess foundational skills acquired by students, different assessment tests were used. For grade 2 ASER assessment was administered. For grades 3, 4 and 5 NAS assessment was used. Since the baseline statistics on student assessments at the beginning of the program were inaccessible, the team decided to compare the learning outcomes of grade 2 students with ASER 2018 data for state and country.

It is worth noting that the benchmark NAS 2017 scores used in the study for comparison currently do not account for the potential learning losses caused by the Covid-19 pandemic and the subsequent lockdown (which will be covered under the NAS 2021 exercise currently being undertaken). The following table summarises the assessment universe for STEP intervention schools:

Grade	Number of Assessments	% Representation	No. of Assessments in Sheopur Block	No. of Assessments in Karahal Block	Type of Assessment
2nd	50	6%	35	15	ASER
3rd	259	31%	174	85	NAS
4th	242	29%	145	97	NAS
5th	281	34%	157	124	NAS
	832		511	321	

2nd Grade

Arithmetic- ASER assessment of Grade 2 students indicated that the performance in arithmetic among assessed students was closer to the all-India data and slightly better than the MP data. Since this data set is relatively small (N=50), this result, while being indicative, may not be representative of the performance for all Grade 2 students.



Language (Hindi)- Assessment of grade 2 students in language (Hindi) indicate that the performance of assessed students here too was closer to the all-India data and slightly better than the MP data.

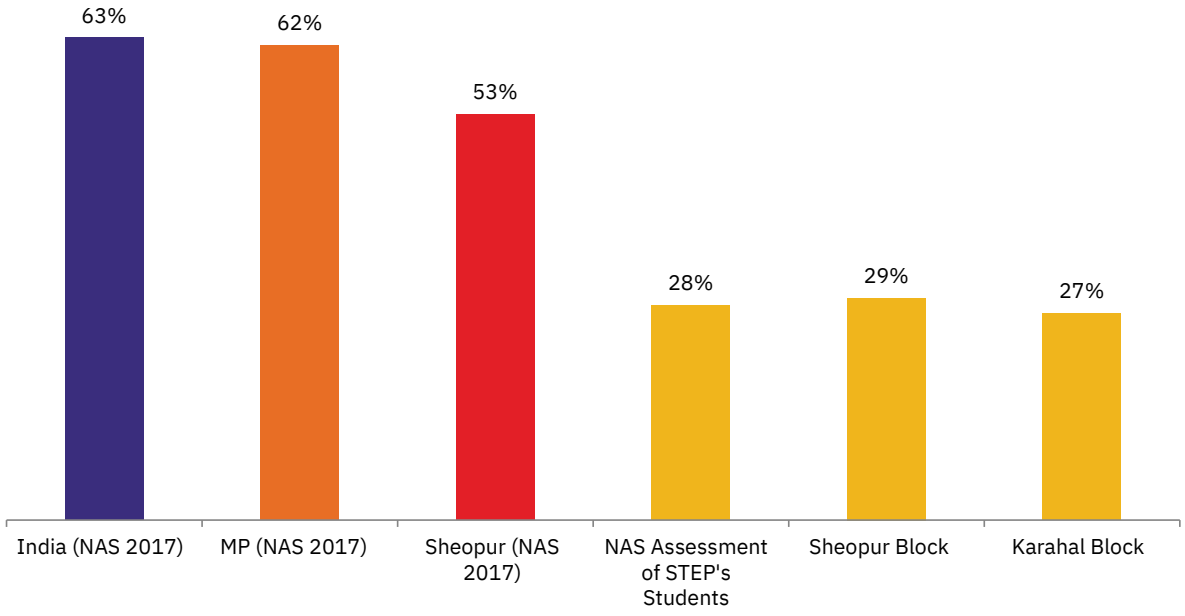
3rd Grade

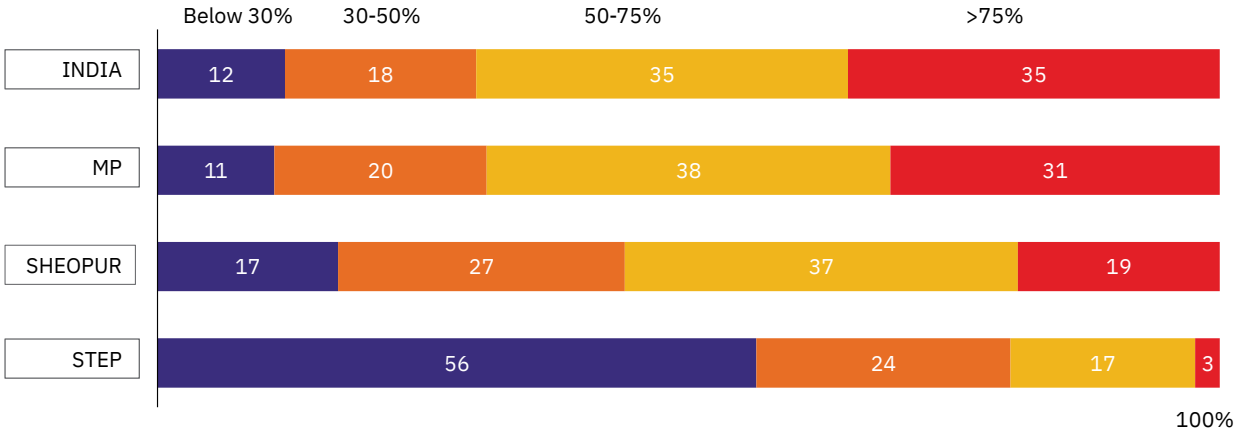
Arithmetic

Student's average performance has been at 28% (All STEP students). Parents and teachers were indicative of the fact that the numeracy and literacy skills improved among the students.

Grade 3 – NAS Arithmetic Average Performance of Students

Range of Performance of Students who answered correctly



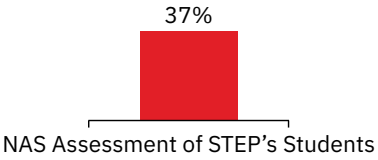


Language (Hindi)

Approx. 38% of the assessed students scored in the range of 50% to 100%.

Range of Performance of Students who answered correctly

3rd Grade Language (Hindi) Average Performance of Students

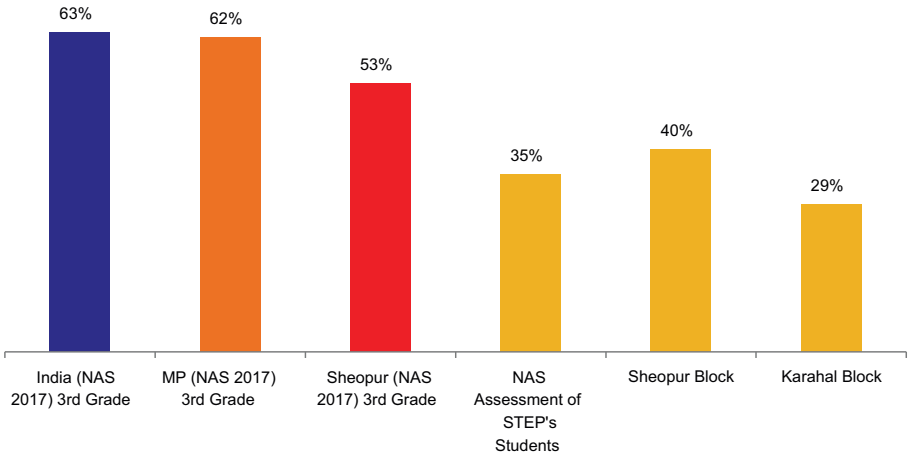


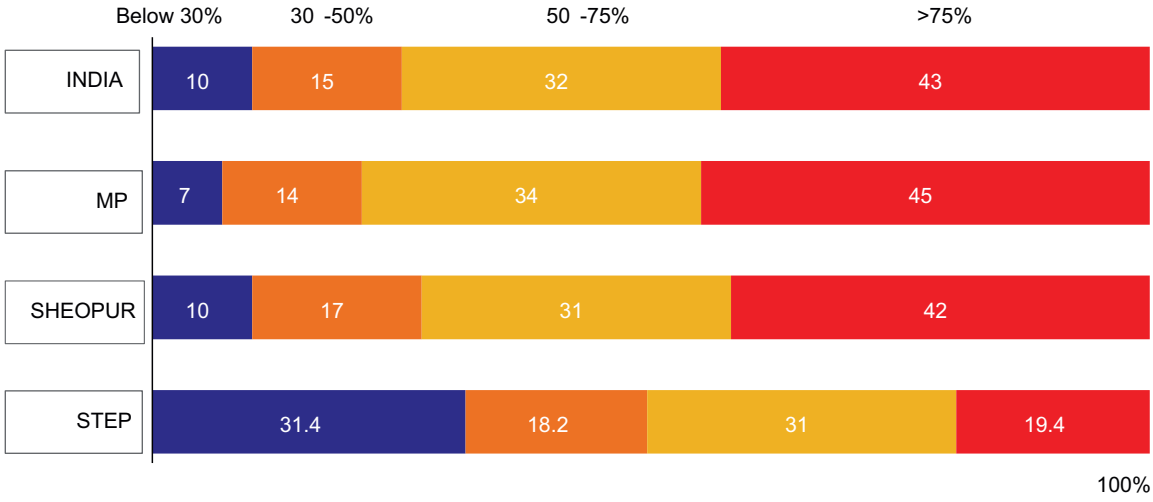
4th Grade

Arithmetic

Performance of students from Sheopur Block was relatively better than the Karahal Block. About 31% of the assessed students scored in the 50% - 100% range.

Range of Performance of Students who answered correctly



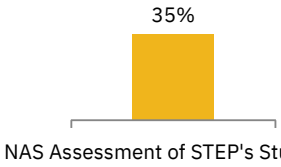


5th Grade

Arithmetic

Nearly 26% of the students scored in the range of 50% -100%.

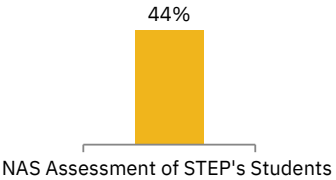
Range of Performance of Students who answered correctly

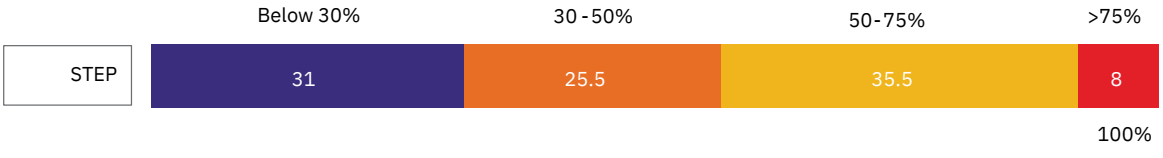


Language (Hindi)

Students from Sheopur Block performed slightly better than those in Karahal Block. In general, the students' performance in Language (Hindi) was better than in Arithmetic as nearly 44% of the assessed students scored in the range of 50% - 100% in Hindi.

Range of Performance of Students who answered correctly





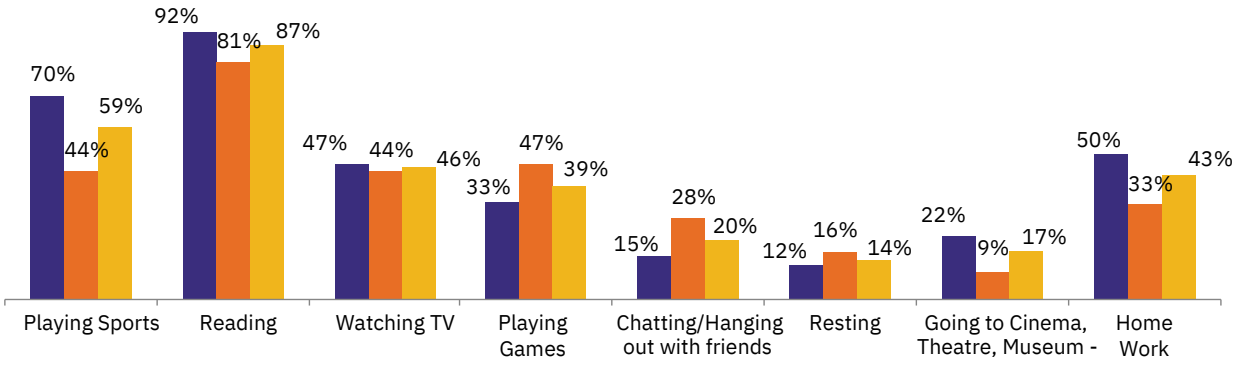
3. The program successfully improved soft skills amongst student beneficiaries through extra curricular activities; there is scope for improvement in the participation rates of students in such activities

- Prior to the intervention, extra-curricular activities were limited in the schools.
- After the intervention, several activities like a house system, inter-house competitions and weekly group activities were introduced in school. Additionally, life skill sessions on subjects like empathy, problem-solving, and kitchen gardens were also implemented.
- The program team also provided materials during Covid 19 like drawing books, colours and other stationery for use at home during the lockdown. Oral hygiene was emphasised with dental kits being distributed to the children.
- Nearly 25% of the surveyed students responded that they had taken part in non-academic/extracurricular activities in their schools.
- As per teacher respondents, activities improved attendance amongst students and also increased soft skills like confidence and communication skills. A majority of the student respondents (80%) who participated in extracurricular activities were able to recite their favourite poem or story confidently when asked.

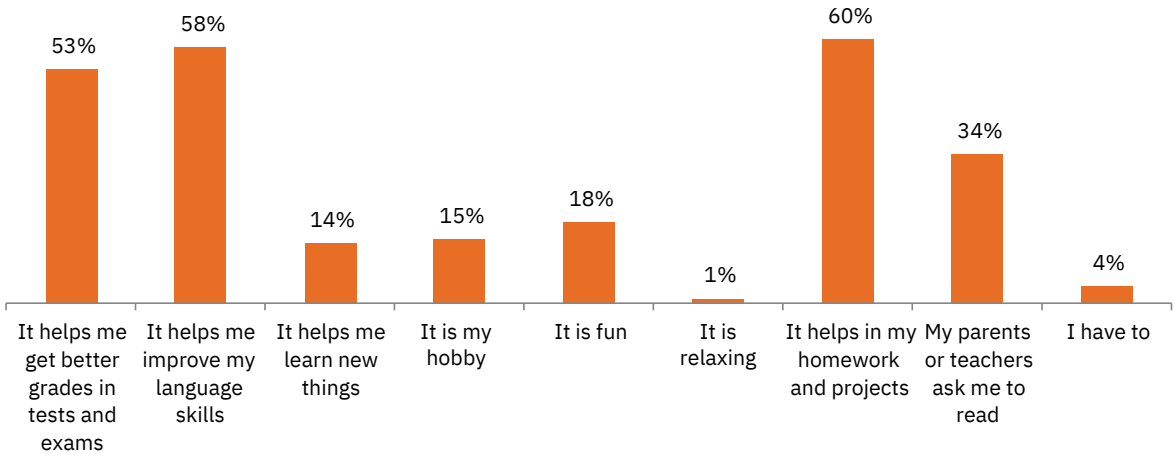
4. The program successfully cultivated hobbies like reading and sports amongst students

- As part of STEP, libraries were set up in schools with around a hundred books provided to cultivate reading habits amongst children. 87% of the students reported that they have started to enjoy reading in their free time. Playing sports and watching TV were also reported as hobbies amongst students.
- Amongst students who liked reading books, most children reported/ stated that they enjoy reading their schoolbooks, while 25% reported that they like reading story books. Both boys and girls reported that they read between one and five books per month.

Free-time activities reported by the students (by gender, and overall) – % involved in each activity (N 103)



Reasons for Reading by the Students (%) (N 103)

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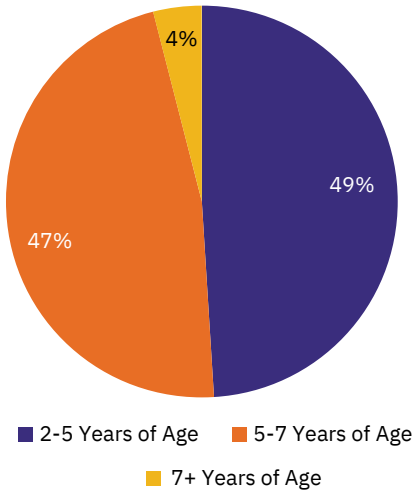
5. Stakeholders report increased attendance, enrollments and re-enrollments of drop out students post the intervention.

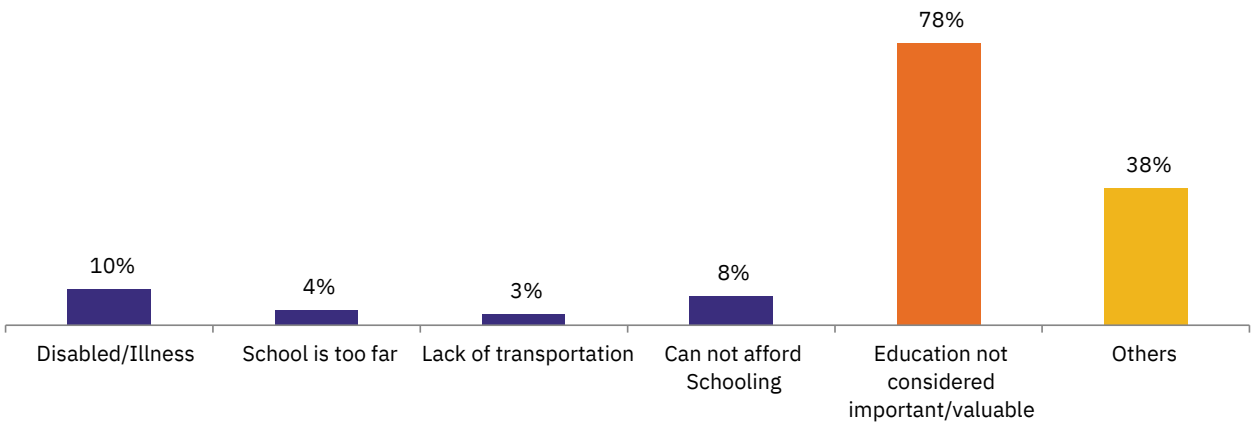
- Enrollment was not identified as a major challenge since national statistics reflect extremely high or near-universal enrollment at the primary school level. However, from the community surveys by the Shikshan Mitras, it was found that many children of school going age (6 to 14) were still out of school. These out-of-school children were counselled by Shikshan Mitras to seek school admission, leading to improved enrollments.
- Seasonal absenteeism was listed as a major concern by the majority of the teaching staff (74%) prior to the intervention. Migration for work amongst the tribal communities of the Karahal block had a major impact on learning outcomes of the students due to long disruptions in their education.
- Taking care of younger siblings (when both the parents are employed) and the general sentiment of attaching low importance to education were cited as other major reasons for high absenteeism.

Children's Age at the Time of Enrollment (Parents' Survey) (N 134)



students learning from the teacher

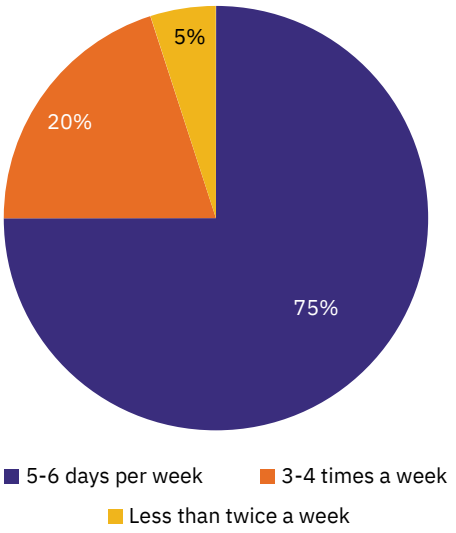
Major reasons cited for low attendance of children prior to STEP intervention (N 78)



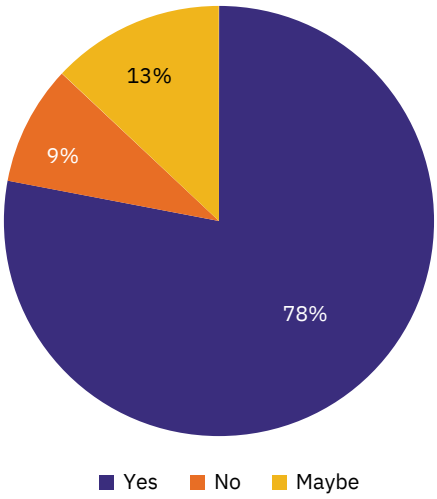
- The program team successfully addressed these concerns through counselling sessions with parents. Discussion with the project team members indicated that the average attendance in intervention schools improved from 50-60% to nearly 75% post-intervention.

- Students reported attending schools more than 5 days a week on average, with a majority (80%) attending schools on all 6 days of the week. Similarly, a majority of parent respondents (75%) observed their children attending schools regularly (5 – 6 days per week) post the intervention.

Child's Frequency of Going to School During STEP (N 134)



Increase in Attendance Since the (N 134)



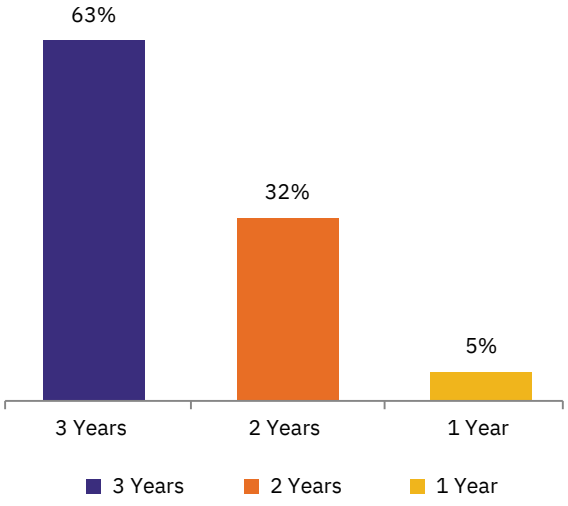
6. The project led to enhancement of child centric pedagogy skills amongst teachers

- Majority of the surveyed teachers (~82%) reported teaching experience of more than 10 years, and about a third of them were female. Two-thirds of the surveyed teachers reported teaching all the subjects. They mentioned spending 4-8 hours in school per day.

- About two-thirds of the surveyed teachers reported having been involved with STEP for all three years with the average overall involvement at about 2.7 years.

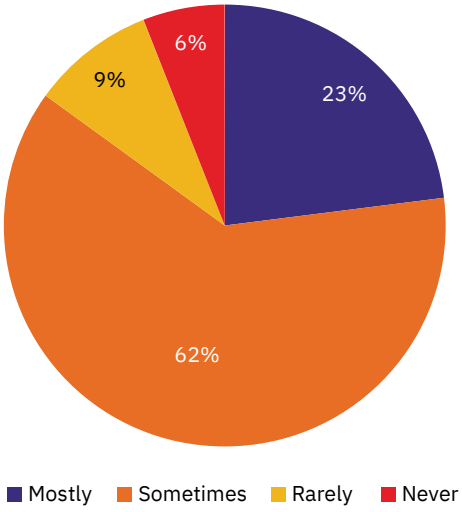
- Lower than 3 year engagement rates were a result of transfers and new appointments

% Teachers in Terms of Duration of Participation in STEP (N 78)



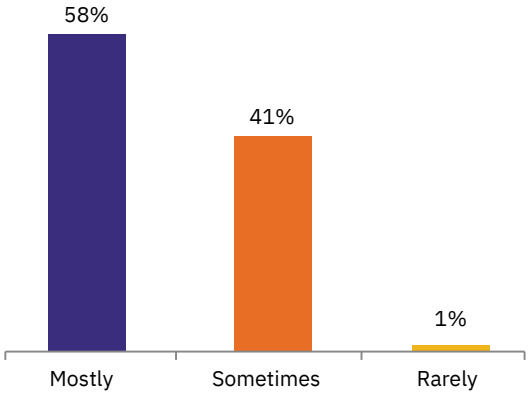
- A majority of the teacher respondents (83%) reported limited opportunities for teachers to up-skill themselves in schools before STEP intervention commenced.

Did the teachers lack opportunities to up-skill their learning in schools prior to STEP intervention (N 78)?



- 99% of the surveyed teachers believed that the ***STEP intervention gave them the opportunity to upscale their pedagogical skills***. Prior to the program, the teaching method was largely textbook centric with lectures by teachers being the sole mode of instruction. STEP intervention transformed this into a more participative, activity-based learning with greater emphasis on life skills.

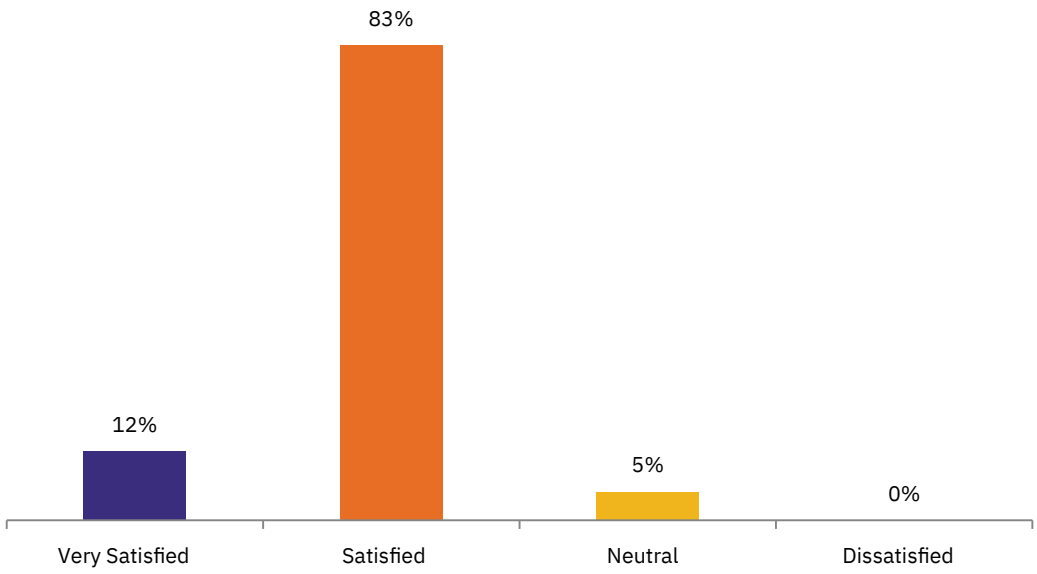
STEP upscaled the pedagogical skills as per teacher respondents (N 78)



data collector surveying a parent

- When asked to rate the effectiveness of STEP's approach to teaching, a majority of the teacher respondents reported being 'Satisfied' (Rating between 5 to 7 on a 10-point scale) while 12% being highly satisfied (a rating of 8 or more).

Ratings on Support in Pedagogy through STEP (By Teachers) (N 78)

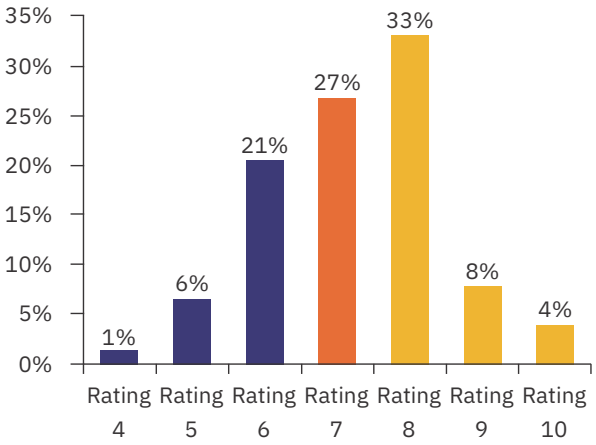


- Teachers (67%) reported that the SMs conducted joint reflective sessions with individual teachers to improve the learning outcomes of children.

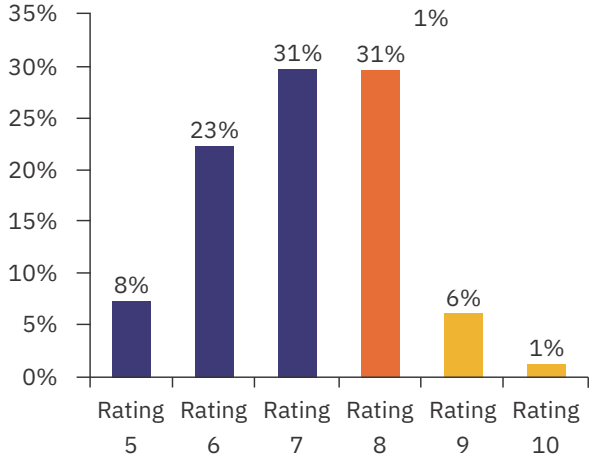
7. Highly rated community fellows ensured effective delivery of learning material and ensuring successful implementation of the program

- A majority of teacher respondents (72%) rated the SMs medium to high (ranked 7 to 10) in terms of their visibility of their goals, ~69% rated them medium to high (ranked 7 to 10) on their knowledge and information about their subject of specialisation.

Rating by Teachers on SM's Visibility of their Goals (Total 100%) (N 78)



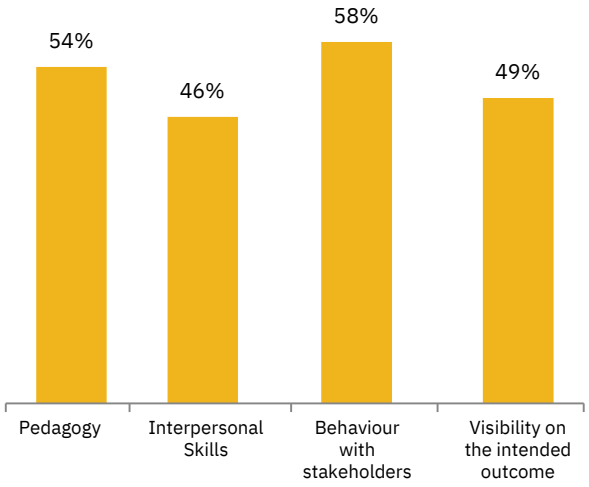
Rating by Teachers on SM's Knowledge on Content Specialization (Total 100%) (N 78)



data collector surveying the parents

About half the teachers mentioned potential areas of improvement for the SMs:

SMs' Areas for Improvement (Response from % of Teachers) (N 78)



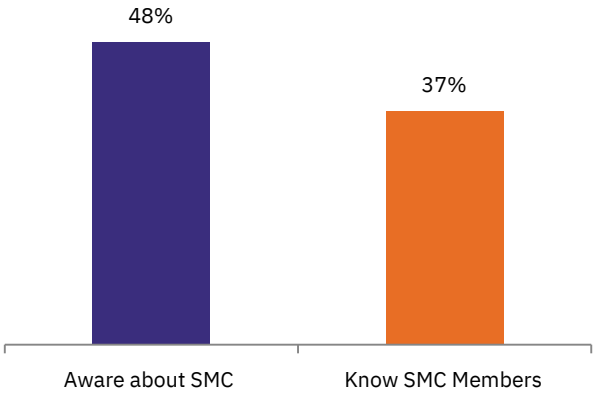
8. Teachers report an increase in parent participation and awareness regarding school activities; parent respondents view the program favourably

- Parent respondents believe that the program had helped generate interest in education among children and had led to an increase in school attendance. Most parent interviewees also reported improved hygiene, confidence and discipline post the intervention.

> "Earlier most people trusted private schools. However, now due to the STEP program a few parents have moved their children to government schools. Level of competition has significantly increased in government schools"
>
> Parent respondent

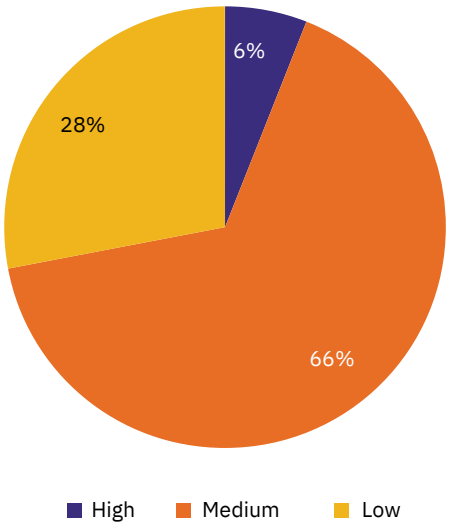
- Most of the surveyed parents (87%) reported that they were either satisfied or very satisfied with the quality of education provided to their children in their schools.
- Almost half the parent respondents (48%) were aware of the school management committees (SMCs). Approximately 25% of surveyed parents reported being SMC members themselves.

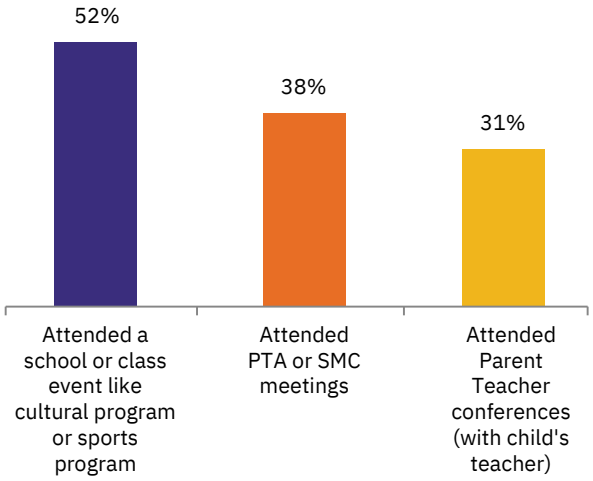
Parents' Awareness of SMC and SMC Members (N 134)



- Most of the surveyed parents (~94%) reported that their involvement in their children's education was ***medium to low*** before the start of STEP. After the program, ***84% reported that their involvement had increased.***

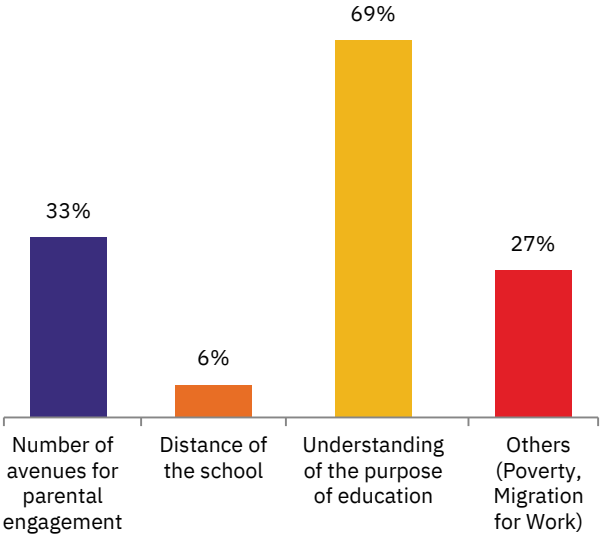
Parent's involvement in children's education pre-STEP (N 134)





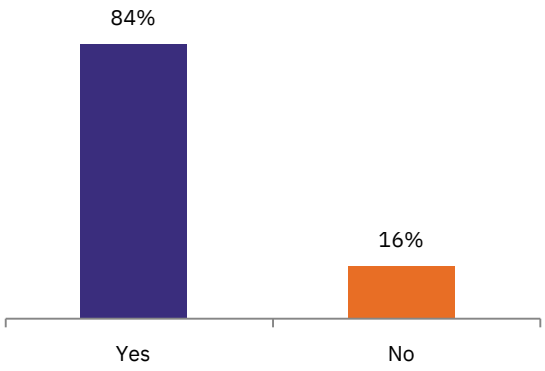
- Similarly, most of the surveyed teachers (~79%) also reported that they encountered ***low parental engagement*** in children's education before step owing to low education levels amongst parents and low importance given to education as a result.

Key reasons as reported by the surveyed teachers for low parental engagement pre-STEP (N 78)

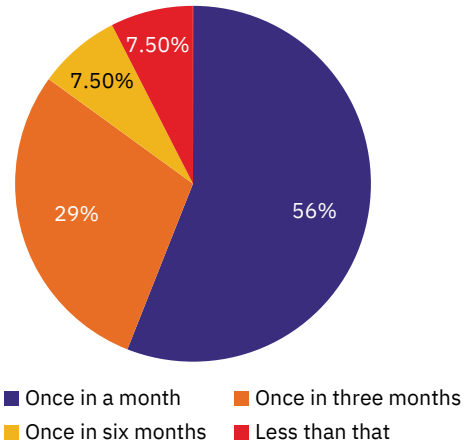


The program led to enhanced parental involvement in their children's school activities:

Involvement in Child's Education has Improved Post-STEP (Overall 100%) (N 134)

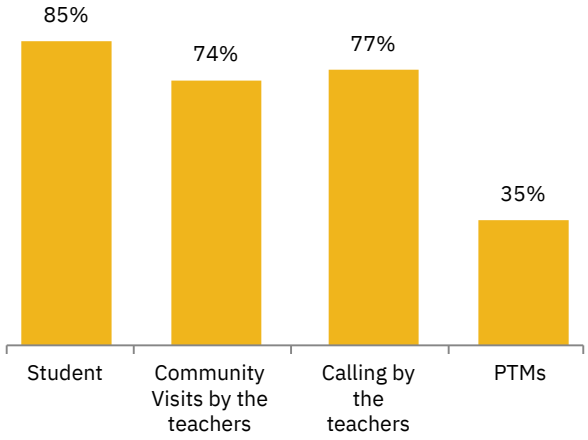


Involvement in Child's Education has Improved Post-STEP (Overall 100%) (N 134)

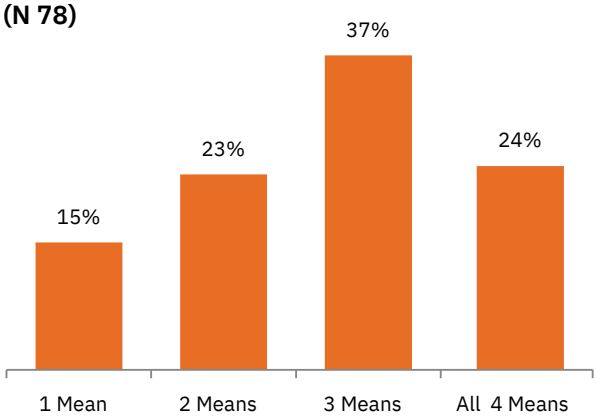


- Among parents, 84% writing both stated that their involvement in the children's education had improved, post the STEP intervention. More than 50% reported interacting with the teacher monthly, while another 30% reported connecting with the teachers at least once in a quarter. Teachers used several means of communication to stay connected with the parents.

Major Means of Communication with Parents (N 78)

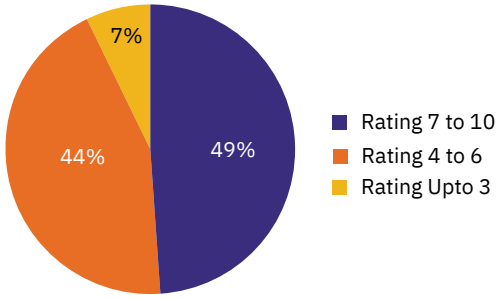


No. of Means used By Teachers (Total 100%) (N 78)



- More than half the parents (68%) rated their interactions with teachers as satisfactory while almost half rated the staff as highly approachable (more than 7 out of 10 ratings)

Approachability of School Stakeholders (Rating by Parents) (N 134)



9. The program had a well developed process for hiring and training Shikshan Mitras; SMs played an active role in the effective delivery of the program

- Shikshan Mitras were recruited through a rigorous selection process involving an aptitude test and multiple rounds of interviews. Most had some prior experience in teaching and were male candidates hailing from the local community in Sheopur district and neighbouring districts.
- Shikshan Mitras were trained through the well-established LLF training model. They were exposed to several good practices culled from across LLF's similar projects.
- Each SM undertook co-teaching for 4 hours in two government primary schools and visited them on alternate days of the week. They also conducted community visits and filed daily reports to the team.
- On a weekly basis, the SMs team would meet with the project manager to report and discuss pertinent issues. The project manager would also visit these 40 schools once in two months.
- During Covid, most SMs switched teaching processes to virtual platforms like Whatsapp and SMS based studying which resulted in consistent learning outcomes.

Helped enhance the reach of the State's DigiLEP initiative for primary school children during Covid-19 lockdown

Added parents to the WhatsApp group of Department of Education to share digital content (grade appropriate videos for Grades 1-5) with the students

Sent SMS based homework to students who did not have smart phones (the majority lacked smart phones)

Sensitized the community about the initiative, and helped increased access to the digital content platform from just 100 to 4000 plus students across 36 Bal Siksha Sabhas using cascade model (e.g., referring neighbours)

Helped set up Community Learning Centres for continued learning outside the school set-up

Worked with SMC members and community influencers to identify locations for the Community Learning Centres, and selected 38 community volunteers to run 36 Community Learning Centres pro-bono

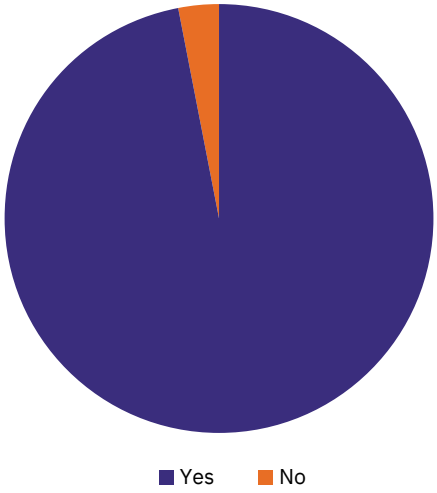
Sensitized the community through Mohalla Sabhas to send their children to these Community Learning Centres

Facilitated access to grade specific workbooks through school teachers

10. The program successfully built community partnerships through community visits and counselling sessions

- Approximately 97% of the surveyed teachers were aware of the parent and community visits by Shikshan Mitras. Many of the teachers (~88%) also conduct community visits now as a result of the program.

Approachability of School Stakeholders (Rating by Parents) (N 134)



11. SMC's played an active role in improving school infrastructure and setting up Community Learning Centres (CLCs)

- As per the program team, parents play a more active role in the SMCs post the intervention. The SMCs had monthly discussions on relevant concerns like midday meals, access to toilets for children and hand-pumps. This led to improvement in school facilities - separate toilets for boys and girls, access to electricity and water, construction of boundary walls, and LED TV for video-based learning.
- SMCs also helped set up Community Learning Centres (Bal Siksha Sabhas).
- No formal SMC meetings were held during the lockdown. Parents participated in the Mohalla meetings to facilitate children's education at home after the COVID-19 second wave.

12. The program successfully pivoted during the Covid-19 pandemic to maintain learning outcomes

- The Shikshan Mitras under the program set up community learning centres (CLC) to ensure continuous learning for children once the lockdown restrictions started easing out between December 2020 and March 2021.
- Volunteers worked with the project manager and community influencers, and convinced parents to send their children to the Community Learning Centres. This effort was acknowledged by the government representatives in Karahal Block, which is primarily a tribal community.

13. STEP complemented government efforts and demonstrated impact in intervention schools

- The project functioned in collaboration with the MP State Education Department from its inception. The forty schools selected for STEP intervention had been assigned to the implementing team by the District Education Officer (DEO).
- In the second year of the program, Shiksha Kendra, of Bhopal, introduced the 'Dakshata Unnayan' program to improve learning outcomes of students in the state. 'Dakshata Unnayan', like STEP, sought to enhance language and arithmetic skills for the children. In the DIET workshop organised by the Dakshata Unnayan program, the STEP team shared its useful insights and practices with teachers and administrators from other non-intervention schools.
- Discussions with Mr. Rajesh Trivedi (Faculty, DIET Sheopur District) indicated that the STEP team had developed a good rapport with the education department. He mentioned that STEP had contributed to making classrooms effective, and in the development of high quality Teaching Learning Materials (TLMs).
- Mr. Trivedi believed that the collaboration of STEP with the government's Dakshata Unnayan worked well due to effective on-ground implementation. While the government developed workbooks with the aim of strengthening the foundational skills of students through practice, Sikshan Mitras and community volunteers promoted the use of these workbooks by students.

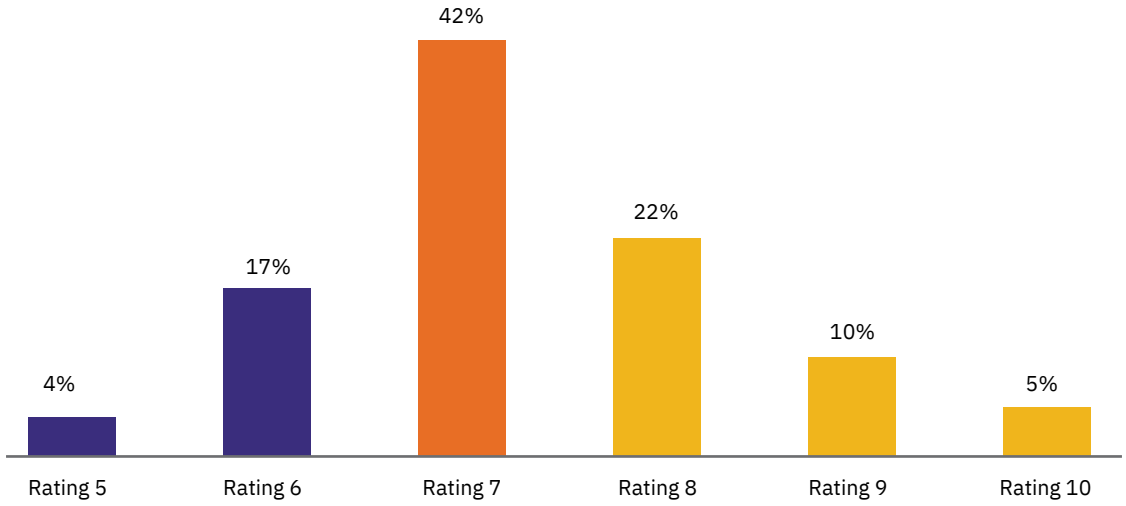
- Mr. Anand Dixit (APC, Sheopur) believed that STEP helped address teachers' availability and efficiency issues in the intervention schools. Shikshan Mitras provided cover for teachers, ensuring learning could take place even in remote locations like in Karahal block where teachers were often unavailable.

14. Stakeholders report an improvement in the physical infrastructural facilities in their schools post the intervention

STEP helped create **vibrant learning spaces** in the intervention schools.

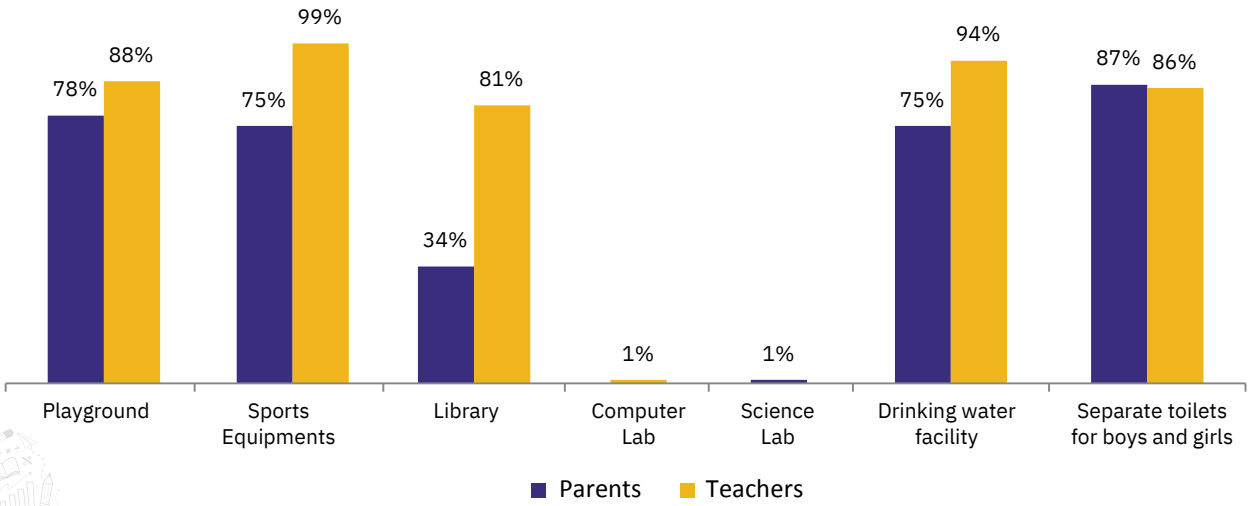
- As per survey responses, 79% teachers rated the intervention 'Medium' (average) to 'High' (above average) in terms of helping to create a joyful learning environment in the classroom.

Joyful Learning Experience due to STEP – rating by % of teachers surveyed (total 100%) (N 78)



- The program also led to **improvement in basic utilities in the schools**, particularly libraries, drinking water facilities and separate toilets for boys and girls, and sports facilities. The graphic below represents the views of parents and teachers regarding different facilities that are available in the intervention schools:

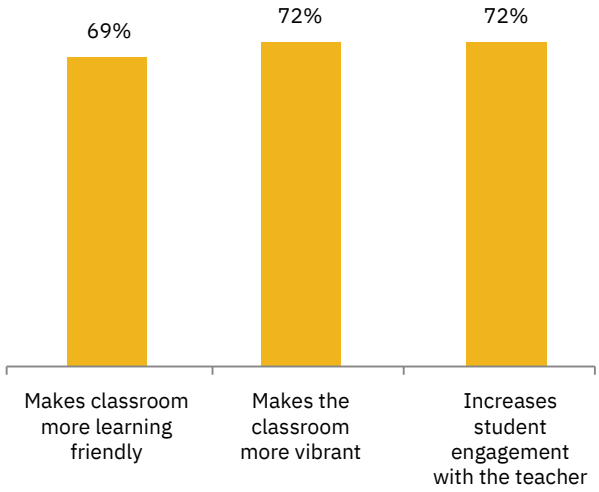
Utilities at the govt. primary schools, as reported by the surveyed parents and teachers (% of total of each category who reported) (parents- N 134 and teachers- N 78)

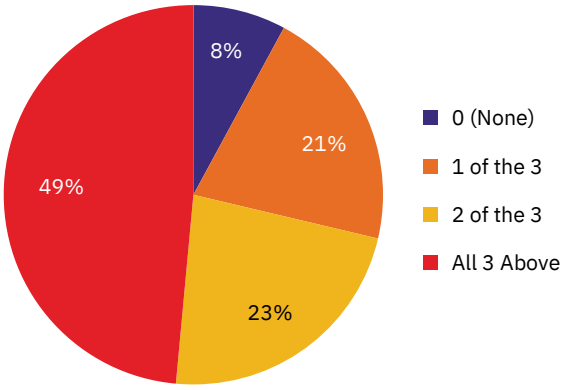


Classrooms prior and post the Intervention

- A majority (92%) of the surveyed teachers reported that their classroom got a makeover under STEP. After the makeover, the teachers observed an enhanced student participation in class and a more vibrant learning environment.

Impact of Classroom Makeover from Surveyed Teachers (N 78)





Program Innovation

Community Learning Centres as an innovation - Addressing potential learning-loss during the pandemic disruption

The Community Learning Centres (CLCs) (Bal Siksha Sabha or Mohalla Classes) were the most innovative outcomes of the program. They demonstrated how the community could be mobilised to resolve the problem of potential learning loss for children who were out of school during the Covid-19 lockdown. 36 CLCs were established between July and October 2020, and most of these continued until March-April 2021. They had to be closed due to of the Covid-19 second wave, but discussion with community volunteers indicated that most of them were planning to restart the CLCs soon.

Most community volunteers surveyed by the assessment team were qualified young graduates or post-graduates who had been involved in teaching previously (in private schools or other NGOs). They were offering tuitions and/or preparing for competitive examinations. They were initially approached by a local community member – who was typically also

a SMC or panchayat member – and later met STEP's project manager Shahjad. Running the Community Learning Centres was offered as a volunteer activity, involving tutoring children for 2 - 2.5 hours daily, 6 days a week. Volunteers also played an active role in mobilising children by going door to door and counselling parents to send their children to the Community Learning Centres. They were supported by the project team, SMC members and community influencers.

Community volunteers reported that they were included in a larger WhatsApp group of 38 volunteers. Interaction amongst them remained virtual, apart from several meetings with the project manager between the start and end of the CLCs. They found guidance in the WhatsApp group on the different activities they were supposed to conduct beyond normal teaching. These were posted at the end of the day by each volunteer. Key features of this initiative that stood out are as follows:

1. Students came in at varying learning levels, and from different grades. Teaching had to be customized to the child's existing learning level.

2. Parents and communities took interest in the initiative and sent their children to study at the CLCs. They were aware that school closures would impact the learning of their children. Since they themselves had helped set up the CLCs, they felt it was a great opportunity. Some parents had offered suitable spaces for the Community Learning Centres. The volunteer teachers were also familiar to the parents as they were locals or from close-by areas. A few volunteers mentioned that some parents would request them to give more home assignments to their children, and even discussed the child's progress.

3. Community volunteers earned the respect of the community. A few of them developed a good rapport with the community and were much sought after to restart the classes even six months after the program's formal conclusion.

One of the community volunteers, Mr. Rajesh Mali, used to teach 40 - 45 children, mostly girls, at the CLC he was managing. The centre is still running, but with fewer children, as the schools have reopened for the higher grades. He mentioned that the panchayat publicly acknowledged his contribution to the children as part of the program. Everyday, he used to commute 7-8 kms to tutor these children gratis. The panchayat members deeply appreciated this.

Bal Siksha Sabha Sessions

Interestingly, most of the community volunteers expressed interest in re-opening the pro-bono learning centres. One of the volunteers, Girraj, who has an M.Sc. in agriculture and runs his own agri-business, mentioned that he tutored these children for 4 hours – from 7.30am to 11.30am last year. He was waiting for the migrant population to return to his area before restarting the CLC around Meherbani in Karahal block. He remarked that members of tribal groups from this region typically move every year to Gujarat

in August/September for cotton harvesting and return around November/December. In his experience, despite low literacy levels among parents they show a lot of interest in educating their children. Parents and communities treated the volunteers with great respect for educating their children even during the challenging times of the pandemic.


पहल • कोरोनाकाल में अतिथि शिक्षक पद से हटाए गए युवक ने ही संभाली कोटरा गांव की शिक्षण व्यवस्था

स्कूल नहीं खुले तो मंदिर पर बच्चों को पढ़ा रहा बीए पास किसान

रोज तीन घंटे निःशुल्क क्लास में रहती है 35 बच्चों की औसत उपस्थिति

शिक्षा का गिरता स्तर देख मिली पढ़ाने की प्रेरणा

Sustainability

1. The program successfully built institutional partnerships ensuring operational sustainability

Collaboration with the government at all levels, including DIET, DEO, APC and even principals, enabled STEP to demonstrate impact at scale. STEP's team also conducted workshops at DIET, with the aim of sharing their insights and experiences with other schoolteachers.

a. It is expected that Dakshata Unnayan – a program that was launched one year after the launch of STEP intervention, and which considered the insights of STEP's first year of on-groundwork – can help sustain the good work that happened in the intervention schools and will also eventually take the good practices to non-intervention schools.

b. After seeing the work done in the 40 government primary schools, representatives of upper primary schools approached the STEP team to include their schools in the program.

c. The DEO enquired if the program could support a few additional schools located in more remote areas. These schools faced multiple challenges from poor attendance to caste related issues.

2. The community has taken complete ownership of the program through CLCs

During Covid-19, STEP's focus shifted from learning to 'learning plus wellbeing'. CLCs were intended to address the issue of learning-loss of the students but they also ensured the safety and wellbeing of children by following the requisite Covid-19 protocols. While most of these CLCs had to be discontinued during the Covid-19 second wave in April 2021, many community volunteers are planning to re-start the centres at the request of parents, children, and community influencers. Given their positive association and goodwill with the school administration, teachers, community, parents, and active SMCs, the Shikshan Mitras could easily lead the transition and setting up of Community Learning Centres.

Chapter 4: Key Recommendations

A thorough assessment of the impact that the program brought upon the community, it was found that there were several factors that stood out. However, there do remain areas of improvement. The following recommendations have been formulated keeping in mind the existing gaps and global best practices.

Explore the opportunity of future collaborations with government stakeholders to replicate and scale the model

Given the success of the STEP program, opportunities to scale up the program in other similar regions can be explored with emphasis on the tribal households. This model of STEP can be replicated and scaled through institutional collaborations with the Govt.

Standardisation of the student learning assessments

NAS and ASER are nationally recognised tests that were developed after taking into consideration the NCERT recommended learning outcomes at grade appropriate levels. By developing assessments that comply with the NCERT learning outcomes, the tests can be further compared to the NAS and ASER data?

Focus can be laid on imparting remedial education to the tribal students.

Though parents and teachers had a positive impact on the learning of the children, there is scope for further improvement of the learning outcomes. In order to arrest the learning loss among the students, focus can be primarily laid on imparting foundational skills and remedial classes to the students , before moving ahead with grade appropriate learning.

Set up avenues for cross learning of regional best practices among the various partners.

Since multiple partners are being supported by NSE foundation in the field of education, setting up avenues for cross learning can help facilitate the understanding of best practices and adaptation of innovative ideas from the cross learning.This dialogue can further lead in strengthening the implementation models, thus making it full proof for large scale dissemination.

ANNEXURE 1: DATA POLICY

Sattva has in place internal security protocols to protect the privacy of all data collected from respondents, especially any personally identifiable information (PII). The set of protocols listed below may be revamped depending on the complete data flow process as decided for this program.

- **Data Storage and Access:** Any devices used for data collection are password-protected to prevent unauthorized access. Survey software with encryption features, such as Collect, will be used so that encryption occurs during data collection and transmission to a central server. Data with PII is shared only using encrypted files, unless being shared directly from Sattva's cloud storage. Access to data on Sattva's cloud storage may also be further limited to program team members who require access.
- **Data Retention:** Data with PII is only retained for pre-decided periods based on program requirements. Any data stored on data collection devices is removed after data collection for the program is complete, to minimize risk. Where possible, data stored on stolen/lost devices is remotely deleted.
- **Training:** Personnel are provided adequate training on maintaining privacy of data collected, including procedures for handling devices to maintain data security.
- **Removal of PII:** All PII is removed from the raw dataset and separated into an "Identifiers Dataset" and "Analysis Dataset". A common ID is generated to allow re-joining PII data if required. Access to "Identifiers Dataset" is limited to select personnel as required. Limited and necessary PII is re-shared with enumerators/field supervisors to allow for quality checking and back-checking of data as per program requirements.

Annexure 2: Student Survey Tool

Order	Question Type	Question Title	Option
1	Choice	Can we proceed with the Survey?	Yes
			No
2	Text	Name of Respondent	
3	Number	Age of Respondent	
4	Choice	Gender of Respondent	Male
			Female
5	Text	Do you go to school? How far is it from your home?	
6	Text	Do you like going to school?	
7	Text	How many days in a week do you go to school?	
8	MCQ	What do you like to do in your free time?	Playing Sports
			Reading
			Watching TV
			Surfing the internet
			Playing Games
			Chatting/Hanging out with firends
			Resting
			Going to Cinema, Theatre, Museum
			Home Work
			Other
9	Text	If others, please specify	
10	Text	What do they like doing after school hours? How do they spend their holidays?	
11	Text	Do they like reading books/ stories?	
12	Choice	How many books do you read in a month?	I don't read
			1 to 2
			3 to 5
			6 to 10
			More than 10 books
13	Text	What kind of books do you read? From where do you get these books?	

Order	Question Type	Question Title	Option
14	MCQ	If you do read, why do you do it?	It helps me get better grades in tests and exams
			It helps me improve my language skills
			"It helps me learn new things
			It is my hobby
			It is fun
			It is relaxing
			It helps in my homework and projects
			My parents or teachers ask me to read
			I have to
15	Text	Ask more about how much they enjoy/do not enjoy reading	
16	Choice	How much do you like going to school?	Dislike it very much
			Dislike it
			Neither Like nor Dislike it
			Like it
			Like it very much
17	Text	What is the best part about going to school? Key phrases	
18	Text	Why do you not like going to school? Key phrases	
19	Text	What do you want to be when you grow up?	
20	Text	1. If the student gives a clear answer	
21	Text	How do you think school will help you with you career? How important is it to go to college?	
22	Choice	Does your teacher make school work interesting	Not at all
			Sometimes
			Usually
			Always
23	Text	Ask about how much they like/dislike their teachers and classes	
24	Text	Who is your favourite teacher?	
25	Text	What does the teacher do that you like?	

Order	Question Type	Question Title	Option
26	Text	What subject do you like?	
27	Choice	Does your teacher check to make sure you understand what they are teaching?	Not at all
			Sometimes
			Usually
			Always
28	Text	How do they do that? Keywords	
29	Text	If you say you do not understand, how do they usually help?	
30	MCQ	What methods does the teacher use to teach in the class?	Teaching from the book
			Teaching using TLMs and activities
			Group activities and discussions
31	Text	How do you enjoy learning the most?	
32	Text	What do you like about studying?	
33	Choice	Is your teacher is helpful when you ask questions?	Not at all
			Sometimes
			Usually
			Always
34	Text	How do they help you generally?	
35	Text	Does what you learn at school help you in your life outside school?	
36	Text	How has it helped you so far? Quote instances for the same	
37	Text	Have you done any group or peer activities during your subject classes? If yes, name them.	
38	Text	Do you like these group activities? Why or why not?	
39	Text	Have you participated in non	
40	Text	What did you enjoy about those activities? What did you dislike?	

NSE Foundation

Creating Disaster Resilient and Child Friendly Model Schools in ODISHA

IMPACT ASSESSMENT STUDY - 2021

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Foreword

National Stock Exchange of India Limited (NSE), India's leading stock exchange, is committed to inclusive growth and prosperity. It believes that every individual, irrespective of the divisions in society, has an equal right to resources and be included in the country's development story. When a person's economic and social status improves, the community prospers and the nation extension.

With this guiding principle, through NSE Foundation, the implementing arm of its CSR initiatives, the group endeavours to improve the quality of life in the most disadvantaged communities. In doing so, it plants the seeds of transformation and inclusion.

The Foundation partners with the government, NGOs, multilateral bodies, and academic institutions to inspire, nurture, empower and sustain the aspirations of the communities it serves. Its projects plug social, economic, and educational development gaps in some of the most inaccessible geographies. It also contributes to fulfilling the United Nations' Sustainable Development Goals from a larger standpoint.

Over the past few years, the Foundation has made steady progress in its core intervention areas of primary education, safe drinking water and sanitation, elder care, skill development, environmental sustainability, health & nutrition, and disaster relief in underserved rural and urban communities.

NSE Foundation's district transformation programmes are currently implemented in the aspirational districts of Nandurbar (Maharashtra), Karauli (Rajasthan), Ramanathapuram (Tamil Nadu), Kiphire (Nagaland), and Birbhum (West Bengal), which was on NITI Aayog's initial list.

The Foundation has reached over 12 lakh children, women, youth, and the elderly in more than 100 districts of Maharashtra, Madhya Pradesh, Rajasthan, Jharkhand, Telangana, Kerala, West Bengal, Tamil Nadu, Odisha, Assam, and Gujarat. Apart from a significant presence in rural regions of the country, projects in urban districts of New Delhi, Kolkata, Chennai, Mumbai, and Ahmedabad are also undertaken.

In recent times, India has faced various disasters, including the worldwide pandemic of COVID-19. NSE Foundation's efforts through disaster relief and rehabilitation programmes have prepared the affected communities and stakeholders to respond effectively to crisis situations. This includes interventions at various levels, including immediate relief in the form of food, rations & other day-to-day essentials, repair & retrofitting, behaviour change communication of students & school staff. The long-term disaster response protocol includes training for communities and government bodies and creating disaster response protocol to combat the impact of any future disasters.

The project 'Creating Disaster Resilient, and Child-Friendly Model Schools in Odisha' was initiated by NSE Foundation, in Khorda district (Odisha) in nine schools post the Super Cyclone Fani. Under the project, activities of repair & retrofitting post the destruction caused by Cyclone Fani were undertaken for a speedy resumption of schools, and behaviour change communication initiatives were executed to sustain the knowledge of safe & hygienic WASH practices. Further, to ensure that the learning from the retrofitting is institutionalised, in collaboration with the Odisha State Disaster Management Agency, a manual was created on 'Creating Disaster Resilient and Child-Friendly Model Schools' which would serve as a design and construction guideline for engineers to build structures especially schools conducive to disaster-prone regions like Odisha. In addition, capacity building of masons and other construction workers was undertaken for transfer of learnings to those who undertake the actual construction and repair.

About SIGMA Foundation and the Team

SIGMA Foundation, a not-for-profit organization with Head Office at Kolkata, has been entrusted to study the project's impact assessment. The organization has specialization in disciplines related to various social and economic development, particularly in WASH. SIGMA Foundation has conducted multiple studies on the assessment of WASH infrastructure, facility, and practice in the household and institutional level in the states of Chhattisgarh, Maharashtra, Rajasthan, and West Bengal. It has also evaluated the Information Education Communication (IEC) strategy on Swachh Bharat Mission (SBM) adopted by five states of the country, as a partner of UNICEF India Country Office.

This Impact Assessment report assesses the extent to which the project 'Creating Disaster Resilient and Child-Friendly Model Schools' implemented by NSE Foundation in Odisha achieved its intended results and goals. CSR project activities included constructing disaster-resilient buildings and WASH infrastructures in 9 nine schools of Khordha district damaged by FANI.

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List of Abbreviations

CBO
Community-Based Organisations

NGO
Non-Governmental Organisation

CSO
Civil Society Organisation

NSE
National Stock Exchange

CSR
Corporate Social Responsibility

O&M
Operations and Maintenance

CWSN
Children with Special Need

ODRA
Odisha Disaster Rapid Action Force

DPR
Detailed Project Report

OSDMA
Odisha State Disaster Management Authority

ESCORTS
Extremely Severe Cyclonic Storm

RSVP
Odisha Swachh Vidyalaya Puraskar

FGD
Focus Group Discussion

PME
Project Monitoring and Evaluation agency

PWD
Public Works Department

GOI
Government of India

RMSA
Rashtriya Madhyamik Shiksha Abhiyan

IDI
In-depth Interview

SBCC
Social and Behaviour Change Communication

IEC
Information Education Communication

SBSV
Swachh Bharat Swachh Vidyalaya

IEDSS
Inclusive Education for Disabled at Secondary Stage

SIGMA
Support for Improvement of Governance and Monitoring Advancement

IMD
Indian Meteorological Department

SMC
School Management Committee

MHM
Menstrual Hygiene Management

UNDO
United Nations Development Programme

MD
Ministry of Human Resource Development

UNICEF
United Nations Children's Fund

NALCO
National Aluminium Company Limited

USAID
United States Agency for International Development

Executive Summary

Executive Summary

Background

On May 3rd, 2019, the coastal districts of Odisha were devastated by the FANI cyclone, categorised by the Indian Meteorological Department as an "extremely severe cyclonic storm" (ESCS). While all districts in Odisha faced the brunt of the cyclone, it was Puri district that was severely affected with wind speeds of nearly 205 km/hour and heavy rains. The cyclone destroyed almost everything that came its way – homes, trees, public infrastructure, schools. The preliminary damage assessment report by the Government of Odisha enumerated 7,061 government schools across the state being damaged; particularly in the worst affected districts of Puri, Cuttack, and Khorda. In Khorda district alone 332 schools were severely damaged by the cyclonic storm.

Project: "Creating Disaster Resilient and Child-Friendly Model Schools in Odisha"

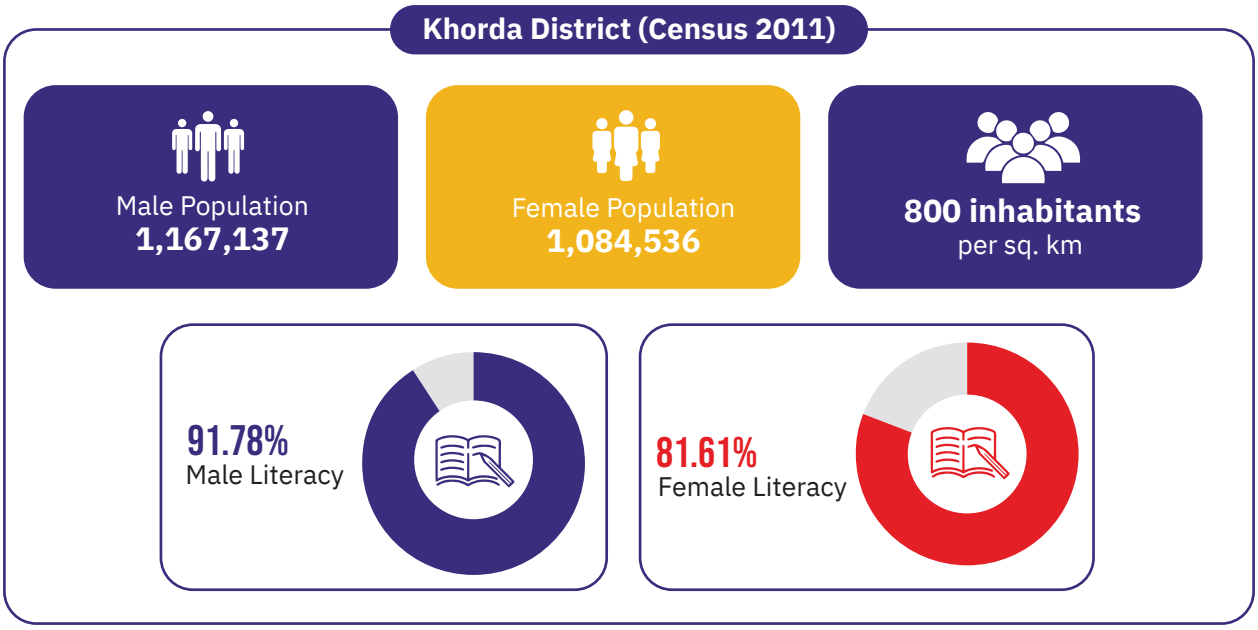
Khorda is a coastal District that was a part of the Puri district and came into existence on April 1st, 1993. This district comprises of 1561 revenue villages in 10 blocks divided into 2 Sub-divisions. According to Census 2011, Khorda has a population of 2,251,673 (Male: 1,167,137, Female: 1,084,536), with a population density of 800 inhabitants per square kilometre. It has a literacy rate of 86.88% (Male: 91.78%, Female: 81.61%) – Census 2011.

In the immediate aftermath of FANI Cyclone, NSE Foundation decided to intervene in Khorda district through its humanitarian relief project entitled "Creating Disaster Resilient and Child-Friendly Model Schools". On the basis of rapid needs analysis of the damages and challenges due to the cyclone, NSE Foundation decided to focus its relief work for repairing the government schools that have been damaged by the cyclone.

It has been the learning from previous natural disasters that for school children, the resumption of school heralds the end of the disruptions due to the disaster, therefore NSE Foundation took upon itself to repair the damaged school infrastructure in some schools of the districts to ensure normalcy returns for school children.

Objectives of the project:

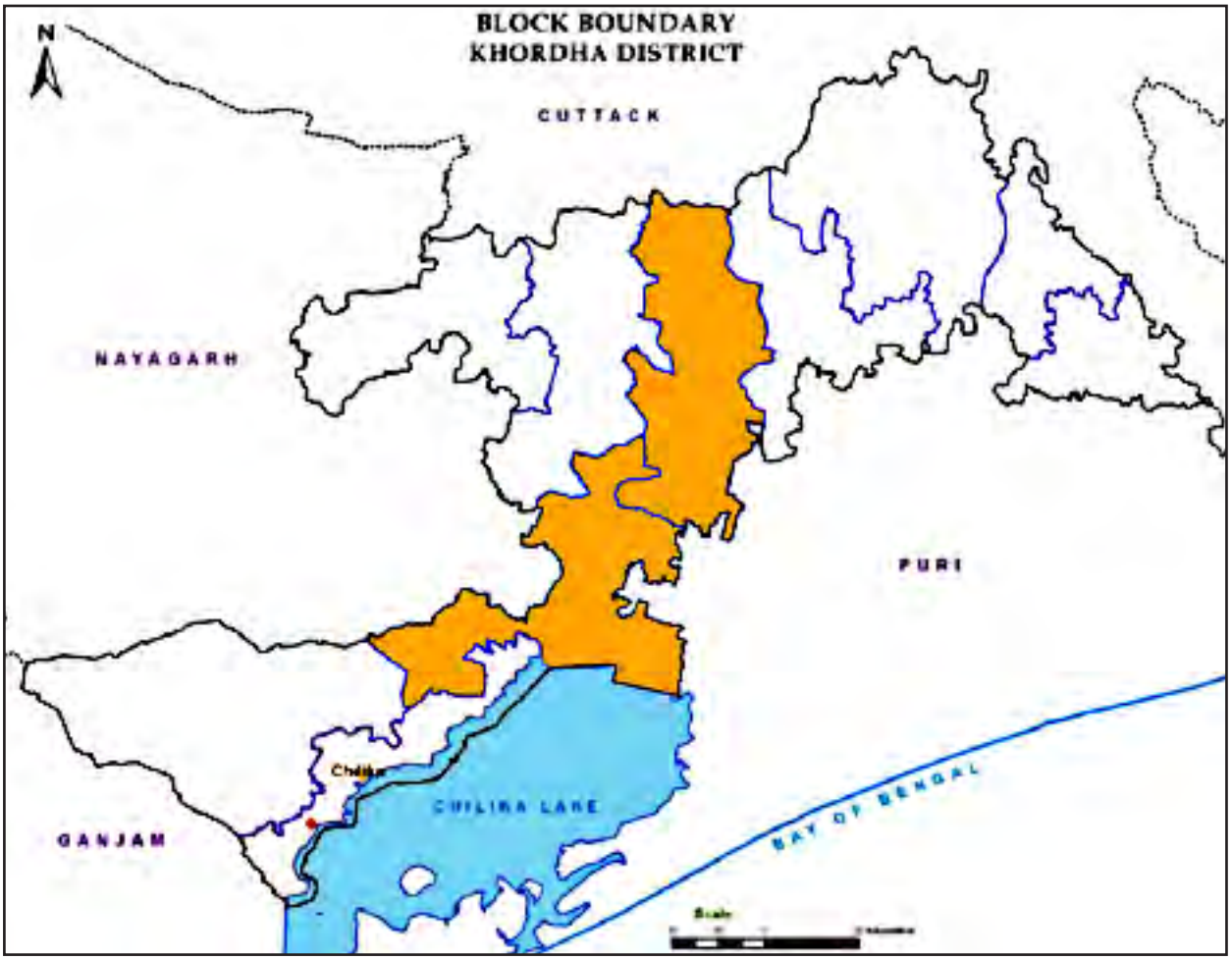
- To develop prototype designs for making disaster resilient and safe schools
- Creation of material that publicizes key ideas of incorporating such techniques required in the construction of such model schools
- Capacity building of Government officials and selected contractors for dissemination of the information on manual
- To create child friendly model schools through scientific retrofitting of infrastructures in nine schools affected by cyclone Fani
- To develop capacity of different government officials, masons, builders and other persons involved in school construction through development of a manual on 'Model Disaster Resilient Schools in Odisha' context



In doing so, the Foundation planned the school repairs such that learnings are well documented in the form of a disaster resilient schools manual and adopted by government and civil construction professionals engaged in the construction of schools in a disaster-prone state of Odisha and other similar states.

The interventions planned for the project were:

1. To undertake repairs and renovation of infrastructures such as toilets, hand washing stations, walls, and roof in nine schools affected by the cyclone.
2. Promote behaviour change communication



(software activities including awareness sessions with children, parents, SMC, and teachers)

3. Build the stakeholders' capacity in schools where the students, teachers, and principals to sustain post-retrofitting maintenance of wash installations.
4. Training of government civil engineering professionals in improving the construction of disaster-resilient schools through the "Manual for Engineers and Construction Professionals on Resilient School Construction in Odisha".

Need for the Evaluation

On the conclusion of the project in Odisha, it was crucial to understand both the systemic and infrastructural improvement undertaken in the nine schools to create disaster resilient buildings. Therefore, an impact assessment of the project culminating in a comprehensive report detailing the overall outcome, impact, learnings, challenges, success stories, etc. was conducted by SIGMA Foundation.

The assessment included multiple techniques such as semi structured interviews, learning outcome surveys (education program), case studies, observation, focus group discussion, and analysis of secondary data. Along with the analysis of the construction, improvement in the knowledge, practises and behaviour were evaluated.

Observations/ Findings

The post-completion external evaluation uses the syncretic methodology, generally used to assess the outcomes of humanitarian projects drawing on evidence and information related to relevance, effectiveness, efficiency, impact and sustainability of the project interventions. The summary of the external (third-party) evaluation of the project outcomes are as follows:

Relevance: Refers to the importance of the initiative

The project, founded on comprehensive damage and needs assessment reports from the government and civil society organisations in the aftermath of the FANI cyclone, demonstrates high relevance of the intervention plan. On one hand the school repairs undertaken by the project ensured early return to school and restart of learning and normalcy for all the pupils in the nine selected schools in Khorda districts. It has achieved the immediate needs of the pupils and teachers of the nine schools for functional and usable WASH facilities, including upgradation of the kitchens serving mid-day meals, which had been severely damaged by the cyclone.

Additionally, the embedded process of documenting the learnings and experiences of school repairs by an expert agency in the form of "Disaster Resilient School Construction Manual" and disseminating it with primary government stakeholders considering the frequency and intensity of cyclones in Odisha state can potentially scale up the outcomes to many more schools and educational institutions. Further, the project has also undertaken building the capacity of key State government officials on disaster-resilient buildings using the nine schools as demonstration sites.

Effectiveness: Refers to the extent to which an intervention has achieved its objectives

The effectiveness of this project has been in the medium category. While the project attained its planned results by following the defined processes, due to the COVID-19 pandemic and restrictions therein including lockdown has caused disruptions to the implementation plans. However, Plan India as the project implementing partner is closely following up with the District administration to ensure all the planned objectives are achieved in due course. Due to schools being closed for most of the students, the effectiveness of the planned capacity building activities for students and teachers had to be re-planned.

Impact: Refers to the (delta) change that the project has brought

The project impact (outcomes) has been high given the timeline and quality of the repairing of the sanitation, water and kitchen facilities in 9 schools resulting in early return to normalcy for the pupils and teachers. The development and dissemination of the Manual with all the District Administration in the State of Odisha has brought to focus the need for driving resilience in the architectural planning and construction of schools given the propensity for hydrological and intense weather disaster in Odisha. The Manual which aims to strengthen the understanding and expertise on building of disaster resilient school structures along with training of use of the manual the construction staff from across organizations. Here, it is important to share that the project has been successful in engaging the respective school management committees

Sustainability: Refers to financial, economic, social, environmental, and institutional capacities needed for the likelihood of net benefits continuing over the medium and long term.

The sustainability of the project is high as the entire project is dovetailed and aligned to the possibility of scaling-up by the District and State administration. A two-pronged strategy was applied to create resilient school structures that were used as a model demonstration and capacities of the relevant government professionals were strengthened through training.

A high level of ownership on improving the school structures, and government officials post the training was observed.

Programmatic Observations

The project has been conceptualized and implemented within the Government of India's National Disaster Risk Reduction framework. The renovation work in the nine Government schools has been planned and completed as per the approved standards. The overall quality of construction on visual inspection was found fulfilling each of the approved standards.

The toilet/urinal blocks were gender-segregated and had adequate light, ventilation, and running water through the overhead reservoir. The girls' toilets had changing facilities attached with a disposal window for incineration of sanitary pads and other menstrual waste.

Kitchens were given a new look by renovation of the floor, construction of dishwashing area with shades, and water connection with taps. Multicolour bins were provided to the schools for segregated waste disposal. One unique component of the retrofitting work was the provision of toilets for Children with Special Needs (CWSN), which was taken up in seven schools (as they had CWSN enrolled) with commode and ramp.

Awareness events were conducted for promoting better hygiene practices in five schools. Such events could not be conducted in four schools because of the COVID-19 related restrictions. Students were aware of general hygiene, handwashing method, and could demonstrate the same. Three schools reported the effective use of child cabinets for promoting hygiene practices and the efforts of students and teachers to keep the school clean were evident.

Due to closure of schools, there was a limitation in observing the functionality and tracking usage of the retrofitted structures. Though the soap-dispensing system in the handwashing station was not refilled since soap could not be procured, in four of the seven schools that were open during the assessment, the school had made available small bar soaps in the handwash stations. Some of the highlights from the visit to seven schools that were functional at the time of the field site visit by the Evaluation team are:

- The basic knowledge on handwashing and toilet use was found satisfactory among the students at the time of the interview, e.g., students articulated most appropriate handwashing times, duration of handwashing, water use at the time of toilet use, etc.

- All the interviewed girls were found to be informed about the presence of a sanitary napkin disposal system in their schools. Used sanitary napkins were not found anywhere on the school premises.
- School authorities in four schools were found to have created a favourable environment for toilet use by providing soaps, buckets, and mugs (Zaitun Nisha High School, Kamaguru High School, Bhagabati Nodal High School, and Baxi Jagabandhu Bidyadhara Govt. High School)
- High impact of the project intervention could be seen in the students' knowledge of hand washing practices. Students clearly recognised the large wall paintings depicting the steps and critical times of washing hands and clearly articulated some of the components of hand washing practices taught to them. Provision of menstrual hygiene facilities in schools was another milestone in improving school WASH.

One key challenge was the lack of funds for the operation and maintenance of the WASH infrastructure. A few schools were found to take innovative measures in arranging the consumables and carrying out other maintenance work in the schools through community, alumni, SMC support. In one school, the Principal had mobilised funds to create a guard for the newly installed water filter. The headteachers were also confident that maintenance could be ensured by collecting a nominal fee from the students and the ex-students. Some teachers expressed their willingness to contribute to maintaining the facilities, reflecting a high degree of motivation created by the project interventions.

The major initiatives of the project that the stakeholders reported were (1) improvement in drinking water quality, significantly reduced iron content in water by the new purification system provided under the project, (2) Appreciating the need for clean and functional toilets (3) girls reporting satisfaction about the disposal system for used sanitary napkins, and (4) reduction in absenteeism and dropout rate in the school, especially of girls was noted through feedback from stakeholders.

The improvement in disaster-resilient infrastructure with intervention by NSE Foundation has nudged teachers and SMC members to repair or develop the other school. Some of the schools have deposited a substantial amount of money under the "Mo School Abhiyan," an initiative by the government of Odisha to assist the schools to improve infrastructure by providing a financial contribution double the amount contributed by the school.

> Madhapur Project UP School invested Rs. 30,000 from the SMC and the Head Master cover the water taps with an iron grill as the school is without a boundary wall. They have also invested Rs. 40,000 with the government of Odisha's 'Mo School'26 initiative with the hope to get Rs. 120,000 from the government, which they will use for the boundary wall. This is evidence of high-level commitment by the members of the SMC and the Head Master, which was triggered by the high-quality infrastructure created under the project.
>
> *Data Source: Primary survey*

The stakeholders commended the efforts made under the project and remarked that this was the first CSR intervention in the school to be undertaken by a corporate.

Partnering with the State Government

NSE Foundation believes that to drive improvements in the education system, it is of critical importance to undertake intensive and ongoing engagements with the Government departments at both the State and district levels. Accordingly, the project team collaborated with the District Administration of Khorda and Samagra Siksha Abhiyan Department to identify the 9 schools for intervention using the damage assessment.

At another level, OSDMA (Odisha State Disaster Management Authority) participated in finalising the Manual and the curriculum for the training programmes. Due to the support of OSDMA and local administration, 20 officials (Engineers and Managers) from six Government Departments/ agencies (three from OSDMA, three from Public Works Department, four from Panchayati Raj Department, four from School and Mass Communication Department, three from Rural Development Department and three from IDCO

(Odisha Industrial Infrastructure Development Corporation) were trained through the training of trainers approach.

Local Project Partners

Plan India is a nationally registered not-for-profit organization. It is a member of the Plan International Federation, an independent development and humanitarian organization that advances children's rights and equality for girls. Since 1979, Plan India and its partners have worked with children and young people to enable them access to protection, quality education, and healthcare services, a healthy environment, livelihood opportunities, and participation in decisions that affect their lives.

RedR India (Registered Engineers for Disaster Relief), established in 2003, is registered under the Societies Registration Act of 1860 in India. It is an independent organization that supports humanitarian and disaster risk reduction activities through capacity building, technical support, and deployments. RedR India's expertise is in humanitarian work and DRR interventions provisioned through a dedicated team and a roster of selected and experienced sector specialists. With experience in post-disaster responses humanitarian work, RedR India assisted in developing a manual on disaster-resilient school infrastructure and trained the officials of six government departments and other stakeholders under the NSE Foundation project.

KPMG was appointed for the concurrent programmatic and financial review of the project as a Project Monitoring & Evaluation (PME) agency. **The CSR and Sustainability arm of KPMG India has undertaken regular evaluation of the project.**

Approach & Methodology

Approach & Methodology

Approach for the study

The approach used was a mixed-method of (i) reviewing the secondary data available about the project and the context and (ii) conducting field survey for primary data collection,

The field study also helped to assess the institutional developments in schools and the behaviour change on WASH practises.

Methodology for assessing the systemic improvement

A desk review was conducted to analyse secondary data on the activities taken up for systemic development, which had three different phases – (i) establishing standards to be followed for retrofitting/new construction, which was done by preparing a manual, (ii) building capacity to follow the manual correctly, and (iii) application of the acquired knowledge and skill for actual constructions works. The available documents were examined, and feedback, particularly from OSDMA and the training participants, was taken through mostly telephonic interviews.

Aim and objective of the study:

The research had two broad aims: (i) to assess the systemic improvement through building capacity of the state in constructing disaster resilient school WASH and other infrastructures and (ii) to assess the impact of the pilot interventions in 9 schools. The study was to cover not only the intervention and achievement within the schools but also the status of participation, ownership and transformation in institutional and behavioural aspects of all stakeholders. The critical aspects that were studied are:

The systemic improvement through enhancing capacity of the state in taking up disaster resilient renovation / construction works.

The quality of retrofitting / repairing of the WASH infrastructure which were damaged during the disaster and also use of the infrastructure by the students as well as the staff. The success was judged in line with the disaster management guidelines. Of the state government and also the Swachh Vidyalaya guidelines.

Change in attitude and behaviour of various stakeholders along with the quality of success of the IEC / SBCC activities to adopt safe and hygienic practices.

The challenges faced in due course of the interventions for better guidance in future.

Methodology for assessing Renovation works carried out in 9 schools

The study involved the following steps:

- Conducting a desk review.

- Identifying the issues to be captured through the field assessment.
- Designing tools for capturing the data, which were qualitative in nature. For assessing the quality of construction and functionality of the facilities, physical observation and interaction with the construction workers and the users were given due importance.
- The data captured was analysed using content analysis, narrative analysis, and framework analysis, and the findings were reported.

Four aspects were reviewed in the process of the assessment:

- Quality of construction, functionality, and cleanliness of all the WASH, drinking water and kitchen infrastructure that was renovated.
- The practice of hygiene, particularly handwashing at critical times by the students and mid-day meal cooks.
- Operation and maintenance protocol in schools for all the WASH infrastructures.

The broad components of WASH that were studied are shown in Table 2.1.

2.1 Components of WASH Captured

Sector	Components
Water	Availability of primary and alternative water sources, potability of the water supplied, source sustainability, scarcity of water (seasonal shortage or other), availability of mechanic and material to repair any breakage, O&M of the water supply system, wastewater management, and water safety
 Sanitation	Availability, functionality, and usage of the toilet, availability of separate toilets for girls and boys as per Swachh Vidyalaya norms, quality of superstructure as well as the substructure for sustained use, toilet technology, O&M of toilet facility, management of solid as well as liquid waste, environmental cleanliness of the campus
 Hygiene	Hygiene awareness and practise among students and staff, availability of soap, knowledge on critical occasions of handwashing, understanding of proper etiquette for handwashing, usage and disposal mechanism for menstrual hygiene management, the importance of hand hygiene was also judged in the context of the COVID-19 pandemic.

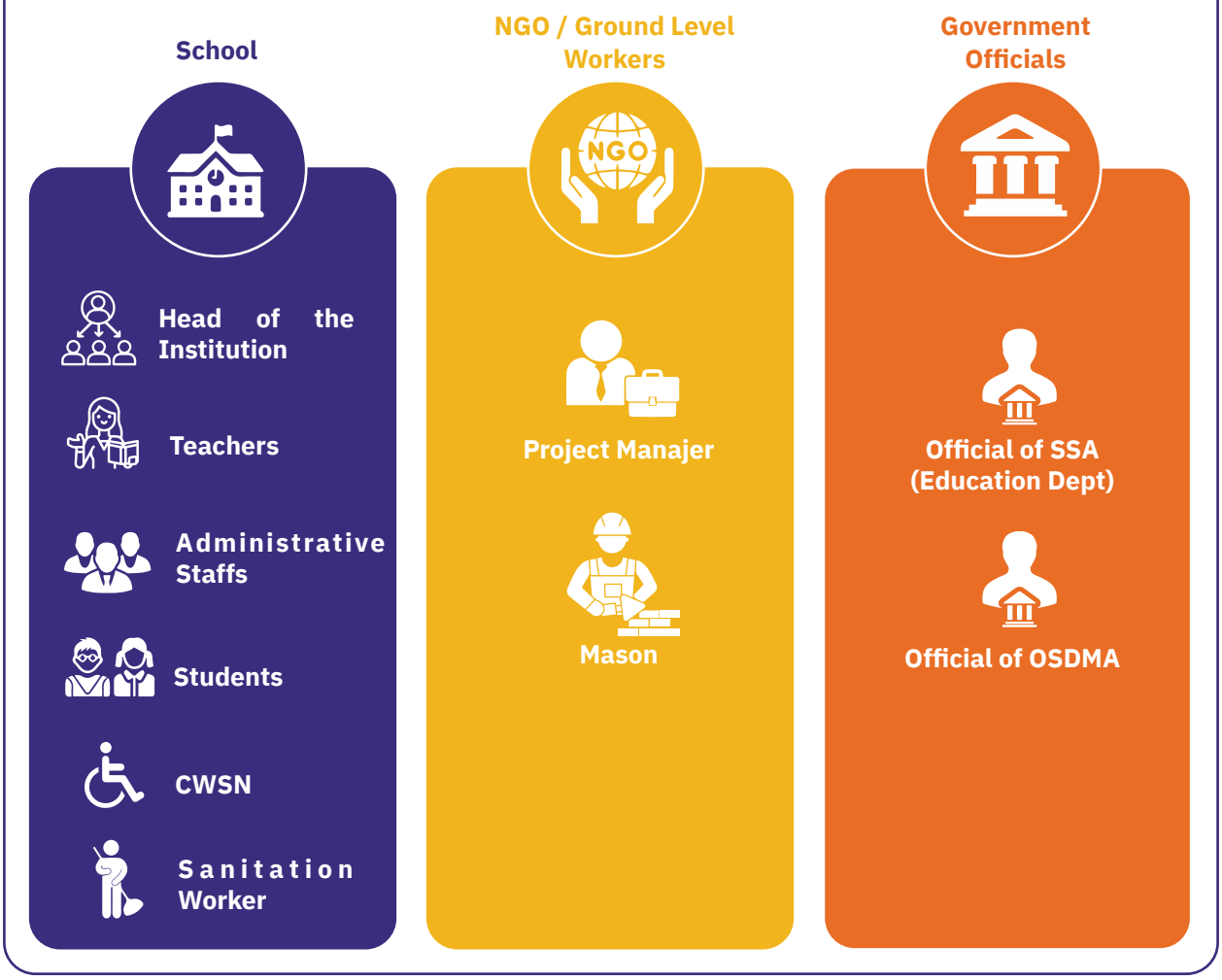
To assess the status and quality of intervention, the proposed study had collected information from stakeholders at various levels. Firstly, through discussion with the direct users, secondly, to understand the intervention from the viewpoint of service delivery, there was a discussion with the Project Manager of the PLAN India, local Gram Panchayat, masons and other construction workers. Thirdly, from the viewpoint of the quality and life of the infrastructure, discussions with the SMC, Principals, Senior Technical Consultant of the Sarva Shiksha Abhiyan of Khorda district were conducted.

Overall, the evaluation study aimed to understand the achievement of the intervention program against the target. On the one hand, the study has identified the best practices and innovations. On the other hand, the intervention gaps and possible reasons for the challenges were assessed. Further, the possible ways to bridge such gaps were also captured. The stepwise methodology followed for the assessment study is elaborated below.

Desk review

The study started with a desk review of the project documents available from the NSE Foundation and Plan India (Annexure-I). Additionally, available secondary data about schools under study and the communities around the school were reviewed. In this phase, available literature on disaster management plans, guidelines for Swachh Vidyalaya, and various government guidelines on WASH in school were also referred.

Figure 2.1 List of Stakeholders



The review of the project documents enabled visualizing some of the post-cyclone situations, understanding the baseline figures, and the planned interventions under the project. The various documents and standards by the Government indicated the recommended norms in school WASH and other infrastructure as well as the recommended ratios.

Prior to the field visit, site maps, engineering drawings, design of the structures, front and sectional elevation of other infrastructures and estimates were reviewed to compare the field's design and status.

Sampling

Design

Since the number of intervention schools was only 9, a hundred percent evaluation was covered under the assessment.

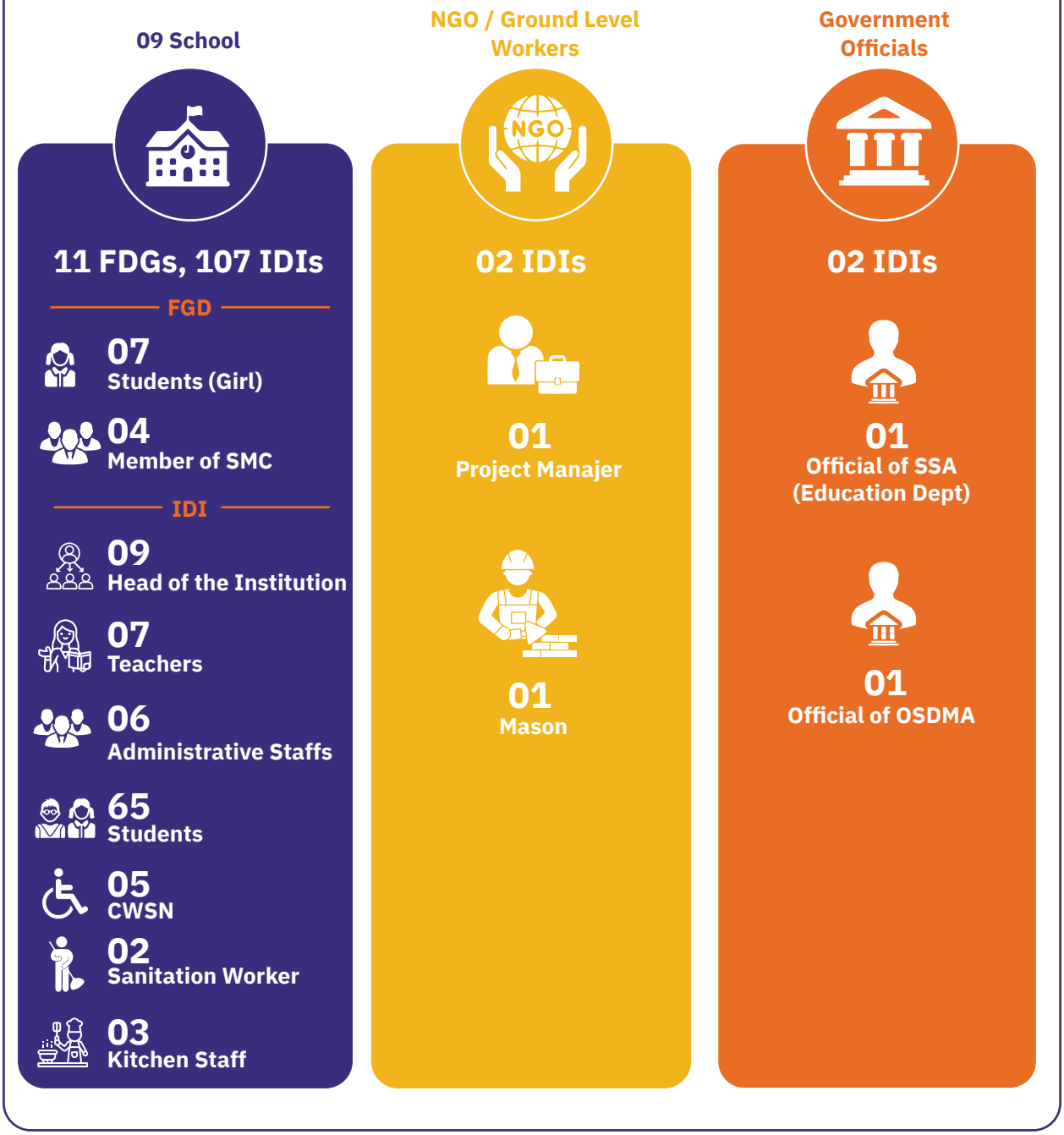
Further, from each of these schools, In-depth Interviews (IDI) were conducted with the head of the institution (one), two teachers (one Female and another male), ten students (including both boys and girls of different standards), one administrative staff, one sanitation worker (such worker was available only in two schools) and one kitchen staff. The teachers and students were identified following the principle of random sampling from those present in the school.

Further, there was one IDI with a CWSN (present in five schools) to understand the specific issues related to the children with special needs. In each school, there was one FGD with girl students to understand the scenario on Menstrual Hygiene Management (MHM). Further, there was one FGD with the members (including both male and female) of each School Management Committee (SMC).

Apart from the survey at schools, the evaluation covered discussions with various stakeholders involved in implementing the project. There was one IDI with the mason and other workers who

were actively involved in retrofitting the infrastructures in the schools. There was one IDI each with the Senior Technical Consultant of Sarva Shiksha Abhiyan at the district. There was one IDI with the Project Manager of the NGO who assisted Plan India on field level activities. Thus, there were 112 IDIs and 11 FGDs under the study. The summary of the sample size is shown in Figure 2.2.

Figure 2.2 Sampling Plan for IDIs at Various Levels



Tools employed for data collection consisted of interview schedules, discussion points and checklist for direct observation. The survey tools included five key themes: relevance, effectiveness, efficiency, impact, and sustainability.

Two sets of semi-structured questionnaires or discussion points were developed to conduct the FGDs – one for students and another for members of SMCs. On the other hand, nine sets of discussion points were designed for the IDIs with the head of the institution, teacher, students, CWSN, administrative staff, project manager, masons, kitchen staff, sanitation worker. The discussion points were prepared to capture all the critical parameters related to the quality of WASH infrastructure in schools,

compliance with disaster-resilient guidelines, knowledge, behaviour, and practices related to each component of WASH based on the expected learning outcome of the training which

A checklist was prepared for direct observation at the schools to understand the WASH infrastructure (especially from the civil engineering perspective) and IEC/SBCC materials.

The research tools, 11 in number, were designed after a thorough study of the available literature related to the subject. In co-education schools, separate FGDs were conducted for boys and girls. All the survey tools are attached in **Annexure II**. Compliance with the ethical standard was ensured by following processes shown in Figure 2.3 .

Figure 2.3 Compliance with Ethical Standard and Safeguarding Child Rights

1. Before initiation of the discussion/interview, the overall purpose or objectives of the study were conveyed to the respondents. They were also informed that participation in the survey was completely voluntary.
2. It was informed that the data captured would be completely anonymized.
3. In the case of capturing photographs or recording of discussions, prior permission was taken
4. The interviewers were alert to safeguard the child's rights while interacting with them.

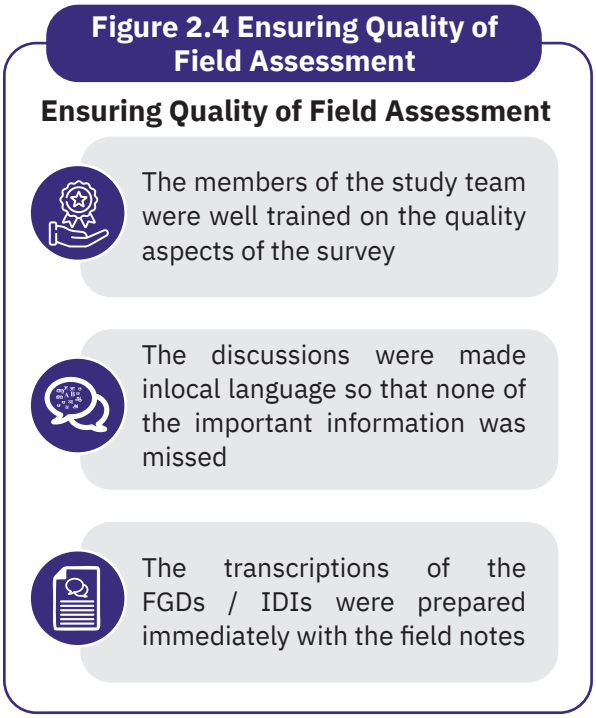
Field survey

The field survey was conducted by members of the study team who are experienced in social work, civil engineering, and WASH. There was one Project Coordinator to monitor the entire fieldwork. The survey schedule was prepared in consultation with the school authorities, Sarva Shiksha Abhiyan (Education department), and the implementing NGO to ensure adequate availability of participants covering stakeholders for the FGDs and IDIs. Apart from the FGD and IDI, the team's expert (Civil Engineer) captured various information on WASH infrastructure and the maintenance practice through visual inspection and direct observations.

Validation and analysis of data

The quality of the data collected was scrutinized by the team's data manager/domain experts. The qualitative data from the FGDs and the IDIs were transcribed and used for further analysis. At the time of preparation of transcriptions, emphasis was given to the field notes. The content analysis of the transcripts of FGD and IDIs was followed to categorize verbal or behavioural data for classification into relevant categories. On the other hand, the method of narrative analysis was considered for the reformulation of stories (case studies) presented by the respondents during the field survey. This helped to improve the presentation quality of the case studies. Being an End line or Impact Assessment study, the framework analysis was also taken into account

Figure 2.4 Ensuring Quality of Field Assessment



for identifying a thematic framework, charting, and interpretation to understand the impact of the project interventions across schools.

Preparation of study report

The Final Report was prepared by providing an adequate focus on evaluating the program design and efficacy of the project, WASH infrastructure, facilities in the schools, the awareness

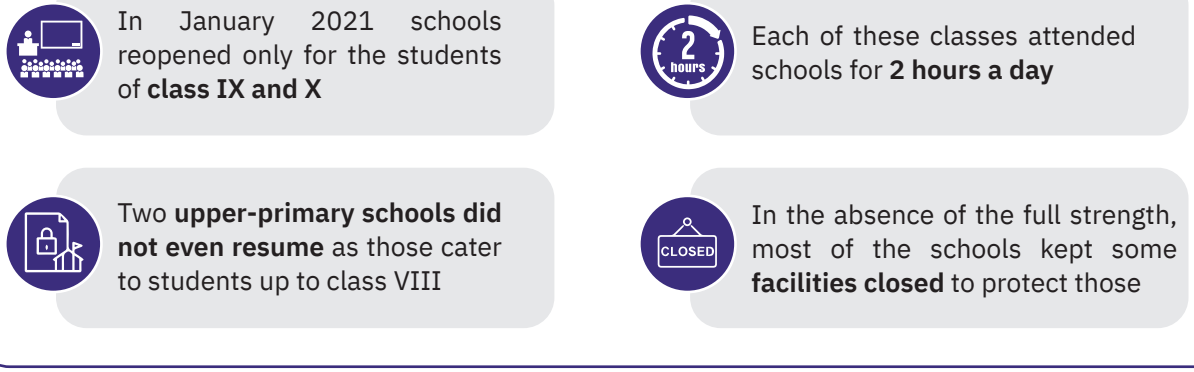
and practice among primary stakeholders, compliance with the disaster management guidelines, etc. The success stories observed good practices were documented in case studies.

Limitations of the study

Challenges due to COVID-19

Due to the restrictions imposed by the central and state governments on the movement of vehicles and functioning of schools, all the respondents could not be reached, though 100% of schools were visited. The field studies were conducted during a window of opportunity when only students of classes IX and X were attending the school. Two out of the nine schools were closed during the assessment since those were up to class VIII standards. In those two schools, interactions could be made with the teachers and staff only

Figure 2.5: Challenges of the Impact Assessment



1. Because of the COVID-19 pandemic, the schools remained closed throughout the country from March 2020. In Odisha, the schools reopened in January 2021 but only for two classes, IX & X, and for four hours a day, from 8 to noon. Although the teachers were available, students of only classes IX and X were available for interaction.
2. Two schools (Haladia Nodal High School and Sardhapur Project UP school l), supported under the project was up to class VIII standard (Upper Primary School). Therefore, no student was available for interaction in that.
3. During the field survey, SMCs in 4 schools were unavailable for meetings. Cooking of mid-day meals and distribution of cooked meals did not start in any schools after their reopening. Two kitchen staff were available for interaction in two schools.
4. Although the team could physically interact with the Senior Technical Consultant of the district SSA office, who was associated with monitoring the implementation, interaction with OSDMA was on.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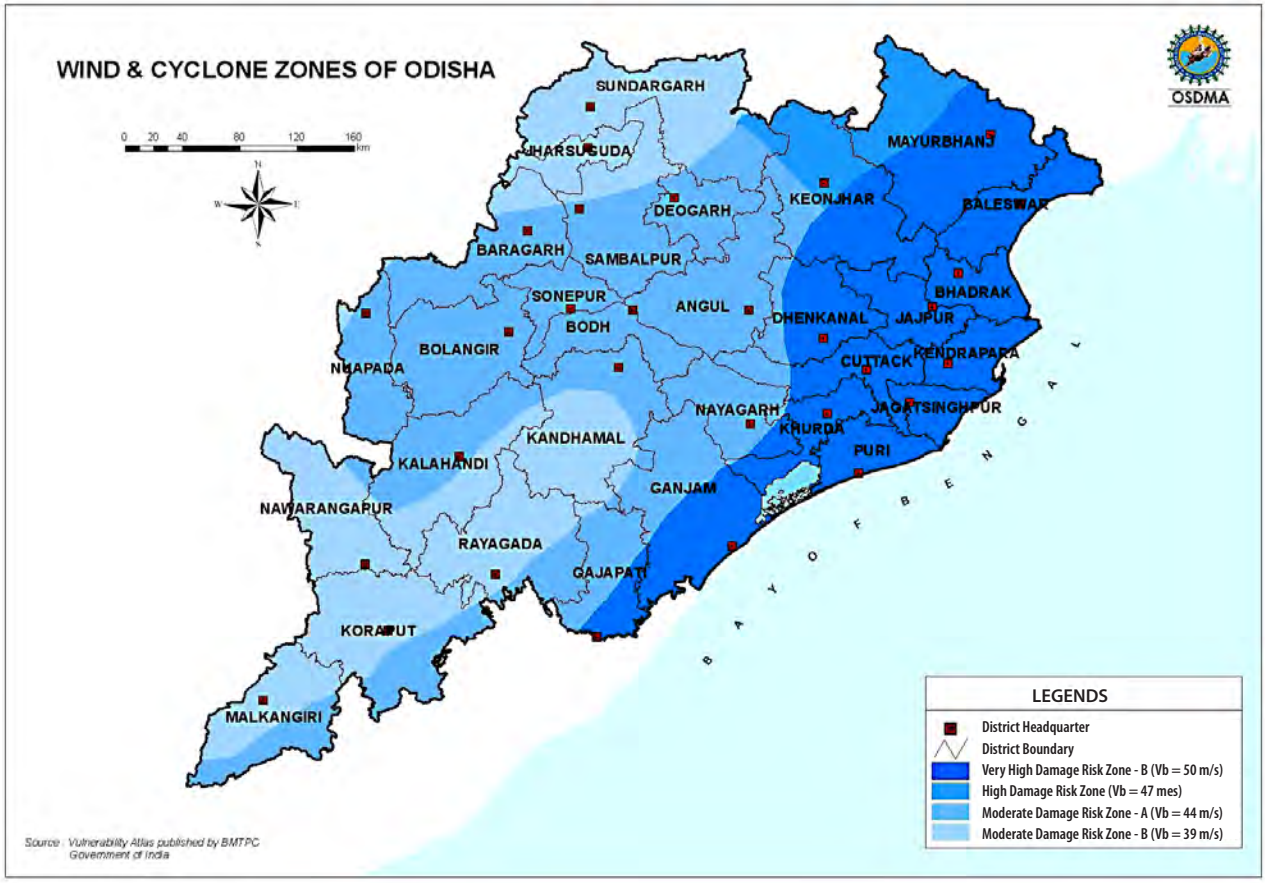
Creating Model Schools: Demonstration Site for Disaster Resilient Construction

Creating Model Schools: Demonstration Site for Disaster Resilient Construction

Hazard Profile of Odisha

Due to its geographic location on the east coast of India, Odisha is one of the six most cyclone-prone areas in the world, with the highest vulnerability in terms of cyclone landfall. In the last century, out of the 1019 cyclonic disturbances in the Indian subcontinent, 890 were along the eastern coast, and of these, 260 cyclonic disturbances had their landfall along the Odisha coast impacting districts like Balasore, Puri, Khorda, Bhadrak, Jajpur, Cuttack, Ganjam, Kendrapara, Jagatsinghpur, Gajapati . The cyclones which hit the state in the last two decades are the 1999 Odisha Super cyclone, Phailin 2013, Titli 2018, and FANI 2019.



Impact of disasters on Schools and Education

Recent natural disasters in India have time and again highlighted some of the weaknesses of the school construction. Therefore, it is of importance to construct or retrofit schools with disaster resilient features so that the school building is able to withstand the impact of the disaster. Also, it has been often observed that in most villages, the local school is the only public building and many disaster-affected people, especially from poor and underprivileged families with weak personal dwellings, use the village school building as community shelter when their own house is damaged. Interventions for

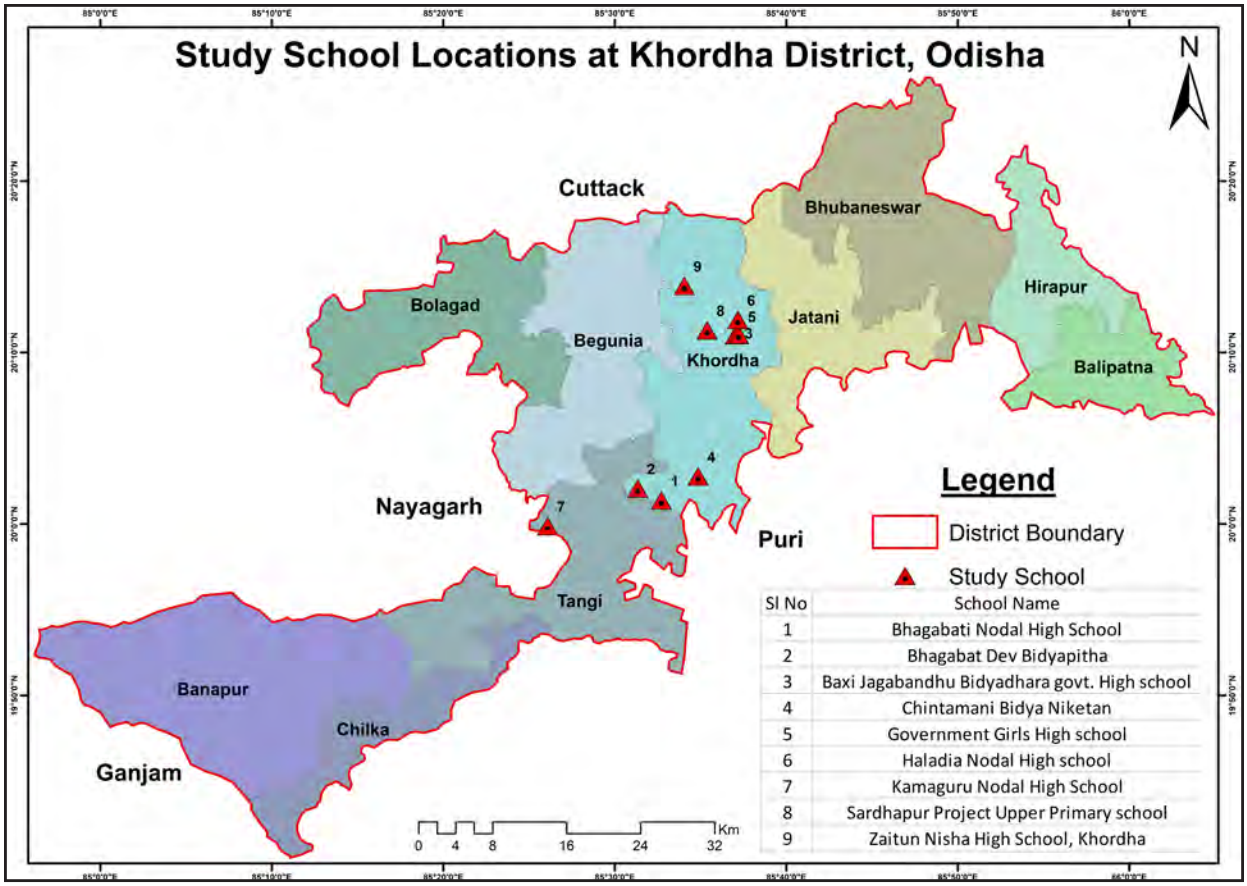
systemic improvement of the school building to make it safe as well as water and sanitation compliant has gained high priority, since access to both water and sanitation is the first to be affected during disasters.

Due to Cyclone FANI 5,735 elementary and secondary schools--temporary roofs, toilets, kitchen sheds, windows, boundary walls, furniture, and sports equipment--were damaged as per the DLNA report of the district administration.

Project: 'Creating Disaster Resilient and Child-Friendly Model Schools'

NSE Foundation planned the project in 9 schools in Khordha and Tangi Blocks of Khordha district, that would focus on immediate repair and reconstruction of water, sanitation, and kitchen facilities in addition to other structure. It also incorporated behaviour change and awareness modules on hygiene and sanitation. It endeavoured to create model schools incorporating disaster resilient processes and designs. These were then detailed in a technical manual with support from Odisha State Disaster Management Agency (OSDMA), Public Works Department and other State departments. An agreement was signed with OSDMA to carry out renovations in cyclone-affected school buildings. Circular No.3449 OSDMA (dated September 4, 2019) was then issued to the Collector, Khordha, and the District Education Officer, Khordha, to extend their support.

Schools were selected in partnership with the education department through a need assessment study in which factors like water, sanitation, the extent of damage caused by the cyclone, number of students affected were considered. A Detailed Project Report (DPR) of each selected school was created after consulting students, parents, teachers, and the school committee. The infrastructure built as per the DPR and the damaged infrastructure are listed in Annexure 2.

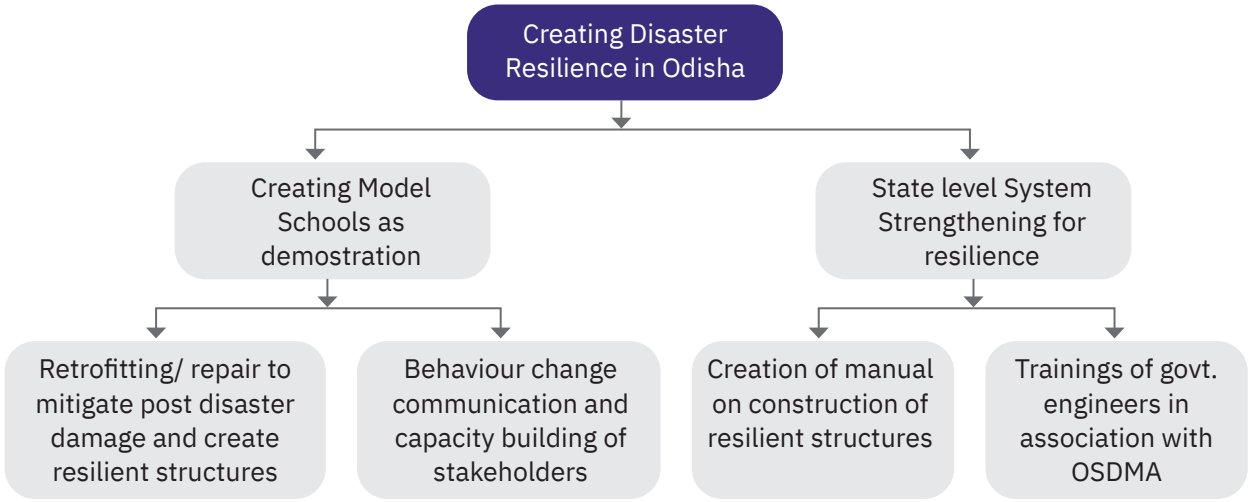


Sl No	School Name
1	Bhagabati Nodal High School
2	Bhagabat Dev Bidyapitha
3	Baxi Jagabandhu Bidyadhara govt. High school
4	Chintamani Bidya Niketan
5	Government Girls High school
6	Haladia Nodal High school
7	Kamaguru Nodal High School
8	Sardhapur Project Upper Primary school
9	Zaitun Nisha High School, Khordha

Table 2: List of Intervention Schools

Name of School	Location	No. of Students			
		Boys	Girls	CWSN	Total
Bhagabati Nodal High School	Golabki, Khordha	325	344	4	673
Bhagabat Dev Bidyapitha	Janka, Khordha	157	191	1	349
Baxi Jagabandhu Bidyadhara Govt. High School	Khordha	434	43	3	480
Chintamani Bidya Niketan	Narangarh, Khordha	335	249	0	584
Govt Girls High School	Khordha	0	473	4	477
Haldia Nodal High School	Haldia, Khordha	197	219	3	419
Kamaguru Nodal High School	Kamagra, Khordha	156	161	0	317
Madhapur Project Upper Primary school	Madhapur, Khordha	114	118	3	235
Zaitun Nisha High School	Karanga, Khordha	168	166	0	334

Project Implementation Plan



The project design had 4 primary components aligned to achieving the goal:

1. Infrastructure repair/retrofitting with special focus on WASH structures:

Renovation and retrofitting the WASH facilities using disaster-resilient construction methods in nine schools damaged by Cyclone FANI.

Apart from the direct intervention of retrofitting and repair in schools, 6 out of the 9 selected schools were assessed to understand the structural realities of school buildings. The critical findings from the assessment report are as follows:

- Four out of the six schools were over 100 years old, and the other two were 60 and 40 years old, and all the buildings have experienced some disaster in the past. Despite having sufficient load-bearing structures, certain damages have been identified in these school buildings.
- Many of the old structures were found to have mud mortar with laterite stone for masonry work which would be weak for withstanding retrofitting.
- In all the schools, two common types of damages were observed: (i) Breaking and blowing away of the asbestos sheets and displaced wooden truss and (ii) Cracks in the walls and floors.
- Some engineering oversights were identified, e.g., absence of ramp in 50% of schools, more heights of the classrooms in the urban schools than the permissible limit (4.2 m instead of 3.6 m), the width of some classroom doors are shorter (less than 1200 mm), some doors open inside, lack of minimum plinth height of 45 cm, kitchen located next to the toilet, etc. The damages identified by the assessment team are shown in Table 3.

Table 3: Damages identified by the assessment team

Damages identified by assessment team	Suggestion/Recommendation from assessment team	No. of schools in which recommendations were adopted	Remarks
Damages of flooring surface	Floor tiling	9	
Plastering cracks developed in many places	Plastering needs to be done to maintain a 1:4 cement mortar ratio	1	The rest of the school did not need it
The roof sheet blew away	Low pitch, Spacing of rafters & purlin should be uniform, 2B arrangement of roofing sheet	9	
Leaking from roofs	Grading of the top with M20 grade of concrete	1	The rest of the school did not need it
Shear cracks visible for door window opening	To provide jambs reinforcement	9	

Some crucial actions and inactions by the users were also identified in the assessment process, e.g., blocking of the ventilators, absence of fire extinguishers, etc.

The school renovations included:

Repair/ Upgradation Water Supply Infrastructure

- Fitting, fixing, and installation of pipes and taps for running water supply
- Renovated one hand wash station with running water taps
- Fitting, fixing and installing liquid soap dispensers and soap taps for hand wash stations.
- Constructed G.I. roof and platform for the hand wash station
- Renovated the hand wash station with ceramic wall tiles and anti-skid ceramic floor
- Constructed soak pit for the handwashing station
- Fitting, fixing, and installations of new anti-bacterial triple layer water tank

Repair of other infrastructure

- Fitting, fixing, and installation of water cooler with purifier for safe drinking water
- Fixing of the transparent sheet on well
- Installed dustbins
- Construction of boundary wall

Repair of toilets and Urinals

- Constructed one CWSN toilet with sloped access path, new Western closet, flushing cistern, floor tile, wall tiles, and appropriate plumbing and fittings
- Constructed girls toilets and renovated girls toilets with new Indian closet, flushing cistern, floor tile, wall tiles, and appropriate plumbing and fittings
- Constructed girls' urinals with new pans, roof floor tile, wall tiles, and appropriate plumbing and fittings
- Constructed boys' toilets with new Indian closet, flushing cistern, floor tile, wall tiles, and appropriate plumbing and fittings
- Constructed boys' urinals with new pans, roof floor tile, wall tiles, and appropriate plumbing and fittings
- Constructed new septic tanks for the toilet and urinal block
- Interlocking tiles for access pathway to the toilet and urinal block connecting hand washing station
- Fitting, fixing, and installation of LED tube light and exhaust fan facility for toilet and urinal blocks

Repair of kitchen infrastructure

- Renovation the of the kitchen with floor tiling and shelves store for storing the cooking and food materials.
- Provision of LED light and exhaust fan facility inside the kitchen
- Construction of dish wash area near kitchen with truss G.I. roof, platform, and appropriate plumbing and fittings
- Fitting, fixing, and installing fire extinguishers inside the kitchen store.
- Repairing of MDM hall roof shade and replacing damaged asbestos with new asbestos sheets.

2. Behaviour Change Communication (BCC)

Orientation of students and teachers in safe water and improved hygiene practices through relevant BCC events in schools.

Awareness sessions on toilet usage, hand washing, and water conservation were conducted using Information, Education, and Communication (IEC) tools such as wall paintings in Odiya.

The wall painting used Odia script and contained messages on the following:

i. Importance of clean source for drinking water
ii. Importance of conservation of water
iii. Importance of rainwater harvesting. The pictorial representation also showed how rainwater is harvested.
iv. Importance of using a toilet after defecation,
v. Maintaining cleanliness of toilets
vi. Importance of handwashing.
vii. Four critical times for handwashing
viii. Steps of handwashing with pictorial representation.

3. Creation of Technical Training Manual

The assessment was followed by developing a disaster-resilient school construction/renovation manual.

The manual was aimed at engineers, architects, and habitat professionals.

The document provides zone-appropriate designs and the relevant standards on constructing/renovating schools. Once endorsed by the government of Odisha, this would be a guiding manual for all those associated with constructing and renovating schools in disaster-prone areas.

- Unique features of the manual

The manual has systematically shown the various effects of disasters on buildings, proposed new construction/retrofitting designs, and provided prototypes for classrooms, toilets, kitchens, etc., with estimates and BOQ (Bill of Quantity). Some of the unique features of the manual are as follows:

Some of the disaster-resilient construction features mentioned in the manual are as follows:

01 All the drawings of the buildings are three-dimensional for better clarity.

02 Specific designs have been provided as per the norms* of disaster-resilient constructions. The designs are also tailored to reduce costs.

03 The document contains all the codes relevant for disaster-resilient construction.

04 Designs have been provided for the various zones** across Odisha, making replication easy.

*Puri and Khorda districts are located in Seismic Zone 3. In this zone, IS 13920:2016 recommends constructing all RCC frame structures/buildings with special moment resisting frames (SMRF), satisfying the ductile detailing as per IS 13920:2016.

** Wind and cyclone very high-risk damage zone B (50m/s), Wind and cyclone high damage risk zone (47 m/s), Wind and cyclone moderate damage risk damage zone A (44m/s), Wind and cyclone moderate damage risk damage zone B (39 m/s), Earthquake moderate damage risk zone III, Earthquake moderate-low risk zone II, Flood zone, No flood zone.

- Vertical reinforcement, or tying up the whole building (foundation, walls, and roof) before the masonry work till plinth level.
- Grouting reinforcement with 1:1.5:3 (Cement: Sand: Aggregate) after completing the masonry work.
- Providing plinth band to avoid damage due to settlement of soil and plinth protection to prevent corrosion of foundation at the time of flooding.
- An anchor bolt (cyclone bolt) should be embedded from the base of the foundation to the roof to provide extra strength to the sloped ceiling.
- Weep holes required for draining any moisture that may come through from the back of the wall through penetration, capillary action, or leakage.
- Horizontal seismic bands at the plinth, lintel, and windows sill level to tie all the walls together.
- Provision of weather course with pressed tile layers on RCC slab to avoid seepage action on the flat roof.
- Preventing blowing away of roofing sheet through cyclone safety hooks, diagonal bracing, concrete band, and load wall technique.
- Properly fixing windows or window frames.
- Using vertical and horizontal reference lines for proper interlocking GI sheets
- Roof anchorage and use of anchor bars
- Proper fixing of the ridge
- Roof projections, chajjas and sunshades
- Properly 'connected' or constructed parapets.
- Strengthening of weak walls and roof, and adding roof covering.
- Strengthening of roofing elements and walls along the gable ends of the roof, mainly due to high internal pressures.

4. Capacity Building of Stakeholders and State administration

Beyond the retrofitting, construction, and the creation of the training manual, the project also conducted capacity-building for selected government officials to achieve its goal.

The training used the assessment findings to discuss improved retrofitting of old and weak structures, low-cost construction using environmentally sustainable building materials, safety, and health of students/teachers, and working with vulnerable populations.

The four-day training sessions were conducted for government engineers, construction workers, and NGO representatives at the end of 2019 and at the beginning of 2020.

20 government officials across 6 government departments participated in the first training. 15 participants from 10 national and international NGOs working in Odisha were trained in the second training. The third training was for those directly associated with the construction work (6 carpenters and 15 masons). 3 Sarpanches (1 male, 2 females) from the cyclone-affected area participated in the third training.

- The Engineers were trained on reinforcing column beam connections, foundation details, vertical reinforcement, securing corners near openings, reinforcement details, etc. aligned to the Odisha Hazards map. Demonstrations on footing and column reinforcement techniques and roles of single reinforcement were also made. The common guidelines and standards recommended by the Bureau of Indian Standards (BIS) and National Building Code (NBC) of India for construction practices were discussed with the participants along with the following concepts:

The participants mentioned of learning the following new things among others:

- Gable ends and corners should be retrofitted. Buildings undergo bettering during extreme events which needs timely structural assessment and retrofit
- Adding steel bracing
- Adding new shear wall to make the structure strong
- Sustainability and resilience

DRR (Disaster Risk Reduction) concepts and their interrelations were explained, e.g., risk, vulnerability, capacity, and hazard. Principles for building safer schools: anchorage, bracing continuity, ductility and enhancement of building shape, size, the height of walls, recommendations on span length, location and dimension of veranda and openings were described with examples and hands-on training with a mock shed erected at the training site.

Additionally, the project engaged with the local Panchayat Heads and the workforce associated with the construction work. They were trained on the various construction practices and materials relevant to disaster-resilient infrastructure. Masons and carpenters were emparted training on quality check parameters of multiple materials used in the construction, e.g., sand, cement, etc. They received hands-on training in the practical sessions. Mason groups worked on constructing a demonstration model with fly-ash bricks. Carpenters worked on building the mock shed, and another group worked on bar bending to make plinth bend reinforcement frames. Visits to flood and cyclone shelters were also part of the training.

OSDMA had identified a few challenges in applying in the process:

(i) Inadequacy of qualified human resources

(ii) Lack of regulatory frameworks

(iii) Old building stocks that are at risk

(iv) Unplanned/ Unauthorised structures

(v) Lack of funding

(vi) Refresher training

Findings (Site visit Interpretation and Analysis)

Findings (Site visit Interpretation and Analysis)

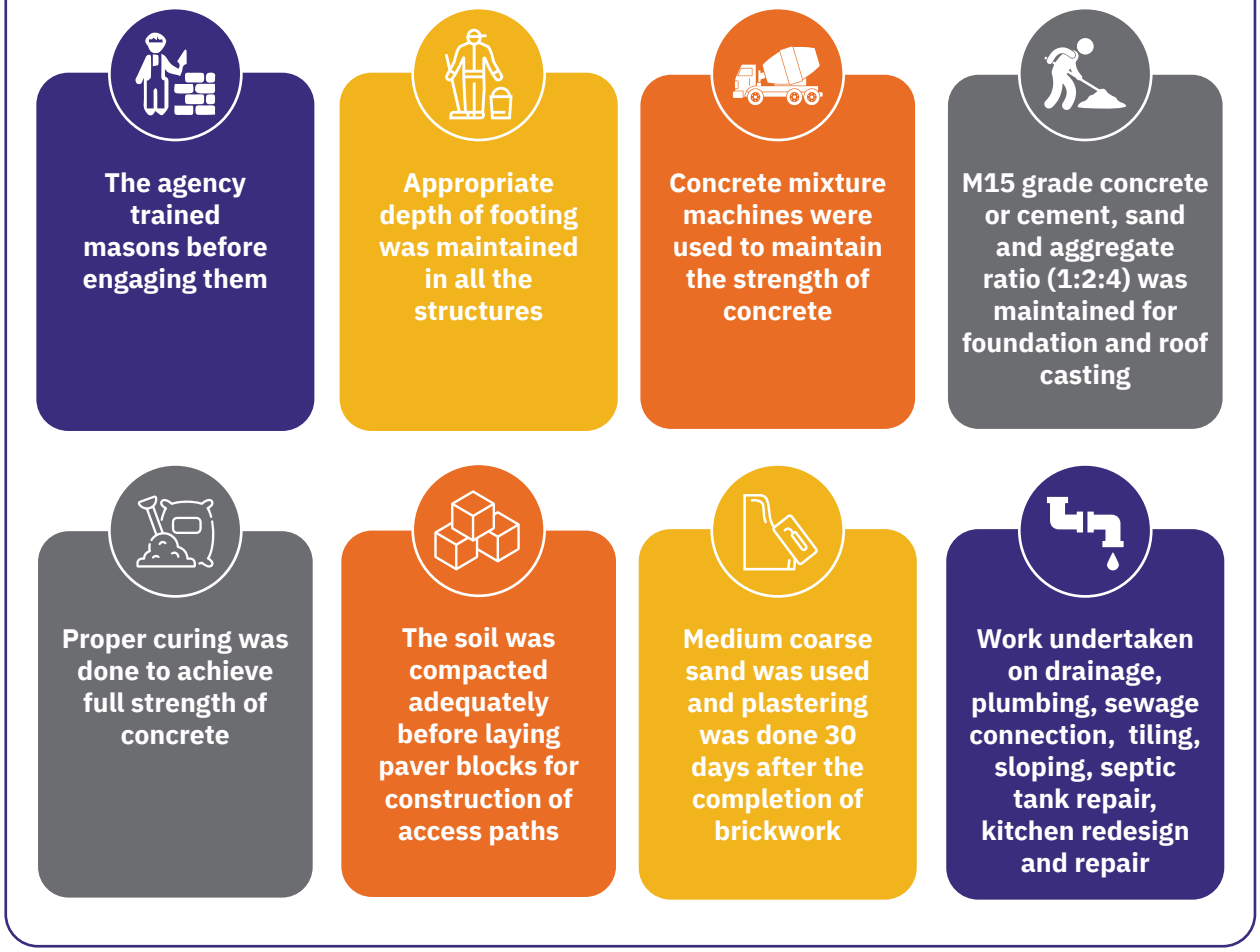
The Evaluation team visited each of the 9 schools between March 29 and April 9, 2021. They conducted focus group and interviews with school officials, teachers, students, and other stakeholders through interview schedules, focused group discussions, observation, and surveys. Retrofitted WASH facilities and other construction activities were inspected. However, due to the COVID-19 restrictions and poor attendance in schools, the evaluation team could not assess the use of the WASH facilities and changes in hygiene behavior practices of the pupils.

Status of infrastructure renovated or retrofitted

The project covered the repair of cracks in walls, replacement of roof sheets blown away by the cyclone, as well as the renovation of toilet blocks, hand washing stations, and school kitchens. Further, pathways were created for better access to the WASH facilities as below:

The engineering quality of the works is shown in **Figure 4.1.**

Figure 4.1: Engineering quality of the works



Field visit Report: Description of the installed facilities and the other interventions

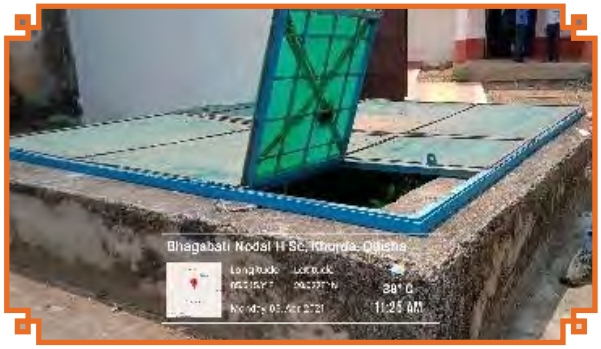
On the teachers' and SMC members' request, only one tank was provided at Bhagabat Dev Bidyapitha, instead of the planned two, as it was felt one was adequate. Documentation was maintained at every stage from joint assessment to hand over. From the money that was saved, as access path was created in front of the kitchen.

In Chintamani Bidya Niketan, although a 2 HP submersible pump was installed, the school preferred to use the old pump till it became dysfunctional. Accordingly, the new one was handed over to the school for future use.

- *The toilet blocks in all the schools were found to be gender-segregated and had latrines and urinals with running water supply, adequate light, and ventilation.*
- *Incinerators were provided in the girls' toilets, which were used as changing rooms.*
- *Toilets in the seven schools which had children with special needs (CSNW) were fitted with commodes and ramps*

The renovated handwash stations have many unique features: Elevated soap dispensers, soap dispensing taps between water taps, water, and soap dispensing taps at different heights for younger and older children.

Pathways were created to facilitate access to the stations, and waste water was diverted to the kitchen garden.



All schools had two water sources: a dug well and a borewell fitted with a submersible pump. In addition, six schools had drilled wells, with sheets protecting the water from contamination. The dug wells were cleaned with lime and bleaching powder.

Two water tanks with a capacity of around 3,000 litres were installed at a height to ensure gravitational flow and good water pressure.

A water purifier and cooler have also been installed.

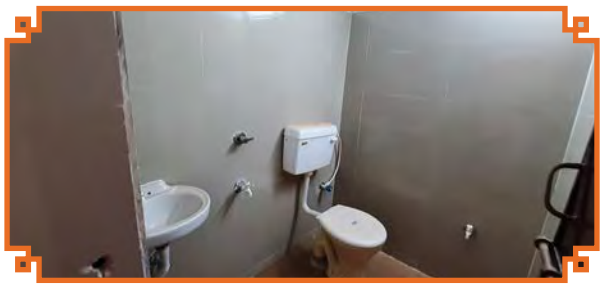
- The renovation for mid-day meal kitchens had a hygiene process built in. The floors were fitted with tiles, dish wash stations were constructed adjacent to kitchens, taps were repaired, and slabs built for storing utensils. The washing area was sheltered, iron pipes were used as columns in the GI roof truss with adequate depth for footing bracing bars were used as purlin to support the structure so as to withstand high wind pressure.

> ***The utensil washing platform is useful. We can wash oversized utensils comfortably because there is a sufficient gap between the tap and the floor.– Kitchen staff, Chintamani Bidya Niketan High School, Khorda***

- Soak pits, .9m to 1m in diameter, were constructed for all handwash stations, kitchens, toilets, and urinals to manage wastewater, in keeping with Swachh Bharat Swachh Vidyalaya guidelines.

- To eliminate the risk of water contamination, the soak pits were more than 10 meters away from the drinking water sources.
- Despite providing three dustbins to each school, waste was not being segregated.
- Each school had three to four wall paintings with messages on the importance of washing hands, use of toilets and rainwater harvesting.
- Due to the pandemic, awareness programmes were conducted in only five out of nine schools.

Toilets for the Children with Special Needs



Seven schools with CWSN students were fitted with western-style toilets and access ramps in keeping with Swacch Vidyalaya guidelines. However, the other standards for CWSN toilets such as handrails, landing area in the ramp, etc. could not be included due to the limitations of the existing structure. For e.g. In Bhagabati Nodal High School, the door of the CWSN toilet was partly blocked by the wash basin, hindering access.

Incinerator Tank of Zaitun Nisha High School

Incinerators

The incinerators were built at the back of the girls' toilet. One of the toilets had a sloping channel (chute) where the used sanitary pads could be dropped into the incinerator. The incinerator was covered with a slab and the used napkins would be burnt periodically.

Except in one school, all the incinerators had no opening for burning disposed napkins or any vent pipe for releasing smoke when the disposed of napkins would be burnt. In Kamaguru Nodal High School, the covering slab of the incinerator was found to be open, and the used napkins were visible.

The teachers and students knew the incinerators were for disposing the used sanitary napkins but most of them, except the headmaster of Kamaguru High School, were unable to explain what would happen to the disposed napkins.

The Senior Technical Consultant, SSM, Khorda, indicated some aspects in the civil work which needed improvements, e.g., absence of some of the features in the CWSN toilets, a minimal gap in between some of the soap dispensers etc. According to him, rectifications would have had some budgetary implications. However, he recommended prior consultation with the users to comply with recommended standards. E.g., Swachh Vidyalaya guideline for the future.

All the schools mentioned that in case of repairs, they had the contact details of plumbers, electricians and masons handy.

Teacher's initiative to protect WASH infrastructure from theft

- On March 13, 2020 Haladia Nodal Junior High School was shut indefinitely due to the pandemic. The prolonged closure left it vulnerable to theft. The teachers proactively removed the water taps and kept them in safe custody.

  Similarly, the teachers of Chintamani Bidya Niketan, Bhagabat Dev Bidyapitha, Baxi Jagabandhu Bidyadhara Govt. High School and Zaitun Nisha High School disconnected and locked up the water filters.

  Their initiative reflects ownership of the project by the school authorities, a critical driver for maintenance of the facilities.

Accessibility

- Water and soap dispensing taps were placed at different heights for younger and older children
- Access to WASH facilities was enhanced with all-weather pathways
- Ramps were attached to all the CWSN toilets
- Filtered water was accessible in five schools

Cleanliness

All the toilets were found to be free of litter, stains and stagnant water. However, these were sparingly used as the students were attending school for barely two hours. The toilets were cleaned once a week without disinfectants.

Investments for protecting WASH infrastructure

Earlier we used to allow students to go home to defecate and they never came back for the day but now we have sufficient toilets in the school and there will be no need to ask the students to go home for toilet use and they will not miss classes anymore.

Assistant Teacher
Zaitun Nisha High School

Sardhapur Project UP School mobilised Rs. 30,000 for protecting the water filter, water cooler and taps from theft. The equipment is enclosed in an area with iron grills. This is a short-term plan in the absence of a boundary wall. The long-term plan is to build such a wall, for which the school has raised another Rs. 40,000. It hopes to receive Rs. 1,20,000 under the Mo School initiative of government of Odisha.

Level of Satisfaction of the Stakeholders

19.2% of the students and 23.5% of the teachers were particularly appreciative of the long pathways connecting the school building with the toilet blocks, handwashing and drinking water stations. According to them, the pathways would be useful in the rainy seasons for accessing the infrastructures and maintaining the toilet blocks' cleanliness by preventing extra mud, which the students carry in their shoes and slippers during the rains. 90.4% of the students and 70.6% of the teachers expressed their satisfaction towards the retrofitting of the toilets. Renovation of the hand washing stations was appreciated by 64.7% of the teachers; installation of the incinerators was appreciated by 23.5% of the teachers. It reflects only relative preferences for satisfaction and in absolute terms they were generally happy with all the new facilities.

The students and teachers felt that the pathways would help them access the facilities during the monsoon. All the schools said they were involved in the planning stages, but for some, participation during the implentation was limited due to the lockdown and because their schools were used as quarantine centres.

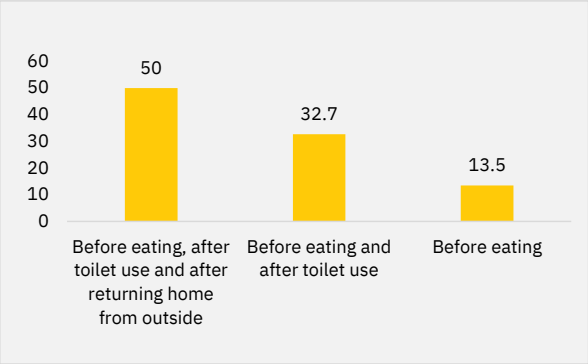
Hygiene Promotion Events and Practices

Hygiene promotion events: The project team could organise the events on behaviour change communication only in five schools due to the pandemic.

- Responses from the teachers and students Teachers actively participated in the training programmes. Interaction with the students showed they had sound knowledge of WASH practices, with some even demonstrating the hand washing protocol. 50% of the students said they would wash their hands before eating, after toilet use and after

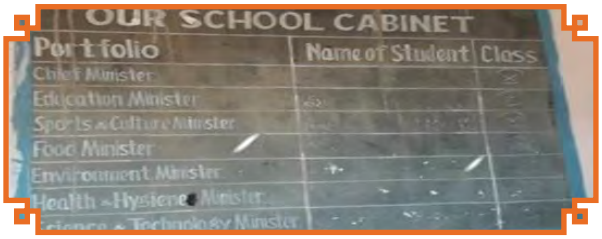
coming back home; 32.7% said they would wash their hands before eating and after using the toilet, while 13.5% said they would do so only before food (Graph 4.1). There were, however, other initiatives conducted before the pandemic with the support of Junior Red Cross and Khushi, which is a female health and hygiene programme run by the Government of Odisha. Four schools (Haladia Nodal High School, Chintamani Bidya Niketan, Baxi Jagabandhu Bidyadhara Govt. High School and Sardhapur Project UP School) confirmed that no hygiene training was received from the project team, which was confirmed by the local partner agency.

Graph 4.1: Critical times of hand washing

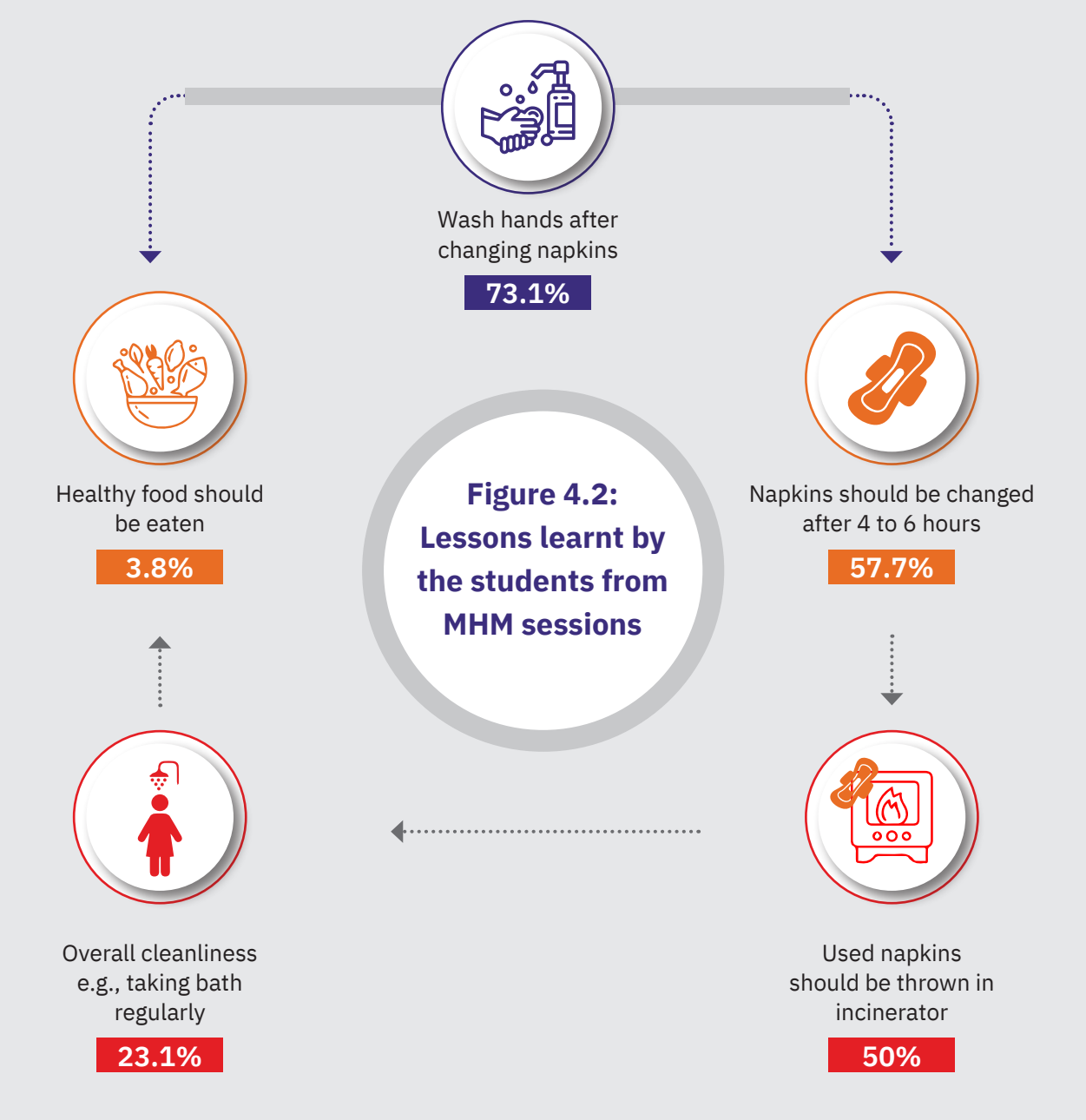


Photograph courtesy: Plan India

- **Good Swachh Vidyalaya practices:** Interactions with students and teachers indicated that they were following good hygiene practices. However, some of these could have been imbibed prior to the project through government initiatives such as Child Cabinet formation, availability of trained focal teachers, etc. High impact of the project intervention could be seen in the students' knowledge of hand washing practices. Students clearly recognised the large wall paintings depicting the steps and critical times of washing hands and clearly articulated some of the components of hand washing practices taught to them. Provision of menstrual hygiene facilities in schools was another milestone in improving school WASH.



- Three schools (Zaitun Nisha High School, Kamaguru High School and Baxi Jagabandhu Bidyadhara Govt. High School) had formed Child Cabinets in the past in which the students were associated. Permanent display boards in the corridors showed that the practice existed in the two schools. In the third one (Baxi Jagabandhu Bidyadhara Govt. High School) the collective work of school cleaning was still continuing. The head teacher of Zaitun Nisha High School confirmed that the meeting for the Child Cabinet used to be held on the last Saturday of every month. Both the schools confirmed that this year, the child cabinets have not been reconstituted as the schools are yet to be fully functional. The children confirmed that Child Cabinet existed in both the schools and those were active in promoting handwashing and cleanliness in the school. Some of the students mentioned that they were members of the Child Cabinets in the past.



(Teachers from Government Girls' High School, Zaitun Nisha High School and Kamaguru Nodal High School) who received training from the government. 92.3% of the girl students mentioned of participating in some MHM sessions and their responses on the learning have been shown in **Figure 4.2.**

Participation of the schools in the project

All the schools confirmed participation of their students, teachers and management in infrastructure planning. The processes included transect walks and group discussions for site selection and deciding the number of facilities. 52.9% of the teachers mentioned that they were involved mainly during site selection and in supervising construction. Involvement of teachers from schools declared as COVID-19 was minimal.

Operation and Maintenance (O&M)

All the head teachers were confident of mobilising the required amount for O&M of WASH infrastructure from the composite grant

as also from the annual fees collected from their students, ranging from Rs. 90 to Rs. 158 per child. Haladia Nodal High School committed an additional amount, if required, from their teachers' salaries. The Kamaguru Nodal High School initiated discussions with agencies such as the District Mineral Fund and NALCO, for mobilising extra grants.

The schools lacked specific ideas of O&M of the new equipment, such as the process of maintaining incinerators once the girls dispose of used sanitary napkins, the method of confirming that the filters are purifying water, and the steps needed for maintaining water filters and coolers. They were also not aware of how to procure liquid soap in bulk at reasonable rates for refilling soap dispensers.

Delegation of responsibilities and accountability for maintaining incinerators, water filter, water cooler and procurement of liquid soaps were to be done in all the schools.

A teacher and a group of students involved in school cleaning in BJB Govt. High School

Exploring low-cost alternative of liquid

The headmaster of Kamaguru Nodal High School felt that liquid soap was expensive for regular use. He came up with a novel solution and diluted 250 ml of water with 2 litres water. This indicates the positive impact of the awareness programme in the school, which focused on involvement of school staff in making available good WASH services in the school.

Challenges in maintenance of the facilities

1. Although documents such as warranty cards, user manuals, annual maintenance contracts related to fire extinguishers, water purifiers and water coolers were handed over to principals, they were not readily available. This could be because in 7 out of the 9 schools, principals have been transferred, while most schools were non-functional during the pandemic. Overall, the schools were confident about maintaining cleanliness of their toilets. In some cases, such as Kamaguru Nodal High School, the sanitation worker reported that there is only one cleaner for cleaning all the school infrastructure, toilets are cleaned once a week, only water is used for cleaning toilets and the level of awareness on toilet use amongst some of the students is poor. However, 36.5% of the students mentioned that cleanliness of the toilets could be maintained by pouring water before and after toilet use and using phenyl to clean them; 38.5% mentioned that flushing after toilet use was adequate to maintain cleanliness.
2. Impact assessment was a challenge, given that the reconstructed assets were not in full use. Schools in Odisha opened in January 2021 but only for the students of Class 9 and 10, who attended school for barely two hours a day. In the absence of full strength, most schools kept some facilities closed. Two upper primary schools, which cater to students up to Class 8, did not resume classes, and the facilities remained unused. Despite this, there was an improvement in WASH practices to a considerable level.
3. Another area of impact of the project interventions was the quality of drinking water. The area has high iron content, and water was not safe to drink, as SMC members of Sardhapur Project Upper Primary School mentioned. The schools were now getting clean, filtered water to drink.
4. Impact on students: The students got little time to use the facilities because of the pandemic. Despite this, the following was observed during interactions with them:
5. Knowledge of the various aspects of washing hands, including some critical occasions, was found to be precise. Most of the students mentioned two important events -- before eating and after defecation. In three schools, students demonstrated handwashing steps spontaneously.
6. The students could narrate the relationship between a clean toilet and good health.
7. Girls knew the benefits of incinerators, which were provided to all the schools. Used sanitary napkins were not found in any of the school premises, particularly behind the toilet blocks. Girls were satisfied with the improved MHM.
8. Reduction in absenteeism and dropouts, especially among girls, could not be assessed due to non-operational classrooms.

Impact on School Administration and Management:

Involvement of the teachers and SMC members improved after renovation. The heads of the schools appreciated the need for enhanced school WASH services. They were concerned about maintenance expenses to keep renovated infrastructures clean and functional.

The schools planned for additional funds to maintain the facilities. Seven of them planned to use a part of the annual fees collected from the students for O&M of the WASH facilities. The eighth one showed interest in mobilizing additional funds from the teachers' contributions. The ninth one was more dynamic and approached corporates like NALCO for mobilizing additional grants for the operation and maintenance.

In four schools, used soaps, new buckets, and new mugs were found inside the toilets, which indicated that an increase in involvement and initiative.

Findings on Project Indicators

The indicators for assessing the success of the programme were as follows: (i) For hardware installations, the quality of infrastructure, accessibility, functionality and cleanliness (ii) For the awareness events, interventions, knowledge and practice, and (iii) For operations & maintenance, knowledge and information on usage and maintenance, as also accountability for maintenance.

Summary of Improvement of WASH Infrastructures Under the Project

The status of functional WASH infrastructure before the project was compiled (baseline) from the DPRs, and that has been compared with the status after implementation of the project (end line). The same is presented in **Annexure III.**

Observations- Hardware Installations

Observations -- Hardware Installations

It was observed that learning was applied at the time of construction, and all the work was carried out as per the construction manual. Based on the school assessment report, some of the features to be observed were listed, and the field visit findings confirmed compliance with the manuals. These are:

1. Anchorage and bracing techniques
2. Use of cyclone safety hooks
3. Uses of GI clamps, U bolts
4. Pitch of the roofless than 30°
5. Maintain a proper ratio of concrete
6. Proper curing
7. Using weather course for grading of roof
8. Prevention from dampness
9. According to the manual, all the findings mentioned above and their demonstration at the time of construction are shown in Annexure IV.

Quality of infrastructure: The quality of construction, materials, and following of the manual for disaster-resilient construction were found to be satisfactory.

According to the manual, all findings mentioned above and their demonstration at the time of construction are shown in Annexure IX.

Functionality and Related Challenges (30 /12)

The toilet blocks and the water supply and filtration system were generally functional. In a few cases, these were not functional because of reasons extraneous to the project, or those were kept non-functional as a precautionary measure as the schools were not fully opened or completely closed.

- **Vandalism by the students** seems to be a challenge. In Zaitun Nisha High School, the water supply line was entirely damaged by the boys, resulting in the disruption of the water supply, including the boys' toilet block and also in the water filter. In Baxi Jagabandhu Bidyadhara Govt. High School, urinal pots were broken by the boys, and in Zaitun Nisha High School, a switchboard was found in damaged condition. The students are under psychological stress due to the pandemic situation. Once normalcy is reached, there is a need for more dialogue between the school authorities/teachers and the students, particularly the boys, to prevent vandalism.
- **Apprehension of theft** was another challenge. In one school, the taps were removed by the school authorities with the apprehension of theft, while in another school, those were fenced with an iron grill to protect those. This also shows the concern of the school authority and their positive action in protecting their assets.
- **Procuring materials** during the pandemic was another challenge. All the soap dispensers did not have liquid soap inside. Five schools, however, arranged ordinary soap to cope with the shortage.

Cleanliness: All the toilets were clean. However, those were used very scantily. A few of those were completely unused and locked because only a few students attended schools for a brief period. These will be opened after the schools are fully functional. There was no report of open defecation in any of the schools. The cleaning frequency remained once a week, as reported by the sanitation worker with whom the team interacted, and there was no disinfectant for toilet cleaning.

Awareness & Changes in Sanitary Practices

Interventions: There were confirmations from the students and the teachers of five schools on the project-led awareness events. In all the 7 open schools, students recognized the paintings on the walls and could refer to the handwashing and toilet use messages mentioned there.

Knowledge & practice level improvements:

- The basic knowledge on handwashing and toilet use was found satisfactory among the students at the time of the

interview, e.g., students articulated most appropriate handwashing times, duration of handwashing, water use at the time of toilet use, etc.

- All the interviewed girls were found to be informed about the presence of a sanitary napkin disposal system in their schools. Used sanitary napkins were not found anywhere on the school premises.
- School authorities in four schools were found to have created a favourable environment for toilet use by providing soaps, buckets, and mugs (Zaitun Nisha High School, Kamaguru High School, Bhagabati Nodal High School, and Baxi Jagabandhu Bidyadhara Govt. High School).

Convergence with Community/ Government

The Senior Technical Consultant of SSA, Khorda, appreciated the intensive collaboration of the Plan India staff with his office at the various stages, which, to him, was a unique feature of the project. Partnership with the government for implementation of the project was strong, which is reflected from the various government orders issued from time to time and from the interview of the Senior Technical Consultant, SSA. According to him, collaborations started from a selection of the schools and in monitoring progress. The government team had given feedback on the construction work, but some were not possible to implement as those required reworking, resulting in excess expenditure beyond the approved budget.

Sustainability of Project Interventions

The project interventions are to be owned by the community through their understanding of the issues and their participation to ensure the sustainability of the benefits. Community participation was spontaneous in three schools that were located remotely (Sardhapur Project UP School, Kamaguru Nodal High School, and Bhagabati Nodal High School). The school management committee members were readily available.

They seemed to have been involved when the project was under implementation as the attendance of the teachers was irregular during the period of lockdown. The school staff also came forward to sustain the improved WASH services. The cook of Bhagabati Nodal High School, who is responsible for cooking mid-day meals, agreed to clean the school toilets to keep those clean, which proves their willingness to participate in the functioning of the facilities in the schools.

Maintenance and Sustainability Plan of WASH Services

Two types of initiatives have been observed in the schools about the fund mobilization, one for the regular upkeep of the facilities and the other for protecting the facilities from damage when not in use. There was a unanimous feeling among the heads of the schools that the annual composite grant would be insufficient for the operation and maintenance.

They planned to partly use the amount collected from the students as yearly fees. In case there is a shortfall, Haldia Nodal High School planned to collect contributions from their teachers, who often contribute to the various developmental work of the school. Kamaguru Nodal High School had gone one step ahead and approached a corporate, NALCO, for mobilizing funds for the operation and maintenance of the facilities. Some other examples of resource mobilization are as follows:

- Bhagabat Dev Bidyapitha has a system of maintaining relationships with the school alumni for mobilizing grants from them.[2]
- Kamaguru Nodal High School has fenced one part of the corridor from their fund for placing the drinking water supply system.

Madhapur Project UP School invested Rs. 30,000 from the SMC and the Head Master cover the water taps with an iron grill as the school is without a boundary wall. They have also invested Rs. 40,000 with the government of Odisha's 'Mo School'26 initiative with the hope to get Rs. 120,000 from the government, which they will use for the boundary wall. This is evidence of high-level commitment by the members of the SMC and the Head Master, which was triggered by the high-quality infrastructure created under the project.

Data Source: Primary survey

[2] *Mo School is an initiative of the School and Mass Education Department of the Government of Odisha that aims to create a platform for people to connect, collaborate and contribute to revamping the government and government-aided schools in Odisha.*

Innovation in the WASH Services

An innovative process of water conservation was found in Baxi Jagabandhu Bidyadhara Govt. High School. A rainwater harvesting system has been developed using the large shed of the mid-day meal dining hall, approximately 40 meters long.

Rainwater gutter has been fixed along the length of the shed for collecting rainwater from the roof, having an area of 200 square meters. The collected water is used for recharging the groundwater through three soak pits, where the collected water is sent through downpipes.

Figure 4.3: Innovation in the WASH services in Baxi Jagabandhu Bidyadhara Govt. High School

Harvesting rainwater and recharging groundwater

Outlets of handwash station opening to the school garden

Conclusion & Recommendation

Conclusion & Recommendation

Conclusion

The project has been conceptualized and implemented within the Government of India's National Disaster Risk Reduction framework. The same has been achieved through the following:

a) There was an endeavour to understand the risk of disaster in the case of the government school buildings through an assessment carried out by a professional team of RedR.

b) Improving systemic capacity has been recognized as a critical component, and the project has focused on developing systemic capacity in managing the disaster.

c) Disaster risk governance has been strengthened by bringing all the relevant government agencies/ departments under one umbrella, which will help in better collaboration among them in disaster-resilient renovation and new construction with lower disaster risk.

d) Some of the most appropriate structural and non-structural measures have been recommended through a manual to guide in constructing and renovating disaster-resilient schools/ other buildings across Odisha.

e) The project has built cyclone resilient infrastructure in the 9 cyclone hit schools that FANI badly damaged to demonstrate the new approach and provide hands-on training.

f) Environmental and natural resource management approaches have been incorporated in the project by ensuring the application of soak pits for groundwater recharging and reuse of greywater for gardening.

The systemic development related to post-disaster response, through the building capacity of OSDMA, has been a very novel intervention by NSE Foundation. It has high potential to improve the renovation and construction of school buildings and WASH facilities to better withstand disasters like cyclones, particularly in coastal Odisha, by applying the technology transferred to OSDMA. Also, that will not involve extra cost compared to conventional construction. That opens up a new dimension in disaster management and post-disaster response.

To what extent the above will be achieved, will depend on (i) the state policy of using the manual developed under the project in construction and renovation of buildings, particularly school WASH infrastructures, (ii) the ability of OSDMA to train engineers engaged by the state government and other public agencies as well as those engaged in private construction and (iii) sensitizing all other stakeholders like the Sarpanches, Zilla Parishads and district administration on this new approach towards the creation of disaster-resilient infrastructures.

The renovation of the WASH infrastructure of 9 identified schools was well executed despite several difficulties during the pandemic. The manual was utilized in training the persons concerned. The school authorities, teachers, and students were happy to upgrade their infrastructure, inspiring the school authorities and the headmasters to improve the other schools' infrastructure. They have also taken innovative measures to protect the assets.

The provision of MHM facilities, including the installation of incinerators in schools, was much appreciated by the girl students, which will help attain the broader goal of promoting girls' education.

O&M of the facilities, including cleaning, has remained a challenge, primarily due to the limited provision of funds. However, most schools have taken the initiative to mobilize required funds, including through some innovative means, which is expected to bear fruit when the situation becomes normal being free from the pandemic. The other challenge

is the institutionalization of the maintenance arrangement. Some gaps in understanding maintenance needs and processes were found in the study regarding new gadgets like fire extinguishers, water purifiers, and water coolers. There was also no clear accountability of who will look after the maintenance, in which case the responsibility rests with the headmaster/ headmistress. However, most of them were not new to the school. This was probably caused by the transfer of 7 out of 9 headmasters/ headmistress, and the schools remained closed due to the COVID-19 pandemic. The state government needs to appropriately address these issues for sustained benefits of the project interventions.

The other challenge is vandalism by the students. There is a need to revamp the child cabinet system, which existed before the pandemic after the school opened. There is a need for more students' engagement in owning and maintaining the facilities and preventing vandalism.

There is a need to improve some of the infrastructure like the incinerators and the toilets for the CWSN for more comfort of the wheel-chair based users.

The wall paintings were clear and attractive and seemed to communicate the messages on effective handwashing, and toilet use is conveyed well through those paintings. The child cabinet members need to be oriented afresh on various aspects of behaviour changes related to WASH and O&M of the facilities. There is a need for continuity of behaviour change communication on WASH to the students, preferably at least once a year. The state government is expected to take appropriate measures, considering the importance of improving school WASH after the schools reopen.

Recommendations

- **Training & capacity building:** Out of the four trainings proposed to be held to train the stakeholders on disaster resilient construction, one could not be held because of the pandemic situation. The same may be completed once the pandemic-related restrictions end and restore normalcy.
- **Dissemination of the manual and further training:** The manual needs to be disseminated, and the competence of technical personnel on disaster-resilient construction is to be built in all the coastal districts of Odisha. The government of Odisha and the National Disaster Management Authority (NDMA) may be approached to support additional training to cover all the stakeholders of the coastal districts of Odisha.
- **Sharing the success with other states/ authorities:** The manual may also be shared with the Disaster Management Department of different state governments and the National Skill Mission for building the capacity of the engineers/other technical professionals working in the disaster-prone areas of the country.
- **IEC activities:** Sensitization of the students on hygiene through behaviour change communication could not be conducted in four schools because of the pandemic. Those are to be completed after the schools reopen.
- **Operation & Maintenance:** There is a need to generate awareness among the Headmasters/ Headmistress of the schools on proper maintenance of new facilities like water filters, coolers, and incinerators. It will be useful to arrange one round of sensitization of the Headmasters/ Headmistress, most of whom have joined the school on transfer during the pandemic. The sensitization should focus on institutionalizing the maintenance mechanism so that the maintenance system does not become dependent on any particular individual.
- **Increasing the number of toilet infrastructure:** In the majority of the schools, it was found that the toilet: student ratio was below the Swachh Vidyalaya norms. Initiatives need to be taken by the school authorities to achieve the desired balance. Support of the local Panchayats may also be sought since 30% of the total grant that any Panchayat receives per the recommendation of the 15th Finance Commission is earmarked for improving sanitation, and school toilets may be improved out of that fund.
- **Scaling up innovative measures:** Baxi Jagabandhu Bidyadhara Govt established the rainwater harvesting system. High School is very innovative. Such actions deserve to be replicated in all the schools to cope with water scarcity, which is likely to increase due to climate change.

Annexures

Annexure-I: List of documents reviewed

1. Proposal
2. Final DPRs, drawings, and cost estimation
3. Bill of Quantities
4. Process documentation of the project
5. Permission letters & Government Circulars
6. Handing over documents
7. Structural and non-structural assessment of FANI affected schools
8. Report of the training of engineers from Government departments on safe construction practices
9. Report of the training of safe construction practices for NGO professionals
10. Report of the training for masons, carpenters, and Sarpanches on safe construction practices
11. A manual for engineers and construction professionals on resilient school's construction and its annexures:
    - Detail plan, front elevation, and sectional elevation of one room classroom construction for 40 students
    - Details drawing of Mid-day meal kitchen and dining.
    - Detail plan, front elevation, and sectional elevation n of toilets for boys, girls, and differently-abled children
    - Size of the septic tank and soak pit
    - Details for the construction of an incinerator
    - Details of bar binding for foundation, column, beam, slab.
    - Detailed estimate for construction of room and toilets, mid-day meal kitchen.

Annexure II: Survey tools

Individual interviews – Students

Name of the student:	**School:**
Name of interviewer:	**Date:**

1. Are you happy with the work done under the project?
   Yes / No (Put tick ✓)

Kindly explain why you are happy or unhappy.

2. Did you participate in any session on handwashing? Yes / No (Put tick ✓)

If the response is yes, ask the following:

- When should we wash our hands?
- How long should we wash hands?
- Is soap necessary for handwashing? Do you get soap all time you wash hands in school?
- Do you get soap for washing hands at home?
- Could you show us the steps one should follow for proper handwashing?
- How clean hand is important for good health?

3. **Only for girls** – Did you participate in the event on Menstrual Hygiene Management? Yes / No (Put tick ✓)

   If the response is yes, ask her to explain what she had learned and practices from the MHM class. (Probe in the aspects of time for changing napkins or cloth, disposal of used napkins or cloths, hand washing after changing napkins, etc.)

   Whether comfortable in using the incinerator in case the incinerator is installed in the school?

4. Why should we keep our toilets clean?
5. What will you do to keep toilets clean? Brief description in points
6. Are you a group member (Child Club / Child Cabinet/ Bal Sanshad)? Yes / No, Put Tick ✓)
7. Do you know whether any such group is there in your school? Yes / No, Put Tick)

If the response is yes as the following question

8. What all the child club /cabinet / Bal Sanshad does, confirm from the list below:
   i. Checking availability of soaps in the handwashing stations and toilets. Yes / No (put tick ✓)
   ii. Facilitate handwashing before mid-day meal, Yes / No (put tick ✓)
   iii. Supervising handwashing of the kitchen staff. Yes / No (put tick ✓)
   iv. Supervise toilet cleaning. Yes / No (put tick ✓)
   v. Check toilets and taps before daily closure of the school, Yes / No (put tick ✓)
   vi. take part in school cleaning, Yes / No (put tick ✓)
   vii. Take part in celebrating water day, MHM day, handwashing day, toilet day, etc. Yes / No (put tick ✓)
   viii. Any other (If the response is any different, kindly explain)
9. Have you come across any material (posters, banners, wall writing, etc.) in your school which reminds you of some habits on cleanliness? If 'yes,' describe them briefly if you remember.
10. Does your school have a water harvesting structure? What is the importance of it? How can we prevent the misuse of water?

Individual interviews – CWSN (Child with Special Needs)

Name of the school:	Name of the child:
Name of the interviewer:	Date:

1. How do you come to school?
2. Is there anything made in the recent past that is helpful for you in the following:
    - Entering the school premise –
    - Accessing classrooms –
    - Accessing dining area -
    - Accessing handwashing taps –
    - Accessing drinking water taps-
    - Accessing toilets -
3. Do you still have difficulty accessing/using any of the following facilities?
    - Entering the school premise –
    - Accessing classrooms –
    - Accessing dining area -
    - Accessing handwashing taps –
    - Accessing drinking water taps-
    - Accessing toilets -
4. Did you participate in any session on handwashing? Yes / No (Put tick ✓)

If the response is yes, ask the following:

- When should we wash our hands?
- How long should we wash hands?
- Is soap necessary for handwashing? Do you get soap all time you wash your hands in school?
- Do you get soap for washing hands at home?
- Could you show us the steps one should follow for proper handwashing?
- How clean hand is important for good health?

5. Why should we keep our toilets clean?
6. What will you do to keep toilets clean? Brief description in points
7. Are you a group member (Child Club / Child Cabinet/ Bal Sanshad)? Yes / No, Put Tick
8. Do you know whether any such group is there in your school? Yes / No, Put Tick

If the response is yes as the following question

9. What all the child club /cabinet / Bal Sanshad does, confirm from the list below:
    ix. Checking availability of soaps in the handwashing stations and toilets. Yes / No (put tick ✓)
    x. Facilitate handwashing before mid-day meal, Yes / No (put tick ✓)
    xi. Supervising handwashing of the kitchen staff. Yes / No (put tick ✓)
    xii. Supervise toilet cleaning. Yes / No (put tick ✓)
    xiii. Check toilets and taps before daily closure of the school, Yes / No (put tick ✓)
    xiv. take part in school cleaning, Yes / No (put tick ✓)
    xv. Take part in celebrating water day, MHM day, handwashing day, toilet day, etc. Yes / No (put tick ✓)
    xvi. Any other (If the response is any different, kindly explain)
10. Do the members of the child club/child cabinet/ Bal Sanshad help you? How?
11. Did you participate in any activity, game, training, or discussion related to cleanliness? If 'yes,' briefly tell us what all you remember.
12. Have you come across any material (posters, banners, wall writing, etc.) in your school which reminds you of some habits on cleanliness? If 'yes,' describe them briefly if you remember.
13. Did anyone ask your opinion when the toilets etc., were being constructed? If 'yes,' please describe what all you remember.

Individual interviews – Teachers

Name of the school:	Name of the teacher:
Date:	Interviewer:

1. Are you satisfied with the work, kindly explain? Yes / No (Put tick ✓)
2. Did you have any role in the project? Yes / No (Put tick ✓)

If the response is 'Yes,' briefly describe

3. Did you participate in the activities/ training/ discussions on handwashing, menstrual hygiene management, and maintaining cleanliness? Could you kindly explain what covered (topics) and how they were taught?
4. Are you happy with the content and the method of communication? Any idea on whether the teachers contributed to the contents and methods of communications.
5. Do you think that children are practicing some of them in school? From your observations, could you kindly tell us two hygiene behaviours which the children are practicing with utmost sincerity?
6. Is there any teacher in your school who is responsible for WASH and DRR?

Yes / No (Put tick ✓)

7. Did they undergo any training on these subjects? (Yes / No/ Do not know)
8. Do all the teachers wash hands with soaps before eating and after toilet use? (Yes / No)
9. Do you get soap in your toilets and handwashing areas? (Yes / No)
10. Is there any child cabinet/child club in your school? Do you think they are active? If active, why do you think that they are active?

    Child cabinet/club exists: Yes / No (Put tick ✓)

    Whether active Yes / No (Put tick ✓). If active, why do they think so?

Are they involved in the following?

i. Checking availability of soaps in the handwashing stations and toilets. Yes / No (put tick ✓)

ii. Facilitate handwashing before mid-day meal, Yes / No (put tick ✓)

iii. Supervising handwashing of the kitchen staff. Yes / No (put tick ✓)

iv. Supervise toilet cleaning. Yes / No (put tick ✓)

v. Check toilets and taps before daily closure of the school, Yes / No (put tick ✓)

vi. take part in school cleaning, Yes / No (put tick ✓)

vii. Take part in celebrating water day, MHM day, handwashing day, toilet day, etc. Yes / No (put tick ✓)

viii. Any other (If the response is any different, kindly explain)

11. Do you remember and share one or two exciting events that had happened while the project was under implementation or immediately after that?

Individual interviews – Headmaster/ Headmistress

Name of the school:	Name of the HM:
Name of the interviewer:	Date:

Request the HM to provide someone to accompany for a transact walk. Visit all the areas, including toilets, handwashing stations, drinking water stations, mid-day meal kitchen, dining hall, classrooms, etc. List down the infrastructures provided under the project and other observations. Share with the HM the list of infrastructures to confirm whether all the items supplied under the project have been included. Add if anything is left out.

1. Are you satisfied with the work and the quality? (Put tick ✓)

Yes / No

Explain with reasons.

2. Were there events to encourage handwashing among the students? What was done as part of the event? Could you kindly remember approximately how many such events were organized? Was it about 12? Were the events for all the students or some groups of students? Do you have any documents relating to the event or any photographs? May we have a copy of the document, if any, and pictures?
3. How was the event promoted the facilities' cleanliness, usage, and maintenance? Could you kindly share a brief report or photograph of the event, if you have them?
4. How were the events carried out for promoting awareness on Menstrual Hygiene Management for adolescent girls? How many such events took place? Did all the girls participate in them, or did some participate? Were there nearly six events? Could you kindly share any report or photograph of the event?
5. Were there events on health, diseases, and good practices? Kindly explain what all happened under these activities. How many were such events organized, approximately 6? Could you kindly share any report or photograph on these events?
6. Was it possible to carry out training for SMCs? Kindly explain what happened under that activity and how many such activities happened, approximately 6? Were you part of the event? Could you kindly share any report or photograph of the event?
7. Was it possible to carry out 3 training of Teachers /Kitchen /sanitation staff? Kindly explain what all happened in training. Could you kindly share any report or photograph of the event?
8. Do you see any result from awareness events under the project?
9. Do you think you would be able to ensure the following for all the infrastructure, including the new ones with the annual composite grant?
    - Repair of infrastructures (Yes / No)
    - Regular engagement of cleaners (Yes / No)
    - procurement of cleaning materials (Yes / No)
    - Procurement of soaps for toilets and handwashing stations (liquid soaps) (Yes / No).
10. If the Composite grant is insufficient, how would you mobilize additional funds? (Ask if some responses to the last questions are 'no.'
11. Is there any dedicated teacher in your school who looks after water sanitation & hygiene activities and 'disaster risk reduction? Did they receive training on these subjects? If yes, then from which agency?
    - Dedicated teacher (Yes / No)
    - Received training (Yes / No)

If trained, name of the agency -

12. Is there any child cabinet / Bal Sanshad/ child club/ in your school?

Child Cabinet – Yes / No (put tick ✓)

Do they perform the following?

i. Regularly check the availability of soaps in handwashing stations and toilets. Yes / No (put tick ✓)

ii. Facilitate handwashing before mid-day meal, Yes / No (put tick ✓)

iii. Ensure that the kitchen staff is washing hands before cooking. Yes / No (put tick ✓)

iv. Supervise toilet cleaning, Yes / No (put tick ✓)

v. Check toilets and taps before daily closure of the school, Yes / No (put tick ✓)

vi. take part in school cleaning, Yes / No (put tick ✓)

vii. Celebrate water day, handwashing day, MHM day, toilet day? Yes / No (put tick ✓)

viii. Any other (If the response is any different, kindly explain)

13. Do the child cabinet/club meet every month to discuss the progress of their work.
    - Monthly meeting of the child cabinet/ club (Yes / No), Put tick ✓.
    - Date of the last meeting minute ——————————.
    - Total meeting minutes available ——————————.
14. Will you kindly let us see the last School Development Plan and School Safety Audit report? (Copy available / Not-available)
15. How many cleaning staff do you have? How many are involved in cleaning toilets, urinals, and handwashing stations? Do they clean toilets daily, once a week, etc.?

If 'yes,' how satisfied are you with their work?

If 'no,' what are the reasons?

16. Do you think that the cost of O&M would increase as a result of installing additional facilities, e.g., water filters, incinerators, water tanks, cleaning of tanks, cleaning of toilets, etc.?
17. Do you have warranty documents for the water filter, incinerators, etc.?
18. Is there any water test report available with you which was carried out after installing the infrastructures & filter? Could you show us any water test reports available to you?
19. Have you taken any initiative for disposal of wastes in a more systematic manner, e.g., dustbins in classes, corridors, segregations of food wastes, etc.?
20. Is the water harvesting structure functioning all right?
21. Please let us know one good thing that has happened while the project was under implementation or due to the project. (Describe briefly).
22. How helpful is the project for you? Could you kindly give it to us in writing?
23. How can the quality of such projects be improved? (Describe briefly)
24. Do you know about Swachh Vidyalaya Programme? Since most of your infrastructures renovated, would you like your school to participate in the competition under Swachh Vidyalaya Programme?

Individual interviews – Admin Staff

1. Are you happy with the work, kindly explain? Yes / No (Put tick ✓)
2. Did you have any role in the project? Yes / No (Put tick ✓)

If the response is 'Yes,' briefly describe

3. Is there any teacher in your school who is responsible for WASH and DRR?

Yes / No (Put tick ✓)

4. Is there any child cabinet/child club in your school? Do you think they are active? If active, why do you think that they are active?

Child cabinet/club exists: Yes / No (Put tick ✓)

Whether active Yes / No (Put tick ✓)

If active, explain briefly what do they perform?

5. Do you remember and share one or two exciting events that had happened while the project was under implementation or immediately after that?

Event 1

Event 2

Individual interviews – Kitchen staff

Name of the school:	Name of the staff:
Date:	Interviewer:

1. Could you kindly explain what was done under the kitchen and dining hall project?
2. Did you attend any training when the work was going on for the repair and renovation of the toilets, handwashing stations, kitchen, etc.? What were all told in training?
3. What according to you should be done to improve the hygiene condition of the kitchen. (While interacting with the staff, please observe the overall hygiene conditions of the kitchen and record specific points).
4. What kind of support will help you improve hygiene practices in the future?
5. What hygiene practices do you follow while cooking and serving foods in the school? Some observations should also be made and recorded.
   - Handwashing with soaps before cooking –
   - Handwashing with soaps before serving foods-
   - Keeping cooked foods in a covered container-

Please see whether used soaps are available with the kitchen staff, indicating that they practice handwashing.

6. Do most kids wash their hands before eating mid-day meals (Yes / No).

If the response is 'no,' explore the reasons

7. Do they get soap for handwashing every day before mid-day meal (Yes / No)

If the response is 'no,' explore the reasons

8. Do most children wash hands with soaps before eating and after toilet use? (Yes / No).

   If the response is 'no,' what are the reasons?

Individual interviews – Sanitation Workers

Name of the school:	Name of the sanitation worker:
Date:	Interviewer:

1. How long are you working in the school? Put tick ✓ in the following:

- 6 months,
- 1 year
- 2 years
- 3 years
- 4 years
- 5 years
- More than 5 years

2. What all do you clean in the school? Put tick ✓ in the appropriate group.
   - Toilets including urinals
   - Toilets, urinals, and handwashing platforms
   - Toilets, urinals, handwashing platforms, and outlet drains
   - Toilets, urinals, handwashing platforms, outlet drains, classrooms, and corridors
3. How many times do you visit the school to clean toilets? Put a tick in the appropriate option:
   - Once a week
   - Once in two days
   - Once a day
   - Twice a day (When the school starts and after mid-day meal)
   - More than twice (spends 5 hrs in the school)
4. What do you use for cleaning toilets and adjacent areas?
   - Only water
   - Water and Phenol
   - Water, Phenol, Bleaching and other materials

5. What challenges do you find in keeping the toilets clean? How can these challenges be addressed?
6. Other than money, what will motivate you to keep the toilets clean in a better way?
7. Did you attend any training when the work was going on to repair and renovate the toilets and other facilities? What were all told in training?

Individual interviews – PWD Engineer

Name of the engineer:	**Interviewer:**
	Date:

1. Were you involved in the stages of planning and implementation of the project?
2. If the response is yes, then ask, "What all were done for improving the quality of the infrastructures to resist disasters of the future"?
3. What else should have been done to improve the quality of work further?
4. Do you have any advice for implementers of such projects in schools?

Individual interviews – Project Manager (NGO)

Project Manager:	**Date:**
Interviewer:	

1. The project timeline was from August 2019 to October 2020 (Handovers were done in October 2020). Carrying out activities from March 2020 onwards must have been extremely difficult. But, was it possible to carry out all the planned awareness events because the students and teachers were mostly unavailable?
2. Was it possible to carry out 108 handwashing awareness events? What was done under these events? Could you kindly share some brief reports or photos of these?
3. Kindly explain what all happened under this activity. Was it possible to carry out 9 events to promote the facilities' cleanliness, usage, and maintenance? Could you kindly share a brief report or photograph of the event?
4. Was it possible to carry out 54 events for promoting MHM? Kindly explain what all happened under that activity. Whether all the students participated or some groups did take part. Could you kindly share any report or photograph of the event?
5. Was it possible to carry out 54 health, diseases, and good practices? Kindly explain what all happened under that activity. Could you kindly share any report or photograph of the event?
6. Was it possible to carry out 54 SMC trainings and group activation? Kindly explain what happened under that activity whether any training material was followed. Could you kindly share any report or photograph of the event?
7. Was it possible to carry out 27 training of Teachers /Kitchen /sanitation staff, if any? Kindly explain what all happened under that activity. Could you kindly share any report or photograph of the event?
8. Kindly brief us on disaster-resilient components in the WASH hardware and the software interventions?
9. In how many schools' incinerators have been installed? Are those manual or electrical? Are the students using them? In the case of manual incinerators, has anyone taken the responsibility of burning them?

10. What has all been done to operate and maintain the installed infrastructures?
    - Do the schools know the total cost of maintaining the newly installed infrastructures?
    - Have they incorporated the costs in the school development plans?
    - Have all the schools regularised engagement of the sweepers (Initially, 2 schools had sanitation workers and 7 did not. Any idea on the current status?).
11. Please let us know the initiatives undertaken for sustaining the good behaviours inculcated through the project.
12. Challenges faced in rolling out the events to improve awareness of the kids. Attempts made to overcome them, e.g., getting time out from the school schedule, due to COVID availability of students and teachers were restricted, etc.
13. Please identify three best performing schools out of 9 based on their participation in the software events and sincerity towards hygiene practices.
14. Did you observe any exciting outputs/ innovations in these schools? Would it be possible to get any photos related to it?
15. If 'yes,' kindly share.
16.
17. Were there any learning from these schools you would like to apply to similar projects in the future?
18. All inputs have made the project a model (Since the name is Creating Disaster Resilient and Child-Friendly Model Schools in Odisha.? What is unique in the model? Which components of the project would you like to showcase in the future to ensure replications in the construction work and the Behaviour Change components?

Individual interviews – Auditor

Name of the Auditor/representative:

Interviewer:

It would be better to examine the TOR of the auditor and the audit report submitted after auditing the project, which is unavailable at the moment.

1. Observations on the line items where the percentage deviation is more than 10 percent. Understanding valid reasons behind them.
2. Feedback on the contractor selection process and selection of the service providers and compliances followed therein.
3. Comments on the compliances on procuring the various materials/items per the organization's standard norms and policy document.
4. Are you satisfied with the finance management of the project (Yes / No)

   Justifications for your answer
5. Did you cross-check the narrative and financial reports? Did you find any discrepancy?

Individual interviews – CBO

Name of the CBO / SHG:	Close by project school:
Name respondent:	Interviewer:

1. Do you know that some repair, renovation and awareness development work happened in the schools? Could you kindly explain what all were done under the project in ___ _____ _____ school?
   - Briefly describe constructions / renovations
   - Briefly describe awareness activities.
2. Do all the children have a toilet at home? (Y/N) Do they use toilets for defecation, or do some of them, the younger ones, defecate in the open?
3. Do most children wash hands with soaps at home before eating and after toilet use? (Yes / No).

   If the response is 'no,' what are the reasons?
4. Do the parents know the importance of 'soap' for handwashing? Are the soaps used when people wash hands at home?
5. How is the handwashing practice percentage among the parents? Has it increased recently? If increased, what are the reasons?

Individual interviews – District & State Government Officials

Name of the officer:	Designation:

1. We know that the project was implemented in close collaboration with your office. Were your involvement limited to the following:
   - Planning and designing hardware
   - Monitoring quality of hardware installations
   - Planning and designing software
   - Endorsing the training module and posters produced by the agency.
   - Any other (Kindly explain if the response is any different)
2. Would the schools maintain all the infrastructures and provide sufficient soaps using the annual school composite grant since the cost has increased due to added facilities (increase number of toilets, filters, etc.)?
3. If the grant becomes insufficient, what should the schools do, considering the relevant points of the Right to Education Act 2009?
4. Do the schools prepare school development plans annually? Do the plans reflect the operation and maintenance budgets of the schools? If making School Development Plan has not been regularised, what are the reasons? What should be done to ensure that the School Development Plans are prepared annually?
5. Do the school management committees undergo training on their roles and responsibilities?
6. Do the schools include School Disaster Risk Reduction Plan and School Safety Plan in the School Development Plans?
7. Do the schools carry out School Safety Audits every quarter? If the response is 'no,' what are the reasons?

FGD with the Students

Name of the school:	Date:
Facilitator:	

1. Please tell us whether you know about recent work done to repair toilets, handwashing infrastructures, kitchen, etc.

   (i) What were all constructed under the work? Did anyone ask the opinion of some students of your school before the construction work?

   (ii) Did students participate in activities, games, trainings, discussions when the project work was going on (briefly explain)?

   (iii) Have you seen/received any material in the / from the school which reminded about some good behaviours on cleanliness, e.g., posters, banners, etc.?

2. Who all participated in the session on handwashing? (Approximate %)

   Ask the following questions to understand their knowledge and practice:

   - When should we wash our hands?
   - How long should we wash hands?
   - Is soap necessary for handwashing? Do you get soap all time you wash hands in school? What do you do if soap is not available? How do you ensure that soap is available in the proper places (toilets and handwashing stations)?
   - Do you get soap for washing hands at home?
   - Did you share what you learned on handwashing with your parents?
   - Could you show us the steps one should follow for proper handwashing?
   - How clean hand is important for good health?

3. **Only for girls** – Did you participate in the event on Menstrual Hygiene Management? Yes / No (Put tick ✓)

   If the response is yes, ask her to explain all she learned and practices from the MHM class. (Probe in the aspects of time for changing napkins or cloth, disposal of used napkins or cloths, hand washing after changing napkins, etc.)

   Whether comfortable in using the incinerator in case the incinerator is installed in the school?

4. Why should we keep our toilets clean?
5. What will you do to keep toilets clean? Brief description in points
6. Are you a group member (Child Club / Child Cabinet/ Bal Sanshad)? Yes / No
7. Do you know whether any such group is there in your school? Yes / No, Put Tick

If the response is yes as the following question

8. What all the child club /cabinet / Bal Sanshad does, confirm from the list below:

ix. Checking availability of soaps in the handwashing stations and toilets. Yes / No (put tick ✓)

x. Facilitate handwashing before mid-day meal, Yes / No (put tick ✓)

xi. Supervising handwashing of the kitchen staff. Yes / No (put tick ✓)

xii. Supervise toilet cleaning. Yes / No (put tick ✓)

xiii. Check toilets and taps before daily closure of the school, Yes / No (put tick ✓)

xiv. take part in school cleaning, Yes / No (put tick ✓)

xv. Take part in celebrating water day, MHM day, handwashing day, toilet day, etc. Yes / No (put tick ✓)

xvi. Any other (If the response is any different, kindly explain)

9. Have you come across any material (posters, banners, wall writing, etc.) in your school which reminds you of some habits on cleanliness? If 'yes,' describe them briefly, if you remember.
10. Do your school have any water harvesting structure? What is the importance of it? How can we prevent misuse of water?
11. Do you want us to know anything interesting happened when the activities were going on?
12. Tell us about one thing that you would remember and practice, from this project, throughout your life.

FGD with the School Management Committee

Name of the school:	Date:
Facilitator:	

1. What were the roles of the school management committee for the renovation and installation of the facilities, e.g., approved the final plan, monitored the quality, checked the facilities at the time of handover, etc.
2. What was the school management committee's role in planning and implementing hygiene promotion activities, e.g., approved the activities, supported the materials (IEC), attended some events, etc.
3. Did you participate in the training which was organized for the members of the SMC? What did you learn from there?
4. Do you think it would be possible to maintain all the infrastructure using the money received under Composite Grant? How will you help the school mobilize the additional amount if the grant money is insufficient?
5. Do you make school development plans every year? If possible, kindly let us see the final school development plan you have prepared.
6. Kindly let us know whether any district-level official was involved at any project stage. If they were concerned, what were their roles?
7. Do you know about Swachh Vidyalaya Programme? Since most of your infrastructures renovated, would you like your school to participate in the competition under Swachh Vidyalaya Programme?

FGD with Masons

Name of the school:	Name of the Mason:
Date:	Facilitator:

1. Did you take part in the training organized by CYSD or Plan India before starting the work?
2. Tell us one or two things that you remember from the training.
3. Did you do anything in the project's construction work that is different from the regular work of the Masons?
4. Can you tell us about some measures you have taken and materials you have used to keep the infrastructure intact in case of any future disaster?
5. What kind of tools were used in construction work?
6. What was the footing/foundation trench depth for making the toilet?
7. What was the thickness of PCC (plain cement concrete) at the base of the footing?
8. What proportion were used in PCC?
9. How many days was water given after concreting the PCC?
10. What type of brick was used in brickwork? (Size of Brick, Colour of bricks)
11. The bricks were submerged in water during the brickwork. (Yes/No). If yes, How much time?
12. What was the ratio of the mortar for brickwork?
13. What was the thickness of mortar between the two layers of brick?
14. How many days after the completion of brickwork did the plasterwork start?
15. What was the thickness of mortar in plasterwork?
16. What was the ratio of the mortar used in plasterwork?

17. What type of sand was used in plasterwork?
18. What is the thickness of the roof slab of the toilet?
19. What was the ratio of the concrete used in the roof slab?
20. What was the curing period for the roof slab?
21. What quantity of water was used in 1bag cement?

FGD with Carpenters

Name of the carpenter:	**Facilitator:**
	Date:

1. In how many schools did you work?
2. What did you like about the work?
3. What kind of support did you get from the school(s)?
4. Did you face any difficulty while working?
5. Can you tell us about some measures you have taken and materials you have used to keep the infrastructure intact in case of any future disaster?
6. What kinds of tools are used in carpentry works? (Name of the tools)
7. What was the size of the door and window?
8. What was the thickness of the door and window frame?
9. Was timber used seasoned or unseasoned?
10. Any enamel/Paints that were used before fitting the door/Window?
11. How many types of fittings and fixing materials have been used? (Name of the materials)

Annexure III: Change of WASH Status from Baseline to Endline

Name of the School	Status as on	Functionality	Boys Toilet (No)	Boys Urinal (No)	Girls Toilet (No)	Girls Urinal (No)	Incinerator (No)	CWSN Toilet (No)	Handwash Station (No)	Water Taps (No)	Water Purifier & Cooler (No)	Fire Extinguisher (No)	Access Pathway in (Sqm)
Govt Girls School	Baseline	Functional			2	8	0	0	1	5	0	0	0
		Dysfunctional	NA	NA	11	20	0	0	1	12	0	0	0
	End line	Functional			14	32	4	0	3	17	1	1	156
Bhagabat Dev Bidyapitha	Baseline	Functional	0	0	0	2	0	0	1	4	1	1	0
		Dysfunctional	5	8	6	4	0	0	1	6	0	0	0
	End line	Functional	2	0	4	5	3	0	3	14	2	2	67.5
Baxi Jagabandhu Bidyadhar High School	Baseline	Functional	0	0	2	1	0	0	1	4	0	0	0
		Dysfunctional	10	12	5	5	0	0	0	0	0	0	0
	End line	Functional	10	12	3	6	1	1	2	20	1	1	64.5
Shardapur Project U.P School	Baseline	Functional	0	0	0	0	0	0	1	5	0	0	0
		Dysfunctional	0	0	4	7	0	0	0	0	0	0	0
	End line	Functional	2	4	2	4	1	2	2	10	1	1	49.5
Bhagabati Nodal High School	Baseline	Functional	2	0	2	0	0	0	1	4	0	0	0
		Dysfunctional	2	3	11	11	0	0	2	8	0	0	0
	End line	Functional	5	0	6	7	2	1	3	12	1	1	67.5

Name of the School	Status as on	Functionality	Boys Toilet (No)	Boys Urinal (No)	Girls Toilet (No)	Girls Urinal (No)	Incinerator (No)	CWSN Toilet (No)	Handwash Station (No)	Water Taps (No)	Water Purifier & Cooler (No)	Fire Extinguisher (No)	Access Pathway in (Sqm)
Chintamani Bidya Niketan	Baseline	Functional	2	0	1	3	0	0	0	0	0	0	0
		Dysfunctional	1	5	5	6	0	0	2	6	0	0	0
	End line	Functional	5	4	3	7	1	1	2	13	1	1	48.7
Zaitun Nisha High School	Baseline	Functional	0	0	0	0	0	0	0	5	0	0	0
		Dysfunctional	3	6	4	7	0	0	1	0	0	0	0
	End line	Functional	3	5	3	5	1	1	2	12	1	1	82.4
Haldia Nodal High School	Baseline	Functional	0	0	3	2	0	0	1	5	0	0	0
		Dysfunctional	3	4	3	8	0	0	0	0	0	0	0
	End line	Functional	3	4	7	6	1	1	2	11	1	1	30
Kamaguru Nodal High School	Baseline	Functional	4	1	2	2	0	0	1	4	0	0	0
		Dysfunctional	1	4	5	11	0	0	1	5	0	0	0
	End line	Functional	4	5	5	8	1	1	2	10	1	1	75

Annexure IV: Demonstration of hardware installations during construction

Assessment findings	Capacity building	The manual	Demonstration project
Breaking and blowing away of the asbestos sheets and displaced wooden truss	(i) The reasons explained. ii) The reasons demonstration of using paper straws. iii) Practical demonstration organized using Sal Balah and asbestos sheets.	i) Vertical reinforcement from foundation to roof has been explained using sectional view and development length. ii) Anchorage, bracing, load wall, the concrete band has been explained with three-dimensional photos. iii) Diameter, length, and shape of safely bolts, anchorage bolts, cyclone safety hooks have been specified.	i) Anchorage and bracing techniques have been applied in the GI roof shed. ii) Proper spacing of purlins used in the sheds. iii) Cyclone safety hooks and 2B arrangements of sheets have been used in sheds. iv) GI clamps, U bolts have been used.
The Pitch of the roof is greater than 30°	i) The results explained ii) Demonstrated practically using Sal Balah and asbestos sheets.	i) Pitched within 22-30° is explained through the diagram. ii) Proper fitting of the tie beams with rafters explained with photos.	i) Pitch of the roof were less than 30° in all the sheds.
Cracks in the walls and floors	i) Checking quality of materials explained with the proper ratio for mixing. ii) Demonstrated checking of materials. iii) Demonstrated making brick pedestal.	i) 1:4 cement-sand ratio has been asked to be maintained ii) Proper dimension of brick pedestal explained through the photo. iii) Use of horizontal seismic bars and vertical reinforcement at junction emphasized.	i) Proper ratio has been maintained in the mixture which came out from the mason interviews. ii) Horizontal seismic bar and vertical reinforcement used.
Damages of plaster	i) Need of retrofitting discussed.	i) Emphasis is on using fine sand. ii) Stressed on the proper thickness of the plaster and appropriate ratio.	Use of fine sand, 25 mm thick plaster, and proper ratio with good cement quality came out from the mason interview.
Leakage and dampness of roof	i) The various aspects of leakage and dampness discussed.	i) Proper camber explained through dotted lines. ii) Need for three slabs emphasized: roof slab, weather coating, and tiles placement.	Grading of the roof has been done in some schools.

NOTES

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NSE Foundation

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KERALA FLOOD RELIEF

Revitalizing and Repair of School WASH facilities

IMPACT EVALUATION STUDY 2020-21

TABLE OF CONTENTS

ABBREVIATIONS

BCC	– Behaviour Change Communication
CCDS	– Centre for Communication and Development Studies
CWSN	– Children With Special Needs
CYDA	– Centre for Youth Development and Activities
DDMA	– District Disaster Management Authority
DEO	– District Educational Officer
DPI	– Directorate of Public Instructions
DPR	– Detailed Project Report
GHS	– Government High School
GLPS	– Government Lower Primary School
GUPS	– Government Upper Primary School
GVHSS	– Government Vocational Higher Secondary School
IEC	– Information, Education and Communication
KAP	– Knowledge, Attitude and Practices
MHM	– Menstrual Hygiene Management
MPTA	– Mother's Parent-Teacher Association
NA	– Not Applicable
NSE	– National Stock Exchange
O&M	– Operation and Maintenance
PTA	– Parent-Teacher Association
SBM	– Swachh Bharat Mission
SBSV	– Swachh Bharat Swachh Vidyalaya
SDG	– Sustainable Development Goals
SMC	– School Management Committee
WATSAN	– Water and Sanitation
WASH	– Water, Sanitation and Hygiene

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ACKNOWLEDGEMENTS

At NSE Foundation, we would like to thank everyone who has contributed to our endeavour to carry out CSR activities on behalf of NSE Group. First and foremost, we are grateful to the NSE Foundation Board, which plays a key role in providing guidance and support at all stages of CSR activities. We would like to thank each of our directors for their time, valuable inputs, enthusiasm, and encouragement to the team. We are also grateful for the advice and support of the Board and CSR Committee members of the NSE Group subsidiaries, the senior management of NSE Group, as well as our colleagues from various departments at NSE. Central, State and district administration officials contributed their ideas, thoughts and inputs to the design and field monitoring of the programme, for which we are immensely thankful.

We acknowledge the tireless efforts of each and every community worker and field staff, who worked, often against great odds, especially during the pandemic, to ensure the smooth roll out and success of our programmes. We are also appreciative of the efforts of the programme monitoring and evaluation (PME) agency, KPMG.

This study and report would not have been possible without the support of the TRIOs team. A special thanks to the many individuals who have supported the vision of NSE Foundation for equitable and inclusive development and participated in our journey to achieve these.

FOREWORD

National Stock Exchange of India Limited (NSE), India's leading stock exchange, is committed to inclusive growth and prosperity. It believes that every individual, irrespective of the divisions in society, has an equal right to resources, and to be included in the country's development story. When a person's economic and social status improves, the community prospers, and by extension, the nation.

With this guiding principle, the group, through NSE Foundation, the implementing arm of its CSR initiatives, endeavours to improve the quality of life in the most disadvantaged communities. In doing so, it plants the seeds of transformation and inclusion.

The Foundation partners with the government, NGOs, multilateral bodies and academic institutions, to inspire, nurture, empower and sustain the aspirations of the communities it serves. Its projects plug gaps in social, economic and educational development in some of the most inaccessible geographies. From a larger standpoint, it also contributes to the fulfilment of the United Nations' Sustainable Development Goals.

Over the past few years, the Foundation has made steady progress in its core intervention areas of primary education, safe drinking water and sanitation, elder care, skill development, environmental sustainability, health & nutrition and disaster relief in underserved rural and urban communities.

NSE Foundation's district transformation programmes are currently implemented in the aspirational districts of Nandurbar (Maharashtra), Karauli (Rajasthan), Ramanathapuram (Tamil Nadu), Kiphire (Nagaland) and Birbhum (West Bengal), which was on NITI Aayog's initial list.

Through its programmes, the Foundation has reached over 12 lakh children, women, youth, and the elderly in more than 100 districts of Maharashtra, Madhya Pradesh, Rajasthan, Jharkhand, Telangana, Kerala, West Bengal, Tamil Nadu, Odisha, Assam and Gujarat. Apart from major presence in rural regions of the country, projects in urban districts of New Delhi, Kolkata, Chennai, Mumbai and Ahmedabad are also undertaken.

In the recent times, India has faced various disasters including the worldwide pandemic of COVID-19. NSE Foundation's efforts through disaster relief and rehabilitations programmes has been to equip the affected communities and stakeholders to respond effectively to crisis scenarios. This includes interventions at various levels including immediate relief in the form of food, rations & other day to day essentials, repair & retrofitting, behaviour change communication of students & school staff. The long-term disaster response protocol includes trainings for communities, government bodies, creation of disaster response protocol to combat the impact of any future disasters as well.

One such project undertaken by NSE Foundation was “Revitalizing and Repair of School WASH facilities”, initiated in 15 schools in Idukki districts of Kerala, post the floods in 2018. Under the project, activities of repair & retrofitting post the destruction caused by the floods were undertaken for speedy resumption of schools and behaviour change communication initiatives were executed to sustain the knowledge of safe & hygienic WASH practices.

NSE Foundation believes that strong partnerships and participatory programmes can bring transformational changes and build a stronger and resilient future for all.

EXECUTIVE SUMMARY

Kerala witnessed its worst flood in a century between June 1 and August 18, 2018[1]. The State received an excess rainfall of 96% during the period from 1st to 30th August 2018, and 33% during the entire monsoon period till the end of August[2]. The torrential rains triggered several landslides (341 from 10 districts) and forced the release of excess water from 37 dams across the state, aggravating the flood impact.

These floods were among the five major extreme flooding events in the world between 2015-2019[3] and incurred a total estimated economic losses at Rs.31,000 crore. Idukki was one of the seven worst hit districts which was severely hit by torrential rain and which led to saturation and loosening of the soil, triggered landslides that led to large scale destruction. According to estimates, this was the by far the worst damage that Idukki has seen in the last 40 years. Idukki has the largest arch dam in Asia from which water was released for the first time in 26 years from its 5 overflow gates as the region was ravaged by 143 landslides[4]. It had the highest number of cases where both land and buildings were lost due to large-scale landslides and hence resulted in the death of over 54 people[5].

As per the District Administration, Udumbanchola and Devikulam blocks in Idukki had suffered severe damages to both homes and schools due to the floods. School toilets were blocked with mud, handwashing stations were broken, septic tanks had caved in and cracked due to which there was a throwback of waste in toilets. In addition to the cracks in the septic tanks, wells which are one of the state's greatest source of drinking water were contaminated too.

NSE Foundation initiated the disaster relief intervention with a focus on the repair and retrofitting of the damaged school infrastructure in selected 15 schools. The project aimed to ensure that the students in these 15 schools had access to basic facilities such as functional school toilets, safe drinking water, clean surroundings and basic information and adoption of critical hygiene practices, including menstrual hygiene management.

The main activities conducted under the project included provision of safe drinking water, restoration of sanitation facilities, creating safe play spaces /area, workshops with students, teachers, parents and sanitation workers to create WASH awareness, wall paintings to reinforce awareness messages, and provision of operation and maintenance equipment.

The project was conducted in two phases. Phase I was implemented by the implementing partner NGO, CCDS between November 2018 to March 2019 wherein repairing and retrofitting activities along with awareness sessions on WASH were conducted in six schools. Phase II was implemented by implementing partner NGO CYDA between January 2019 to July 2019 wherein similar activities were conducted in the remaining 9 schools.

The handover of the project to the respective schools was done in a Handing Over Ceremony on 3rd August 2019 in Peermade, Idukki.

[1]Source: Kerala Post Disaster Needs Assessment Floods and Landslides August 2018 https://sdma.kerala.gov.in/wp-content/uploads/2019/03/PDNA-report-FINAL-FEB-2019_compressed.pdf
[2]Source: Additional Memorandum Kerala Floods-2018 1st August to 30th August 2018, Disaster Management Authority, Government of Kerala Available at: https://sdma.kerala.gov.in/wp- conten t/uploads/2019/08/Memorandum²-Floods-2018.pdf
[3]Source: https://frontline.thehindu.com/dispatches/article29530296.ece
[4]Source: Kerala Post Disaster Needs Assessment Floods and Landslides August 2018 https://sdma.kerala.gov.in/wp-content/uploads/2019/03/PDNA-report-FINAL-FEB-2019_compressed.pdf
[5]Source: Additional Memorandum Kerala Floods-2018 1st August to 30th August 2018, Disaster Management Authority, Government of Kerala Available at: https://sdma.kerala.gov.in/wp- content/uploads/2019/08/Memorandum2-Floods-2018.pdf

The Impact Assessment (IA) of the project has been conducted by TRIOs Development Support Pvt Limited. The IA study was a mix of both qualitative and quantitative assessment conducted with various stakeholders involved in the project such as students, teachers, principals, parents, SMC and PTA members, district officials, project auditor- KPMG, Plan India Project Manager, CYDA Project Manager and NSE Foundation team members. The field visits were conducted between 16th December 2021 to 10th January 2022 in 12 schools that had been shortlisted post consultation with the NSE Foundation team.

WASH facility observations in these 12 schools were conducted to verify that the Swachh Bharat Swachh Vidyalaya (SBSV) guidelines had been followed. The compliance with the DPRs were also observed and it was realized that almost all the structures retrofitted under the project were fully compliant with the DPRs and followed the SBSV guidelines. Based on the WASH Facility Structural Observation, indicator mapping of the outcome indicators showed that majority of the WASH Retrofitting and Facilities in the schools were fully / partially compliant with DPR and were functional. However, certain infrastructure- related issues persisted. These included doors not closing properly, improper maintenance, drainage issues, damaged floors, leakages etc. and which happened due to limited fund allocation to government schools by the government towards infrastructural improvement, upkeep and maintenance. The closing down of the schools due to COVID-19 resulted in scant attention to maintenance of the WASH infrastructure built under the project.

In terms of impact of the project on increasing the enrolment in the schools, it was observed that the presence of safe and clean WASH infrastructure was a major contributing factor, as shared by several principals, in increasing the overall student enrolment. For instance, there was an overall increase in enrolment in Phase 1 schools by 51% and for Phase 2 schools by 14%, since 2019, the year of project implementation. In terms of increase in girls' enrolment in the schools, those under Phase 1 saw an increase of 50% while Phase 2 schools saw an increase of 15% post the implementation of the project.

All the 12 Headmasters/Headmistresses unanimously agreed that the biggest achievement of this project was that the students were taught the importance of handwashing and also the correct way of handwashing through the half-day WASH Awareness Sessions. The handwashing sessions played a major role in the coming months to aid the students in their fight against COVID-19. They cited instances of observing the students using the handwashing stations right after using toilets and before and after eating their meals (prior to the schools being shut due to the pandemic).

Almost all the interviewed teachers opined that the WASH awareness sessions conducted by the local partners CCDS and CYDA were beneficial to them as well as the students and were responsible for bringing about a behavioural change in their current WASH practices. Increased toilet usage was stated by majority (92%) of the teachers as the most visible change among the behaviour of students, followed by teachers (88%) who saw behaviour changes related to handwashing with soap and water, and handling drinking water safely.

Majority of the teachers who were interviewed (93%), stated that their schools were better prepared to face future disasters because of the presence of disaster resilient school infrastructure such as fencing on the boundary wall (GTHS Kattappana), properly covered well (GHS Chottupara), GI net wall in the front yard of the school (GHS Udumbanchola), protection wall in the back side of the school (GLPS Pookkulam), Water Conservation Tank (GLPS Sasthanada).

However, post the handover of the project to the school authorities, several challenges were reported by the principals and teachers, biggest of which was faced by the schools both at the State and the Panchayat level and which pertained to the limited availability of funds for maintenance of the facilities constructed under the project. Also, heavy rains continued to damage the entrance pathway as well as roofs of several schools, which was also noticed in the field visits. One of the Phase 2 schools reported a case of vandalism of the school infrastructure (breaking of kitchen tiles and taps) caused by community members when the school was converted into a COVID-19 Quarantine Centre and Flood Relief Camp.

Interaction with the various stakeholders at different levels indicated that there is an urgent need to set up a WASH Infrastructure Maintenance Program under which regular monitoring of the facilities would be done by the SMC members, PTA members, parents as well as the teachers. In areas where there is a water shortage, projects focusing on water conservation methods need to be implemented. Moreover, the safai karmacharis or the school maintenance staff were given training to make liquid soap with locally available ingredients and hence, it was their responsibility to impart training to students in soap making in case the school ran out of supply.

In conclusion, the project by retrofitting the damaged WASH infrastructure played a very important role in improving the enrolment of girls as well as the total enrolment of students in the schools which were hit by floods and landslides. The sessions on handwashing by demonstration of the correct handwashing practices along with wall paintings played an important role in inculcating the practice of handwashing amongst students at critical times. This indeed acted as a boon during the COVID-19 pandemic where handwashing with soap and water and social distancing were amongst the most important Covid Appropriate Behaviour. Also, with the construction of disaster resilient school infrastructure, the schools were better prepared to face future disasters.

Handwashing facility outside toilet with wall painting

Chapter 1: Introduction

Wall painting on the correct ways to use toilet and hand washing on the toilet wall of intervention School GLPS Sasthanada in District Idukki, Kerala

1.1 Background

August 2018: Kerala faces the worst floods in a century Kerala witnessed its worst flood in a century between June 1 and Aug 18, 2018[6]. The State received an excess rainfall of 96% during the period from 1st to 30th Aug 2018, and 33% during the entire monsoon period till the end of Aug[7]. The torrential rains triggered several landslides (341 in 10 districts) and forced the release of excess water from 37 dams across the state, aggravating the flood impact.

These floods were among the five major extreme flooding events in the world between 2015-2019[8] reporting an estimated total economic losses at Rs.31,000 crore. According to state government reports, 1,259 out of 1,664 villages spread across its 14 districts were affected.

The seven worst hit districts were Alappuzha, Ernakulam, Idukki, Kottayam, Pathanamthitta, Thrissur, and Wayanad. The devastating floods and landslides affected 5.4 million people, displaced 1.4 million people, and led to 483 deaths[9]. They caused widespread destruction of infrastructure that included roads, bridges, schools, public buildings and houses, and affected the livelihood of thousands. Around 1186 houses were fully damaged, 19,588 houses were partially damaged and 95,000 household latrines were destroyed. Availability of drinking water was severely hit due to landslides that damaged nearly 317,000 dug wells[10]. Also, the floods had fully or partially damaged 1219 Anganwadis centers, depriving women and children of regular nutrition, supplements, health check-ups, and affecting pre-school education of children aged 3-6 years.

Also, 1613 schools across Kerala were severely impacted threatening sanitation and safety of children due to destruction of toilets, urinals and damage to compound walls, roofs and cracks in walls[11]. As a result, education was adversely impacted in nearly all districts of the state, affecting more than 2.5 lakh school going children. The situation posed a threat to children, especially girls, who might stop attending school and ultimately drop out in case the toilets remain unusable for long. Hence, there was an urgent need of intervention for quick resumption of education.

[6] Source: Kerala Post Disaster Needs Assessment Floods and Landslides August 2018 https://sdma.kerala.gov.in/wp-content/uploads/2019/03/PDNA-report-FINAL-FEB-2019_compressed.pdf

[7] Source: Additional Memorandum Kerala Floods-2018 1st August to 30th August 2018, Disaster Management Authority, Government of Kerala Available at: https://sdma.kerala.gov.in/wp- content/uploads/2019/08/Memorandum2-Floods-2018.pdf

[8] Source: https://frontline.thehindu.com/dispatches/article29530296.ece

[9] Source: https://indianexpress.com/article/india/[483]-dead-in-kerala-floods-and-landslides-losses-more-than- annual-plan-outlay-pinarayi-vijayan-5332306/

[10] Source: Humanitarian Response in Kerala: Revitalising and Upgrading of Schools Infrastructure Idukki-Kerala Project Completion Report [2019] https://cydaindia.org/wp-content/uploads/2020/09/PLAN-INDIA-CYDA-Kerala- Flood-Response-Report-4-1.pdf

[11] Source: Kerala Post Disaster Needs Assessment Floods and Landslides August 2018 https://sdma.kerala.gov.in/wp content/uploads/2019/03/PDNA-report-FINAL-FEB-2019_compressed.pdf

1.2 Impact in Idukki

The hilly district of Idukki (indicated in the map), located in the high ranges of ecologically sensitive, mountainous terrain was severely hit by torrential rains. Excessive rain in the region led to saturation and loosening of the soil, triggering landslides that led to large scale destruction. The landslides uprooted trees, destroyed crops, and flattened agricultural land beyond recovery. Several houses and institutions were destroyed either fully or partially.

Figure 1: State map of Kerala highlighting Idukki district

According to estimates, this was the by far the worst damage that Idukki has seen in the last 40 years with a reported death of over 54 people.[12] Idukki has the largest arch dam in Asia which released water for the first time in 26 years from its 5 overflow gates.

Idukki district had the highest number of cases where both land and buildings were lost due to the large-scale landslides It was ravaged by 143 landslides[13]. The damage in Idukki caused by the floods is indicated in the figure below.

54 Deaths

1166 Fully Damaged Houses
1445 Partially Damaged Houses

37 schools
47 Anganwadi Centres
20 Primary Health Centres
19 Panchayat owned buildings
2130 kilometres of roads

Figure 2: Damage caused in Idukki post 2018 floods

[12] Source: Additional Memorandum Kerala Floods-2018 1st August to 30th August 2018, Disaster Management Authority, Government of Kerala Available at: https://sdma.kerala.gov.in/wp- content/uploads/2019/08/Memorandum2-Floods-2018.pdf

[13]Source: Kerala Post Disaster Needs Assessment Floods and Landslides August 2018 https://sdma.kerala.gov.in/wp-content/uploads/2019/03/PDNA-report-FINAL-FEB-2019_compressed.pdf

1.3 About the Project

As per the District Administration, Udumbanchola and Devikulam blocks in Idukki had suffered severe damages to both homes and schools due to the floods. School toilets were blocked with mud, handwashing stations were broken, septic tanks had caved in and cracked due to which there was a throwback of waste in toilets. Besides, the wells were also contaminated.

Plan International (India Chapter) considered schools and other learning spaces as entry points for the provision of quality education as well as sites for protection of children, especially girls. This was in line with the large-scale WASH in schools interventions undertaken by NSE Foundation.

A letter granting permission to work in the worst affected schools where retrofitting was required was issued by the district authorities. The Plan India team was given a list of 22 schools for assessment, out of which 15 were identified for immediate intervention.

It was then that NSE Foundation and Plan International (India Chapter) decided to work together as a part of the humanitarian response to the floods to upgrade the school infrastructure that had been damaged by it in the Idukki district. The schools were identified with the support of NSE Foundation, along with the approval from the Department of Education, Government of Kerala and Panchayats, based on the following criteria:

- Schools damaged in the floods
- Schools with higher number of girls
- Focus on inclusion/children of migrated families and plantation labourers
- Lack of basic amenities
- Schools in remote pockets of the district

This project was undertaken to address the need of the WASH and other critical school facilities damaged in the floods of 2018. Along with repairing/retrofitting of WASH infrastructures, BCC activities were conducted to enhance safe and hygienic practices in the school. The aim was to restore and make the schools functional by rebuilding/ repairing the school WASH infrastructure of 15 schools in Idukki district of Kerala for quick resumption of teaching and learning activities.

Thus began the project which focused on the repair and retrofitting of the damaged school infrastructure in the chosen 15 schools. The project aimed to ensure that the students in these schools had access to basic facilities such as functional school toilets, safe drinking water, clean surroundings and basic information and adoption of critical hygiene practices, including menstrual hygiene management. It was conducted in two phases. Phase I was implemented between Nov 2018 to March 2019 wherein repairing and retrofitting activities along with awareness sessions on WASH were conducted in six schools. Phase II was implemented between January 2019 to July 2019 wherein similar activities were conducted in remaining 9 schools.

The following figure provides a list of schools that were taken up individually in each phase:

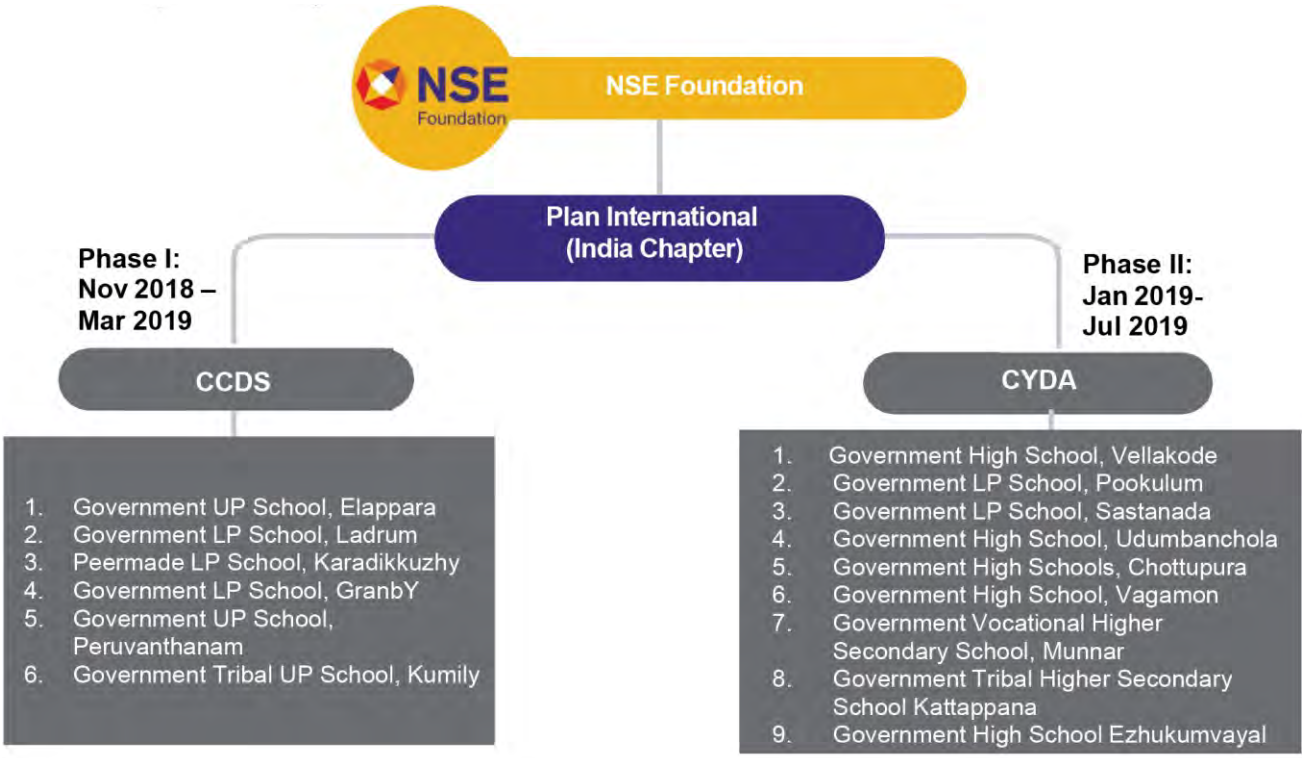


Figure 3 : Phase wise list of schools covered by each of the field NGO partner

The handover of the project to the respective schools was done in a Handing Over Ceremony on 3rd August 2019 in Peermade, Idukki. The Impact Assessment of the project has been conducted by TRIOs.

1.4 Project Alignment with SDGs

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity[14]. The 17 SDGs are integrated—they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. Countries have committed to prioritize progress for those who're furthest behind. The SDGs are designed to end poverty, hunger, AIDS, and discrimination against women and girls.

The goals which the project aligns with are indicated in the figure below[15]:

Goal 1.5: By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate related extreme events and other economic social and environmental shocks and disasters

Goal 13.1: Strengthen resilience and adaptive capacity to climate related hazards and natural disasters in all countries

Goal 13.3: Improve education awareness raising and human and institutional capacity on climate change mitigation adaptation impact reduction and early warning.

Figure 4 : Project alignment with SDGs

Goal 3.9: By 2030, substantially red uce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

Goal 6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

Goal 6.2: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation paying special attention to the needs of women and girls and those in vulnerable situations

Goal 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and Minimizing release of hazardous chemicals and materials, halving the proportion of untreated Wastewater and substantially increasing recycling and safe reuse globally
Goal 6.b: Support and strengthen the participation of local communities in improving water and Sanitation management

[14] Source: https://www.undp.org/sustainable-development-goals
[15]Source:https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf

1.5 About Partners

NSE Foundation undertakes CSR activities for the NSE Group Companies and is present throughout India through its projects on primary education for underprivileged children, elder care for disadvantaged senior citizens, sanitation & clean drinking water, environment sustainability and skill development & entrepreneurship. The 74 ongoing projects are currently located in Maharashtra, Rajasthan, Bihar, Madhya Pradesh, West Bengal, Odisha, Telangana, Tamil Nadu and Kerala initiating programmes that are intensive, customized and focused on extremely backward districts. Additionally, it also undertakes humanitarian response during emergencies and disasters in India. In the recent years, an increase in disasters has been witnessed and multiple projects have been implemented by NSE Foundation to appropriately mitigate the risk posed by them in communities, schools, anganwadis, etc.

With the August 2018 Kerala floods wreaking havoc on the state, NSE Foundation and Plan International (India Chapter) decided to work together as a part of the humanitarian response to the floods to upgrade the school infrastructure that had been damaged by it.

For this project, Plan India partnered with two NGOs: CCDS in Phase I (6 schools) and CYDA in Phase II (9 schools) for restoring and making schools functional by rebuilding/repairing the school WASH infrastructure in these 15 schools in Idukki district, Kerala, for quick resumption of teaching and learning activities.

Plan India is a nationally registered not for profit organisation striving to advance children's rights and equality for girls, thus creating a lasting impact in the lives of vulnerable and excluded children and their communities. Since 1979, Plan India and its partners have improved the lives of millions of children and young people by enabling them access to protection, quality education and healthcare services, a healthy environment, livelihood opportunities and participation in decisions which affect their lives. Plan India is a member of the Plan International Federation, an independent development and humanitarian organisation that advances children's rights and equality for girls. Plan International is active in more than 70 countries. Plan India works in 25 states across India and has directly impacted the lives of more than a million children and their families. The Child and Young Policy of Plan India has been a key part of this project, under which the project team (including partners) focused on safeguarding the interests of the children.

CCDS: The Centre for Communication and Development Studies (CCDS) was set up in 2002 to promote open spaces for research, communication and dialogue on social justice, sustainable development, pluralism and transparent governance. CCDS works to build knowledge for social change, and to take information for social change out of the seminar rooms and to the people. CCDS has 15 years of experience in strategic communications. CCDS had supported Plan India's Emergency Response Team in their relief work in the Pathanamthitta district in August 2018.

CYDA: Centre for Youth Development and Activities (CYDA) is a Youth led voluntary organization registered under Society Registration Act 1860 in the year 1999. CYDA works with young people between 13 years to 24 years to empower the marginalized in society.

CYDA's vision is to create an enabling environment in society for young people to grow as responsible and independent adults. The focus of the organization is education, health, livelihood and WASH. Presently CYDA works in Chhattisgarh, Kerala, Madhya Pradesh, Maharashtra &Telangana. CYDA had opened an office in Kerala during the floods and they were already working in Idukki district during the relief phase.

KPMG was the External Auditor of this project. It audited the programmatic as well as the financial aspects. The programmatic aspects included infrastructure and the BCC component of the project. The Financial aspects included the expenditure, variance, fund recommendation as per requirement

1.6 About TRIOs

TRIOs Development Support Private Ltd (TRIOs) is an ISO 9001: 2015 certified Market and Social Research agency, registered with Government of India as Udyam Micro, Small and Medium Enterprise (Udyam MSME). Established on March 8, 2010, TRIOs provides research, consultancy and advisory services to national and international clients, Central and State Governments, development partners, NGOs, private and corporate sectors to accelerate socio- economic development. TRIOs's core thematic area of work is focused on contributing to Sustainable Development Goals- Youth and Development, Skill Development, Livelihood, Rural Development, Health, Nutrition, Water, Sanitation, Education, Gender equity and Market Research. Over a decade now, TRIOs has built its reputation by undertaking studies customized to the clients' needs to inform policy, program and market initiatives and has successfully accomplished over 125 assignments across India.

Details about the TRIOs Team are indicated in Annexure 1

Rainwater Storage Tanks in
District Idukki, Kerala

Chapter 2:
Research Tools and Methodology

2.1 Objectives and Approach

2.1.1.Objective of the Impact Assessment

The objective of the Impact Assessment conducted by TRIOs are as follows:

TO ASSESS

- the quality of repairing/retrofitting of WASH infrastructures in the school as per the guidelines by state government building code and SBM (Swachh Bharat Mission) in Schools
- the impact of KAP session on WASH practice
- the quality of BCC material and its impact on the beneficiaries.
- the structure and functioning of WASH committees and WASH clubs in schools
- the quality and impact of WASH training materials, IEC materials, videos module and awareness session on WASH including mensural hygiene
- quality and impact of wall paintings for awareness and practice of WASH guidelines
- the quality and impact of WASH session with teachers, SMCs school staff, parents and community in terms of KAP
- the capacity building/training of different government officials, masons, builders and other persons involved the programme
- outputs, outcome of the project
- impact of the project on local, community and system/ government levels program design and efficacy
- provide the information of the above assessment in the form of a printed report containing details in the form of narratives, case stories, testimonial, graphs, tables, info graphics, pictures, and other content

2.1.2 Approach

To realize the objectives of the assignment, a comprehensive evaluation study was conducted covering the beneficiaries, implementers and key stakeholders in project eco systems. The study focused on assessing the quality of processes/ activities undertaken and measuring the impact of various project interventions. Process Evaluation and Impact Evaluation was conducted as a part of the study. The various activities and tasks under the study were implemented in three phases i.e., Phase-I (preparatory activities), Phase -II (data collection phase) and Phase -III (analysis and report writing phase).

Evaluation Themes

The end-line assessment (both process and impact assessment) was conducted focusing on 5 themes of evaluation i.e., Relevance, Efficiency, Effectiveness, Impact, Sustainability as mentioned in the TOR. For this purpose, we used the principal and guidelines of OECD DAC[17] criteria for the evaluation.

The details of key research questions on each theme are described below-

- Relevance of the project i.e., the extent to which the objectives and design of the project was/are relevant to the needs of beneficiaries, donor, and government.
- Efficiency of the project i.e., the level of efficiency in implementation of the project as intended and if the monitoring activities were appropriate and adequate.
- Effectiveness of the project i.e., to assess if the project achieved its specific objectives and to what extent; what were the key drivers and challenges that influenced the outcomes.
- Sustainability of the project i.e., whether the activities and strategies been adequate to develop sustainable model and meet sustainable goals.

[17] https://www.oecd.org/dac/evaluation/eval-criteria-faq.htm

EVALUATION TYPES

A. Process Evaluation

The process evaluation was carried out mainly through review of project progress reports and consultation / interviews with NSE Foundation Project Team, Plan India Project Team and stakeholders involved in implementation such as teachers/ Principals. The following steps were adopted under the process evaluation -

Figure 5: Steps followed under Process Evaluation

The MIS data and periodic reports as shared by Plan India, KPMG and NSE Foundation Team were reviewed to measure the achievement vis a vis targets and milestones in log frame and project operational plan. The information on conceptualization/background of project, planning, staffing, capacity building, BCC material development and dissemination, financial management, key strategies and activities for the project implementation, stakeholder engagement processes, monitoring and reporting, sustainability measures, challenges, learnings, success stories and best practices etc. was collected through interview with the relevant stakeholder/ partner. The partner/ staff category wise checklist of questions was developed by core team of TRIOs and in-depth interviews were conducted with them using telephone / skype or other online communication platform.

B. Impact Evaluation

Evaluation of project outcomes was conducted using both quantitative and qualitative evaluation methodologies. This included surveys and In-depth Interviews with stakeholders at the multiple levels.
The information for evaluation was collected from various sources by the following methods:

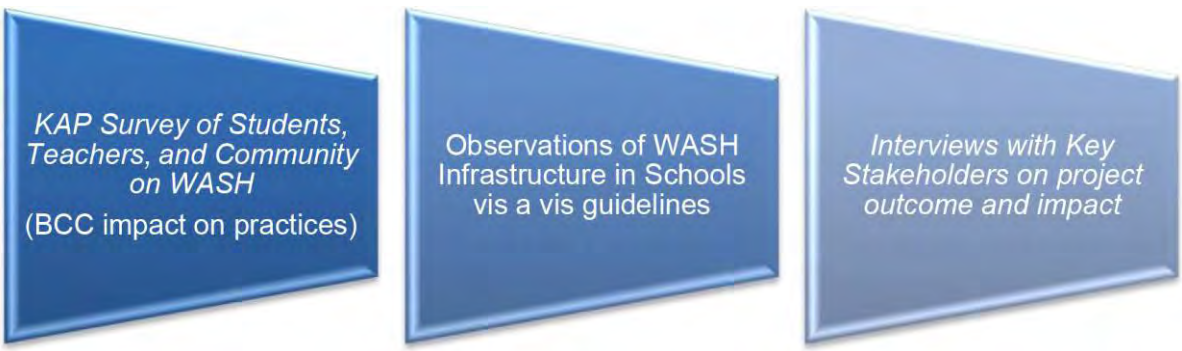


Figure 6: Methods adopted under Impact Evaluation

The project objective wise key target groups to be interviewed and key area of enquiry is described in the table shared in the Annexure 2.

Documentation of Learnings

The constraints and learnings in implementing the project as well as achievements, good practices, case stories, testimonial of stakeholders and narratives etc. were identified during the information collection from various stakeholders and project implementing teams. The information was validated through triangulation from various sources and documented so that the same could disseminated to stakeholders and can be used in the future interventions.

Study Area

Evaluation was conducted covering 15 intervention schools under the project in Idukki district. Physical field visits were conducted in these 12 schools where structural observations of WASH infrastructure were made. Interviews were conducted with Principals, teachers, students, and SMC, MPTA and PTA members. The list and location of the project schools in Idukki is as follows:

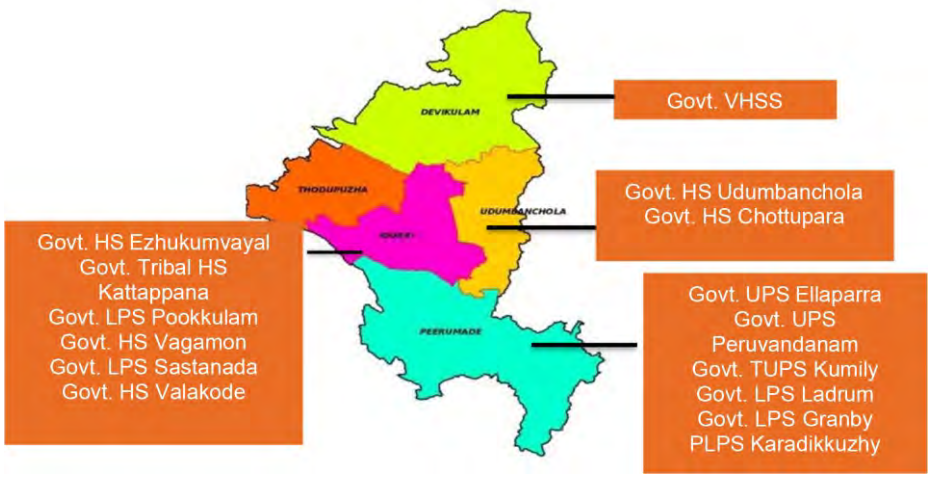


Figure 7: Location of 15 schools in Idukki district

2.2 Study Methodology

The study was conducted using mix of quantitative, qualitative research methods which included literature review and participant observation. All 15 project intervention schools and related communities were covered through secondary data analysis and through qualitative interactions with stakeholders. The primary data was collected from selected schools and its associated communities. The study was designed to measure before and after impact particularly for infrastructure intervention. For software (BCC/ IEC) component, retrospective impact assessment approach was adopted which involved enquiry from key respondents about the pre and post intervention scenario and the change perceived by them.

2.3 Sampling

The initial sample designed under the project aimed to cover all the 15 schools with a total of 362 students. However, the sampling strategy was reworked upon in consultation with NSE Foundation team. The primary reason for this was the shutting down of schools due to COVID-19 and also the disaster alert (orange alert) issued by DDMA. This made availing information about the students, their parents, and teachers to contact them and conduct the surveys extremely difficult. To address this, convenience sampling process was adopted wherein teachers and principals agreed to come to the school on decided days and primary data collection was completed by interacting with key stakeholders through conducting interviews and site visits (wherever possible). Also, most of the students involved in the project's awareness sessions had already passed out of school.

The table indicates the actual sample covered based on desk and field study-

Table 1 : Sample Coverage

S. No.	Units/ Stakeholders	Basis of Sample Distribution	Data Collection Technique and Tool	Total Sample
1	Number of schools	12 schools under project	Structural observation	**12**
2	Students	68 girls and 85 boys	CAPI based structured questionnaire	**153**
3	Teachers	2-3 teachers from each school	CAPI based Semi- Structured, Questionnaire (SSQ)	**27**
4	Principals	All 12 sample schools	PAPI based SSQ	**12**
5	Community members including parents/ PRIs	4 parents/ PRI in community in 8	CAPI based SSQ	**48**
6	Government Functionaries	1 DEO	PAPI based, telephonic IDI Checklist	**1**
7	Project Auditors	As per availability		**2**
8	Project Manager	Plan International Team		**1**
9	NGO Trainers			**2**
10	NSEF Team	Project Nodal		**1**
11	Case Studies	2-3 in project area	Case guidelines	**2-3**

2.4 Research Tools

Qualitative assessment was carried out using semi structured questionnaire through CAPI based technique on Google forms. WASH Infrastructure assessment was conducted using WASH Facility Observation Checklist. Stakeholder's interviews were conducted using semi- structured questionnaire/ checklists. The stakeholder wise research tools and data collection are presented in the table below -

Table 2 : Data Collection Methods and Tools

Stakeholders	Data Collection Method	Tools
Schools	Physical observation of school Infrastructure retrofitted under the project	Observation checklist
Students	Interview	Structured Questionnaire (telephonic)
Headmaster/headmistress Teachers	In-depth Interview	Semi-structured Questionnaire
PTA members, SMC members, MPTA members	In-depth interview	Semi-structured Questionnaire (telephonic)
General Education Department, Kerala Government official	In-depth interview	Semi-structured Questionnaire
Project Auditors	In-depth interview	Semi-structured Questionnaire (telephonic)
Project Manager		
NGO Trainers		
NSE Foundation Team		

2.5 Study Limitations

1. The handing over of the project was done in Aug 2019. A nation-wide lockdown was imposed on March 25th, 2020. Kerala continued to be a COVID-19 hotspot throughout the duration of the IA Study which made the physical presence of the Field Team at the project site challenging.

2. Kerala schools remained closed during the lockdown. None of the students attended the school during this time-period. This made availing information about the students, their parents, and teachers to contact them and conduct the surveys extremely difficult. To address this, convenience sampling process was adopted wherein teachers and principals were requested to come to the school on decided days and primary data collection was completed by interacting with key stakeholders through conducting interviews and site visits (wherever possible). Due to the absence of the students in schools, their contact details were collected from the school authorities and telephonic interviews were conducted with them.

3. As part of the software component of the project, WASH awareness sessions were conducted with students of standard 8th, 9th and 10th. However, since 2019, these students had already passed out from the school hence, limited information was available about them.

4. Apart from the COVID-19 travel restrictions, continuous heavy rains in Idukki caused an orange alert to be issued in the district between Nov and early Dec 2021, which further stalled the study. Schools were again shut due to excessive rainfall in the catchment area of Idukki Dam and inflow of water from Mullaperiyar Dam. The water level in the dam kept gradually rising, making it difficult for the field team to do the survey.

Compound fencing at GTHS Kattappana in District Idukki, Kerala

Chapter 3: Secondary Interpretations

3.1 Literature Review

Figure 8 : State map of Kerala indicating districts

Kerala, also known as "Gods own country", is a land blessed with several natural resources. It is bordered by Tamil Nadu to the south and east, Karnataka to the north and northeast, and the Arabian Sea to the west. With an area of 38,863 km2 and a population of 3.34 crore, it is the 13th most populous state in India with an overall population density of 860 per square kilometer[18]. Kerala is home to almost 3% of India's population, and its land is three times more densely settled than the rest of the country[19]. It consists of 14 Districts, 152 Blocks, 941 Panchayats[20], 1553 Villages[21], 87 Municipalities and 6 Corporations.

The state has 44 rivers, of which only 3 are east flowing. It is divided into three zones, namely the high land, the mid land and the low land including the coastal plain. It has a tropical climate, the dominant climatic phenomenabeing e monsoons called the South-West (June to September) and the North-East (October to December) monsoons, the former is more significant than the latter with respect to the amount of rainfall (80% of total rainfall).

Kerala has a Human Development Index (HDI) of 0.79 which is the highest in the country[22]. HDI is a composite index of consumption rate (proxy to purchasing power), education and health, is an indicator of the socio-economic vulnerability of the population. The higher the HDI, the higher is the coping capacity, but greater is the cumulative loss potential and thus a higher degree of risk. Thus, Kerala has a higher degree of disaster risks as compared to the rest of the country.

DISASTERS IN KERALA

Kerala is a multi-hazard prone state. The state experiences heavy rainfall and flood during the southwest monsoon, with subsequent damage to life and property. Drought conditions have also become more frequent during the pre-monsoon period and at times with the failure of southwest monsoon and /or northeast monsoon. Coastal erosion along the coastal areas is very severe, necessitating frequent evacuation and rehabilitation of the coastal people. Incidences of biological disasters such as epidemics, pest attack are also on the rise. Fatalities in road and rail accidents, manmade accidents, lightning and boat capsizing are very high in the state. Landslide or landslip is another hazard of the hilly regions of the state. The tsunami that struck Kerala Coast in 2004 has added a new dimension to the disaster scenario of the state as most of the low lying and mid land areas in the State are having an altitude of only 4-6 meters[23].

[18] Source:https://www.indiatoday.in/education-today/gk-current-affairs/story/indian-states-with-highest- population-1358414-2018-10-08

[19] Source: Kerala State Disaster Management Authority. (2010). Kerala State Disaster Management Plan Profile.
Available at: http://www.kerenvis.nic.in/WriteReadData/UserFiles/file/49412317-Kerala-Disaster-Management- Plan-Profile-India.pdf

[20] Source: https://dop.lsgkerala.gov.in/en/article/158

[21] Source: https://vlist.in/state/32.html

[22] Source: Kerala State Disaster Management Authority. (2016). Kerala State Disaster Management Plan 'towards a safer State. Thiruvananthapuram: Kerala State Disaster Management Authority

[23] Source: Kerala Disaster Management Authority. (2020). Kerala State Disaster Management Policy
Available at: http://www.indiaenvironmentportal.org.in/files/DMPolicy.pdf

The State is also vulnerable to cyclone and experiences high winds due to the westward movement of cyclonic storms crossing Tamil Nadu coast. The fact that Kerala falls under earthquake Zone III makes the state vulnerable to earthquakes of magnitude of 6.5 or more.

Possibilities of chemical and industrial disasters and disasters like dam burst also cannot be ruled out. The threat of Global Warming and its resultant climatic variations such as inter seasonal variations in rainfall, environmental issues and rise in sea level increase the vulnerability of the state. Issues related to rapid urbanization and waste disposal are assuming a gigantic proportion.

The high density of population of 860 people/km2 (2011 Census), narrow roads, high density of road network, density of coastal population and the general higher standard of living of the public as compared to the rest of the country are factors that increase the vulnerability of the population to disasters.

The Kerala State Disaster Management Policy defines disaster as 'a serious disruption of the functioning of a society caused by a hazard or otherwise, having widespread human, material or environmental and other losses, which exceed the ability of the affected society to cope using its own resources'.

The term 'disaster' includes the following events.

Table 3 : Categorization of disasters

Category No.	Category Name	Description
1	Water and Climate related disasters	a) Flood b) Drought c) Costal erosion d) Thunder and Lightening e) Cyclone and Storms
2	Geologically related Disasters	a) Landslides and Mudflows b) Earthquakes c) Dam failures d) Tsunami e) Dam bursts
3	Chemical Industrial and Nuclear related disasters	a) Leakage of hazardous materials at the time of their manufacture, processing and transportation. b) Disasters due to manufacture, storage, use and transportation of products, pesticides etc and waste produced during the manufacturing process
4	Biological related disasters	a) Epidemics b) Cattle epidemics c) Food poisoning d) Pest attacks

Category No.	Category Name	Description
5	Man-made disasters	a) Forest fire b) Urban fire c) Village fire d) Festival related disasters e) Road, Rail and Air Accidents f) Boat capsizing g) Oil spill h) Major building collapse i) Serial Bomb blast j) Illicit Liquor Tragedy k) Drug abuse l) Drowning m) Tanker lorry mishaps n) Pollution (water, air and soil) o) Family suicides p) Environmental disasters q) Communal riots r) Stampede

The following table shows the susceptible/vulnerable areas and population exposure to major hazardous phenomena in the State[25]:

Table 4 : Vulnerable areas and population exposure to major hazardous phenomena in Kerala

Hazard	Number of taluks prone	Susceptible area (km^2)	Population exposed
Landsides	50	5,619.7	2,799,482
Floods	75	6,789.5	7,795,816
Coastal Hazards	24	289.7	313205

State's Response to Disasters
Kerala State Disaster Management Authority

The Kerala floods rescue operations were conducted in conjunction with the National Disaster Response Force (NDRF), fire force, police and fishermen. The relief camps were started under the leadership of the District Collectors and a Joint Disaster Needs Assessment was done in collaboration with the UN. The District Collectors were empowered to coordinate NGOs / CSR Foundations and other donors for relief and rehabilitation works.

[25]Source: Source: Rebuild Kerala Development Programme: A Resilient Recovery Policy Framework and Action Plan for Shaping Kerala's Resilient, Risk-Informed Development and Recovery from 2018 Floods, May 2019 Available at: https://rebuild.kerala.gov.in/reports/RKDP_Master%2021May2019.pdf
[26] Source: SDMA website available at https://sdma.kerala.gov.in/introduction/

Kerala State Emergency Operations Centre (KSEOC)

On 20 January 2014 the Government converted HVRA Cell as the State Emergency Operations Centre (SEOC). It is the 'state nodal office for the collection, compilation and analysis of any data necessary for disaster risk assessment from all government departments and institutions on a no cost basis. Technical matters and emergency operations are managed by Kerala State Emergency Operations Centre (KSEOC).

All administrative matters related to the SEOC are made by the State Executive Committee (SEC) of KSDMA. Its day-to-day affairs are managed by Head, State Emergency Operations Centre. The SEOC is permitted to collect any data from any Government Institution in the state on a no cost basis. Head of KSEOC is the Member Secretary of KSDMA.

Responsibilities

- It is also the research and technology laboratory of the SDMA and directly functions under the Additional Chief Secretary, Revenue & Disaster Management.
- It implements several research and data collection projects and is also entrusted with the preparation of the State and District Disaster Management Plans.
- It also manages the GoI-UNDP project on Enhancing Institutional and Community Resilience to Disasters and Climate Change (2013–2017), Kerala.
- Conduct and regularly update the HVRA of the state
- Prepare the State and District DM Plans
- Conceptualize and implement hazard early warning systems
- Create and maintain the disaster database of the state
- Undertake research projects on topics relevant to disaster risk reduction
- Foster research collaboration with external agencies
- Emergency Coordination
- Preparation of calamity memoranda for submission to Government of India

[27] Source: Kerala State Disaster Management Authority. (2016). Kerala State Disaster Management Plan 'towards a safer State. Thiruvananthapuram: Kerala State Disaster Management Authority.

KSEOC Composition

It is staffed with a multi-disciplinary scientific team, presently 16 members strong, spread over 6 districts. It is headed by State Relief Commissioner (SRC) [inter alia Additional Chief Secretary, Revenue & Disaster Management] The SRC is assisted by officers of the SEOC. The day-to-day functions of SEOC are managed by a Head (Scientist) and are assisted by a trained team of Hazard Analysts. The administrative and financial functions of the SEOC are regulated by the State Executive Committee through Additional Chief Secretary, Revenue and Disaster Management as shown in the organogram on the left.

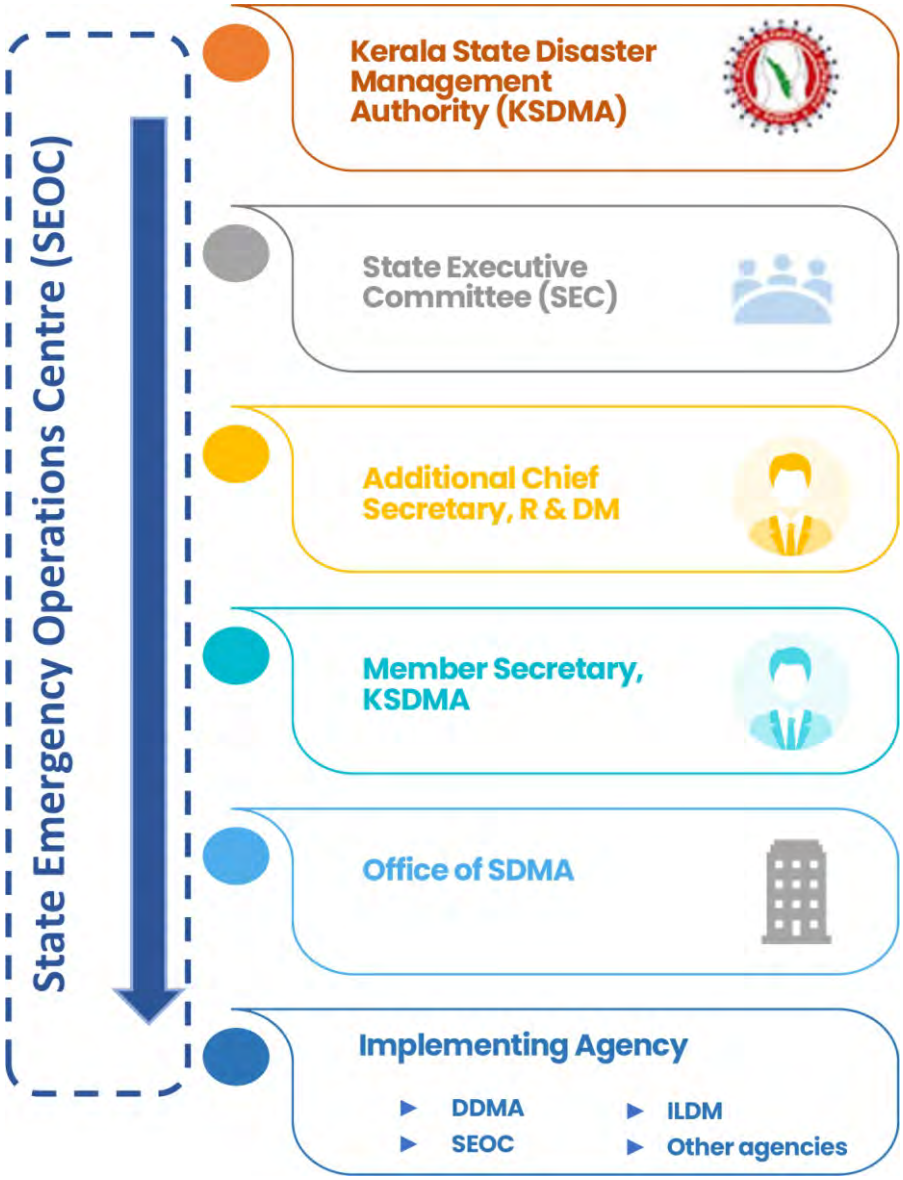


Figure 9 : Organogram of SEOC

In accordance with Section 18 (2) (a), the Kerala State Disaster Management Authority (KSDMA) has prepared the Kerala State Disaster Management Policy (KSDMPo) and published vide GO (MS) No. 240/2010/DMD dated 19-06-2010. The policy shall be revisited once in 10 years.

Nodal Departments Responsible for Handling Hazards

At the state level, the government has assigned nodal responsibilities to specific departments for coordinating disaster-specific responses vide Section 6.5 of the KSDMPo, 2010. Preparedness, response, recovery and mitigation of a particular disaster will be as per the Departmental Disaster Management Plan prepared under Section 39 of the DM Act, 2005 of the respective department. The following figure indicates all the nodal departments that are responsible when various hazards take place:

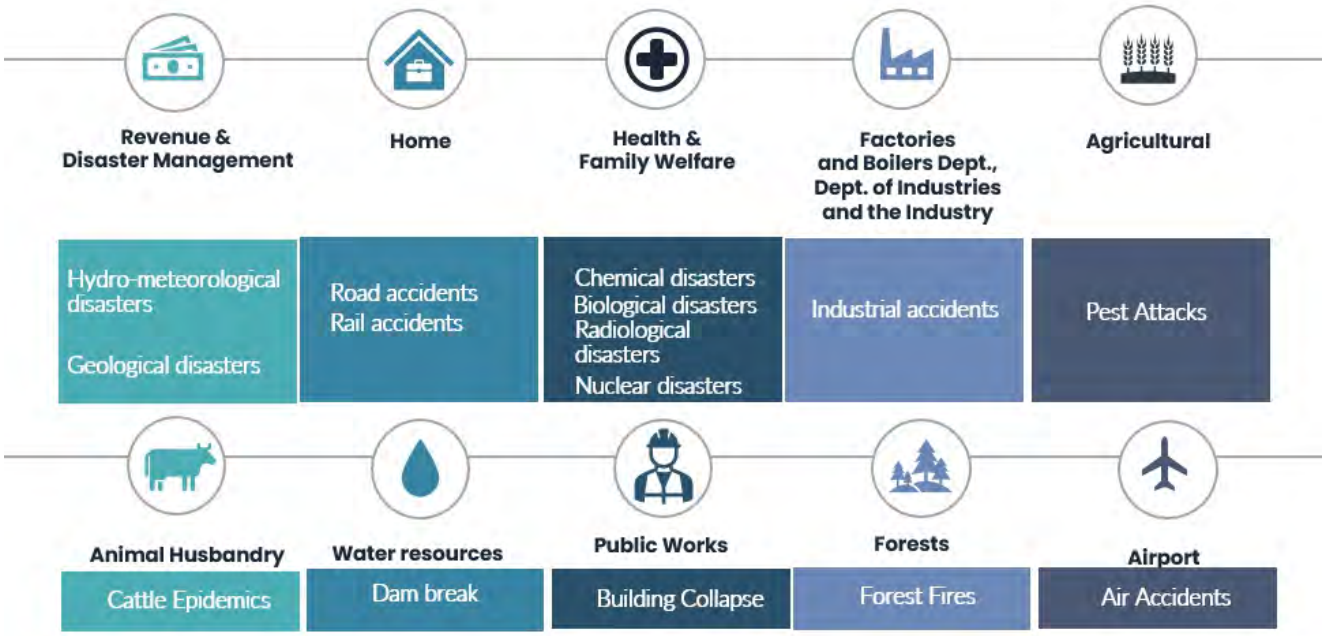


Figure 10 : Nodal Departments and the various hazards handled by them

District Disaster Management Authorities

Kerala has 14 DDMAs, one per district. DDMA is an institution constituted as per the National Disaster Management Act 2005 at the district level to ensure effective management and response to any disaster. It has the following structure.[28]

Table 5 : DDMA Structure

S. No.	Units/ Stakeholders	Technique and Tool
1	District Collector	Chairperson
2	District Panchayat President	Co-Chairperson
3	Deputy Collector (Disaster Management)	Member
4	District Police Chief	Member
5	District Medical Officer Health	Member
6	Divisional Officer, Fire and Rescue	Member
7	Executive Engineer, Major Irrigation	Member

[28]Source: https://kollam.nic.in/en/disaster-management/

DDMA Responsibilities

- Implement disaster management measures in accordance with NDMA and SDMA
- Coordinate and monitor the implementation of national policy, state policy, National Plan, State Plan, District Plan, Disaster Management Plan
- Identify areas in the district vulnerable to disasters and undertake measures for prevention of disasters and mitigation
- Direct authorities at district and local level to undertake measures for disaster mitigation
- Assess state's capabilities of disaster response
- Review the preparedness measures and direct concerned departments to bring preparedness measures to the required levels for responding effectively to disasters
- Organize and coordinate specialized training programmes for officers, employees and voluntary rescue workers
- Review district level development plans and provide technical assistance wherever needed
- Examine construction in an area to monitor if the standards for the prevention of disaster mitigation for construction are being followed
- Identify buildings to be used as relief centres or camps and make arrangements for water supply and sanitation
- Establish stockpiles of relief and rescue materials
- Ensure disaster management drill is carried out periodically

Disaster Relief Projects in Kerala
Rebuild Kerala Development Plan

In response to the floods of 2018 GoK initiated the Rebuild Kerala Mission which looked into the need for different projects to be undertaken as part of the flood. recovery process. In March 2019, the Rebuild Kerala Mission published the draft Rebuild Kerala Development Program for public consultation.

To recover from the floods in a resilient and sustainable manner, it was felt that a traditional approach to recovery and reconstruction would be insufficient. The State not only had to address the fundamental drivers of floods but also better prepare for future disasters. This would be through the development of an inclusive and comprehensive roadmap for a green and resilient Kerala.

To facilitate this process, the Government established the Rebuild Kerala Initiative (RKI) to "bring about a perceptible change in the lives and livelihoods of its citizens by adopting higher standards of infrastructure for recovery and reconstruction, and to build ecological and technical safeguards so that the restructured assets could better withstands floods in the future"[29]. The RKI is the dedicated State-level institutional modality for formulating and coordinating the implementation a Resilient Kerala. Through establishing the RKI, the GoK puts in place a streamlined and transparent process of decision making for the comprehensive and resilient recovery and rebuilding from the 2018 floods.

The RKI's mandate is to develop, coordinate, facilitate and monitor the Rebuild Kerala Development Programme (RKDP) through a participatory and inclusive process. The RKDP constitutes the State's strategic roadmap for a Green and Resilient Kerala.

[29] Source: Rebuild Kerala Development Programme: A Resilient Recovery Policy Framework and Action Plan for Shaping Kerala's Resilient, Risk-Informed Development and Recovery from 2018 Floods, May 2019 Available at: https://rebuild.kerala.gov.in/reports/RKDP_Master%2021May2019.pdf

The RKDP encompasses crosscutting and sector-based policy, regulatory and institutional actions as well as priority investment programs that are critical for resilient and sustainable recovery and rebuilding of the State. It aims to catalyze rebuilding of Kerala in a way that addresses key drivers of floods and other natural disasters and climate change risks and strengthens preparedness against future disasters. Through the RKDP, the GoK aims to ensure a resilient recovery and development pathway for a Nava Keralam.

Objectives of RKDP

"To enable Kerala's resilient recovery and catalyze transformational shift towards risk- informed socioeconomic development through supporting sustainable communities, institutions, livelihoods and putting in place major infrastructure. "– G.O.(P) No.16/2018/P&EA

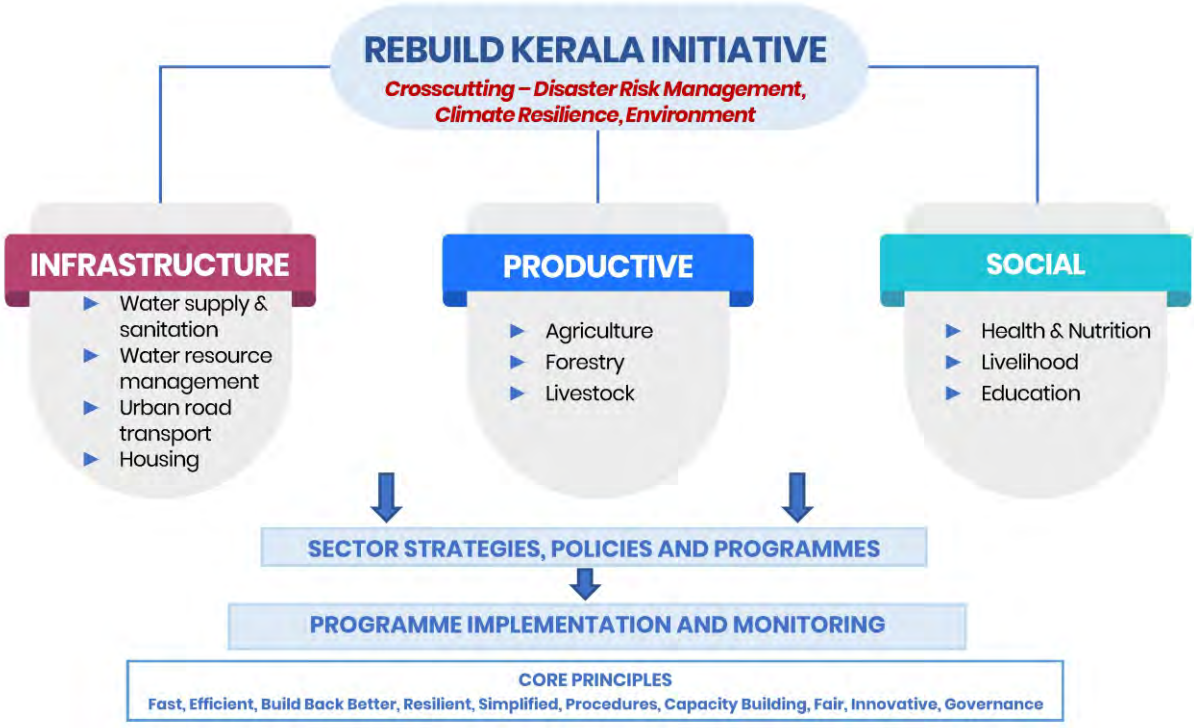


Figure 11 : Cross cutting objectives of Rebuild Kerala Initiative

The RKDP aims to rebuild Kerala in a speedy and effective manner. The goal is to rebuild Kerala in a way that ensures i) higher standards of infrastructure, assets and livelihoods for resilience against future disasters (ii) build individual, community and institutional resilience to natural hazards while fostering equitable, inclusive and participatory reconstruction that builds back better.

Ecological safeguards and standards would be built into the structures that will be constructed to equip new and restored assets to better withstand the onslaught of floods and other natural hazards in the future.

The RKDPP also emphasizes the necessity to improve sectoral mainstreaming of disaster risk reduction measures and strengthen disaster risk management capabilities across the state machinery. The aim is to rebuild a resilient Kerala, wherein state institutions, infrastructure, citizens and their livelihoods are safely protected from extreme weather events.

UNDP 2013-17

Government of India collaborated with UNDP to enhance institutional and community resilience to disasters and climate change in 2013. Community disaster management plans were prepared in Munrothuruthu and Peringara villages of Kollam and Pathanamthitta districts respectively.

Training needs assessment was conducted in the health sector of the state. 2012 community members and 1119 government officials were trained under this project.

Prathyudhanam 2019

KSDMA through UNDP mobilized INR 8.5 Crores through non-governmental sources for 5000 flood affected weaker families in Pathanamthitta, Idukki and Wayanad with INR 16,500 per family. Prathyuthaanam is a pioneering scheme where additional financial assistance is provided to disaster affected people with compounded vulnerability and it truly upholds the tenet of "Leave No One Behind.

- Families with cancer patients, dwelling in houses that experienced at least 15% damage in Kerala Floods 2018
- Families with dialysis patients, dwelling in houses that experienced at least 15% damage in Kerala Floods 2018
- Families with bedridden, differently abled members, dwelling in houses that experienced at least 15% damage in Kerala Floods 2018
- Widowed mothers with minor children dwelling in houses that experienced at least 15% damage in Kerala Floods 2018

UNDP Shelter Hubs Project

Between November 2018 to June 2019, 10 facilitation centres were established and operated with the financial support of UNDP Shelter Project in Kerala in Pathanamthitta, Idukki and Wayanad with the aim of providing technical assistance to multiple stakeholders involved in house reconstruction such as beneficiaries, masons, contractors etc.

The activities of shelter hubs focused on promoting disaster resilient and sustainable construction practices through consultancy, outreach, advocacy, networking and resource mapping. With Habitat Technology Group as the implementing agency, within a period of eight months, shelter hubs a) Provided on-site technical assistance to 3597 flood affected house owners and b) Oriented 934 masons (including 369 Kudumbashree women masons), 203 house owners, 60 contractors and 373 civil engineering diploma students in disaster resilient and sustainable construction practices.

Mapping Landslides by Geological Survey of India 2018

Post Kerala floods 2018, the Government directed the Geological Survey of India (GSI) in September 2018 to map the landslides that occurred in the floods. GSI in priority deployed 10 teams, each with two Geologists to immediately survey the landslide sites and proposed the sites that are inhabitable such that the families dwelling there could be facilitated for relocation. In total 1626 landslides were investigated. Based on the site-specific investigations, GSI recommended 689 dwelling units to be relocated. The Government made the vulnerability linked relocation plan applicable to the dwelling units which were identified as vulnerable by GSI.

Rapid Assessment of Safety of areas affected by landslides/debris flows 2019

Officers of Mining and Geology, Ground Water and Soil Conservation Departments were paired into 49 teams and trained by KSDMA with the assistance of landslide experts and Geological Survey of India. Each team had one Geologist and a Soil Conservation Officer. The teams were deployed in 9 districts. In total 719 sites were investigated. Based on the site specific investigations, the teams recommended dwelling units at 411 sites to be relocated The Government made the vulnerability linked relocation plan applicable to the dwelling units which were identified as vulnerable by these teams.

UNICEF 2019

KSDMA launched a project in partnership with UNICEF in 2019 titled "Mainstreaming Disaster risk resilience". The thrust areas of the project were:

i) Child Centred Risk Informed Planning
ii) School Safety Training Programmes - were conducted involving disaster affected schools from 11 districts covering 398 schools and officials from education department
iii) Strengthening Inter Agency Group activities.

A state level workshop on child centric risk informed programming was held on 16-17 of December 2019. A state level workshop on networking for DRR and climate change adaptation was organized for civil society organizations on 7 March 2020

Sphere india 2019-20

Disaster Management Act, 2005 highlights the importance of NGOs in disaster risk reduction. KSDMA collaborated with Sphere India in 2019 to –

i) Update District Disaster Management Plans of all 14 districts
ii) Create an institutional framework of NGO collaboration

All 14 districts formed Inter Agency Groups (IAGs) under their respective DDMAs for NGO coordination. A total of 420 NGOs spread across Kerala are now a part of the IAG network of DDMAs.

Rebuilding Kerala 2018 – Habitat for Humanity

Habitat India mobilized to facilitate relief and recovery operations for affected families hitting the ground on 20th August 2018. The intervention was multi-pronged, aimed at ensuring that basic needs were met through Humanitarian Aid Kits and First Responders' Kits, to aid in clean-up for those returning to their homes through Habitat Tools Banks, Water Filters to avert the risk of water-borne diseases and Conditional Cash Transfers to plug unmet gaps[31].

3.2 Model of NSE Foundation's Kerala Flood Relief Project in Idukki district Story of Project Implementation

The central government has designated the Kerala floods 2018 as Level 3 constituted as "Calamity of severe nature". Discussions with the Plan India team revealed that Plan India Emergency Response Team reached Kerala in the middle of the floods, on 18th August 2018. They started their relief work by distributing 500 food kits in Pathanamthitta district. Impressed by their relentless relief work in such difficult circumstances, the district administration in Idukki specifically requested for their support in their district. Plan India held a detailed discussion with district administration and expressed their interest of extending support in undertaking repair & renovation work of the school infrastructures damaged by flood.

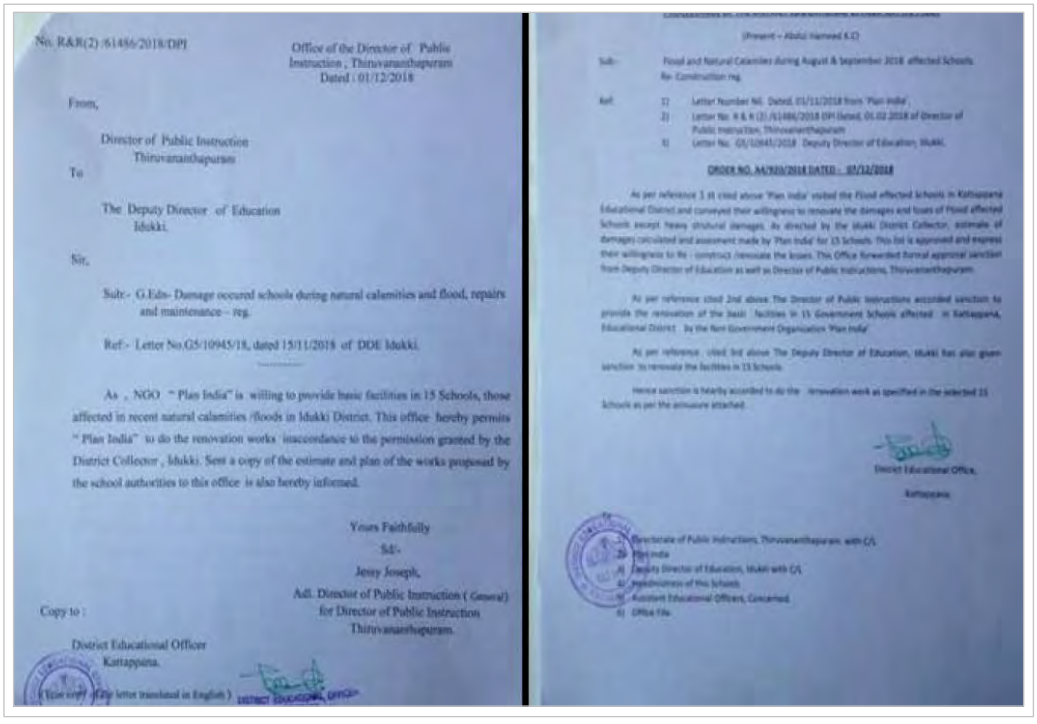
[31] Source: https://www.habitat.org/sites/default/files/documents/RebuildingKerala-OneYearReport.pdf

Thus, relief operations were initiated in the Idukki district and a Rapid Needs Assessment (RNA) was conducted by the Plan Team. School infrastructure, especially water and sanitation facilities were identified as the worst hit by the floods.

In September 2018, based on the RNA, further discussions were carried out with the District Administration and Education Department of Idukki. The government proposed upgradation of 22 schools in the district. Plan India then initiated school wise assessments in the 22 schools, post which 15 were identified as the target schools for the project. These School Assessment reports were shared with students, their parents, and teachers of the 15 schools; Panchayat members; Education Department officials (District Education Office and Deputy District Education); District Administration (District Emergency Operation Centre and District Collector); Director of Public Instructions, State of Kerala. Post taking inputs from all the stakeholders involved, the School Assessment Reports were finalized.

Since NSE Foundation undertakes humanitarian response projects during emergencies, the Resource Mobilization team at Plan India then reached out to them with a proposal based on the revised School Assessment Reports to respond to the Kerala floods in Idukki for restoring and making schools functional by rebuilding/repairing school WASH infrastructure in 15 schools for quick resumption of teaching learning activities. After conducting appraisal of the proposal, NSE Foundation awarded the project to Plan India. Approval was received for project implementation in September 2018 and the contract was signed on 1st October 2018.

To set things into motion, in October 2018, an Action Plan was developed based on NSE Foundation's approval and shared with the District Administration and Education Department. Formal permissions were taken from the Directorate of Public Instructions (DPI), Thiruvanathapuram, Government of Kerala to implement the project in Idukki.



No. R&R(2)/61486/2018/DPI

Office of the Director of Public Instruction, Thiruvananthapuram
Dated : 01/12/2018

From,

Director of Public Instruction
Thiruvananthapuram

To

The Deputy Director of Education
Idukki.

Sir,

Sub:- G.Edn- Damage occured schools during natural calamities and flood, repairs and maintenance - reg.

Ref:- Letter No.G5/10945/18, dated 15/11/2018 of DDE Idukki.

As , NGO " Plan India" is willing to provide basic facilities in 15 Schools, those affected in recent natural calamities /floods in Idukki District. This office hereby permits " Plan India" to do the renovation works inaccordance to the permission granted by the District Collector , Idukki. Sent a copy of the estimate and plan of the works proposed by the school authorities to this office is also hereby informed.

Yours Faithfully
Sd/-
Jessy Joseph,
Adl. Director of Public Instruction (General)
for Director of Public Instruction
Thiruvananthapuram.

Copy to :

District Educational Officer
Kattappana.

ORDER NO. 84/920/2018 DATED :- 07/12/2018

District Educational Office,
Kattappana

Figure 13: Permission letter from DPI and Proceeding Letter from DEO Kattappana

The hardware and software activities conducted under the project are indicated below:

Hardware Activities

- Provisioning of safe drinking water by installation of water filters
- Disinfecting and cleaning school premises
- Renovation of handwashing stations
- Restoration of sanitation facilities
- Creating safe play spaces/areas
- Wall paintings to reinforce awareness messages
- Provision of operation and maintenance equipment

Software Activities

- Orientation and training to partner NGO staff on WASH including, handwashing, proper usage of toilets, behavior change communication.
- Conducting workshops with students, teachers, parents and sanitation workers to create WASH awareness
- Identification of PTA and parents in the schools
  Sessions with students and teachers on handwashing in schools
- IEC developed in English and Malayalam

The following table has been compiled after desk review of the project reports and other documents shared by NSE Foundation, RedR India and KPMG team.

Table 6 : Number of direct and indirect beneficiaries reached under the project

Direct Students		
Boys	Girls	Total
1361	1586	2947
TeachersandNon- teaching staff		
Male	Female	Total
78	164	246
Indirect Reach		
More than 4000 individuals including parents of beneficiary children, PRI members, District Education officials and community members participated for the WASH awareness sessions and consultations.		

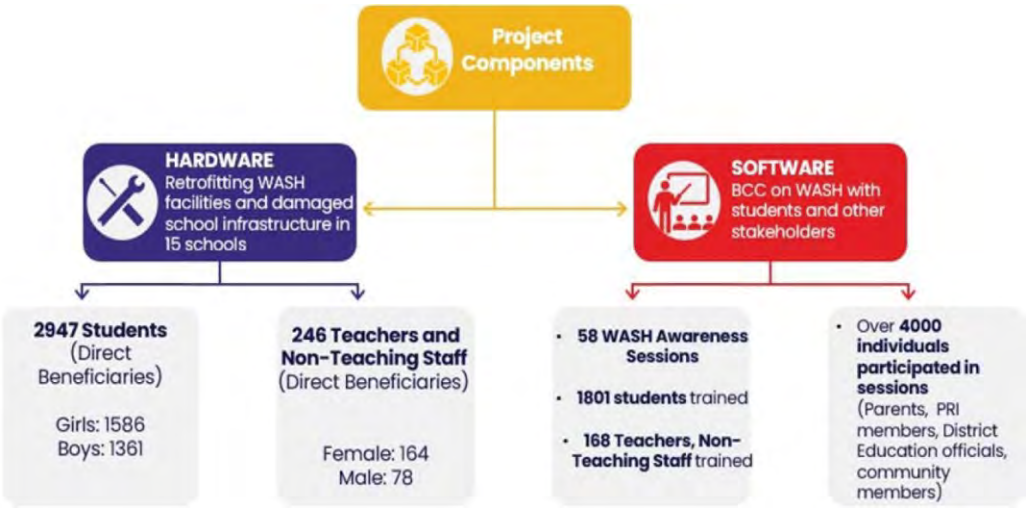


Figure 14 : Model and reach of the project

Governance Structure

In order to achieve the objectives of the project, the following governance structure was adopted, as indicated in the figure below:

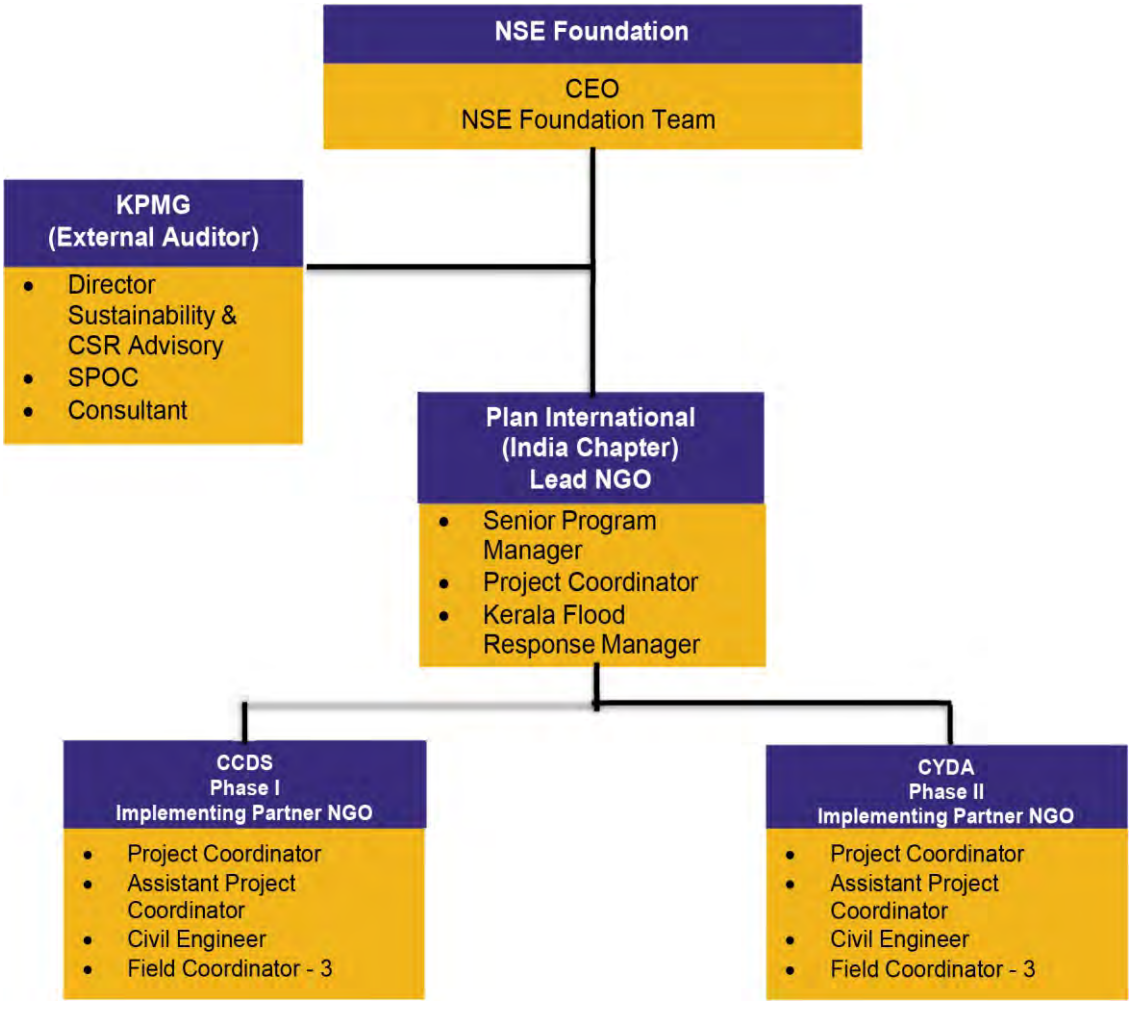


Figure 15 : Project organisation structure with team composition

3.3 Project Activities/Interventions

This section discusses about the various activities undertaken under the project, their respective timelines as well as the milestones achieved. It has been written after discussion with the Plan India, CYDA and KPMG team, apart from the desk review of reports shared with the TRIOs team.

With the signing of the MoU between NSE Foundation and Plan International (India Chapter) on 1st October 2018, the Phase I of the project began in full swing. The following figure indicates the activities undertaken as a part of this project. Each activity listed has been explained in detail in the following section.

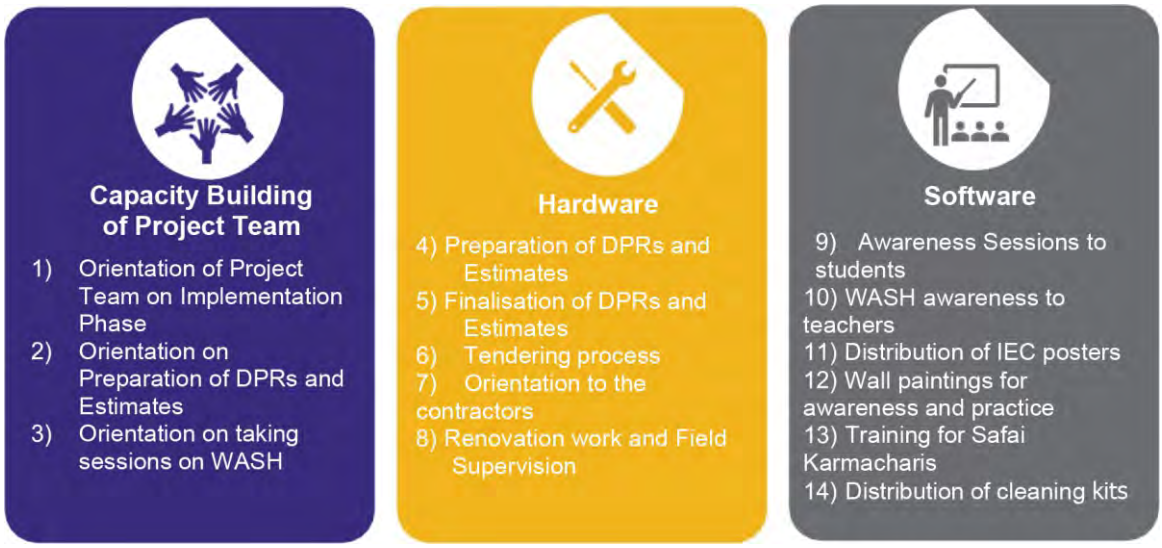


Figure 16 : Activities undertaken under each component of the project

Capacity Building of Project Team

With CCDS and CYDA being selected as the Implementation Partner for Phase I and Phase II respectively, Plan India team provided an orientation to the Project team regarding the project objectives, their roles and responsibilities, preparing DPRs and Estimates, tendering aspects, documentation for tender process, supervising civil works, facilitating meeting with SMCs, conducting WASH awareness sessions and training of school and non-school

Hardware Component

Plan India provided handholding support to the implementing partners in taking measurements for all the structures to be retrofitted. Additional inputs were provided to the Civil Engineer of the implementing partner NGO to support them in preparing the estimates based on the scheduled rates. Plan India team has supported for Child Friendly designs, drawings, branded material specifications for the WASH facilities.

Consultation meetings were organised with the headmasters and the DPRs and Estimates were presented to them. The DPRs and Estimates were also submitted to the DEO for their inputs and suggestions. At each step of the process, the district officials as well as the schools were actively involved to ensure transparency as well as to encourage ownership. The suggestions made by the school as well as the DEO were incorporated in the final DPR.

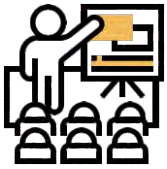
Tender process was completed through open bidding in alignment with the Kerala Government tender process. Plan India supported CCDS and CYDA in preparing the tender documents- BOQ, tender Notice, Selection Notice, LOA.

An important aspect of this project was the focus on providing proper orientation to the contractors. Project site visits were organised by the partner NGOs to explain to the contractor in detail the technical specifications of the work. DPRs and Estimates were also explained to them. A session on Safeguarding Child and Young Policy of Plan India was also taken and their acknowledgement on the same was taken.

Thus began the renovation work in the schools. The list of works undertaken in the 15 schools are as follows:

- Provision of safe drinking water
- Disinfecting and cleaning the school premises
  Restoration of Sanitation Facilities
  Repair / upgradation of Rainwater Harvesting (RWH) Structures
- Painting of school structures
- Constructing safety walls for the school compound

Software Component



Both the partner NGOs were first oriented by the Plan team regarding the framework they need to follow, the topics they need to cover for conducting awareness sessions on WASH in schools with the students, teachers, SMC members, parents and safaai karamcharis.

- Students: The sessions included classroom sessions with students with discussion around the importance of handwashing at critical times through power point presentations. Activities were also done with the students with actual demonstration of handwashing using soap and water to explain the correct method of handwashing.
- Teachers: The sessions for teachers included topics on handwash, hygiene and its importance, proper usage and maintenance of toilets.
- Safaai Karamcharis: Awareness sessions were conducted for all the Safaai Karamcharis of the school regarding proper cleaning and maintenance of toilets. Training was given for preparing liquid soap with locally available ingredients was provided with live demonstration. The importance of using cleaning materials such as brushes, cleaning liquids etc. was also explained. Cleaning kits were distributed which included liquid handwash, disinfectant surface cleaner, disinfectant toilet cleaner, toilet cleaning brush, floor cleaning brush, brush for cleaning wash basins, mop, bucket, mug, gloves etc.
- Parents: Sessions with parents included topics on handwash, importance of practicing hygiene in school as well as home, and proper usage and maintenance of toilets both at school and at home.

A snapshot of the milestones achieved under this project have been indicated in the figure below.

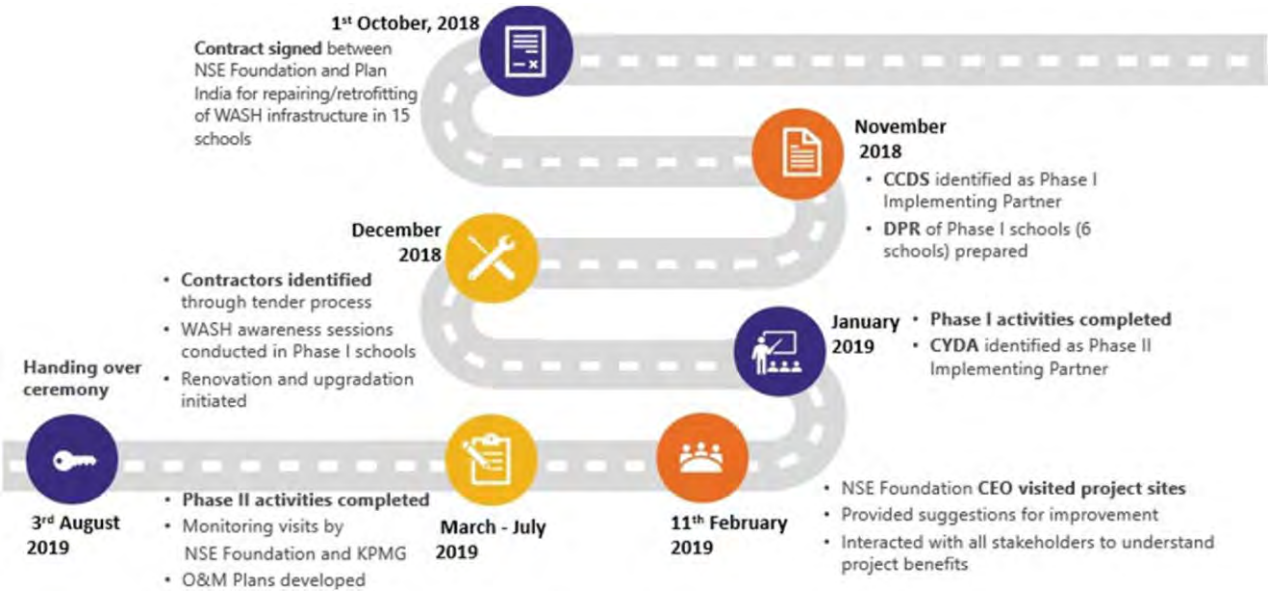


Figure 17 : Key milestones achieved under the project

Detailed description of the activities under each milestone is shared in **Annexure 3**

Handwashing station with taps intact but not in use since the school is still closed for students

3.4 Indicators

The Key Output, Outcome and Impact Indicators are presented below:

Key Output Indicators

- Number of schools (15) with Participatory situational assessment reports
- Detailed Infrastructure Assessment report
- Number of schools (15) with safe drinking water facility for all children –clean and covered wells for drinking purpose
- Number of schools (15) with functional toilets as per the standards of the SBSV guidelines or the guidelines existing under the MoDWS schools including functional hand wash facilities, sanitary pad incinerators, toilets, urinals, wash basins, water points in toilets with taps.)
- Number of schools (15) with functional and clean classrooms and kitchens for mid- day meal service.
- Number of schools (15) with functional rainwater harvesting system, solid/ liquid waste and water management, kitchen gardens etc
- Number of BCC sessions in each school for handwashing, health & hygiene, MHM and disaster preparedness.
- Number of capacity building and training sessions of stakeholders including District education /block level officials, SMC members, village interactions for release of funds for future maintenance, kitchen staff, school teachers.

Key Outcome Indicators

- Retrofitted sanitation and school infrastructure facilities post flood in selected schools
- Access to WASH infrastructure and services by all children and youth, including adolescent girls
- Established mechanism for joint monitoring of WASH facilities involving children, teachers', school principal, SMC members reflected in the school development plan and for the maintenance of the retrofitted facilities

Key Impact Indicators

- Reduction in absenteeism and dropout in school, especially girls
- Open Defecation Free schools where all students practice hygiene all the time
- Involvement of school staff, SMC members and village

3.5 Monitoring Processes

a) At PME Level

As the External Auditor of this project, KPMG audited the programmatic as well as the financial aspects. The programmatic aspects included infrastructure and the BCC component of the project. The Financial aspects included the expenditure, variance, fund recommendation as per requirement. KPMG also provided support in standardising the DPR and estimate formats and making model DPR documents.

It set up a governance mechanism with Plan India wherein Plan India was supposed to submit monthly reports by the 7th of each month and quarterly reports by the 15th of next quarter. KPMG also conducted quarterly programmatic and financial review through field visits and desk reviews for verification of activity coverage on sample basis such as DPRs, and recommendations for fund release.

The PME processes adopted by KPMG helped strengthen the project documentation across the project lifecycle.

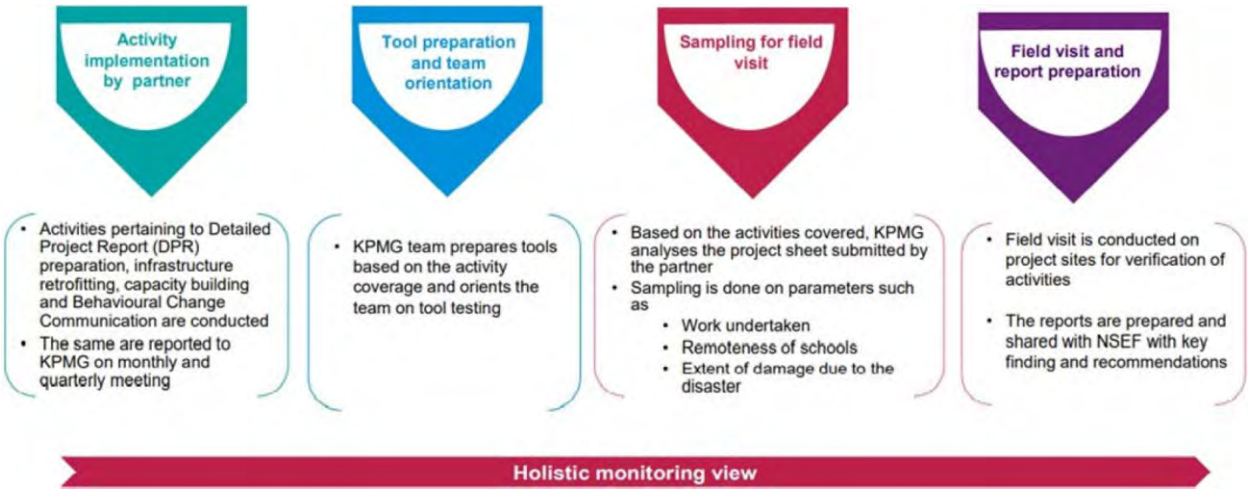


Figure 18 : Monitoring mechanism adopted by KPMG

b) Monitoring and Reporting Mechanism

- At the ground level, monitoring of retrofitting as well as soft skills activities was done by the Field Coordinators of CCDS and CYDA teams. The Project Engineers visited all the schools to assess the quality of construction and ensured it followed the prescribed guidelines and standards. During these visits, the progress made was cross checked with the estimates and ensured the works were done as per the plan and estimates and further recommendations were made for the release of the instalments to the contractors.
- The Project Manager from the Plan Team made weekly visits to monitor the project site and also monitored the progress of software and hardware activities via phone calls and progress update photographs through Whatsapp on daily basis. Technical inputs were provided to the field team as and when required.
- Ownership was taken by key stakeholders like the Government engineer, Education officer, local panchayat members, SMC members and the School Principal who monitored the hardware activities to ensure that good quality work was delivered.
- KPMG, the project auditor, had set up a governance mechanism with Plan, wherein they were to submit a monthly report by the 7th of each month and quarterly reports by 15th of the next quarter. KPMG conducted quarterly programmatic and financial review through field visits and desk reviews for verification of activities as per the DPRs and made recommendations for fund release.

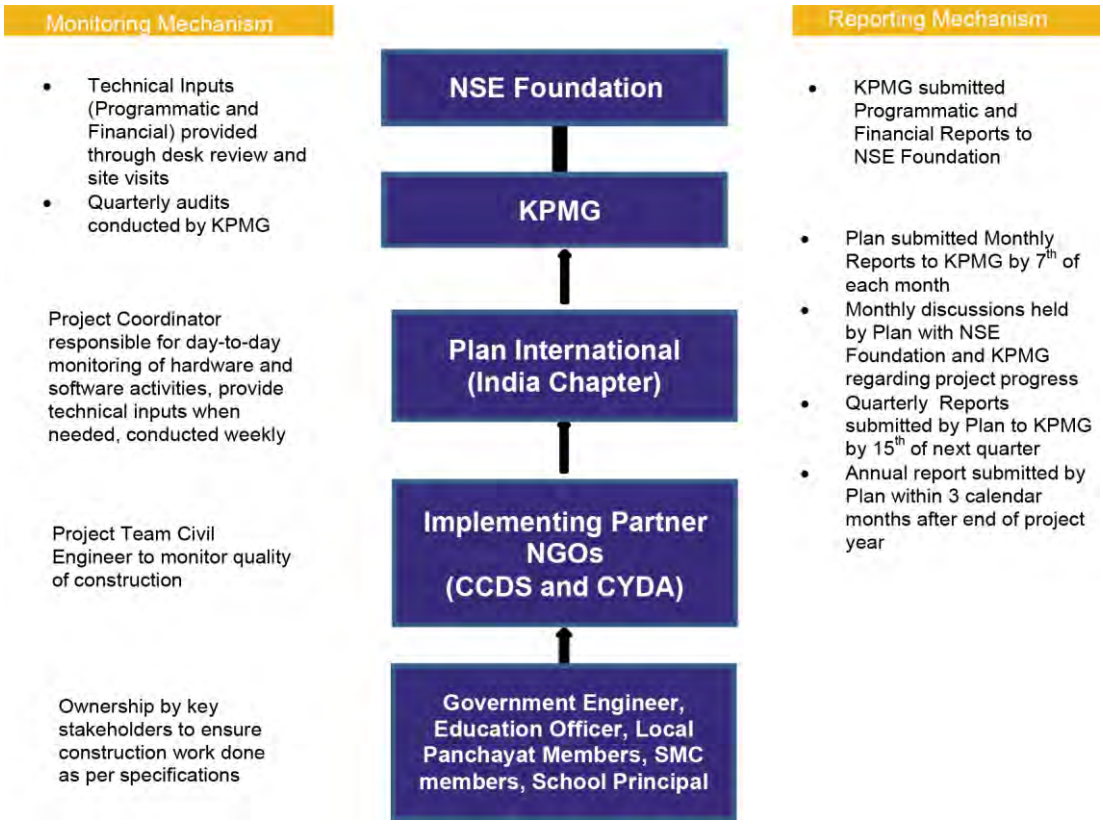
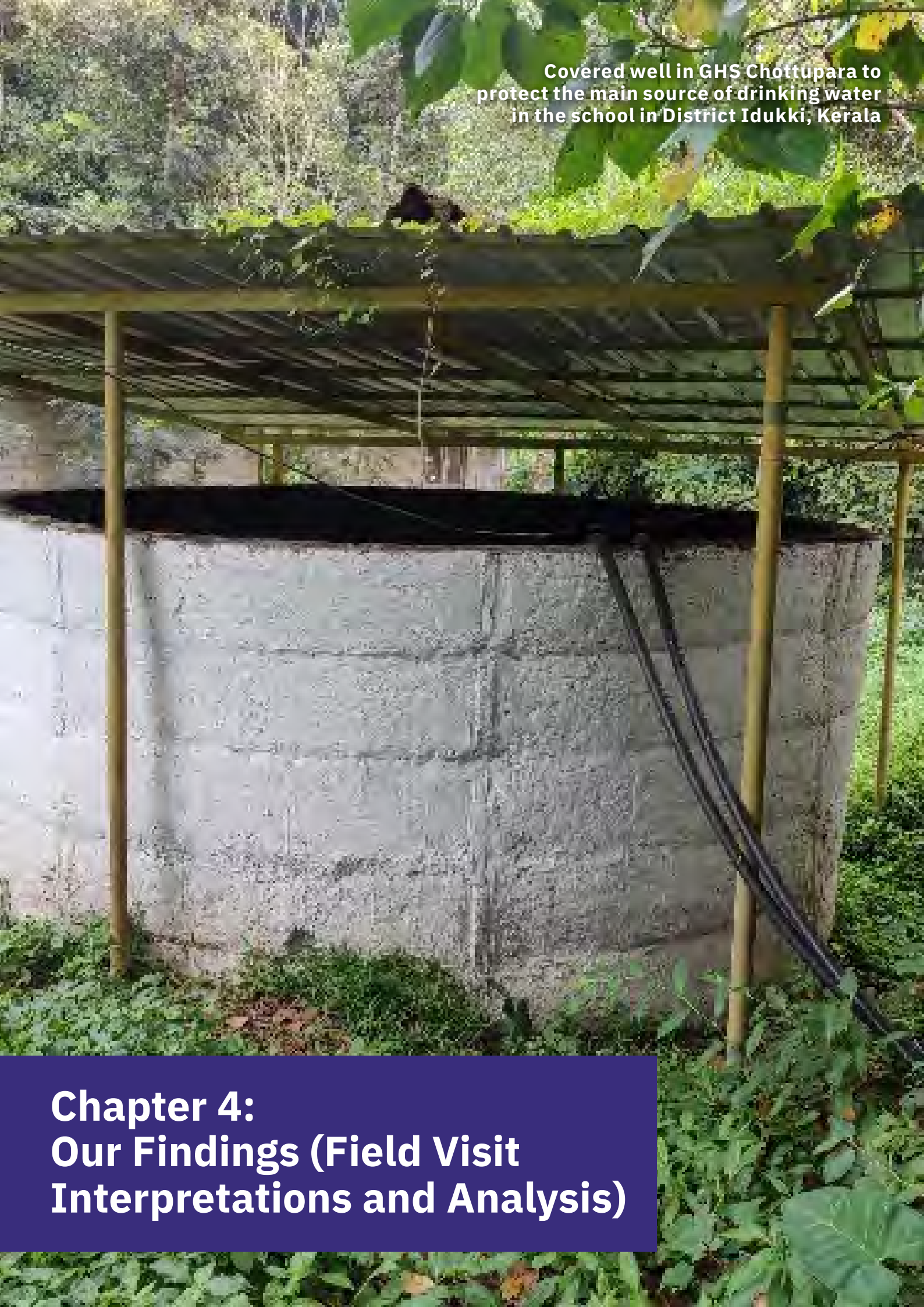


Figure 19 : Monitoring and reporting mechanism adopted in the project

- Programmatic and financial reports were submitted by KPMG to NSE Foundation along with program strengthening observations and recommendations
  NSE Foundation also provided technical inputs both programmatically and financially through site visits and review.

c) MoU

The Project Co-operation Agreement was signed between NSE Foundation and Plan International (India Chapter) on 1st October 2018. Under the agreement, NSE Foundation provided financial support to Plan for upgrading school WASH infrastructure in 15 schools in Idukki district for resumption of teaching and learning activities in the school post the August 2018 floods. Fund disbursement was done post receiving satisfactory invoices from Plan containing the required particulars specified by NSE Foundation. Quarterly financial review of the project was undertaken by NSE Foundation, and the disbursals were based on the income and expenditure statement and fund balance with Plan. The total value of the project was INR 1,59,50,715.



Covered well in GHS Chottupara to protect the main source of drinking water in the school in District Idukki, Kerala

Chapter 4: Our Findings (Field Visit Interpretations and Analysis)

4.1 Log Frame Approach

The following table has been compiled after desk review of the project reports and other documents shared by NSE Foundation, Plan India and KPMG team.

S. No.	Objective	Activity	Output	Outcome	Impact
1	Restore and make the schools functional by rebuilding/ repairing the school WASH infrastructure of 15 schools in Idukki district, Kerala for quick resumption of teaching learning activities.	• Orientation to the Project Team on Implementation phase • Orientation on Preparation of DPRs and Estimates • Orientation on taking sessions on WASH • Preparation of DPRs and Estimates • Finalization of DPRs and Estimates • Tendering process • Orientation to the contractors • Renovation work and Field Supervision	• Number of schools (15) with Participatory situational assessment reports • Number of schools (15) with Detailed Infrastructure Assessment report • Number of schools (15) with safe drinking water facility for all children – clean and covered wells for drinking purpose • Number of schools (15) with functional toilets as per the standards of the SBSV guidelines or the guidelines existing under the MoDWS schools including functional hand wash facilities, sanitary pad incinerators, toilets, urinals, wash basins, water points in toilets with taps. • Number of schools (15) with functional and clean classrooms and kitchens for mid-day meal service. • Number of schools (15) with functional rainwater harvesting system, solid/ liquid waste and water management, kitchen gardens etc	• Retrofitted sanitation and school infrastructure facilities post flood in selected schools • Access to quality WASH infrastructure and services by all children and youth including adolescent girls'	• Reduction in absenteeism and dropout in the school, especially girls • Open Defecation Free schools where all students practice hygiene all the time
2	Enhance safe and hygienic practices in the school and related communities by conducting BCC activities	• Awareness Sessions to students WASH awareness to teachers • Distribution of IEC posters • Wall paintings for awareness and practice • Training for Safai Karamcharis • Distribution of cleaning kits • Handing over of infrastructure with written commitment from School and District Education department.	• Number of BCC sessions in each school for handwashing, health & hygiene, MHM and disaster preparedness. • Number of capacity building and training sessions of stakeholders including District education /block level officials, SMC members, village interactions for release of funds for future maintenance, kitchen staff, teachers.	Established mechanism for joint monitoring of WASH facilities involving children, teachers', school principal and SMC members reflected in the school development plan and for maintenance of the retrofitted facilities.	Involvement of school staff, SMC members and village

4.2 Process Evaluation Findings

Post an exhaustive literature review and consultation with the NSE Foundation, Plan India and CYDA team, our Field Team made a visit to the following 12 schools between 16th December 2021 to 10th January 2022 under the impact assessment study-

Table 7 : List of schools where field visits were made

Partner NGO Responsible	Name of School
PHASE I: CCDS	Government UPS, Elappara
	Government LPS, Ladrum
	Peermade LPS, Karadikuzhi
PHASE II: CYDA	Government HS, Valakode
	Government LPS, Pookkulam
	Government LPS, Sasthanada
	Government HS, Udumbanchola
	Government HS, Chottupara
	Government HS, Vagamon
	Government HS, Chottupara
	Government HS, Vagamon
	Government HS, Chottupara

This section is a triangulation of our findings from primary and secondary research of the various processes adopted under each of the following component –

a) Capacity Building of Project Team
b) Hardware component
c) Software component

a) Processes involved in Capacity Building of Project Team

i) *Orientation of Project Team on Implementation Phase*

By November 2018, the infrastructure gaps were identified in all the 15 schools by Plan India, post which, CCDS was identified as an Implementing Partner and project staff was recruited. By January 2019, CYDA was identified as the Phase II Implementing partner for the remaining 9 schools.

A complete project orientation (both classroom and field) was given to the CCDS team in November 2018 and CYDA team in January 2019 by Plan Indi team which covered the following topics -

- Project objectives
- Defining roles and responsibilities
- Safeguarding of Child and Young Policy of Plan India
- Preparation of DPR and Estimate

- Tendering aspects
- Documentation for tender process
- Supervising civil work
- Organising WASH committees
- Facilitating meeting with SMCs
- Conducting WASH awareness session
- Conducting training for Safai karmacharis
- Reporting and documentation

For Phase 1 schools, a formal orientation session was organized on December 13, 2018. It included the District Education Officer, Kattappana, Assistant Education Officer, Headmasters and PTA representatives from 6 schools.

For Phase 2 schools, the orientation session was organised on March 22, 2019, in the presence of DEO Kattappana, Headmasters, teachers and SMC members of the 9 schools.

In both these sessions, the participants were informed about NSE Foundation and Plan India. The DEO explained the process of identification of schools and how the schools were shortlisted by the District administration and Education Department. The processes adopted by Plan India and the collaboration between the Education department, District Administration and Plan India for undertaking the work in 15 schools across Idukki district was shared with the participants.

A formal request was made by the DEO to all the headmasters and PTA representatives to support Plan India in the implementation of the project. DEO further stressed the importance of operation and maintenance of the project post renovation of the infrastructure. He advised all schools including SMC to take ownership of the project and also to ensure the maintenance of the upgraded facilities.

A session by Plan India was conducted to explain the objectives of the project along with the expected outcomes. NSE Foundation, Plan India, CCDS and CYDA were introduced to the participants in this session.

Key Outcome Indicator:

1. Number of capacity building and training sessions of stakeholders including District education /block level officials, SMC members, village interactions for release of funds for future maintenance, kitchen staff, school teachers: 2

Means of verification:

- NSE-Plan India – CCDS Phase-1 Project Orientation Report
- NSE-Plan India – CYDA Phase-2 Project Orientation Report

Note: Both these orientation sessions included headmasters, teachers and SMC members of all the 6 and 9 schools respectively.

ii) Orientation on Preparation of DPRs and Estimates

Discussions with KPMG team revealed that guidelines for preparing DPR and template for preparing estimates shared by NSE Foundation with the Plan India Team which were later shared with CCDS and CYDA. Plan India Team further shared that they provided handholding support to CCDS team for DPR preparation. Also, a participatory approach was adopted in this process which involved transect walks and group discussions with students, parents, teachers, district education department officials and officials from district administration.

Further, demonstration was given to the project team to take measurements and conduct meetings to collect information. Additional inputs were given to the Civil Engineer to prepare the Estimates based on the scheduled rates. Inputs and suggestions were given to the DPRs and Estimates for finalization. Child friendly designs, materials specifications and brands for the WaSH facilities were ensured by Plan India while preparing the DPRs.

An independent Situational Assessment report was prepared by CCDS for the 6 schools under phase 1. CYDA had included this report within the DPRs of the 9 schools. The assessment looked at the following aspects–

- Status of Safe Drinking water
- Toilets and sanitation facilities in the school
- Status of Mid –Day Meal kitchen and facilities
- Damages to classrooms/unfit structures if any.
- Status of playground and play equipment.

It highlighted the current status of the infrastructure as well as suggested the works to be undertaken. The DPRs were prepared based on the Situational Assessment Report. The detailed list of works to be undertaken as a part of the project was shared with all the stakeholders during the orientation session.

Transparency was maintained at every level of the project and the district administration was actively involved in the same. Each DPR was presented to the Headmasters, teachers and SMC members who gave suggestions and endorsed the DPR and works that will be undertaken in the schools. The DPRs and estimates were finalized based on the inputs and suggestions of all the stakeholders. The finalized DPRs and estimates were then shared with the respective schools and also with the DEO, Deputy Director (Education), DPI and District Collector.

Tender process was completed through open bidding in alignment with the Kerala Government tender process. The tender process was explained to the stakeholders and names of the finalized contractors were shared with the respective school representatives. Plan India requested the headmaster and PTA representatives to support the project through monitoring and endorsing the work in the schools. All of them accepted and agreed to monitor and sign the work completed reports. A room in each school was allotted to the contractors for safe keeping of the renovation material.

The contractors were oriented about the project and the standards, and then taken to the project site to explain in detail the works to be undertaken as a part of this project. The Swachh Bharat Swachh Vidyalaya design norms were introduced.

Based on the WASH Facility Structural Observation, indicator mapping of the output indicators is given below -

Key Outcome Indicator:

2. ***Number of schools with Participatory Situational Assessment Reports: 15***
3. ***Number of schools with Detailed Infrastructure Assessment Report: 15***

Means of verification:

- Idukki schools Situational Assessment Report of 6 schools shared by CCDS
- DPRs of 6 schools shared by CCDS
- DPRs of 9 schools shared by CYDA

Note: CYDA had integrated the Situational Assessment component in their DPRs to give a snapshot of the infrastructure challenges faced by the schools.

a) Processes involved in Hardware Component

Tender process was completed through open bidding in alignment with the Kerala Government tender process. Plan India supported CCDS and CYDA in preparing the tender documents- BOQ, tender Notice, Selection Notice, LOA. The tender was published in the respective partner's website with adequate days given to contractors to submit their bids. Selection Committee was set up by the partner NGOs. Only the government licensed contractors were eligible for submitting the bids. The Selection Committee identified the tenders as L1, L2, L3. L1 contractors were invited for discussions and after final negotiations, selection notice and LOA was given with a request to credit 5% surety amount for signing the contract and agreement.

An important aspect of this project was the focus on providing proper orientation to the contractors. Project site visits were organised by the partner NGOs to explain to the contractor in detail the technical specifications of the work. DPRs and Estimates were also explained to them. A session on Safeguarding Child and Young Policy of Plan India was also taken and their acknowledgement on the same was taken.

Thus began the renovation work in the schools. The detailed list of works undertaken in the 15 schools based on an analysis of the Situational Assessment Reports and DPRs are as follows:

- Provision of safe drinking water: Based on the assessment, in some of the schools the source of drinking water was damaged or polluted. The assessment found that in many cases pipes were broken, motor was not functional, the well or the borewell water was contaminated, and the tanks had also been damaged. Moreover, the filtration systems at the point of use were also not functional. The water filters were fixed and safe drinking water stations with water purifiers were set up.
- Disinfecting and cleaning the school premises: Prior to the repair and renovation work, cleaning of the toilets, drinking water points and other facilities was done which helped in carrying out the renovation/upgradation work easily.
- Restoration of Sanitation Facilities: As part of the upgradation, sanitation facilities in the schools such as toilets, pipelines, wash basins & handwashing stations, urinals etc. were retrofitted/restored. Other activities included removal of old infrastructure like broken toilet seats if any, tiling of urinals and toilets, provision of running water in the urinals and toilets through plumbing and linking the urinals and toilets to the water tanks. The Swachh Bharat Swachh Vidyalaya guidelines and the MDWS guidelines for sanitation infrastructure in schools were followed. Technical specifications were vetted by the Government Engineer and the Project

- Repair / upgradation of Rainwater Harvesting (RWH) Structures: The damaged RWH systems were repaired. This was accomplished by replacing broken pipes and other plumbing material. Other restoration services included repair of kitchen with provision for drainage, supply of wash basin (liquid and solid), repair of damaged roofs / doors and windows in classrooms.
- Painting: Post the upgradation of the facilities/infrastructure, they were painted to make the facilities more attractive and cleaner for the children. Wall paintings were also done which included messages on safe Water, Sanitation and Hygiene practices. Key messaging on wall painting designs were then sent to NSE Foundation, KPMG (external auditors) and Education Department for approvals post which the task was undertaken. The messages were translated into local language.

The upgradation of infrastructure in Phase I schools was completed by the end of January 2019 and that in Phase 2 schools was completed by June 2019. Based on the WASH Facility Structural Observation, indicator mapping of the output indicators is given below -

Steps constructed leading to the toilet for ease of access, replacing the earlier slope

Key Outcome Indicator:

4. Number of schools with safe drinking water facility for all the children – clean and covered wells for drinking purposes

4.1 No. of schools with clean and covered wells: 25% (3 out of 12)

The wells were covered and the area around the wells were clean in 3 schools - GHS Chottupara, GLPS Ladrum and GHS

4.2 No. of schools with functional water filters: 8% (1 out of 12)

While water filters were provided to 12 schools under the project, however, due to the schools being shut down because of the pandemic, the filters are dysfunctional in all schools except for GHS Chottupara

5. Number of schools with functional toilets as per SBSV guidelines or MDWS school guidelines having functional hand wash facilities, sanitary pad incinerators, toilets, urinals, wash basins, water points in toilets with taps.

While the design norms were in line with the SBSV guidelines in almost all the schools and there was full compliance with the DPR, 2 schools reported issues linked to broken tiles and missing taps in the handwashing station (GLPS Sastanada, GHS Valakode) and broken tiles inside the boys toilet (GVHSS Munnar) post project handover.

5.1 No. of schools with functional toilets as per SBSV guidelines or MDWS school guidelines: 83% (10 out of 12)

5.2 No. of schools with functional handwashing facilities: 83% (10 out of 12)

5.3 No. of schools with functional sanitary pad incinerators: 0

6 out of 15 schools already had incinerators prior to project implementation however, none of them were functional lately.

5.4 No. of schools with functional urinals: 100%

5.5 No. of schools with functional wash basins: 100%

5.6 No. of schools having functional water points in toilets with taps: 100% 2 schools reported issues of missing taps and broken tiles in the handwashing station - GHS Valakode and GLPS Sastanada

Means of verification: WASH Facility Structural Observation

6. No. of schools with functional and clean classrooms and kitchen for mid-day meal service

6.1 No. of schools with functional and clean classrooms: Not Available

All the classrooms were closed due to the COVID-19 lockdown so no observation could be made.

6.2 No. of schools with functional and clean kitchen for mid-day meal service: 100%

All the kitchens were well maintained, clean and all tiles were intact.

Source: WASH Facility Structural Observation

c) Processes involved in Software Component

Plan India oriented and trained CCDS and CYDA staff on WASH awareness sessions which included topics such as: critical times of handwashing, how to use soap and water for handwashing correctly, proper usage of toilets, menstrual hygiene management.

This was followed by the partner staff conducting WASH awareness sessions with all students in their respective schools. The IEC material for these sessions was developed in English and Malayalam.

The WASH awareness sessions for all classes in Phase 1 schools were completed by January 2019 and the same in Phase 2 schools was completed by March 2019. Water and Sanitation Committees (WATSAN) were also activated in all the schools.

Key Outcome Indicator:

7. Number of BCC sessions in schools for handwashing, health and hygiene, MHM, disaster preparedness: 58

8. Number of students trained on WASH awareness: 1801

9. Number of teaching and non-teaching staff trained on WASH awareness: 168

Means of verification: Desk Review – Humanitarian Response in Kerala Revitalising and Upgrading of Schools Infrastructure Idukki – Kerala Project Completion Report 2019

10. Number of wall paintings with clear messaging on correct handwashing practices, correct of using toilets and rainwater harvesting: 100%

Means of verification: WASH Facility Structural Observation

4.3 Impact Evaluation Findings

This section is a summary of the interviews that were conducted with the various stakeholders – Headmasters/Headmistresses, Teachers, Students, Parents, SMC members and PTA members, all of whom were a part of the project.

Discussions of the field team with the above-mentioned stakeholders revealed that
in terms of quality of construction, all the teachers, principals and almost all the parents (98%) were satisfied with the quality of facilities upgraded under the project.

Further, discussions with the parents revealed that around 90% of them were involved in the monitoring of construction works related to the upgradation of WASH facilities in the school. This percentage was relatively smaller for the teachers, wherein around 41% claimed to be involved in the same process. With respect to the contractor following the Swachh Bharat Swachh Vidyalaya Guidelines (SBSV), 85% of the teachers and 65% of the parents were unaware of them being followed. However, 35% of the parents and 15% of the teachers did claim that the construction was done in accordance with the SBSV guidelines.

In order to assess the quality of repairing/retrofitting of the WASH infrastructures in the intervention schools, site visits were made by the Civil Engineer in our team to 12 out of 15 schools to observe if the facilities were designed in accordance with the State Government Building Code and Swachh Bharat Swachh Vidyalaya guidelines. Structural observations were made taking the DPR into consideration. Apart from this, points were given to the structures on their current physical status based on usage and functionality. The following scale was used for rating:

- Compliance with DPR: Fully-1, Partially-2, Not at all-3, Non-existent-4
- Physical status of infrastructure at the time of inspection: Good-1, Fair -2, Poor-3

Based on the assessment of the field team, a summary of findings is shared below:

Table 8 : Structural observation of 12 schools and their respective summary of findings

S. No.	WASH Infrastructure	Compliance with DPR							Remarks
		Fully Compliant	Partially Compliant	Not Compliant	Non-existent	Good	Fair	Poor	
1	Girls' Toilet Block	12				2	10		Few schools reported issues with the door not closing properly, poor drainage, floor
2	Girls' Toilet	12				3	7	2	Few schools reported issues with the doors not closing properly, improper maintenance, drainage issues, damaged floors, broken water closet and leakage
3	Girls' Urinal	9	3			4	7	1	Few schools reported issues of leakages in PVC pipes, urinal parts not fitted properly, improper maintenance, doors not closing properly, broken taps being broken

S. No.	WASH Infrastructure	Compliance with DPR							Remarks
		Fully Compliant	Partially Compliant	Not Compliant	Non-existent	Good	Fair	Poor	
4	Boys' Toilet Block	11	1			5	6	1	Few schools reported issues of improper maintenance, doors not closing properly, drainage issues
5	Boys' Toilet	12				4	5	3	
6	Boys' Urinal	11	1			5	5	2	Few schools reported issues related to improper drainage, absence of separate urinal units, blocks being locked, absence of tap being connected to the urinal, broken tiles.
7	Children with Special Needs	5				5			No issues reported
8	Handwashing Stations	11				5			Few schools reported issues of leakages in PVC pipes, broken tiles, dysfunctional taps. In one school, the handwashing structure was in place but there were no taps.
9	Drinking Water Stations	1					1		All filters out of order in all the schools except for 1.

Apart from the WASH infrastructure listed above, several schools reported other works such as GI net wall, fixing the sanitary napkin incinerator, drainage on either side of the well, protection wall in the backside of the school to protect the school from landslides, roofing of a school building, a water conservation tank, flooring outside the toilets. Most of the structures were still found to be in a fair condition.

Based on the WASH Facility Structural Observation, indicator mapping of the outcome indicators is given below –

Table 9 : Achievement made under output indicators

Outcome Indicators					
S.No.	Indicator	Numbers	Achievement (%)	Means of Verification	Remarks
1. Retrofitted sanitation and school infrastructure facilities post flood in selected schools					
1.1	Retrofitting of sanitation facilities	15	92% (11 out of 12)	WASH Facility Structural Observation	All toilet blocks, toilets, urinals were intact except for damaged tiles at one school (GVHSS Munnar) which was caused due to lack of maintenance by the school authorities.
1.2	Retrofitting of handwashing stations	15	92% (11 out of 12)		All handwashing stations functional except for the one in GLPS Sastanada wherein the taps were missing in all the handwashing stations. Also, the tiles in the station were broken in this school. In GHS Valakode, one of the taps in
1.3	Provisioning of safe drinking water	15	8% (1 out of 12)		While water filters were provided to 12 schools under the project, however, due to the schools being shut down because of the pandemic, the filters are dysfunctional at present in all the schools except for GHS Chottupara. Also, the well here is protected and the surroundings around the well are maintained.
1.4	Wall painting with key WASH messaging	15	100%		Wall paintings with key messaging visible and readable at all locations
1.5	Clean school premises	15	100%		Despite the schools being shut because of the pandemic, the school surroundings were found to be clean. No litter was found at any point during observation.

TRIOs Commentary on WASH Structural Observation

While almost all the structures retrofitted under the project were fully compliant with the DPRs, poor ownership by the school administration was responsible for issues related to doors not closing properly, improper maintenance, drainage issues, damaged floors, broken water closet and leakages.

The closing down of the schools due to the COVID-19 pandemic was also to be blamed for the poor attention given to maintaining the WASH infrastructure built under the project. In some cases, the school authorities also blamed the community members for damaging the infrastructure. For instance, one of the Phase 2 schools (Government LPS Sasthanada) reported a case of vandalism of the school infrastructure (breaking of kitchen tiles and taps) caused by community members when the school was converted into COVID-19 quarantine centre.

It is interesting to note that despite a steady decline in the number of students each year, Government HS, Ezhukumvayal continues to maintain all the WASH facilities retrofitted under the project. The school is located at the top of the hill which makes it a hard-to-reach school for most students in that area. The school has been steadily losing its students to a nearby private school, however, they continue to put in efforts to keep the school surroundings as well as the toilets clean, as observed by the field team. This is a clear example of the school taking ownership to provide a safe teaching and learning environment to the students, despite the declining numbers.

Operation and Maintenance of WASH Facilities

All the students responded that they had a fully functional toilet facility in the academic year 2019-20. 90% of the students shared that they regularly used these toilet facilities. The remaining 10% said that they used them sometimes. 60% of the students stated that the toilets were cleaned twice a week, while 28% stated that they were cleaned once a week. All the students agreed that the toilet facilities were cleaned by the sweeper.

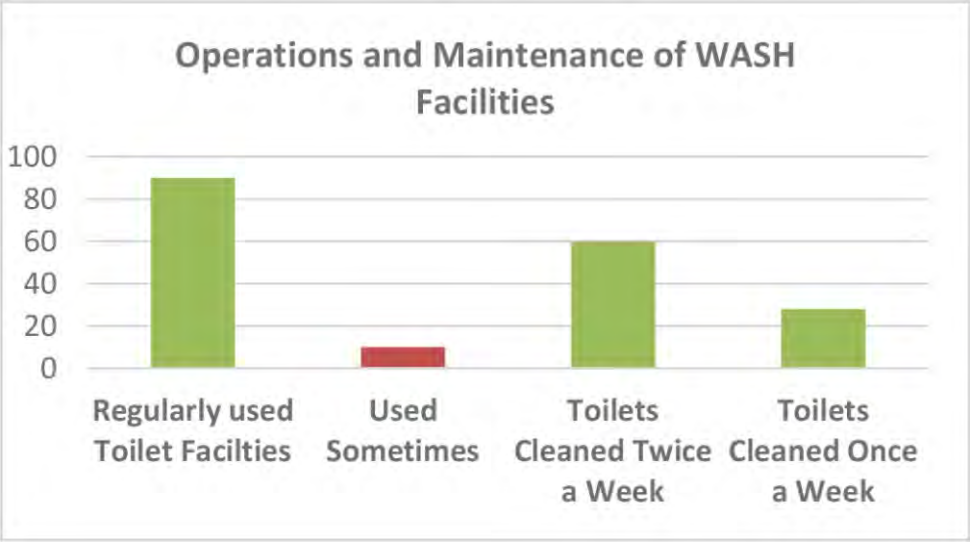


Figure 20 : Operations and Maintenance of WASH Facilities

In terms of Operation and Maintenance of WASH Facilities, the following were observed. All the students responded that they had a fully functional toilet facility in the academic year 2019-20. All the students agreed that the toilet facilities were cleaned by the sweeper.

With respect to monitoring the cleanliness and functionality of the facilities, 98% of the parents/SMC/PTA members claimed to be involved in the process. However, the headmasters of only two schools could agree to the same. A few interesting examples on innovative O&M mechanisms adopted by these two schools is indicated below:

Strong monitoring mechanism of WASH facilities adopted by a few schools

GHS Vagamon:

- One Full Time Menial (Government position) to clean the toilets
- MPTA members themselves use the toilets to inspect the facilities and raise concerns if any.
- One Student, One Week, One Toilet Model has been adopted by the school where students from classes VIII to X are made responsible for monitoring the toilet for a week

GHS Chottupara:

- One Full Time Menial (Government position) to clean the toilets
- O&M of the school WASH infrastructure is responsibility of the PTA, MPTA and SMC members
- Members themselves use the toilets to inspect the facilities and clean it if required
- Proper inspection conducted by members 3-4 times in a year to inspect school facilities and its surroundings
- Teachers also actively involved in cleaning toilets

The frequency of monitoring of the WASH facilities by the parents is indicated in the graph.

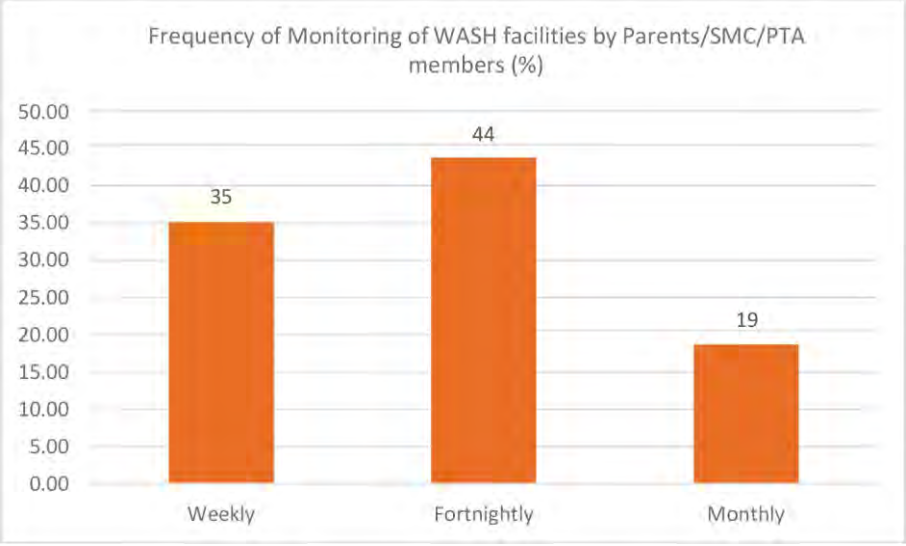


Figure 21 : Frequency of monitoring of WASH facilities by Parents/SMC/PTA members

In case of any complaints regarding the facilities, 83% of the parents claimed that the issue was taken up and resolved in the PTA/SMC meeting. 15% claimed to discuss it with the teachers and the principals. Based on the CAPI based SSQ with students, indicator mapping of the outcome indicators is given below -

Table 10 : Achievement under outcome indicators

Outcome Indicators				
S.No.	Indicator	Achievement (%)	Means of Verification	Remarks
2. Access to quality WASH infrastructure and services by all children				
2.1	Water			
i)	Access to improved drinking water sources post project implementation in 2019	90%	CAPI based SSQ with Students	90% of the students were accessing drinking water from safe sources such as school taps, covered wells, handpumps.
ii)	Functional drinking water sources	100%		100% students said that the drinking water sources were fully functional during the academic year 2019-20
iii)	Sufficient quantity of water	95%		95% of the students shared that the quantity of drinking water was sufficient
iv)	Good quality of water	91%		91% students rated the quality of water to be good. The remaining students had an issue with the taste of water.
2.2	Sanitation			
i)	Functional toilet facility	100%	CAPI based SSQ with Students	All the students shared that they had access to a functional toilet within the school premises
ii)	Usability	100%		All the students shared that they used the toilet when needed.
iii)	Cleaning of toilets	93%		93% of the students shared that the sweeper cleaned the toilet in the range of one to seven days.
2.3	Hygiene			
i)	Access to a wash basin	95%	CAPI based SSQ with Students	95% students said that they had a wash basin available in school
ii)	Availability of water in handwashing station	98%		98% students shared that the handwashing station had water
iii)	Availability of soap in handwashing station	93%		88% students shared that the handwashing station had soap
iv)	Accessibility of water point to wash hands	100%		All the students said that the water point in the handwashing station was easily accessible

Outcome Indicators				
S.No.	Indicator	Achievement (%)	Means of Verification	Remarks
3. Established mechanism for joint monitoring of WASH facilities involving children, teachers, school principal, SMC members reflected in the school development plan and for the maintenance of the retrofitted facilities				
3.1	Presence of an active WATSAN Committee	52% Teachers and 18% Students said their school had a functional WATSAN committee	CAPI based SSQ with students and teachers	Respondents agreed that the WATSAN Committee was responsible for monitoring cleanliness of toilets and urinals and also ensuring regular availability of handwashing and toilet cleaning material. Other responsibilities of the WATSAN Committee included to monitor the cleanliness around drinking water points and promote key messages on safe WASH practices. It also played a major role in reinforcing the WASH messaging among students.
3.2	Maintenance of retrofitted facilities by SMC/PTA members, teachers, students	17% schools (2 out of 12)	PAPI based SSQ with Principals	Headmasters of 2 schools, namely, GHS Chottupara and GHS Vagamon, said that an active PTA/MPTA and SMC member group was present who took an initiative to check the functionality of all the retrofitted facilities.

WASH Awareness Sessions

A half-day WASH Awareness Session was organized by CCDS and CYDA in each of the intervention schools. The participants in these sessions were students, teachers and parents/SMC members/PTA members. The percentage of respondents in each category who attended these sessions, as discussed in the interview is indicated in the graph below.

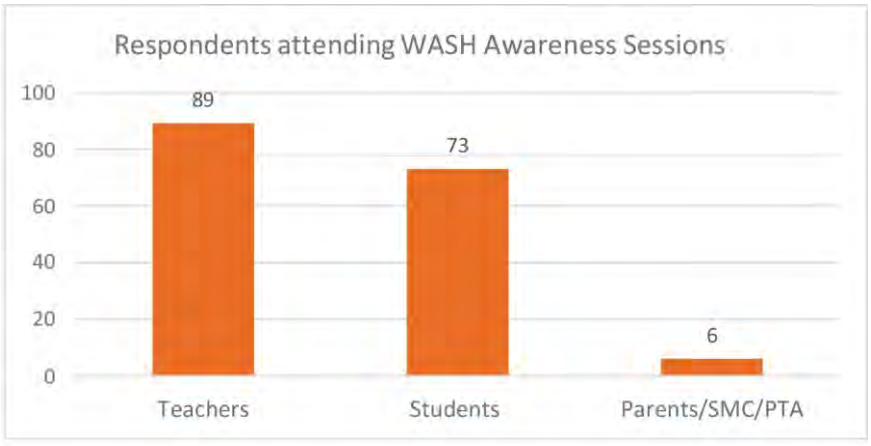


Figure 22 : Category of participants attending the WASH Awareness sessions

In different schools, different models of these sessions were adopted. For instance, in GHS Chottupara, in Batch 1, 13 students of class IX and X were trained. After class X students passed out from the school, the class IX students took charge of training the students from VII and VIII standards, and that is how ownership was ensured among the students. In GTHS Kattappana, students from classes I to X were trained together. In GHS Vagamon, all the students were trained along with 10 teachers who had also attended the sessions.

Topics Covered

Over 75% of the interviewed students were able to recall all the topics discussed in the training. The following graph indicates the topics recalled by the students and their respective percentages.

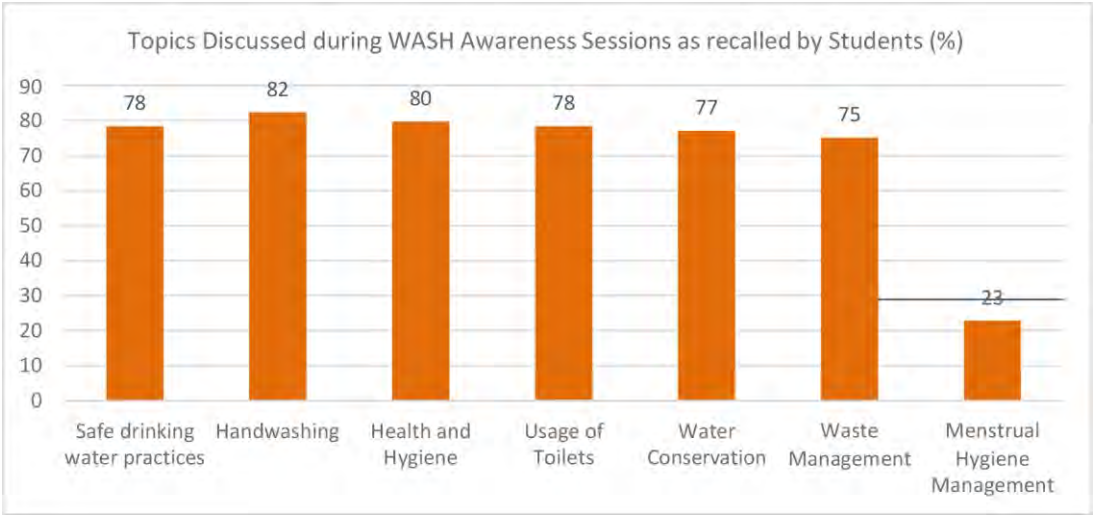


Figure 23 : Topics discussed under the WASH awareness sessions as shared by students

Clearly, handwashing was the topic that was highly recalled by almost all the students who had attended the sessions. Other topics were Health and Hygiene, followed by Usage of Toilets and Safe drinking water practices.

The primary reason for high recall of handwashing was the demonstration of correct handwashing practice which was done by the trainers for the students during the sessions. Another reason can be attributed to the wall paintings on handwashing that are prominently present at important locations in the school such as – right beside the handwashing stations and outside the toilet block.

Wall painting on critical times and correct ways of handwashing outside the toilet block in GLPS Sasthanada

Wall paintings on correct ways of using toilet outside the toilet block in GLS Ladrum

Wall painting on correct handwashing methods beside the handwashing station in GHS Ezhukumvayal

Understanding the Topics

- 68% of the students stated that they were able to understand the topics, the remaining 32% either did not attend the sessions or they found the sessions boring.
- All the teachers were also able to recall the training topics as shared by the students, except for MHM (50%).
- The half day duration of these sessions was found to be appropriate by 89% teachers (4% found them too long and 7% found them too short).
- 54% of the teachers rated the sessions as Excellent and the remaining 46% rated the sessions as good.

Training materials used

The various materials used in the sessions, as shared by the students were –

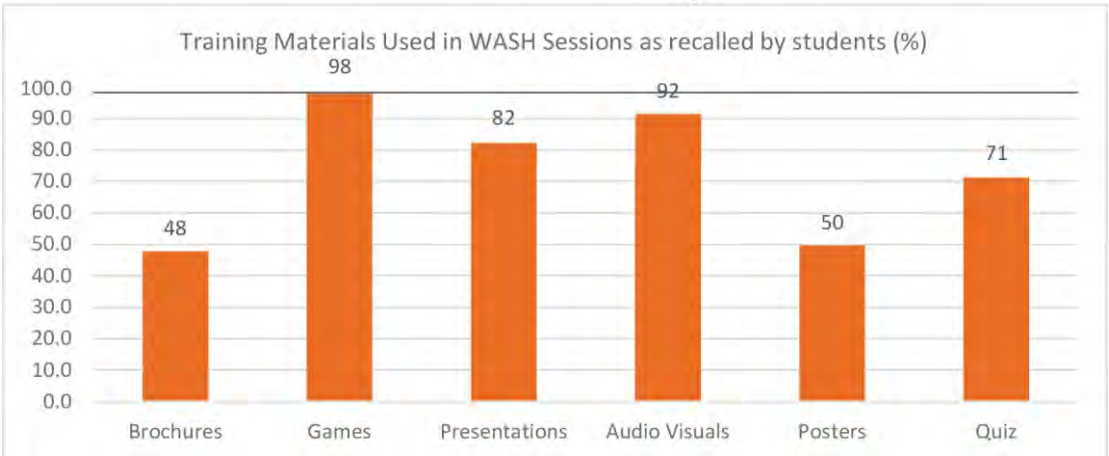


Figure 24 : Training materials used as a part of the WASH awareness sessions

Majority of the teachers recalled presentations (71%), posters (63%), Audio Visuals (25%) and handouts (21%) as the training material used in these sessions. When asked to rate each of the material used based on Efficacy and Effectiveness (scoring between 1 to 10 where 1 is minimum and 10 is maximum), presentations received the highest average score for both efficacy and effectiveness, followed by posters. The graph indicates the average scoring by teachers for all the training materials used during the sessions–

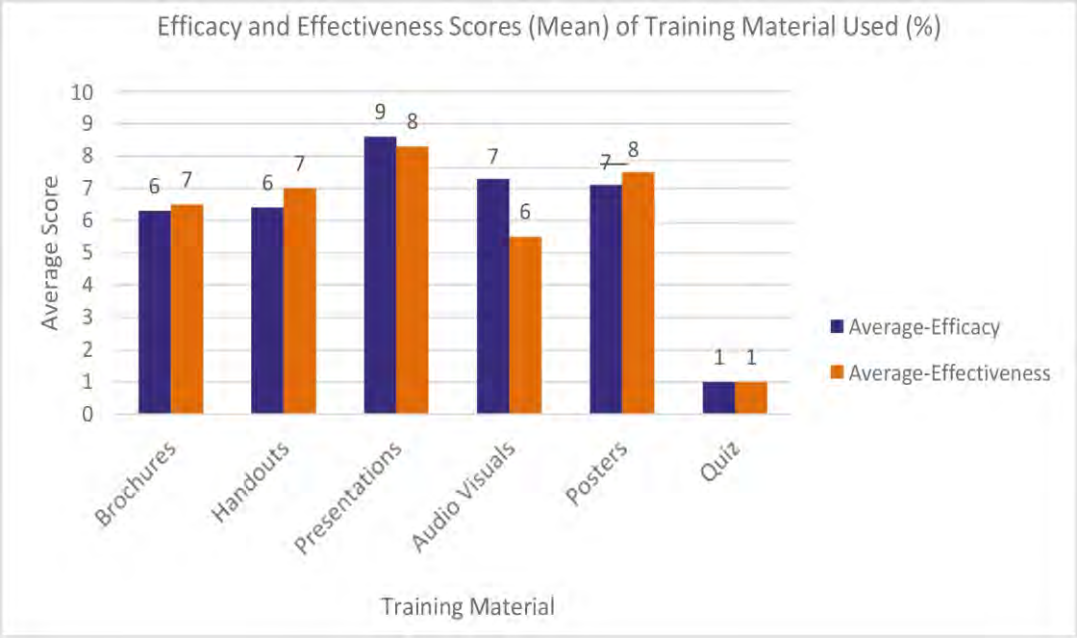


Figure 25 : Efficacy and Effectiveness scores of various training materials

In terms of the learning aids, around 68% of the teachers recalled the use of Projectors and 50% recalled the use of LCDs as the main aids used in the sessions.

Majority of the teachers (92%), stated that they were provided with training materials such as presentations, posters, handouts, brochures, and audio visuals to be distributed among students, once the sessions were over. When asked to score the efficacy and effectiveness of this training material (out of 10), in terms of efficacy, Posters got the highest score (9), followed by Brochures (8.8) and Presentations (8.6). In terms of effectiveness, handouts and brochures got an equal score of 7.3 followed by posters (7) and Presentations (5).

Sharing the learnings further

Further, our discussion with the students revealed that 84% of them benefitted from the WASH sessions. However, the percentage of students who went on to share the lessons learnt in those sessions with other members of their family and friends was fairly low at 24%. For the students who discussed about the WASH behaviours learnt in the sessions, handwashing before and after eating continued to remain the most discussed topic, followed by saving water, safe storage and handling of water and handwashing after playing, followed by others as indicated in the graph.

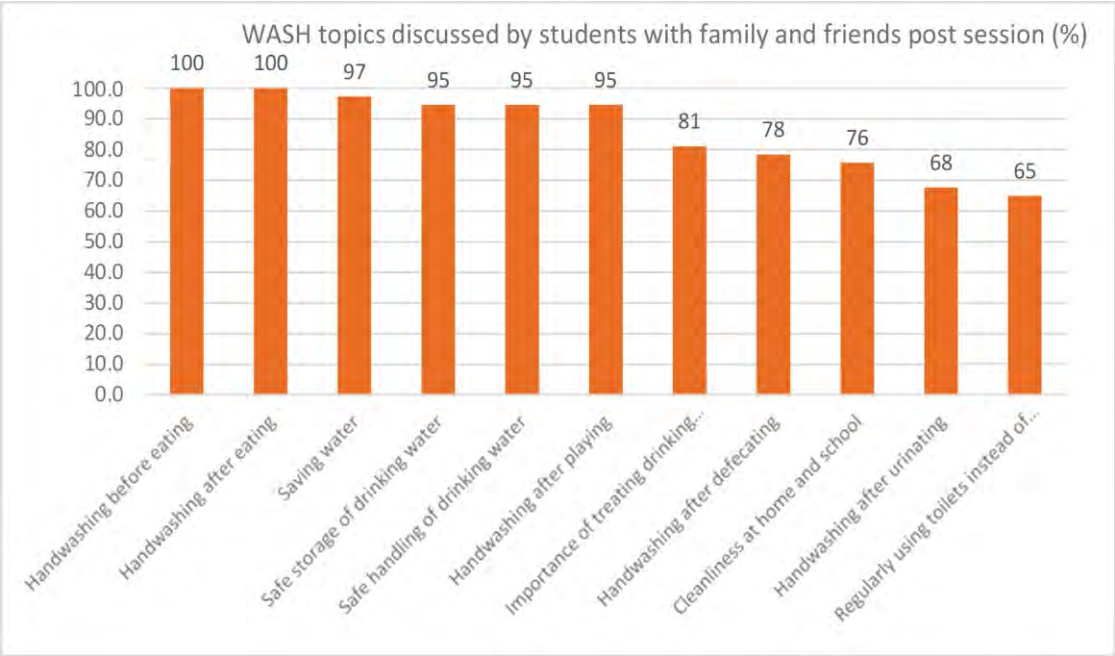


Figure 26 : WASH topics shared by students with family and friends post awareness sessions

Sessions on Menstrual Hygiene Management

The questions under this section were asked only to female student respondents. 47% of them agreed that sessions on MHM were conducted in their schools. 84% of the female respondents had attended these sessions on MHM.

On being asked about the menstrual absorbent material used to manage their periods, 50% of the respondents said that they used sanitary napkins. Only 3% of them said that they used locally prepared napkins and cloth. Remaining 47% were not menstruating yet.

In terms of disposal facilities to manage menstrual hygiene, all the respondents agreed to having dustbins in the school to dispose of their menstrual absorbent materials. Around 49% of the respondents also shared that they had cabinets in their school to keep sanitary napkins. The only school that had an incinerator which was fully functional was Peermade LPS, Karadikuzhi (as observed as a part of structural observation).

GHS Vagamon

The project was highly praised by the High School Teacher, Mr. Surendran, who was actively involved in the project. He shared that 10 teachers attended the training which discussed importance of handwashing at critical times and MHM. Apart from this, regular visits were also made by the doctors and nurses to discuss MHM with teenage girls. Girls from classes VIII to X were involved in this training. He went on to state that- “Most girls in our school have limited background on managing menstrual hygiene. These trainings were very important”.

WATSAN Committees

Of the 153 students who were interviewed, 18.3% acknowledged the presence of a WATSAN Committee and all of them agreed that the committee was responsible for monitoring cleanliness of toilets and urinals and also ensuring regular availability of handwashing and toilet cleaning material. Other responsibilities of the WATSAN Committee included to monitor the cleanliness around drinking water points and promote key messages on safe WASH practices. Also, 52% of the teachers shared that WATSAN Committee played a major role in reinforcing the WASH messaging among students.

Handing Over

The handover of the project to the respective schools was done in a Handing Over Ceremony on 3rd August 2019 in Peermade, Idukki. This section highlights the challenges that the schools faced post the handover and suggestions to further improve the project, as shared by the various principals and teachers involved in the project.

Challenges faced by the Schools Post-Handover

- Post-handover, the biggest challenge that all the schools faced is the limited availability of funds for maintenance of the facilities constructed under the project. Hence, more funds need to be allocated in this context for smooth functionality of the project, in the post-handover phase.
- Heavy rains continued to damage the entrance pathway as well as roofs of several schools, which was also noticed in the field visits.
- One of the Phase 2 schools (Government LPS Sasthanada) reported a case of vandalism of the school infrastructure (breaking of kitchen tiles and taps) caused by community members when the school was converted into COVID-19 quarantine centre and flood relief camp.

Suggestions to improve the Project

- A few schools such as – GHS Vagamon and GUPS Elappara face water shortages and hence as a suggestion, shared the importance of running a project focused on Water Conservation aspect in the future.
- A WASH Infrastructure Maintenance Program was requested by various school Principals under which regular monitoring of the facilities would be done by the SMC members, PTA members, parents as well as the teachers.
- The schools requested NSE Foundation to take up projects that focused on improving the overall health of the students and also focus on other infrastructure (e.g., damaged roofs and pathways, renovation of Science and Computer Science Labs etc.)
- In order to make the schools self-sufficient, soap making classes should be organised for the students so that they can use simple ingredients to prepare soap every time the school runs out of it – as shared by the Project Manager, Mr. Matthew, CYDA.

4.4 Relevance, Efficiency, Effectiveness, Sustainability and Impact

Relevance: With respect to addressing the needs of the beneficiaries involved in the project such as the students, the teachers, principals and community members, this project has been highly relevant. The district kept facing heavy rainfall even after 2019, as shared by the school staff. However, the disaster resilient structures constructed under the project made the schools better prepared to face future disasters.

Also, the project took into consideration the requirements of students, teachers as well as parents during construction. This was visible in the ease of accessibility of the handwashing stations by the students of all heights, the ramps to the Children with Special Needs(CWSN) toilets, the descriptive wall paintings to spread awareness on correct handwashing practices as well as proper ways to use toilets.

Efficiency: While the project was able to meet its timelines in both phases, the monitoring of construction activities was a little poor by the school staff, with only 41% of the teachers and almost none of the principals being involved in the monitoring process. The awareness regarding Swachh Bharat Swachh Vidyalaya Guidelines (SBSV) was found to be weak with around 85% of the teachers and 65% of the parents being unaware if they were followed in the school during construction.

Effectiveness: The project was able to restore and make the schools functional by rebuilding/ repairing the school WASH infrastructure of 15 schools quick resumption of teaching learning activities. While almost all the structures retrofitted under the project were fully compliant with the DPRs, poor ownership by the school administration played a role in arising of issues related to doors not closing properly, improper maintenance, drainage issues, damaged floors, broken water closet and leakages. The closing down of the schools due to the COVID-19 pandemic was also due to inadequate attention given to maintaining the WASH infrastructure built under the project.

Impact

a) Increase in Enrolment of Students in Phase 1 and Phase 2 Schools

With Phase 1 of the Project completing in February 2019, an increase in the enrolment of 3 Phase 1 schools that were a part of the study was observed. In terms of numbers, the total enrolment of these 3 schools went from 566 in the academic year 2018-19 to 857 in the current academic year 2021-22, which indicates a 51% overall increase.

Similar was the case for Phase 2 schools. With Phase 2 of the project coming to an end in July 2019, the 9 schools under Phase 2 saw a similar increasing trend, as indicated in the graph below. In terms of numbers, the total strength of these 9 schools went from 1686 in the academic year 2018-19 to 1929 in the current academic year 2021-22, which indicates a 14% overall increase.

The following table indicates the change in the school strength post project completion-

Table 11 : Academic year wise change in school enrolment in Phase 1 and Phase 2 schools

Phase	Academic Year				Overall % Increase
	2018-19	2019-20	2020-21	2021-22	
Phase 1 Schools	566	588	678	857	51
Phase 2 Schools	1686	1739	1787	1929	14

The year wise percentage increase in the total number of students in the 3 Phase 1 schools is indicated in the graph below.

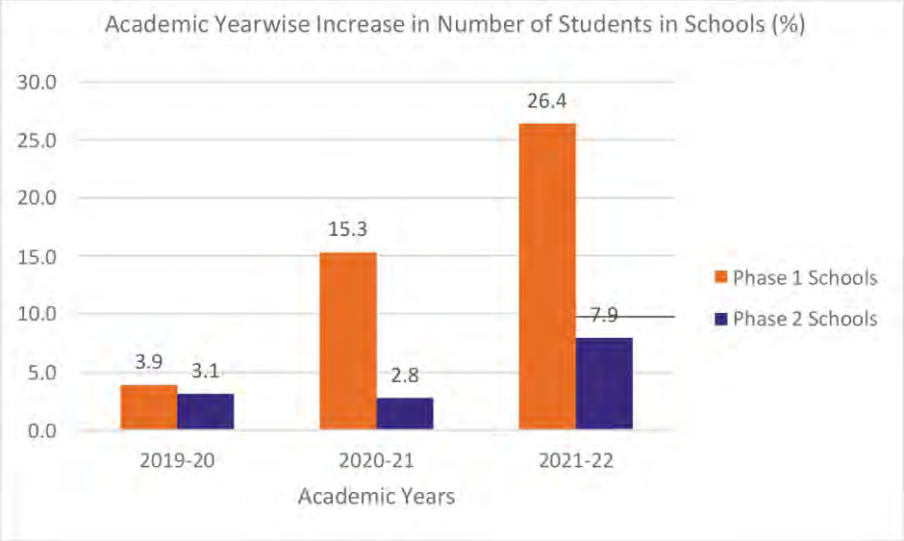


Figure 27 : Academic Year wise increase in the number of students in schools

Based on the discussion with the headmasters, indicator mapping of the impact indicators is given below –

Table 12 : Achievement under impact indicators

Impact Indicators				
S.No.	Indicator	Achievement (%)	Means of Verification	Remarks
1.Reduction in absenteeism and dropouts in the school, especially girls				
1.1	Dropouts post project implementation in 2019	4	PAPI based SSQ with Principal	2 schools reported a dropout of 3 boys in total in the academic year 2019-20. One school reported a dropout of 1 in the academic year 2021-22. None of the dropouts were girls.
1.2	Dropout of girl students post project implementation in 2019	0	PAPI based SSQ with Principal	Out of the 12 schools where the study took place, no dropouts of girl students were reported post the project implementation in the year 2019.
1.3	Increase in enrolment of students post project implementation	24%	PAPI based SSQ with Principal	Total enrolment in all 12 schools increased from 2252 in academic year 2018-19 to 2786 in academic year 2021-22
I)	Increase in enrolment of students in Phase 1 schools	51%	PAPI based SSQ with Principal	Increase in enrolment from 566 in academic year 2018-19 to 857 in academic year 2021-22
ii)	Increase in enrolment of students in Phase 2 Schools	14%	PAPI based SSQ with Principal	Increase in enrolment from 1686 in academic year 2018-19 to 1929 in academic year 2021-22

b) Increase in Number of Girl Students attending school

An increase in the number of girl students was observed in both the Phase 1 as well as Phase 2 schools. Phase 1 schools saw an overall 50% increase in the number of girl students from academic year 2018-19 to academic year 2021-22, while Phase 2 schools saw an overall 15% increase in the number of girl students from academic year 2018-19 to academic year 2021-22, as indicated in the table below –

Table 13 : Academic year wise increase in number of girl students in schools

Phase	2018-19	2019-20	2020-21	2021-22	Overall % Increase
Phase 1 Schools	272	301	353	409	50
Phase 2 Schools	718	732	756	8269	15

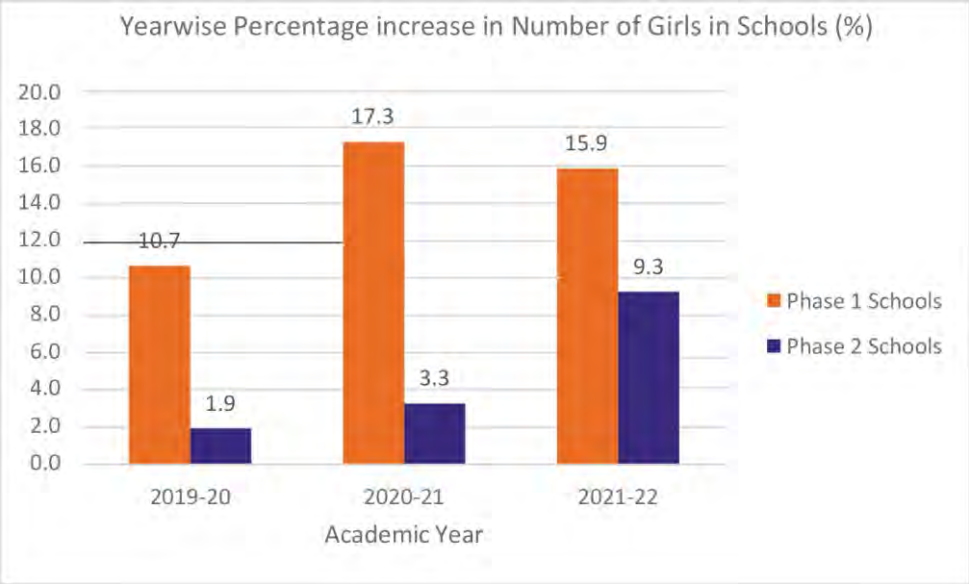


Figure 28 : Academic year wise increase in enrolment of girls in schools

c) Improved handwashing practice amongst students

Teaching the students the importance of handwashing went on to play a major role in the COVID-19 pandemic wherein handwashing for at least 20 seconds with soap and water is an important practice. Since the students were already taught the correct way of handwashing as well as the importance of handwashing under the project, they were better prepared to face the pandemic.

- All the 12 Headmasters/Headmistresses unanimously agreed that the biggest achievement of this project was that the students were taught the importance of handwashing and also the correct way of handwashing through the half-day WASH awareness sessions, which played a major role in the coming months to fight against COVID-19.
- All of them cited instances of them observing the students using the handwashing stations right after using toilets and before and after eating their meals (prior to the schools being shut due to the pandemic).

99% of the students were aware of the critical times of handwashing. The different occasions when the students washed their hands is indicated in the graph below -

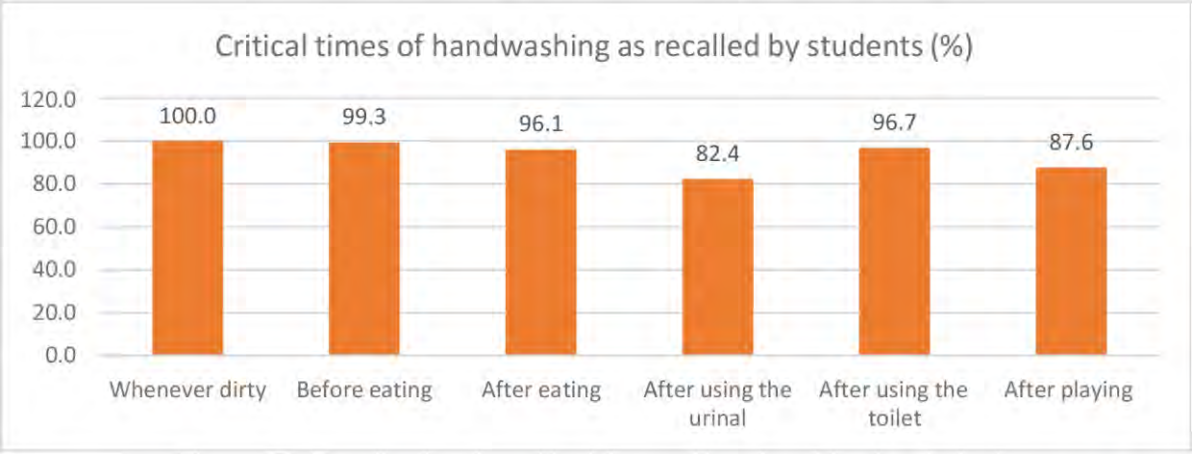


Figure 29 : Recollecting the critical times of handwashing by students

All the students were aware that handwashing is important to kill germs. 97% of them were aware of the correct way to wash hands. After TV, the WASH awareness sessions in school remained the main source of their awareness regarding handwashing (as indicated in the graph below) –

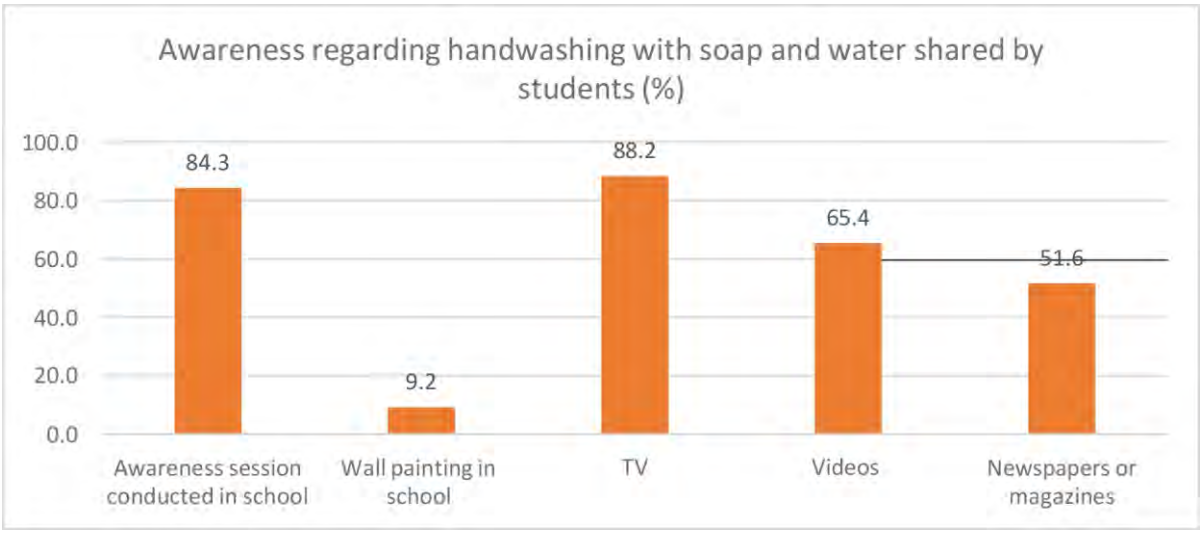


Figure 30 : Sources of awareness regarding handwashing with soap and water as shared by students

d) Behaviour Change in WASH Practices of Students

- Almost all the interviewed teachers opined that the WASH awareness sessions were beneficial to them as well as the students and were responsible for bringing about a behaviour change in their current WASH practices.
- Increase in toilet usage by 92% as observed by the teachers as the most visible change among the behaviour of students followed by 88% behaviour changes related to handwashing with soap and water and handling drinking water safely as an observed change (as indicated in the graph)

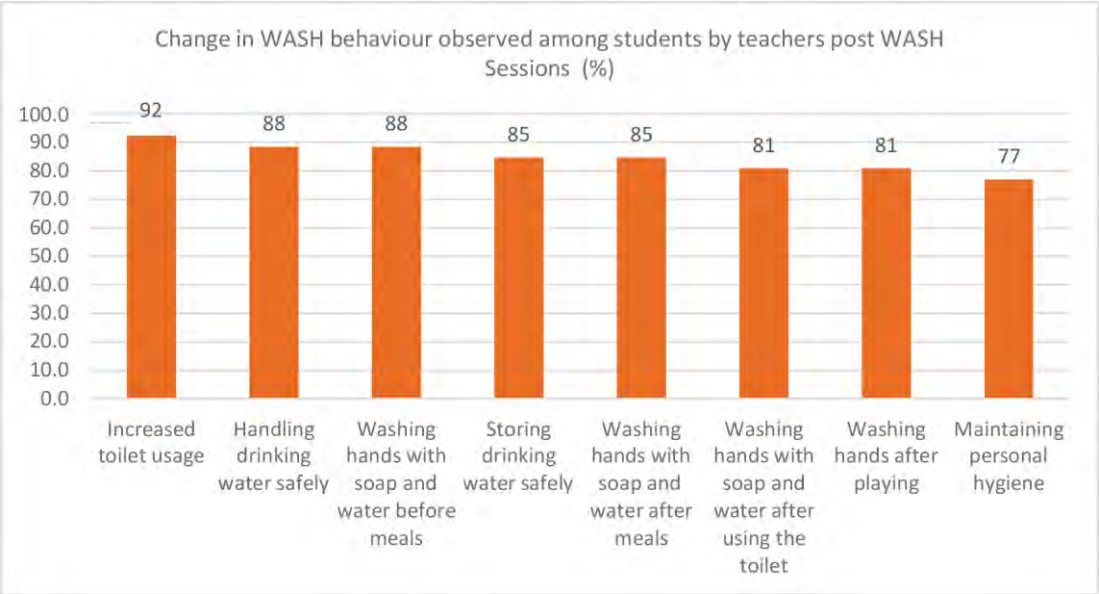


Figure 31 : Change in WASH behaviour observed in students by teachers post WASH awareness sessions

Based on WASH Facility Structural Observation and discussion with the headmasters, teachers and students, indicator mapping of the impact indicators is given below –

Table 14 : Achievement under impact indicators

Impact Indicators				
S.No.	Indicator	Achievement (%)	Means of Verification	Remarks
2. Open Defecation Free schools where all students practice hygiene all the time				
2.1	Open Defecation Free schools	100% ODF schools	WASH Facility Structural Observation	No sign of visible faeces in and around the school compound. Safe toilet technology option being used for disposal of faeces in all 12 schools
2.2	Headmasters recalled observing students practising handwashing	100%	PAPI based SSQ with Principal	All the 12 Headmasters/Headmistresses cited instances of them observing the students using the handwashing stations right after using toilets and before and after eating their meals (prior to the schools being shut due to the pandemic).
2.3	Teachers who observed students maintaining personal hygiene	77%	CAPI based SSQ with Teachers	77% of the teachers had observed students maintaining personal hygiene.
3. Involvement of school staff, SMC members and village				
3.1	Involvement of school staff, SMC members and village in monitoring of WASH facilities created under the project	17% (2 out of 12)	PAPI based SSQ with Principal	2 out of 12 school Headmasters shared having an SMC and PTA member group who were actively involved in monitoring the WASH facilities.

e) Improved Future Disaster Preparedness

• 93% of the teachers felt that their schools were better prepared to face disasters in the future. The reasons cited by them were the presence of disaster resilient school infrastructure, improved disaster preparedness of teachers and students, as indicated in the graph below.

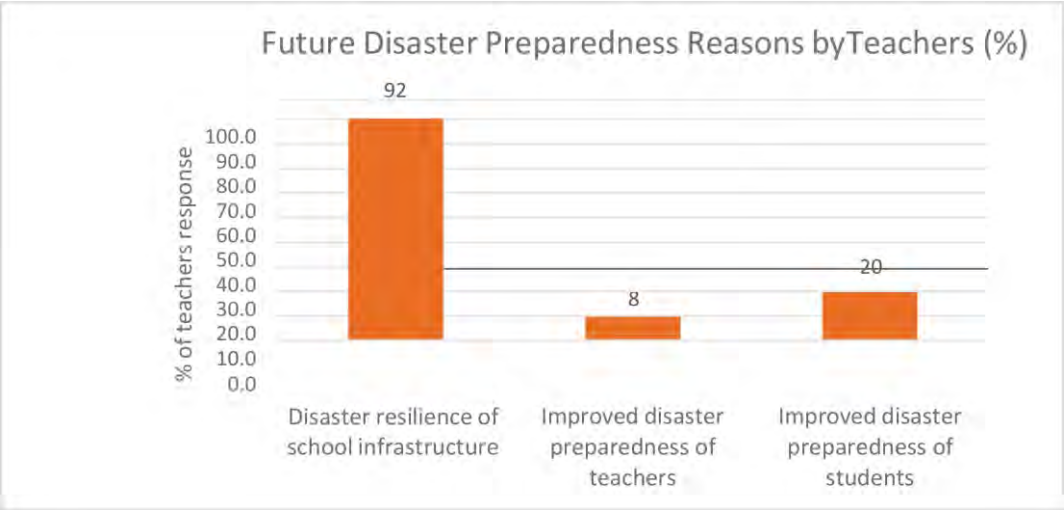


Figure 32 : Reasons for better future disaster preparedness as shared by teachers

• Structures such as fencing on the boundary wall (GTHS Kattappana), properly covered well (GHS Chottupara), GI net wall in the front yard of the school (GHS Udumbanchola), protection wall in the back side of the school (GLPS Pookkulam), Water Conservation Tank (GLPS Sasthanada), that were constructed under the project and maintained by the school authorities made the schools better prepared to face disasters such as floods or landslides in the near future.

Sustainability

For ensuring sustainability of the project, a handing over note was signed by the partners, school headmaster and SMC members to ensure proper upkeep of the infrastructure under the supervision of SMC members during the Handing Over Ceremony on 3rd August 2019.

Discussions with the school authorities revealed that each school had adopted a unique mechanism to ensure that the infrastructure constructed under the project were well taken care of and maintained. In most schools, PTA, MPTA and SMC members were actively involved in this process.

For instance, in GHS Chottupara, discussion with the headmaster brought to the fore that the school has an active PTA which uses the toilets on their own to check the functionality. Not just that, they also take the initiative to clean the toilet themselves. 3-4 times during a year, PTA members assemble to check the toilets and school surroundings to ensure cleanliness. The project instilled a sense of ownership amongst the teachers, PTA and MPTA members to maintain the facilities created, thereby strengthening the sustainability aspect of the project. The school also has a full-time safai karamchari to clean the toilets.

Similar practices were also followed in GHS Vagamon and GTHS Kattappana. The DEO, Kattappana issued a Government Circular to all 15 schools HMs to take necessary steps along with the respective SMCs for the Operation and Maintenance of the improved facilities with the involvement of Local Panchayat Administration. However, the issue of low fund availability for Operation and Maintenance of school infrastructure has been a challenge and which impacted the sustainability of the project and hence was raised by few stakeholders.

4.5 Convergence

Discussion with the Education Department official revealed that the project saw close convergence with Samagra Shiksha Abhiyan, Kerala[32]. Launched in 2018, it is an overarching programme for the school education sector extending from pre-school to class 12. It subsumes the three Schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).

The major interventions proposed under the scheme are: (i) Universal Access including Infrastructure Development and Retention; (ii) Gender and Equity; (iii) Inclusive Education;
(iv) Quality; (v) Financial support for Teacher Salary; (vi) Digital initiatives; (vii) RTE Entitlements including uniforms, textbooks etc.;(viii) Pre-school Education; (ix) Vocational Education; (x) Sports and Physical Education; (xi) Strengthening of Teacher Education and Training; (xii) Monitoring and (xiii) Programme Management;

The hardware and software activities performed under the project were in line with "Universal access including infrastructure development and retention" and "Gender and Equity". Awareness session on Menstrual Hygiene Management conducted with the students at the project schools helped strengthen the aspect of "Gender and Equity".

Apart from this, convergence of the project also existed with "Pothu Vidyabhyasa Samrakshana Yajnam", a mission that aimed at strengthening the General Education Sector in the State[33]. The mission undertakes activities for improving the infrastructural facilities of schools, introducing ICT enabled learning, preparing teachers and providing guidelines for academic planning. An expert committee is appointed at the state level to provide leadership for the activities of the Mission. Activities are coordinated at the district level by the district co- ordinator. The project activities supported in strengthening the mission's infrastructural facility component.

4.6 Contributions

While no revolving fund was maintained by any of the schools for the Operation and Maintenance of the WASH facilities, contributions in terms of time and effort were made by SMC members, PTA members and MPTA members of several schools wherein they conducted proper inspection 3-4 times in a year to inspect school facilities and its surroundings (GHS Vagamon and GHS Chottupara).

4.7 Innovation

While no revolving fund was maintained by any of the schools for the Operation and Maintenance of the WASH facilities, contributions in terms of time and effort were made by SMC members, PTA members and MPTA members of several schools wherein they conducted proper inspection 3-4 times in a year to inspect school facilities and its surroundings (GHS Vagamon and GHS Chottupara).

[32] Source: https://education.kerala.gov.in/samagra-shiksha-kerala/
[33] Source: https://scert.kerala.gov.in/

"One Student, One Toilet, One Week" Model – GHS Vagamon Vagamon

Chapter 5: Conclusion

5.1 TRIOs commentary on the project processes and its impact

Between June 1 and August 18, 2018, Kerala witnessed its worst flood in a century[34]. The State received an excess rainfall of 96% during the period from 1st to 30th August 2018, and 33% during the entire monsoon period till the end of August[35]. The torrential rains triggered several landslides and forced the release of excess water from 37 dams across the state, aggravating the flood impact.

Idukki district in Kerala was one of the seven worst hit districts. It was severely hit by torrential rains. Excessive rain in the region led to saturation and loosening of the soil, triggering landslides that led to large scale destruction. According to estimates, this was the by far the worst damage that Idukki has seen in the last 40 years. Idukki houses the largest arch dam in Asia from which water was released for the first time in 26 years from all 5 of its overflow gates. It was ravaged by 143 landslides[36]. It had the highest number of cases where both land and buildings were lost due to the large-scale landslides, Hence, it was hit the hardest with the death of over 54 people[37].

As per the District Administration, Udumbanchola and Devikulam blocks in Idukki had suffered severe damages to both homes and schools due to the floods. School toilets were blocked with mud, handwashing stations were broken, septic tanks had caved in and cracked due to which there was a throwback of waste in toilets. In addition to the cracks in the septic tanks, there was an issue of contamination of wells.

Plan International (India Chapter) considered schools and other learning spaces as entry points for the provision of quality education as well as sites for protection of children, especially girls. This was in line with the large-scale WASH in schools interventions undertaken by NSE Foundation.

Thus, began the disaster relief project which focused on repair and retrofitting of the damaged school infrastructure in these 15 schools. The project aimed to ensure that the students in these 15 schools had access to basic facilities such as functional school toilets, safe drinking water, clean surroundings and basic information and adoption of critical hygiene practices, including menstrual hygiene management.

The WASH awareness sessions for all the 15 project intervention schools were completed by March 2019. The upgradation of school infrastructure in all these schools was completed by June 2019. In March 2020, a nationwide lockdown was declared because of the COVID- 19 pandemic. This meant that the schools were shut, and the mode of education shifted from classroom training to online training. The students got less than a year to use all the facilities between the project implementation and the school closing.

TRIOs field team visited 12 of the 15 project intervention schools between 16th December 2021 to 10th January 2022 to conduct WASH facility structural observation and also to hold discussion with the principals, teachers, PTA/SMC/MPTA members. Students' details were collected from the school authorities and their interviews were conducted telephonically.

[34] Source: Kerala Post Disaster Needs Assessment Floods and Landslides August 2018 https://sdma.kerala.gov.in/wp-content/uploads/2019/03/PDNA-report-FINAL-FEB-2019_compressed.pdf
[35] Source: Additional Memorandum Kerala Floods-2018 1st August to 30th August 2018, Disaster Management Authority, Government of Kerala Available at: https://sdma.kerala.gov.in/wp-content/uploads/2019/08/Memorandum2-Floods-2018.pdf
[36] Source: Kerala Post Disaster Needs Assessment Floods and Landslides August 2018 https://sdma.kerala.gov.in/wp-content/uploads/2019/03/PDNA-report-FINAL-FEB-2019_compressed.pdf
[37] Source: Additional Memorandum Kerala Floods-2018 1st August to 30th August 2018, Disaster Management Authority, Government of Kerala Available at: https://sdma.kerala.gov.in/wp-content/uploads/2019/08/Memorandum2-Floods-2018.pdf

It was observed that despite the schools being shut for almost two years, almost all the facilities retrofitted under the project remained intact, which goes to show the good quality of construction. Almost all the structures retrofitted under the project were fully compliant with the DPRs, however, poor ownership by the school administration played a role in arising of issues like doors not closing properly, improper maintenance, drainage issues, damaged floors etc.

In terms of damage to infrastructure, the main issues were noted were of 2 schools reporting broken tiles and missing taps in the handwashing station (GLPS Sastanada, GHS Valakode) and broken tiles inside the boys toilet (GVHSS Munnar) post project handover. Also, provision of safe drinking water was a major challenge faced in all the schools (except GHS Chottupara).

Of all the WASH facilities retrofitted under the project, provision of drinking water continued to remain a challenge for 11 out of 12 schools (92%). While water filters were provided to 12 schools under the project, however, due to the schools being shut down because of the pandemic, the filters were dysfunctional at the time of data collection under the study in all the schools except for GHS Chottupara.

With respect to sustainability of the project to ensure that the retrofitted structures were maintained, only 2 out of the 12 schools observed had an SMC and PTA member group who were actively involved in monitoring the WASH facilities. Also, despite WATSAN committee being created in every school during project implementation, only 52% teachers and 18% students stated that their school had a functional WATSAN committee at the time of study.

With respect to the WASH awareness sessions, almost all the interviewed teachers opined that they were beneficial to them as well as the students and were responsible for bringing about a behaviour change in their current WASH practices. Increased toilet usage was stated by 92% of the teachers as the most visible change among the behaviour of students. Also, 88% of the teachers observed behaviour changes related to handwashing with soap and water, and also handling drinking water safely as an observed change amongst students.

99% of the students were aware of the critical times of handwashing. All the students were aware that handwashing is important to kill germs. 97% of them were aware of the correct way to wash hands. After TV, the WASH awareness sessions in school remained the main source of raising students' awareness regarding handwashing.

The following table is a summary of the Process and Impact Evaluation analysis of the WASH facility structural observation and the interviews conducted of teachers, principals, students and PTA/SMC members.

The following table is a summary of the Process and Impact Evaluation analysis of the WASH facility structural observation and the interviews conducted of teachers, principals, students and PTA/SMC members.

Table 15 : Summary of the Process and Impact Evaluation analysis

S. No.	Component	Process Evaluation	Impact Evaluation
1	Capacity Building	Hand holding support provided by Plan India team to the implementing partners in preparing DPRs led to the preparation of comprehensive DPRs which were the foundation of the entire project.	All the 15 schools had a comprehensiveDPR in place which goes to show thecapacities of the implementing partners inDPR preparation which was developed byNSE Foundation and Plan India.
		Participatory approach adopted in the DPR preparation process helped increase the ownership of students, parents, teachers, district education department officials and officials from district administration, in the project.	17% of the schools have an SMC and PTAmember group who were actively involvedin monitoring the WASH facilities.
2	Hardware	*Contractors were oriented about the project and the standards, and then taken to the project site to explain in detail the works to be undertaken as a part of this project. The Swachh Bharat Swachh Vidyalaya design norms were introduced and implemented.*	*While almost all the structures retrofitted under the project were fully compliant with the DPRs, poor ownership by the school administration played a role in arising of issues like doors not closing properly, improper maintenance, drainage issues, damaged floors, broken water closet and leakages.*
		After the retrofitting activities, 15 schools had fully functional toilets, urinals, handwashing facilities, wash basins and water points in toilets with taps.	Out of water, sanitation and hygiene, the aspect of WASH that was the most poorly maintained was water. Drinking water provision remained a massive challenge faced by almost all the schools. The concept of source sustainability with respect to drinking water remained weak amongst the school staff which was clearly indicated by the non- maintained wells.Handwashing stations were found to be damaged in 2 out of the 12 schools where field visits were made. Toilet facilities were clean and functional in all the schools. Only in one school (GVHSS Munnar), the tiles in the toilet were broken.Wall painting with key messaging on handwashing, toilet usage and rainwater harvesting was visible and readable at all locations.
3	Software	Under the project, a total of 58 WASH awareness sessions were carried out with students, teachers, SMC/PTA/MPTA members on the topics like - critical times of handwashing, how to use soap and water for handwashing correctly, proper usage of toilets, menstrual hygiene management	Almost all the interviewed teachers opined that the WASH awareness sessions were beneficial to them as well as the students and were responsible for bringing about a behaviour change in their current WASH practices. After TV, the WASH awareness sessions in school remained the main source of raising students' awareness regarding handwashing.
		1801 students and 168 teachers trained Indirect Reach: Over 4000 individuals participated in the sessions (parents, PTA/SMC members, district educational officers, community members)	Increased toilet usage was stated by 92% of the teachers as the most visible change among the behaviour of students. 88% of the teachers observed behaviour changes related to handwashing with soap and water, and also handling drinking water safely as an observed change amongst students. 77% of the teachers had observed students maintaining personal hygiene.99% of the students were aware of the critical times of handwashing. All the students were aware that handwashing is important to kill germs. 97% of them were aware of the correct way to wash hands.

ASSESSMENT, OUTCOME AND IMPACT

The assessment of the quality of repairing/retrofitting of the WASH infrastructures in the intervention schools were made based on the verification of the facilities if they were designed and were compliant with the State Government Building Code and Swachh Bharat Swachh Vidyalaya guidelines. Structural observations were made taking the structural compliance with DPR into consideration, a rating scale ranging from 4 (Non-Existent) to 1 (Fully existent) was given to the structures on their current physical status based on usage and functionality.

Based on the WASH Facility Structural Observation, indicator mapping of the outcome indicators showed the following results in terms of their compliance (with DPR) and functionality:

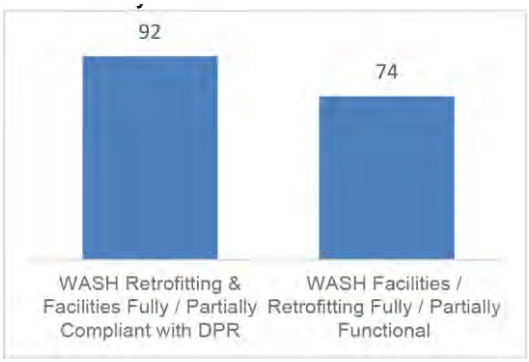


Figure 33 : WASH Retrofitting's Compliance with DPR and their Functionality

- WASH Retrofitting and Facilities in the schools fully / partially compliant with DPR- 92%
- WASH Facilities and Retrofitting Fully / Partially Functional-74%.
- The non-functionality of the WASH facilities in few cases was seemingly due to the closure of the schools due to the pandemic during which the facilities were not in use.
- The field team and concerned stakeholders revealed that in terms of quality of construction, all the teachers, principals and almost all the parents (98%) were satisfied with the quality of facilities retrofitted/upgraded under the project.
- With respect to monitoring the cleanliness and functionality of the facilities, 98% of the parents/SMC/PTA members claimed to be involved in the process.
- Around 90% of the parents and 41% teachers were involved in the monitoring of construction works related to the upgradation of WASH facilities in the school.
- Several schools reported other structures that were in fairly good condition such as GI net wall, sanitary napkin incinerator, drainage on either side of the well, protection wall in the backside of the school to protect the school from landslides, roofing of a school building, a water conservation tank and flooring outside the toilets.

5.2 Impact Stories

School comes back to life – GHS Chottupara

The story of the Government High School (GHS), Chottupara shows how a school, that was on the verge of being shut down due to a low strength of just 31 students was brought back to life by this project and has a current strength of 259 students.

Nestled in the hills and established in 1958, GHS Chottupara, near Ramakkalmedu, Idukki is very close to Tamil Nadu. The location of the school makes it vulnerable to natural hazards like landslides and landslips. The school also faces threat from earthquakes and lightning. Most of the students in this school belong to migrant families from Tamil Nadu who came for work in plantations as daily wage laborers. In the past, the school faced tough competition from neighbouring schools like Vijayamatha Public School and Government High School, Kallar, with students from their school preferring to transfer to these schools. The school strength dropped from 206 in 2013 to 31 in 2018.

On being asked the reason for this, the former headmaster, Mr. P. Ajith Kumar said that the surroundings as well as the existing infrastructure of their school was not attractive enough to compete with these schools. He joined the school as a headmaster in March 2019. He had a vision for the school- “I promised that the number of students will double if proper assistance was given to us”. And he kept his word. Before retiring in 2020, the school strength had reached to a whooping 205 from 69 to when he had joined.

Situation after the flood

The flood of August 2018 had adversely impacted the school. Initial assessment of the school revealed dysfunctional handwashing stations, dysfunctional urinals for girls and boys as well as children with special needs (CWSN). Even the path to access the toilets was on a slippery slope and this made it hard for the children to access the toilets. There was no overhead tank for storing water. Heavy rains had damaged the building roof and it was in a need for urgent repair.

When the headmaster joined the school, the DPR was already prepared, and the retrofitting of the school toilets and handwashing stations had already begun. He along with his fellow teachers took an active interest in monitoring the ongoing construction activities.

Project Activities

In terms of infrastructure, the following activities were conducted:

- Toilet blocks for girls, boys were repaired with floor and wall tiling, provided tap connections and PVC doors
- CWSN toilet was repaired, and ramp was constructed
- Urinals for boys was provided with granite slab separators and urinal pans
- Urinals for girls was provided with squatted pans and RCC roofing
- Handwashing unit was provided with push taps, liquid soap dispensers
- 2000 litre drinking water storage tank was provided
- Open well was provided with a protection grill cover
- Wall paintings were done with messaging on handwashing and using toilets
- Steps constructed near the toilets at the place of slippery slope for ease of access
- Existing water filter was fixed
- Dishwashing station area was renovated

Impact- Contribution/ Attendance increase Total Number of students in the school The upgrading and retrofitting of the WASH facilities, wall paintings with key messages on toilet usage and handwashing in the school upgraded the entire appearance of the school. The school saw an increase in enrolment in the academic year 2020-21. The strength of the school increased from 121 in 2019-20 to 205 in the academic year 2020-21 and it currently stands at 259. The following graph indicates the increase in enrolment of the school students post the project.

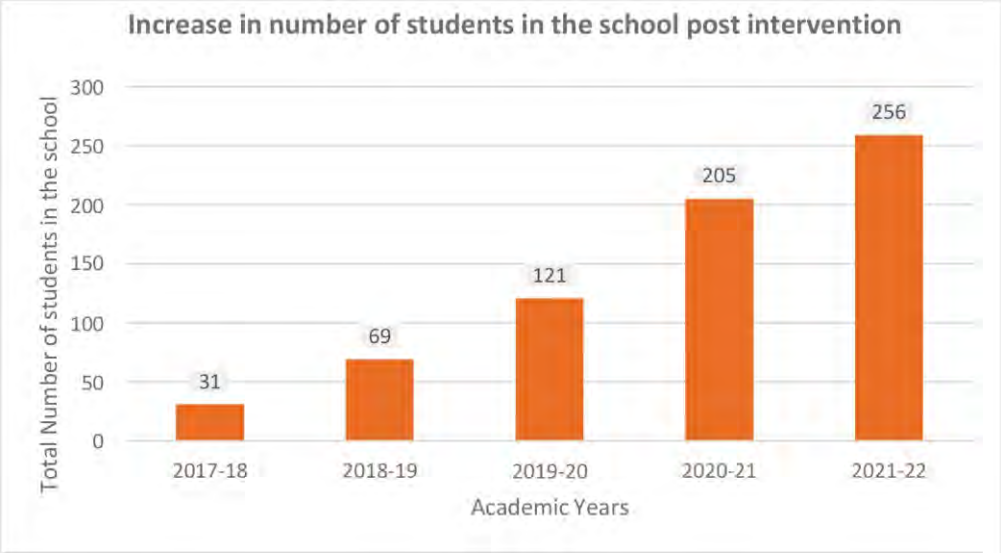


Figure 34 : Change in enrolment of students in GHS Chottupara over the academic years

The revitalizing of damaged infrastructure gave the school a new foundation which became a basis for several other government and charitable organisations to donate funds to support the school.

A project worth INR 65 lakh was implemented by the Zila Panchayat right after the NSE Foundation project since they were impressed by the increase in enrolment of the students. This project involved the construction of a new school building along with 2 additional classrooms. Rotary club of Idukki also came forward to renew the existing computer lab of the school and donated INR 1.5 lakh. In the words of the former headmaster- “The foundation for the progress of the school was laid by NSE Foundation which led to government agencies as well as other donors working for the upliftment of the school.” The school is a model school in the true sense. It is entirely run on solar energy and uses rainwater harvesting to meet the schools water needs.

Rainwater storage tanks (left) and Solar Panels on school rooftop (right)

Based on the sustainability efforts of the PTA members, it received the Best PTA Award in Idukki for academic year 2019-20. Mr. Ajith was also awarded with State Award for Best Teacher Secondary Level in 2020, due to his relentless efforts in improving school admissions and saving GHS Chottupara from closing down. He expresses his heartfelt gratitude to NSE Foundation for this award.

5.3 Stakeholder's perspective

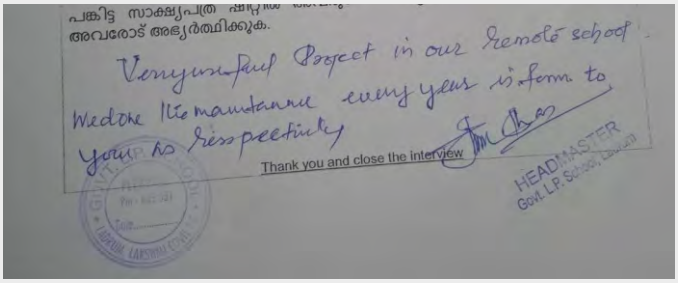
Discussions with stakeholders like the district officials, headmasters, and school teachers revealed that they were satisfied with the quality of construction of WASH facilities as well as the training imparted to the students and the teachers. Most of them were of the opinion that the training on handwashing method and the critical handwashing time was very important, considering the importance of handwashing during the COVID-19 pandemic.

The stakeholders were grateful to NSE Foundation, Plan India, and its implementing partners for choosing their school for the upgradation activities. The testimonials by the stakeholders are presented below:

"In my point of view, the work actually done in Idukki district was superb. In construction, considering the requirements of students and teachers, and also the parents was a really new idea in my official life. And also, evaluating these works after a year by the authorities entrusted by the sponsor is superb. Thanks to all, especially PLAN India and NSE Foundation." – **Mr. Sanjeev N. Accounts Officer Samagra Shiksha Kerala, General Education Department Kerala Govt.**

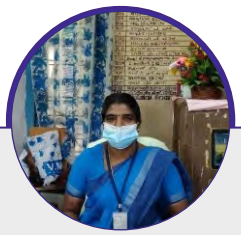
"This project helped the students, and especially encouraged the girl students during the time of their menstrual periods. It helped the students in managing the post flood situation. It encouraged the handwashing habits of the students, which is very important now due to the pandemic." – **Mr. Surendran K.T. High School Teacher, GHS Vagamon.**

"We, the school authority are thankful to NSE Foundation for this project. The foundation for achievements has been laid by the work done by NSE Foundation in our school. The school's PTA received the Best PTA award in Idukki district and I received the State's Best Teacher Award for Secondary Level in 2020." – **Mr. P. Ajith Kumar, Headmaster (Retired), GHS Chottupara**



Handwritten note from the Headmaster of GLPS, Ladrum

Appreciation Notes

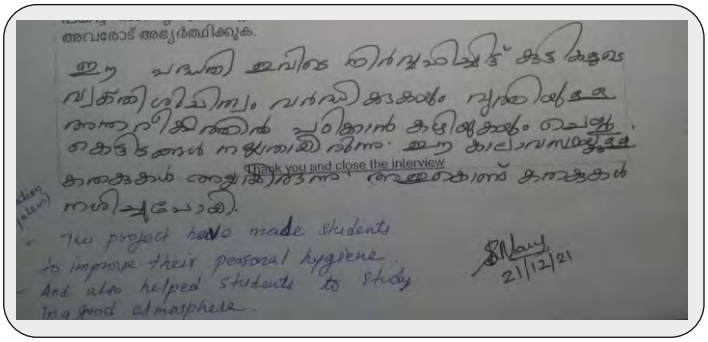


"In 2019, this project was mainly implemented for handwashing and hygiene. The team gave motivation classes about hygiene and gave instructions about the importance of handwashing. These motivational classes were very effective for COVID-19 pandemic awareness generation and also encouraged the students about their health and hygiene. We are very thankful to Plan India and NSE Foundation for giving such help and encouragement to our students. Students wash hands using soap and water during their lunch time and after using toilets in the proper way that was taught to them." – ***Ms. Raji M., Headmistress, Kattappana***

"The project helped our situation a lot and it upgraded the looks and level of performance of our school." – **Mr. Sabu P., Headmaster, GHS Chottupara**

"A major change took place for the school post project completion. The existence of this school today is a true benefit of the project."- **Mr. P. Ajith Kumar, Former Headmaster, GHS Chottupara**

"100% happy with the quality of construction. Also, most girls in our school have limited background on managing menstrual hygiene. These trainings were very important" – **Mr. Surendran, High School Teacher, GHS Vagamon**



"The project has made the students improve their personal hygiene and has also helped the students to study in a good atmosphere".
Appreciation Note from **Ms. Lourthu Mary, Headmistress, GUPS Elappara**

"Plan India Project is very useful for the students. It brought a good image and good infrastructure to the school". – **Mr. Monikadan C., Headmaster, Government LPS, Pookkulam**

5.4 Recommendations

Based on the Process and Impact Evaluation of the disaster relief project in 15 schools of Idukki district, safe drinking water provision was identified as the most overlooked WASH aspect by majority of the schools. Almost all the water filters installed under the project were dysfunctional now due to the lack of proper maintenance. There was little focus on source sustainability and even lesser technical know-how on how to address these concerns. Hence, going forward, the project team needs to focus on providing courses to the school staff and the PTA/SMC members to train them to fix the problems arising in the water filter from their end and also to keep the wells covered and keep the surroundings around the wells clean.

Another issue as reported by the school authorities was the limited availability of funds for maintenance of the facilities constructed under the project. More fund allocation by the government regarding the sustainability aspect of the project was requested by the schools.

Most schools also suggested the need for a refresher WASH Infrastructure Maintenance Program to be organized by either Plan India or the implementing partners. Through this program the SMC members, PTA members, parents as well as the teachers would be encouraged to do regular monitoring of the facilities and would be trained on the key aspects to monitor.

Schools which were facing a water shortage problem (GHS Vagamon and GUPS Elappara), requested NSE Foundation to design new projects focusing on water conservation.

A few schools also requested NSE Foundation to take up projects that focused on improving the overall health of the students and also focus on retrofitting infrastructure other than WASH facilities (e.g., damaged roofs and pathways, renovation of Science and Computer Science Labs etc.).

One of the key suggestions that came from the CYDA team was that in order to make the schools self-sufficient, soap making classes should be organised for the students so that they can use simple ingredients to prepare soap every time the school runs out of it. Hence, extra classes on soap making can be introduced in the schools.

With respect to replicability, other schools need to be made aware of the strong monitoring mechanism of WASH facilities adopted by GHS Vagamon (One Student, One Week, One Toilet Model) and GHS Chottupara (proper inspection of all school facilities and its surroundings conducted by SMC/PTA members 3-4 times in a year).

5.5 Glimpses from the Field

GHS Chottupara

Steps constructed leading to the toilet for ease of access, replacing the earlier slope

Covered well in GHS Chottupara to protect the main source of drinking water in the school

Fully functional taps as indicated by Mr. Ajith Kumar (former headmaster)

Fully functional CWSN

Toilet with clean surroundings, intact doors, clear messaging on toilet usage

GHS Vagamon

Handwashing station with taps intact but not in use since the school is still closed for students

Wall painting on rainwater harvesting

Fully functional CWSN Toilet with cleaning material

Innovative handwashing station design with plastic bottles

Intact tiles, wall painting on toilet block proper ramp

GTHS Kattappana

Fully functional handwashing station

Wall painting clearly indicating how to use toilets

Wall painting outside toilet

Intact tiles in the kitchen

GVHSS Munnar

Wall painting on correct way to use toilets outside toilet block

Wall painting on correct way of handwashing and critical times of handwashing

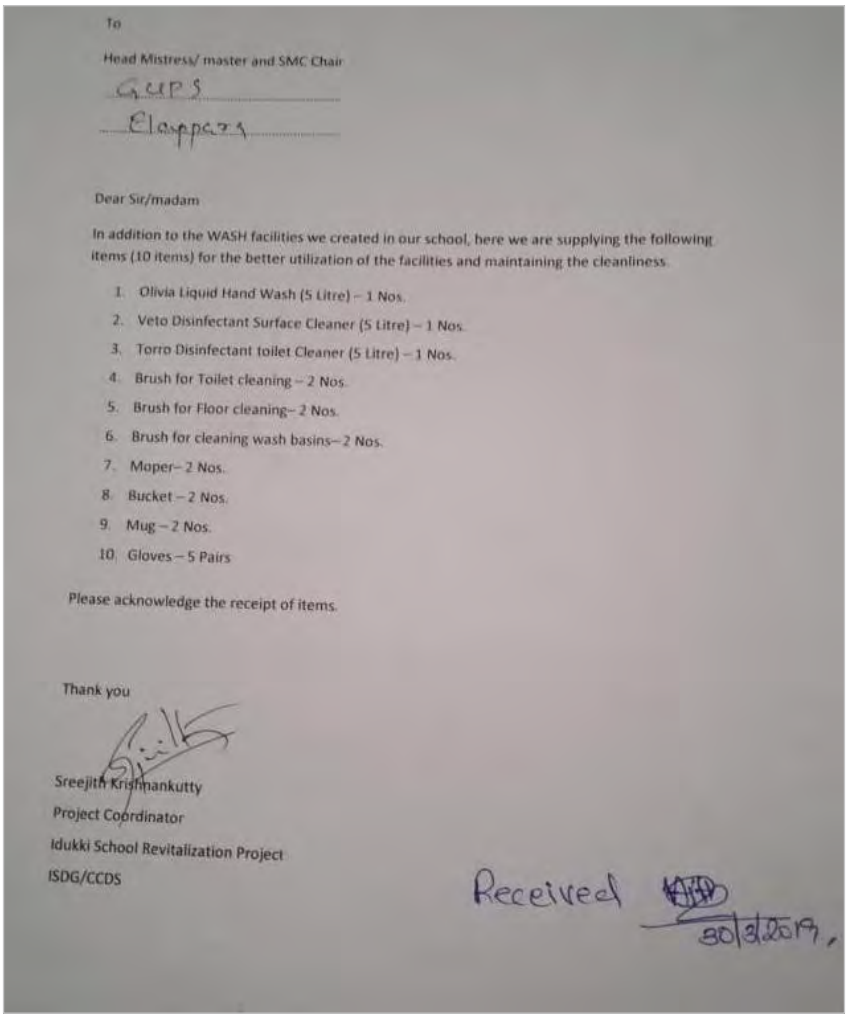
Clean and functional urinals and toilet

Broken tiles in the boys toilet GUPS

GVHSS Munnar

Wall painting on rainwater harvesting and correct practice of drinking water

Clean and functional urinals



To

Head Mistress/ master and SMC Chair

GUPS

Elappara

Dear Sir/madam

In addition to the WASH facilities we created in our school, here we are supplying the following items (10 items) for the better utilization of the facilities and maintaining the cleanliness.

1. Olivia Liquid Hand Wash (5 Litre) – 1 Nos.
2. Veto Disinfectant Surface Cleaner (5 Litre) – 1 Nos.
3. Torro Disinfectant toilet Cleaner (5 Litre) – 1 Nos.
4. Brush for Toilet cleaning – 2 Nos.
5. Brush for Floor cleaning– 2 Nos.
6. Brush for cleaning wash basins– 2 Nos.
7. Moper– 2 Nos.
8. Bucket – 2 Nos.
9. Mug – 2 Nos.
10. Gloves – 5 Pairs

Please acknowledge the receipt of items.

Thank you

Sreejith Krishnankutty
Project Coordinator
Idukki School Revitalization Project
ISDG/CCDS

Received
30/3/2019

Record of WASH facilities maintenance items received by the school under the project

GHS Valakode

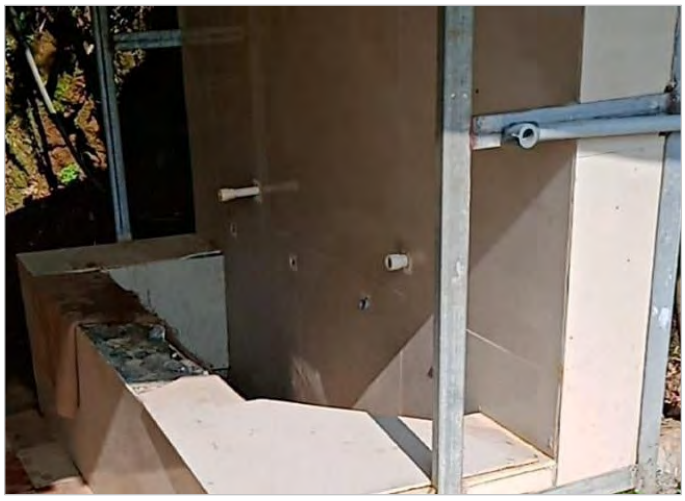
Handwashing station outside toilet block with a broken tap

Functional toilet

Government LPS, Sasthanada

Functional and clean Urinal

Missing taps in the handwashing station



Broken tiles in handwashing station

Government LPS, Pookkulam

Fully functional handwashing station

Handwashing facility outside toilet with wall painting

Annexure

Annexure 1: TRIOs Team

A multi-disciplinary Core Team was appointed for the Impact Assessment. The Core Team had experience of working on thematic areas of WASH and disaster mitigation and management. They were also experienced in conducting impact evaluations involving communities and institutions including schools. They have worked in Kerala in the past and were familiar with the local conditions, stakeholders, and government systems in the state.

The Field Team was also mobilized but due to the COVID-19 situation in Kerala, an alternate strategy was adopted for covering the sample.

The Core Team and Field Team composition is indicated in the organogram below:

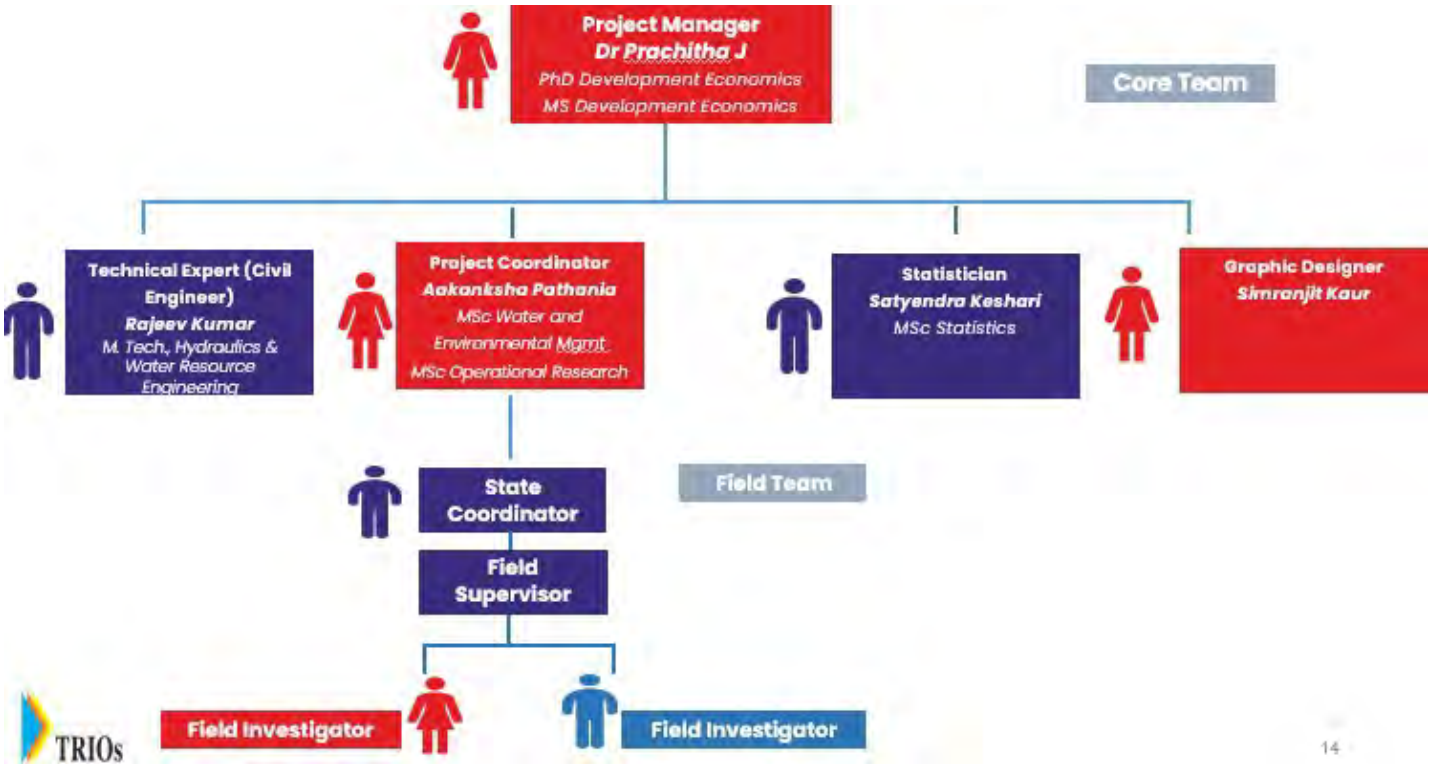


Figure 35 : Core Team and Field Team members

Note: Back end technical support was provided by *Mr. Rajan Mahajan, Vice President, TRIOs*

Annexure 2: Project component wise area of enquiry

Table 16 : Project component wise area of enquiry

Key Project Components	Target Group/ Stakeholder	Key Area of Enquiry
Quality and Impact of BCC activities, including training sessions, IEC material on WASH in school and related communities	Students	**Section-I** • Respondent's Characteristics- such as age, class, gender, native area, social category, tribe, and parent's occupation etc. • KAP on WASH including a. Water- usage drinking and other purpose; drinking water storage, handling, treatment; water saving etc. b. Toilet usage and cleanliness c. Hygiene- handwashing, personal hygiene, mensural hygiene (for girls only) etc. d. Waste disposal and cleanliness in surroundings. **Section-II** • Benefits, rating, preferences of BCC sessions, BCC material, media, and mode of communication • Willingness to continue the WASH promotion in future • Status of activeness of student cabinets, peer group, other committee on WASH etc • Challenges /Suggestions
	Teachers	• Respondent profile/ characteristics • Teacher's views and responses on WASH training provided under the project– duration, contents, resource person, frequency, efficacy, usefulness, availability etc. • Planning process, scheduling, conduction, and progress of BCC sessions conducted with students/ other stakeholders • Ability/ willingness to continue BCC sessions on WASH in future (when current project funding support closes) • Monitoring of change in behaviour of children on WASH • Status of school level forums (Peer groups, Students Clubs Child Cabinets etc) and WASH topic covered in these forums, involvement of students and teacher etc. • Innovation on BCC in WASH, success stories, good practices from teacher's perspective • Challenges, mitigation measure, learnings and suggestion for improvement and sustainability etc.
	Stakeholders Parents, SMC/PTA/MPTA Masons Builders/ PRIs	• WASH related key practices • Useful ness of orientation sessions/ IEC material on WASH • Perspective of government officials on • Interest and willingness, to involve in project activities • Challenges and suggestions etc.
	Government Officials	• Knowledge, interest in project and perspective of usefulness of project activities in their area • Collaboration and main streaming options • Suggestions
Repairs and retrofitting of WASH infrastructure and O&M	Principal/ Nodal Teachers/ O&M	• Status of WASH infrastructure in school's vis a vis plan/ DPR, Functionality and cleanliness of- drinking water facility, area, toilets, handwashing area etc. • Gaps in WASH infrastructure vis a vis state government / SBM guidelines

Key Project Components	Target Group/ Stakeholder	Key Area of Enquiry
		• General cleanliness and availability of dustbins waste management in school • Functionality of facilities for MHM for girls • O& M mechanism for WASH infrastructure • Challenges, sustainability aspects suggestions etc.
Project Design Planning and Efficacy and Quality of Process	NSE Foundation team Implementing Partner Team Desk Review	• Review of background material, log frame, theory of change, MIS (target vs achievements), background of project, planning, implementation of activities, monitoring, budgets, reporting, stakeholder feedback etc.
Sustainability Learnings, and Opportunities etc.	Triangulation and analysis of data from all above sources	• Sustainability aspects, learnings, success stories and challenges and suggestions • Success stories, best practices • Emerging opportunities etc.

Annexure 3: Detailed Description of the Activities under each Milestone

November 2018: CCDS identified as the Phase I Implementing Partner and DPRs prepared

By November 2018, the gaps were identified in all the 15 schools by Plan, post which, CCDS was identified as an Implementing Partner and project staff was recruited. CCDS was already working in Kerala at that time, and they set up a project office in Idukki. Thus, began Phase I of the project under which, 6 schools were allocated to CCDS. A complete project orientation (both classroom and field) was given to the CCDS team members regarding the project activities and the finance guidelines by the Plan Team.

December 2018: Orientation of all key stakeholders regarding project activities

December 2018 marked the beginning of orientation to all the key stakeholders involved such as the headteachers, teachers, parents, School Management Committee members regarding the project activities to seek their support in project implementation. The idea behind this was also to increase the ownership of all the stakeholders in the project so that even when Plan and CCDS left the site post the handover, the renovated structures would be looked after and maintained by the community members.

Tender process was completed through open bidding in alignment with the Kerala Government tender process. Contractors were identified for the 6 schools of Phase I. The contractors were oriented about the project and the standards, and then taken to the project site to explain in detail the works to be undertaken as a part of this project. The Swachh Bharat Swachh Vidyalaya design norms were introduced. Thus began the renovation and upgradation work in the 6 schools and it went on till February 2019.

Meanwhile, WASH awareness sessions were conducted for every class of the 6 schools by the Field Coordinators of CCDS. Training was first imparted by the Plan team to the CCDS team and then presentations were given by the CCDS team to each of the classes. In these awareness sessions topics such as: critical times of handwashing, how to use soap and water for handwashing correctly, proper usage of toilets, menstrual hygiene management were discussed.

January - February 2019: Phase I completed

The upgradation of infrastructure in Phase I schools was completed by the end of January 2019. The WASH awareness sessions under Phase I were also completed in this month. Water and Sanitation Committees (WATSAN) were also activated in all the Phase I schools. Monitoring visits by Plan India, NSE Foundation and KPMG were conducted and suggestions to improve the quality of the work was implemented. Mid-Term review with children, teachers, parents, Education Department and District Administration was done with Plan India leading the sessions.CYDA was identified as the Phase II Implementing partner for the remaining 9 schools. CYDA had opened an office in Kerala during the floods and they were already working in Idukki district with the relief phase. They were also actively involved in renovation and reconstruction projects in Kerala as well as Maharashtra. Recruitment and orientation of project staff for CYDA was completed by Plan India regarding the project activities, standards, and financial guidelines

Annexure 3: Detailed Description of the Activities under each Milestone

March – July 2019: Phase II completed

The upgradation of school infrastructure in 9 schools was completed by June 2019. WASH Awareness sessions were completed in all schools before the exams began for the students in March 2019. Monitoring visits were conducted by Plan India, NSE F and KPMG and the suggestions were adopted to improve the quality of work implemented. O&M Plans were developed with District Administration and Education Department for sustainability of the project.

3rd August 2019: Handing over ceremony

The handing over ceremony for all the 15 schools took place on August 3rd, 2019, in the presence of Shrimati. BijImol E.S, MLA Peermade; Kumari. Kochu Thresia, District Panchayat President, Idukki; Shrimati. Rema Mohan, CEO, NSE foundation, Mumbai, Mr. Tushar Kanti Das, Disaster Management Manager, Plan India, Mr Shaji KS, District Education Officer, Idukki; Shri. Mathew Mattam. Chief functionary, CYDA, Shri Anil Kumar, representative, CCDS and Shri Sanjeev N, PA to DEO, Idukki.

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