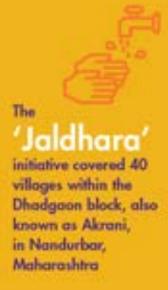




July 2022.

conduct this study and assess its objectives, strategies and processes adopted, quality of infrastructure built / retrofitted, behaviour change activities and sustainability post-project exit. The study's design included a thorough desk review / research of the project documents and relevant publications and analysis and executed through a predefined approach to understand the impact on the target population. It relied on a mixed methodology of quantitative and qualitative approach and focused on conceptualization, design, and data collection along with analysis and reporting of the findings. The study highlights the critical importance of these interventions in enhancing community health, dignity, and wellbeing. Tangible benefits observed include increased access to improved sanitation facilities and heightened awareness of menstrual hygiene practices.



This executive summary encapsulates the key findings

### Table 1: Key findings of the study include -



### Water, Sanitation, and Hygiene (WASH)

52% had a 'neutral' attitude towards washing hands before and after eating pre intervention. Post attending the WASH awareness sessions, 98% of the respondents 'agree' to the same to washing hands before and after eating.

Post intervention, 100% respondents 'strongly agree' to always using soap before and after eating food and after using the toilet. Similarly, responses of adopting practices such as toilet usage and no open defecation, drinking clean water and communicating safe hygiene practices to their families were a majority, post intervention.



### Menstrual Hygiene Management (MHM)

Post intervention, majority of the respondents chose responses such as 'use of sanitary pads' (97%), 'change the pad / cloth 3 times a day' (96%), 'drying of cloth under direct sunlight' (96%), 'safe disposal of pads after usage' (95%), 'usage of soap / water while washing hands' (75%). This indicates adoption of safe and good menstrual hygiene practices that were taught during the awareness sessions and meetings.

Respondents were also asked about the common beliefs and myths associated to menstruation before the intervention where 93% respondents chose 'menstruation blood is impure', followed by 63% who chose 'not to include in household chores during menstruation'. However, post intervention, 89% respondents chose 'none' as a response to having common beliefs and myths now.



### Open Defecation Free (ODF)

As per the perception of the beneficiaries, the toilets have dramatically improved public health in the villages, Instances of waterborne diseases like diarrhoea and cholera have decreased as there is no longer open defecation contaminating the water sources. This has led to healthier families and lower healthcare costs.

The provision of toilets, especially in schools and households, has enhanced the dignity and privacy of the residents, particularly women and girls.







### Going forward, NSE Foundation may consider exploring the following recommendations –

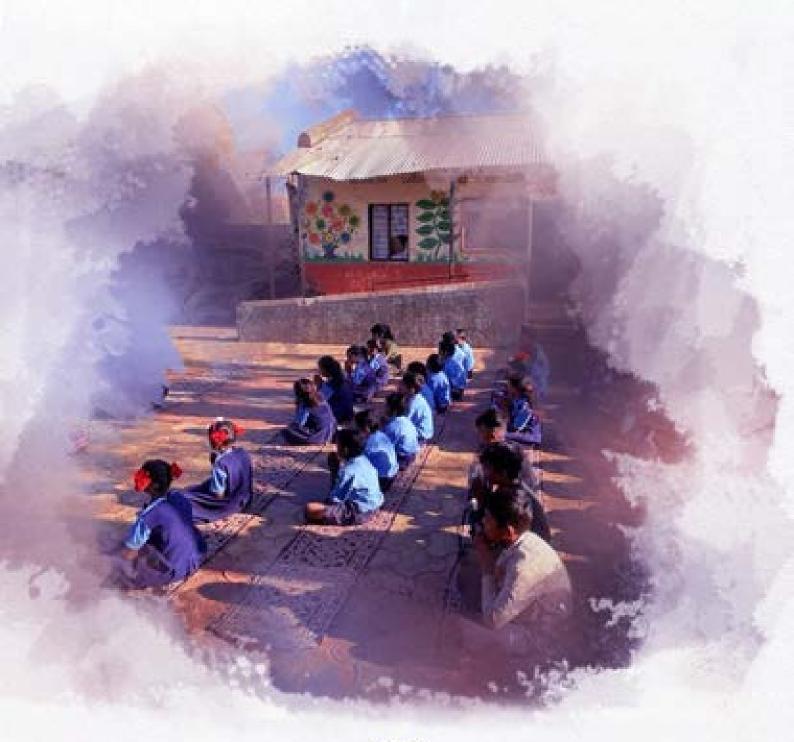
In WASH, it was observed that certain sanitation facilities provided to the schools require repair and related maintenance. It is vital to develop a maintenance plan for WASH facilities and this can be done by involving community members (SMC) and the school and establishing mechanisms for repair and upkeep such as contribution of a certain amount in the same. Refresher trainings can play a crucial role in promoting and sustaining positive behavioural change related to WASH practices. There are many existing SHG (Self-help groups) in the villages who can play a crucial role in supporting the local production of cloth pads as part of menstrual hygiene management initiatives. ODF beneficiaries appreciated the support highly but due to water scarcity issue in the region, the usage of the toilets is limited often. Hence NSE Foundation may also explore infrastructure development to improve access to safe and reliable water sources.





## Impact assessment report

Serving and Enriching Education to Under-privileged Tribal Children in Talode Block of Nandurbar District





Maharashtra's literacy rate stands at 82.3%, surpassing the national average of 73%

The NSE Foundations programme Serving and Enriching Education to Underprivileged Tribal Children in Talode Block of Nandurbar District aimed to address local education system challenges. These included insufficient access to quality education leading to low learning outcomes.

The programme focused on primary school students (grades 1 to 5) of Nandurbar With All India Institute of Local Self-Government (AIILSG) as the on-ground partner, Children's Resource Centres (also known as Shikshan Ranjan Kendras) were established within communities. These centres aimed to provide quality teaching, life skills, and promote Water, Sanitation, and Hyglene (WASH) behaviours. Additionally, libraries were established, and activities such as storytelling sessions, parent counselling, and

doorstep teaching were conducted. The centres were led by educated youth from the programme villages, known as Shikshan Mitras.

To assess the outcomes and overall impact of the three-year programme. a Logical Framework approach was employed utilising both quantitative and qualitative data. The impact assessment study specifically assessed students currently in grades 2 to 4 due to tracking challenges beyond grade 5. A total of 315. students underwent assessment for competency in language reading. writing, numeracy, WASH behaviour, and personality development. These assessment scores were compared with the endline scores conducted in December 2022. The purpose of this comparison was to gauge their academic competency corresponding to their respective grades



It was noted that programme substantially improved the language proficiency by providing students with translated course materials. For instance, grade 2 students demonstrated an increase in average scores fout of 5) in language reading from 3.9 to 4.3) and writing from 3.6 to 4.6) Additionally, locally crafted Teaching Learning Materials contributed to improved numeracy, leading to a notable 276% increase in students performing at grade level.

The programme promoted WASH behavioural practices among students. Despite the programme's completion, 74% of students achieved sale WASH behaviour demonstrating the programme's effectiveness. Similarly, soft skills and personality development were promoted through cultural sessions and community.

events It fostered qualities such as teamwork, leadership, and confidence among students. Despite a 23% decline in soft skill competency postprogramme completion, a significant number of students (63%) retained invaluable insights, showcasing the enduring impact of the sessions, even as they progressed academically.

Overall, the programme's comprehensive approach and sustained three-year support significantly enhanced students academic performance and personal development. Its positive influence persists post-closure, shaping the educational landscape of Nandurbar district by facilitating access to quality education and fostering holistic growth for underprivileged children.



locally crafted
Teaching
Learning
Materials
contributed
to improved
numeracy,
leading to a
notable 276%
increase







# ODF Programme





NSE Foundation, a Section-8 Company, is the implementing arm of Corporate Social Responsibility (CSR) initiatives for the NSE Group. Through social interventions it endeavours to include the most marginalised communities in the country's development story. In doing so, it plants the seeds of transformation and empowerment. Its CSR programmes aims to empower economically and socially backward communities. One such programme was the Sustainable Community ODF Programme, implemented in Ramanathapuram block of Ramanathapuram district, Tamil Nadu.

The programme was implemented by NSE Foundation in collaboration with Gramalaya Trust (On-ground partner) with the objective to achieve sustainable open defecation-free status within the block. The intervention was planned and implemented based on a baseline survey conducted by the on-ground partner, revealing dysfunctional toilets and a shortage of funds for repair work. The surveyed toilets were constructed under SBM-G scheme and

reportedly developed wear and tear over time, making them unusable. The programme showcases a holistic approach to effective sanitation intervention including; a) retrofitting of toilets and b) focusing on knowledge dissemination and behaviour change to ensure adequate sanitation improvements.

The intervention resulted in the renovation of almost 3200 Individual Household Latrines (IHHLs), retrofitting of toilets in 60 schools, 10 anganwadis and 8 IWSC. The community driven programme included awareness and sensitisation activities conducted with 50 thousand direct and 1 lakh indirect beneficiaries in Ramanathapuram block. Community-based groups (WASHMAN committee) were formed to steer the programme and regularly monitor the outcomes.

A study was conducted to examine the impact of this programme, its implementation process and stakeholder participation. The research tools utilised in the study included structured surveys, indepth interviews, and questionnaires to gauge the impact of enhanced facilities and assess the degree of behavioural change in sanitation practices among beneficiaries.

In addition, focus group discussions and participatory observations were conducted to gain qualitative insights into the perceptions and experiences of the community regarding sanitation. The following is a summary of the key findings of study conducted with more than 800 beneficiaries and stakeholders:

### Community members

1

The survey revealed that the retrofitted toilets were well-maintained and usable for the majority (93%) of respondents. In 7% of cases, some minor structural damages were reported.

The awareness of the ill effects of open defecation has translated into sensitisation to various health risks posed by waterborne diseases. Majority (71%) of respondents were aware of dysentery as a sanitation related disease.

The majority (90%) of the respondents reported using the toilet facility regularly, while 10% reported using the toilet facility sometimes. The household survey inquired about the perceived impact of retrofitted toilets on household members' health. The findings showed a reduction in the occurrence of WASH-related illnesses among 92% of the households and a reduction in spending on treating WASH-related illnesses among 62% of the respondent households. 4% of the respondent households reported an increase in household savings from the same.

### School students

The majority (98%) of the students reported that the retrofitted toilets in their schools were functional after the intervention.

> Among the students who reported functional toilets, 82% mentioned having access to a piped water supply.

Additionally, 98% of the students had access to a functional toilet at home.

> Majority (76%) of the respondents demonstrated seven steps of handwashing learnt as part of the behaviour change communication under the programme.

About 90% of the students stated that they were aware of waterborne diseases resulting from poor sanitation practices.

The majority (98%) of the students reported participating in hygiene and sanitation competitions held in school. A significant proportion of 92.5% of students reported being aware of the importance of using soap while washing hands.

The Sustainable Community ODF programme has demonstrated the effectiveness of a comprehensive approach to sanitation encompassing infrastructure improvement and behaviour change. The programme's successes and learnings lay the groundwork for future endeavours, emphasising the importance of community engagement, holistic strategies, and sustained monitoring to create lasting positive impacts on sanitation and hygiene practices.



### National Stock Exchange of India Ltd.

Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E), Mumbai-400 051

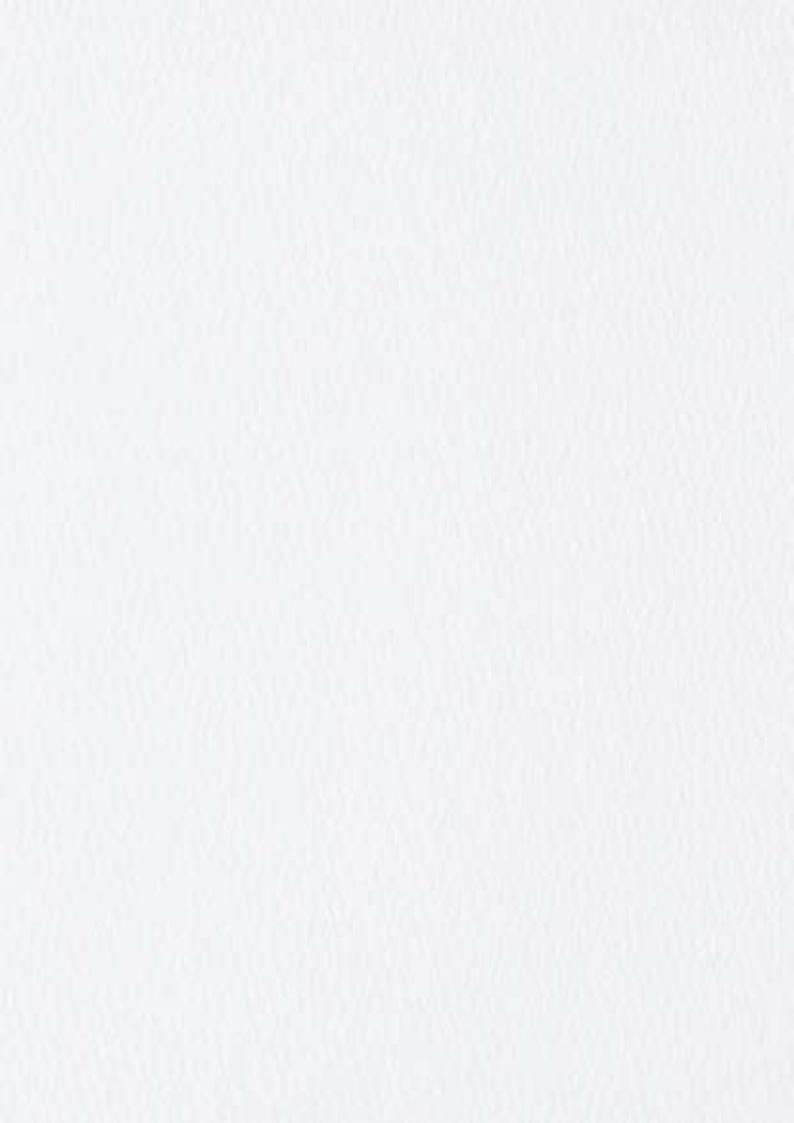


# FACILITATING SUSTAINABLE LIVELIHOODS

To provide sustainable livelihood by way of providing construction Skill training and employment / self-employment for Rural Youth from Nandurbar, Maharashtra.

Social Impact Assessment Report, 2024





### Project Overview

NSE Foundation, in collaboration with Pipal Tree Foundation, implemented a skill development initiative aimed at addressing unemployment in Nandurbar, Maharashtra. The programme, designed to equip 600 beneficiaries with industry-relevant skills, leveraged innovative and teaching methodologies holistic development strategies to ensure long-term economic empowerment. Through structured training, practical sessions, and On-the-Job Training (OJT) initiatives, the programme successfully transformed individual livelihoods. and contributed to broader community upliftment.

### Demographic and educational profile of beneficiaries

The programme primarily targeted young adults aged 20–30 years, many of whom came from moderately large families consisting of 5–7 members. Of these beneficiaries, 43% had not completed the 12th grade, limiting their access to formal employment opportunities, and 61.6% were unemployed before enrollment, highlighting the urgent need for skilling interventions to facilitate economic independence and improvement in household financial condition.

### Training modules and employment outcomes

To align with market demands, the programme offered specialised courses such as painting, masonry etc. ensuring employability across key industries. The programme's practical training methods and OJT initiatives enabled participants to acquire hands-on experience, making them workforce-ready. Its effectiveness was evident in the fact that all participants secured employment within 15 days of course completion, demonstrating both the relevance of the training provided and the efficiency of the placement process.

Post-placement financial data reflected tangible economic improvements, with 69% of beneficiaries earning between ₹8,000-₹9,000 per month, reinforcing enhanced financial stability. This increase in income facilitated better access to education and healthcare for their dependent family members, contributing to overall well-being. Additionally, \*\*92.4% of participants remained employed in their respective trades, reflecting the long-term sustainability of their placements. Some beneficiaries even pursued entrepreneurial ventures, showcasing the programme's potential to foster job creation beyond direct employment.

### Community engagement and sustainability

The programme's success was further strengthened by active involvement from local authorities, NGOs, and community mobilization efforts, which played a vital role in fostering participation and ensuring sustainability. Beneficiaries not only secured employment but also became advocates for skill development, encouraging wider community enrollment in future initiatives.

### Impact assessment and key insights

A comprehensive quantitative and qualitative study, supplemented by testimonials from learners, trainers, and contractors, highlighted the programme's positive influence in three key areas:



### Skill Acquisition

Participants gained both technical and soft skills, enhancing their employability and confidence.



### Economic Stability

Increased household income contributed to improved living conditions and financial independence.



### Community Development

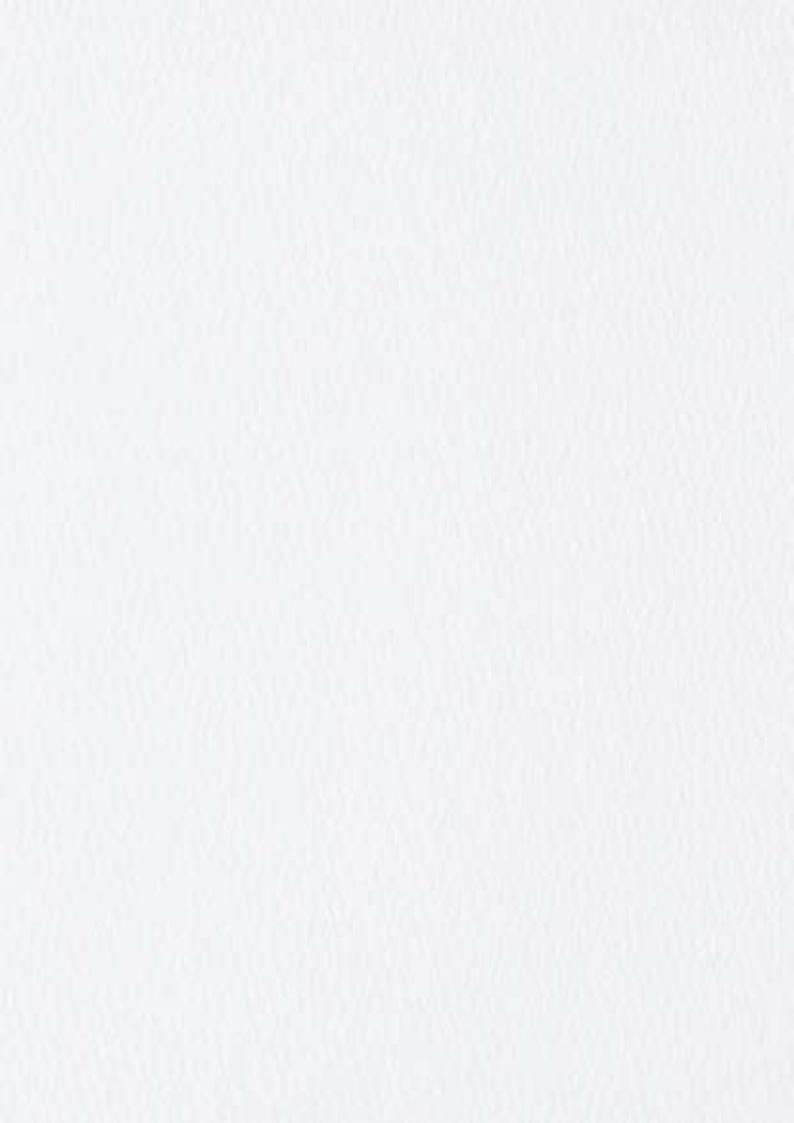
Beneficiaries actively participated in local economic activities, contributing to broader societal upliftment. The programme's short-term impact was marked by immediate employment opportunities, skill enhancement, and improved livelihoods. Over the long term, it facilitated financial independence, generational upliftment, and sustained behavioral changes that fostered economic resilience within the community.

Through collaborative efforts, market-aligned training, and a commitment to sustainable development, the initiative set a benchmark for skill enhancement programs, demonstrating the potential for replicability and scalability in similar underserved regions.



### Disclaimer

This compilation of data of NSE Foundation's CSR initiatives is meant for information purposes only. The information provided in this document is provided on "as is" basis and "as available" basis. NSE Foundation does not warrant the accuracy, adequacy, or completeness of this information and material and expressly disclaims liability for errors or omissions in the information compiled under this document. No warranty of express or statutory including but not limited to the warranties of non-infringement of third party rights, title, merchantability and fitness for a particular purpose is given in conjugation with the information mentioned in this document. In no event will NSEIL, NSE Group Companies or NSE Foundation be liable for any damages, including without limitation direct or indirect, special, incidental or consequential damages, losses or expenses arising in connection with this document or use of any content thereof or inability to use or in connection with any failure of performance, error, omission, interruption, defect, even if NSEIL, NSE Group Companies, NSE Foundation or the representatives thereof, are advised of the possibility of such damages, losses, or expenses. The readers of this document must independently determine the appropriateness of the contents of the document for their purposes.





# Impact Assessment Report

2024

Magic English Vaachan Program Nandurbar, Maharashtra



### Impact and Engagement of the Magic English Program

- Limited English Exposure Outside School: A significant 86.9% of students reported having rare exposure to the English language outside of their school environment, highlighting the critical role of programs like Magic English.
- **High Reported Retention**: An overwhelming 92.6% of students indicated that they understand and effectively retain the material taught in the Magic English classes, demonstrating the program's pedagogical effectiveness.
- **Positive Learning Experience**: The program fosters a highly engaging and enjoyable learning environment, with 98.2% of students finding Magic English classes fun and reporting feelings of happiness after sessions.

### **Broader Influence and Future Aspirations**

- **Perceived Social Benefits**: A substantial 85.5% of students believe that learning to speak English will bring benefits to their families, indicating a strong personal and communal value attributed to the program.
- Knowledge Sharing and Community Impact: The learning extends beyond
  the classroom, as 20.3% of students confirmed that they actively teach
  friends and family what they have learned in Magic English classes,
  showcasing a ripple effect of knowledge.
- **Desire for Continuity**: 94.1 expressed a clear desire to continue their learning in the Magic English class.
- **Strong Recommendation**: The program enjoys high advocacy among its participants, with 77.1% wanting their siblings or friends to also attend a Magic English program.

### Recommendations

Although the program has been highly effective, these are some of the recommendations to further improve the effectiveness of the program

- Need for additional measures to prevent learning loss due to Migration.
- Additional measures to improve teacher motivation.
- Adding measures and activities to improve parent involvement.
- Adding annual child-centered assessment methods to the program



Overall, the NSE Foundation's Magic English Vaachan program, targeting enhanced English proficiency within Nandurbar District's tribal communities, employed an innovative pedagogy integrating phonics, contextual narratives, rhymes, and action-based learning, optimized through a digital learning environment. An impact assessment, conducted from August 2019 to 2023, evaluated the program's efficacy for both students and educators, yielding actionable insights for future optimization.

Despite operational challenges presented by the COVID-19 pandemic, the program demonstrated agility by pivoting to digital platforms and the dedicated Magic English Vaachan application to mitigate learning disruption.

#### Disclaimer:

This compilation of data on the NSE Foundation's CSR initiatives is meant for information purposes only. The information in this document is provided on an "as is" and "as available" basis. NSE Foundation does not warrant the accuracy, adequacy, or completeness of this information and material and expressly disclaims liability for errors or omissions in the information compiled under this document. No warranty of express or statutory including but not limited to the warranties of non-infringement of third-party rights, title, merchantability, and fitness for a particular purpose is given in conjugation with the information mentioned in this document. In no event will NSEIL, NSE Group Companies or NSE Foundation be liable for any damages, including without limitation direct or indirect, special, incidental, or consequential damages, losses or expenses arising in connection with this document or use of any content thereof or inability to use or in connection with any failure of performance, error, omission, interruption, defect, even if NSEIL, NSE Group Companies, NSE Foundation or the representatives thereof, are advised of the possibility of such damages, losses, or expenses. The readers of this document must independently determine the appropriateness of the contents of the document for their purposes



National Stock Exchange of India Ltd. Exchange Plaza, C-1, Block G, BandraKurla Complex, Bandra (E), Mumbai – 400 051



# **Impact Assessment Report** 2024



**Block transformation for ODF sustainability and WASH compliance Project** 

### Introduction

Open defecation remains a significant public health issue in rural India, with 67% of rural households. Despite government efforts to construct latrines, many Indians prefer open defecation due to cultural beliefs about purity, pollution, and caste. Studies within Maharashtra reveal that 67-75% of the rural population still practices open field defecation.

To address these gaps and create a replicable model of intervention, the NSE Foundation collaborated with local partners to implement an ODF (Open Defecation Free) sustainability project in the Navapur block of Nandurbar District, Maharashtra, India.

### **Project Brief**

Launched in 2018, the WASH Sustainability Project aimed to maintain the Open Defecation Free (ODF) status of the Navapur block by promoting the continued use of sanitation facilities and safe hygiene practices. The project engaged diverse stakeholders—including children, community members, government officials, and masons—across 114 Gram Panchayats, 50,150 households, and 252 schools. Key activities included Ratri Chaupals, Nigrani Samitis, Swachhta Expresses, and Child Cabinet/WASH clubs, alongside grassroots capacity-building and Information, Education, and Communication (IEC) campaigns. These efforts addressed hygiene challenges and promoted behavioral changes to ensure effective WaSH facility use.

To assess the social impact, impactDash conducted a mixed-method study in Nandurbar, Maharashtra, involving 328 students and 327 community members. This included in-depth interviews with various stakeholders such as teachers, principals, Anganwadi members, Nigrani Samiti members, government officials, SMC members, and project managers, as well as focus group discussions with students and community members.

### **Findings**



### **Among Students**

The study revealed the following major impacts:

### **Infrastructural Intervention**

• The majority of schools (83.6%) highlighted that a combination of infrastructural facilities, particularly the creation of handwashing units, was a significant focus. Additionally, 61.6% of schools mentioned the availability of toilets as another key infrastructural element. Most students had access to supplementary facilities like soap; however, comprehensive sanitation setups with running water and well-maintained buildings were less common, indicating potential areas for improvement. Students have also expressed high levels of satisfaction with the toilet facilities with around 91% of the students expressing positive level of satisfaction.

### **Awareness Creation**

- The intervention significantly improved awareness among children, with 99% reporting that WaSH cabinets enhanced their hygiene knowledge. The major topics covered included handwashing, nutrition, food hygiene, and the safe handling of drinking water. Students demonstrated a high level of clarity and engagement during the awareness sessions, with approximately 99% of participants expressing a positive response to the impact of WaSH cabinets in improving hygiene awareness.
- The study also reported a notable increase in students' understanding of concepts such as
  "hand hygiene and disease," the "importance of clean drinking water," and the "recognition
  of the importance of promoting health and hygiene to others." However, there was a slight
  decline in understanding the risks associated with unclean toilets and the importance of
  maintaining a clean environment.



### Among Community Members

#### Infrastructural Intervention

• The creation of handwashing units and toilets was recognized as a major infrastructural achievement, with 94% of participants expressing satisfaction with the cleanliness and comfort of the toilets. These facilities were well-equipped, featuring soap, running water, buckets/mugs, and intact buildings and walls.

### **Institutional Support**

• Strong institutional support was evident, with 99% of community members finding Ratri Chaupal sessions beneficial for enhancing hygiene awareness. These sessions were inclusive, with participation from men, women, and children. Additionally, 99% of respondents felt that the information was effectively communicated and easy to understand.

### **Impact on Open Defecation**

A significant reduction in open defecation was observed, with 81% of participants stating
that their village was now Open Defecation Free (ODF). Approximately 211 individuals
ceased practicing open defecation due to the efforts of the Nigrani Samiti. The interventions
also led to an increase in toilet usage, with 78% of participants reporting regular use,
compared to 65% before the intervention.

### **Awareness Creation**

- Awareness sessions were a key component of CYDA's intervention strategy, primarily driven by Ratri Chaupals. These sessions covered essential topics such as handwashing, food hygiene, waste disposal, and the safe handling of drinking water. Awareness was raised through a variety of activities, including door-to-door campaigns, community events, and school workshops.
- These sessions significantly increased awareness of WaSH practices, with 92% of participants acknowledging the importance of clean drinking water for health, up from 75%. Similar improvements were noted in hand hygiene awareness and the importance of living and studying in a clean environment.

### **Reduction of Disease**

• 96% of community members agreed that NSE's intervention had reduced disease incidence within the community.

Overall, the interventions by on-ground partner and the NSE Foundation significantly improved sanitation and hygiene in the Navapur block. However, it could be seen that projects on this magnitude needs ongoing efforts to address gender disparities, expand infrastructure, and more effectively tackle sensitive issues like menstrual health for ensuring sustainability of project impact.







National Stock Exchange of India Ltd. Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E), Mumbai – 400 051



# IMPACT ASSESSMENT REPORT



## PROMOTION OF SWACHH AND SWASTH HINDAUN BLOCK

Karauli, Rajasthan



NSE Foundation, a Section-8 Company, is the implementing arm of Corporate Social Responsibility (CSR) initiatives for the NSE Group. Through social interventions, it endeavours to include the most marginalised communities in the country's development story. In doing so, it plants the seeds of transformation and empowerment. The Foundation partners with the government, non-governmental organisations, multilateral bodies, academic institutions to inspire, nurture, empower and sustain the aspirations of the communities it serves.

In partnership with WASH Institute (On-ground partner), NSE Foundation has undertaken the project "Promotion of Swachh and Swasth Hindaun block of Karauli district in Rajasthan" to address water scarcity and enhance Water, Sanitation, and Hygiene (WASH) facilities for communities and public institutions in Rajasthan. Over a two years period, renovation and retrofitting activities were conducted in 23 government schools, 11 villages, 10 Anganwadi centres, one Public Health Centre (PHC) in Karauli.

The programmeme positively impacted 41,1501 individuals, including 2,751 students, 617 teaching staff and other project stakeholders. The upgraded infrastructure facilities were handed over to the village communities.

An impact assessment study was conducted using detailed approach that included desk research, field visits, qualitative and quantitative surveys, observations, and stakeholder consultations. This study aimed to understand and analyse the social and economic benefits experienced by the primary beneficiaries.

The assessment process involved extensive engagement with stakeholders directly or indirectly involved in the project. This included surveys and interactions with 438 government school students, 571 community members, 35 teachers, 8 principals and 12 health workers from the PHC.

<sup>\*</sup>Cumulative number of beneficiaries as per the data shared by on ground partner

The impact findings of the project's hardware and software interventions are as follows:

### School water, sanitation and hygiene:



According to the baseline study, 53% of the school toilets lacked a running water facility, rendering them unusable due to

poor hygiene and unpleasant odour. However, following the intervention, 96% of the students confirmed the availability of water in their respective restrooms. This outcome underscored the positive impact of the intervention on overall sanitation and hygiene conditions within the schools.

Following the intervention, 98% of students reported functional toilets for both genders in schools.





A majority (92%) of students reported an improvement in toilet cleanliness.

A majority (92%) of students were aware that handwashing is an important hygiene behaviour that leads to disease prevention.





A majority (91%) of students demonstrated an understanding of the link between consuming contaminated water and the prevalence of diarrhoea.



The findings revealed that 98% of students actively encouraged their friends and relatives to adopt good sanitation and hygiene practices.



During the survey, 53% of the students reported that they had not suffered from waterborne diseases in the past six months.



Notably, 78% of female students reported no incidence of urinary tract infections after the retrofitting of toilets, attributing this to the availability of clean and hygienic washrooms.

### **Community water facilities**



Respondents (97%) from three villages reported that the repaired infrastructure was fully functional.

The borewell provided an accessible and consistent water supply for daily needs, as reported by 87% of the beneficiaries.



000

Specifically, 64% of women reported an enhancement in their overall quality of life due to improved water availability. Additionally, 58% of the respondents expressed reduced dependency on external water sources.

A significant portion, 96% of individual beneficiaries stated that the repaired borewell meets drinking water needs of both human and livestock.





A majority (91%) of students demonstrated an understanding of the link between consuming contaminated water and the prevalence of diarrhoea.



Around 94% of beneficiaries reported time saving due to proximity of the borewell.



Following the intervention, 90% of respondents reported that the water was potable, reflecting a significant improvement from the baseline, where 64% of the population relied on hard water.



In communities, 97% of beneficiaries reported participating in Behavioural Change Communication (BCC) sessions. The positive impact of these sessions is evident, as 90% of beneficiaries reported increased knowledge, positive behavioural change and understanding of hygiene practices.

The renovation of school toilet facilities, access to clean drinking water, and handwashing facilities positively impacted student health and school attendance. However, challenges related to sustainability and funding remained; the programmeme's partial success in the community provided a foundation for future initiatives to enhance water and sanitation infrastructure in rural areas.



### National Stock Exchange of India Ltd.

Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E), Mumbai-400 051

### IMPACT ASSESSMENT REPORT 2024



### Foundational Learning Enhancement in

### PRIMARY GRADES (I-V)

in Government Schools





NSE Foundation, a Section-8 Company, is the implementing arm of Corporate Social Responsibility (CSR) initiatives for the NSE Group. Through social interventions, it endeavours to include the most marginalised communities in the country's development story. In doing so, it plants the seeds of transformation and empowerment. The Foundation partners with government, the non-governmental organisations, multilateral bodies, academic institutions to inspire, nurture, empower and sustain the aspirations of the communities it serves.

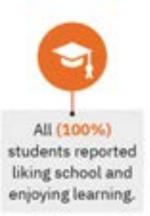
The programme was implemented by NSE Foundation in collaboration with Center for microFinance (On-ground partner) with the objective to provide foundational literacy to underprivileged students of 150 government schools in Hindaun block of Karauli district, Rajasthan. The programme model focuses on enhancing children learning levels through building their foundational proficiencies in reading and mathematics in pre-primary and primary grades by providing quality teaching learning inputs, building capacity of teachers,

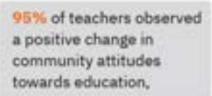
head teachers, strengthening SMCs, and improving community awareness towards quality education.

The project yielded positive benefits, impacting a total of 16999 school children, 503 govt. teachers, head teachers and PEEOs, 802 SMC members.

A detailed impact assessment study was carried out, which included a desk review of project documentation, field visits, both qualitative and quantitative surveys, and consultations with stakeholders. The study aimed to evaluate the social and economic impacts on the primary beneficiaries. The log frame approach was also used to evaluate the impact and sustainability of the project.

The field data collection included 14 randomly chosen schools, involving 532 students from the primary level. Subject-wise learning level assessments were conducted with 411 students from 8 government schools. The impact findings of the project are detailed below:



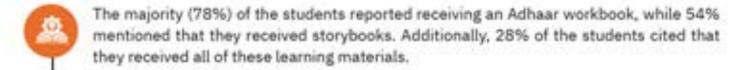




96% of parents reported increased interest and engagement in their children's studies.



96% of students mentioned that they feel at ease in understanding Hindi and Mathematics.



- Before the intervention, 28% of teachers reported low student attendance rates. During the survey, 95% of teachers reported a positive shift in community attitudes towards the importance of children's education following the intervention.
- 94% of School Management Committee (SMC) members shared that this intervention is focused on holistic learning, while 93% noted that it allows for greater parental involvement compared to traditional teaching methods. Additionally, 89% of SMC members reported that this intervention improves student retention and attendance.
- Furthermore, 60% of headmasters indicated that student enrolment rates have increased following the enrolment drives. The interviewed headmasters also remarked that this intervention has successfully enhanced children's reading skills, poem recitation abilities, and calculative competencies.
- In Mathematics, students scoring 60%-75% increased from 6.5% to 26.49%, and those scoring ≥75% increased from 3.1% to 16.76%.
  - In Hindi, students in the <30% marks category decreased from 65.5% to 35.98%, and those scoring ≥75% increased from 1.8% to 4.23%.



The project was thus relevant as it acknowledged the urgent demand for enhanced education quality in these communities and was dedicated to delivering the essential resources to narrow the learning gap in foundational literacy.

The programme's implementation was partly affected by Covid-19 owing to which technology solutions were leveraged by teachers to reach students. Innovations like "Hawa Mahal" was initiated through RSCERT and other development partners for to access educational materials. Additionally, students were engaged in learning through live virtual classes and WhatsApp-based tasks during this period.

The intervention emphasised a graded approach and interactive classroom sessions all of which proved effective in fostering students' interest and foundational skill enhancement. Teachers' adaptation to new TLMs, their dedication and parents' involvement contributed to a sustainable model for improved learning outcomes of students. School teachers and parents have reported that students attend school more regularly and their attendance has improved. However, enrolment and attendance related data has not been shared by school administrations with impact assessment agency. Given these positive outcomes, especially considering this model has the potential to be replicated and scaled-up.







# IMPACT ASSESSMENT REPORT





Nandurbar, Maharashtra



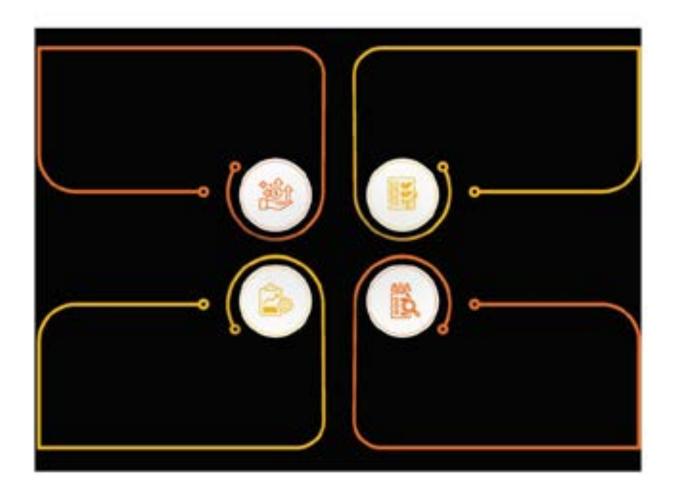
NSE Foundation, a Section-8 Company, is the implementing arm of Corporate Social Responsibility (CSR) initiatives for the NSE Group. Through social interventions, it endeavours to include the most marginalised communities in the country's development story. In doing so, it plants the seeds of transformation and empowerment. The Foundation partners with the government, non-governmental organisations, multilateral bodies, and academic institutions to inspire, nurture, empower and sustain the aspirations of the communities it serves.

NSE Foundation in partnership with FINISH Society (on ground partner) initiated the "Creating Enablers of ODF Sustainability (ODF-S)" project. This initiative aimed to identify and address key factors for maintaining Open Defecation Free (ODF) status in Nandurbar, an aspirational district identified by NITI Aayog. Over the span of three years, the programme was rolled out across 137 Gram Panchayats.

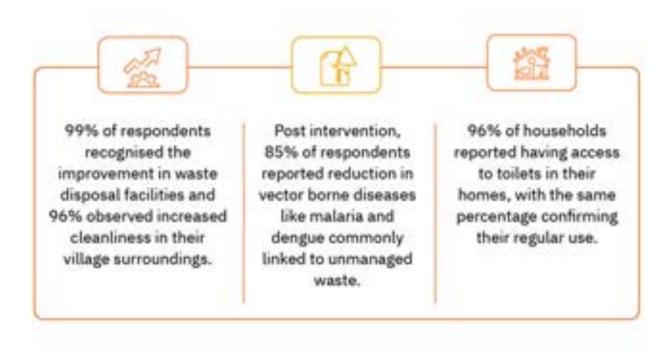
The primary objective of the project was to cultivate a enduring and lasting environment that would enhance sanitation, healthcare, and waste management practices within the communities, schools and other public institutions in Nandurbar block.

The project's activities were organised into two main categories. First. hardware component, which encompassed material and infrastructure developments such as toilet retrofitting, the construction of hand washing and drinking water stations, grey water treatment facilities, windrow composting plant, community and household composting pits, and rainwater collection systems.

Second, software component, which focused on awareness and skill enhancing activities such as capacity building workshops and awareness campaigns. Additionally, behaviour change communication (BCC) initiatives were launched to promote hygiene awareness and encourage good healthy practices among residents.



#### INFRASTRUCTURE AND WASTE MANAGEMENT:



#### SCHOOL TOILET FACILITIES:



Before the intervention, non-use of school toilets was mainly due to lack of awareness (66%), inadequate water supply (50%), and poor cleanliness (37%).



After the intervention, students noted improvements in school toilets, including the availability of running water (95%), soaps (93%), and doors with latches (82%).



Hand washing facilities were upgraded, with 69% of students reporting the installation of overhead tanks and 61% noting the provision of liquid soap dispensers.



A majority (99%) of students participated in BCC sessions, which covered topics on personal hygiene (87%), hand washing practices (60%), and toilet usage practices (50%).

#### AWARENESS EVENTS AND CELEBRATIONS:

Celebration of special days and ODF-S served as key milestones, the achievements and maintaining the drive for maintaining improved sanitation practices amongst community members. A significant 87% of respondents took part in Ratri Chaupal events, and 94% confirmed their involvement in CLTS (Community Led Total Sanitation) initiatives.

The awareness of the harmful consequences of open defecation was reported by 88% of respondents. Additionally, 82% recognised the negative effects of open defecation in terms of faecal germs contaminating food and water, while 82% were cognizant of the association between open defecation and the prevalence of diarrheal diseases.

By integrating hardware and software components, the programme made significant strides in establishing tangible infrastructure and fostered behavioural change and community engagement. The achievements outlined in the hardware assessment showcased the tangible benefits of the WASH infrastructure, contributing to improved waste management, cleanliness, and individual sanitation. Behaviour Change Communication (BCC) and awareness sessions highlighted the community's active involvement and understanding of the detrimental effects of open defecation. The project's holistic approach has set a robust foundation for fostering ODF practices and creating a healthier, more resilient community in Nandurbar. Moreover, the programme ensured sustainability and scalability by collaborating effectively with local authorities and leveraging government schemes.



#### National Stock Exchange of India Ltd.

Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E), Mumbai-400 051



## Impact Assessment of Open Defecation Free School through WASH intervention

in the Mandrail Block of Karauli District, Rajasthan







The NSE Foundation, in collaboration with Plan India, implemented a school and community-based WASH (Water, Sanitation, and Hygiene) initiative in the Mandrail block of Karauli district, Rajasthan, with the aim of declaring the region Open Defecation Free (ODF). Conducted from 2019 to 2022, the project focused on strengthening WASH infrastructure in government schools while fostering long-term behavioural changes related to hygiene and sanitation.

The core objective was to ensure that children become champions of hygiene, transferring learnings from the classroom to the community. Key interventions included the installation of handwashing and drinking water facilities, retrofitting of dysfunctional toilets, and community sensitisation through children's participation. By placing schools at the centre of change, the initiative successfully linked hygiene behaviour to both education outcomes and community well-being.

To assess the relevance, effectiveness, coherence, sustainability, and impact of the initiative, CSRBOX conducted a comprehensive study using a pre-and-post intervention comparative design. A mixed-methods approach was adopted—quantitative surveys were carried out with student beneficiaries, and qualitative interviews were conducted with stakeholders including teachers, parents, and community leaders.

Separate handwashing 98% of schools reported Over 90% of schools stations were installed having fully functional provided accessible 88% of beneficiaries tollets post-intervention drinking water facilities confirmed the availability of these facilities 51% of students stated they School Management no longer missed school Committees (SMCs) and #2% of students adopted due to sanitation-related parents observed fewer Improved hygiene practices Issues 89% expressed disease instances satisfaction with tollet convenience

Figure 1 Executive Summary

The programme's impact extended beyond the school environment. Parents reported learning safe hygiene behaviours from their children, leading to improved practices at home and contributing to a community-wide shift in sanitation culture. Interviews with teachers also indicated more responsible water usage habits among students, suggesting growing awareness of resource sustainability. The results confirm that improving WASH conditions in schools has a direct and measurable influence on both health and education indicators.

This initiative stands as a strong example of how integrated WASH programming, grounded in both infrastructure development and behavioural change, can drive long-term improvements in community health and education. The outcomes from Mandrail block reinforce the importance of school-centric approaches in achieving Open Defecation Free targets while empowering children as agents of change. By combining practical interventions with capacity-building and stakeholder engagement, the NSE Foundation and Plan India have successfully created a replicable model for driving holistic WASH transformation in rural contexts.





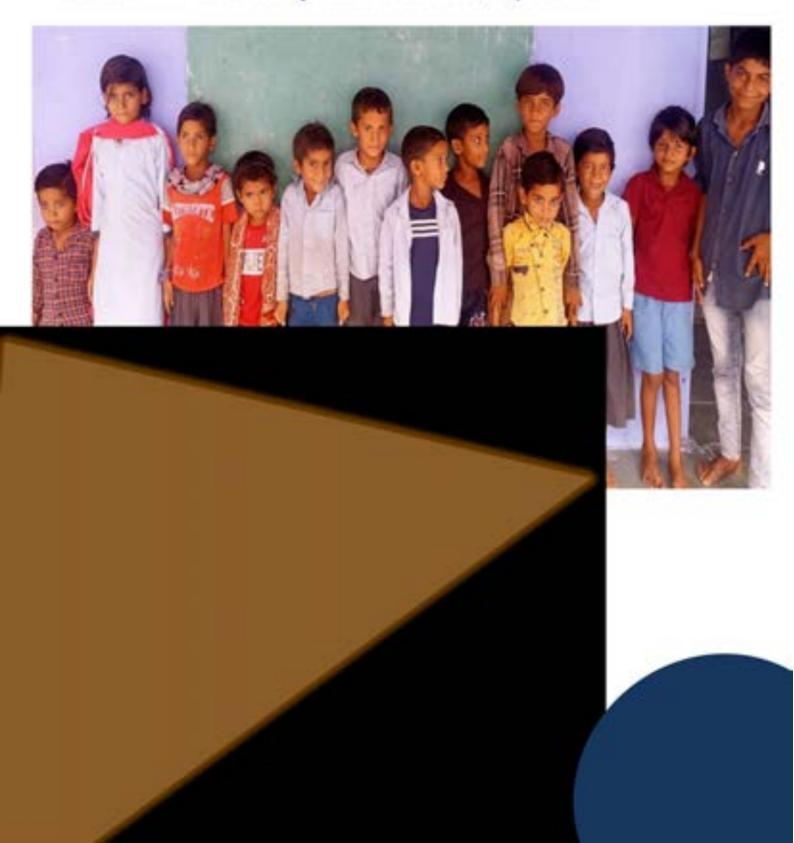
#### CSRBOX & NGOBOX

Swati Trinity, Applewood Township, A-404, Shela, Sarkhej-Okaf, Gujarat 380058



## Impact Assessment of Remedial Education

in the Mandrail Block of Karauli District, Rajasthan





The NSE Foundation, a Section 8 company responsible for the CSR activities of the National Stock Exchange of India Limited, launched a programme aimed at providing quality primary education to children from economically and socially disadvantaged communities. This initiative was implemented in partnership with Plan India, a non-profit organisation. The programme focused on improving the learning environment through interventions such as regular Bal Sansad meetings, the introduction of visual aids for learning, and motivating students to pursue higher education. It also worked towards strengthening school management committees (SMCs) and increasing community involvement in education.

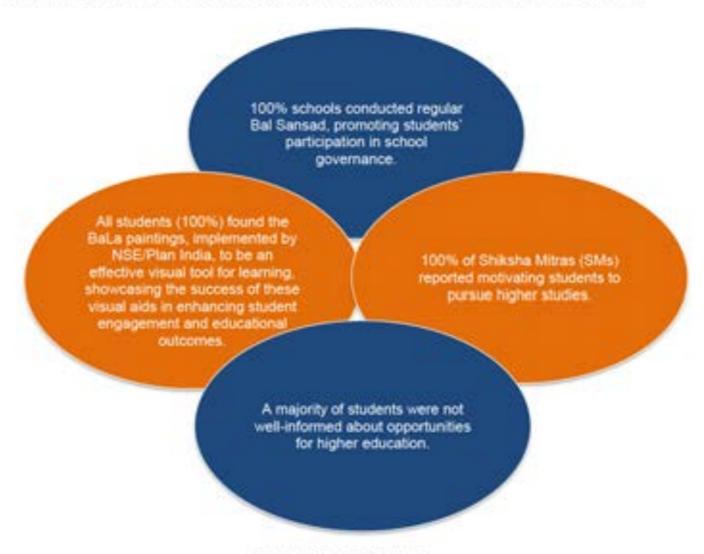


Figure 1 Executive Summary

NSE Foundation commissioned a study to understand the rationale, effectiveness, efficiency, impact, coherence, and sustainability of the programme for which CSRBOX was engaged. The research design followed a pre-and-post-intervention comparative approach. Stratified random sampling was employed for the study, along with a mixed-method approach incorporating both qualitative and quantitative methods for data collection. For quantitative data, surveys were conducted among farmers. For qualitative data collection, government officials, Panchayati Raj Institution members, women groups, farmer groups, NGO resource persons, and NSE Foundation resource persons were interviewed.





#### CSRBOX & NGOBOX

Swati Trinity, Applewood Township, A-404, Shela, Sarkhej-Okaf, Gujarat 380058





# Impact Assessment of Sustainable Environment & Livelihoods through Soil & Water Conservation and Improving Soil Health

in the Mandrail Block of Karauli District, Rajasthan





NSE Foundation is a Section 8 company that undertakes the CSR activities of National Stock Exchange of India Limited and its group companies. The Foundation initiated the programme "Sustainable Environment & Livelihoods through Soil & Water Conservation and Improving Soil Health in the Mandrail Block of Karauli District, Rajasthan" through SRIJAN, aimed at transforming the Mandrail block of Karauli district by introducing interventions around sustainable environment and livelihood through soil and water conservation.

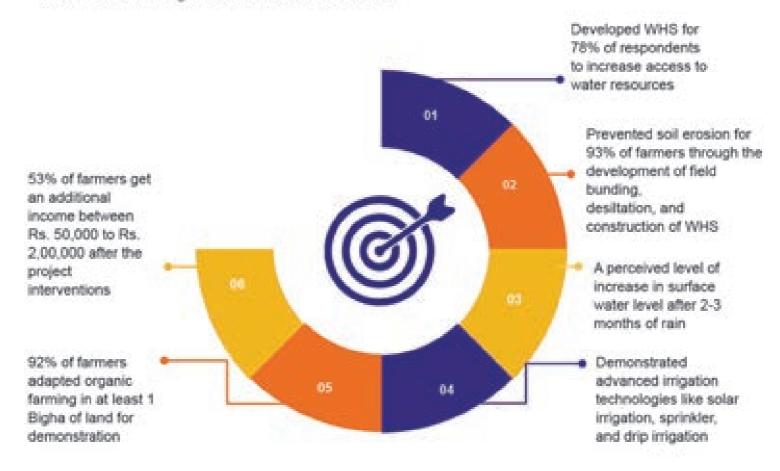


Figure 1 Executive Summary

NSE Foundation commissioned a study to understand the rationale, effectiveness, efficiency, impact, coherence, and sustainability of the programme for which CSRBOX was engaged. The research design followed a pre-and-post-intervention comparative approach. Stratified random sampling was employed for the study, along with a mixed-method approach incorporating both qualitative and quantitative methods for data collection. For quantitative data, surveys were conducted among farmers. For qualitative data collection, government officials, Panchayati Raj Institution members, women groups, farmer groups, NGO resource persons, and NSE Foundation resource persons were interviewed.



Swati Trinity, Applewood Township, A-404, Shela, Sarkhej-Okaf, Gujarat 380058





# Impact Assessment of Project Vidya in Dhadgaon Block





NSE Foundation, a Section 8 company responsible for the Corporate Social Responsibility (CSR) initiatives of the National Stock Exchange of India Limited, initiated Project Vidya in collaboration with the Collectives for Integrated Livelihood Initiatives (CInI) and Janarth Adivasi Vikas Sanstha (JAVS) in the Dhadgaon block of Nandurbar District.

The primary objective of Project Vidya was to provide quality education, enabling students in grades 1 to 5 to achieve grade-level learning outcomes in both Marathi and Mathematics. This initiative was implemented through the establishment of 50 Bal Bhavans. Additionally, the project aimed to empower School Management Committees (SMCs) associated with these Bal Bhavans, enhancing their capacity to identify and address prevalent educational challenges.

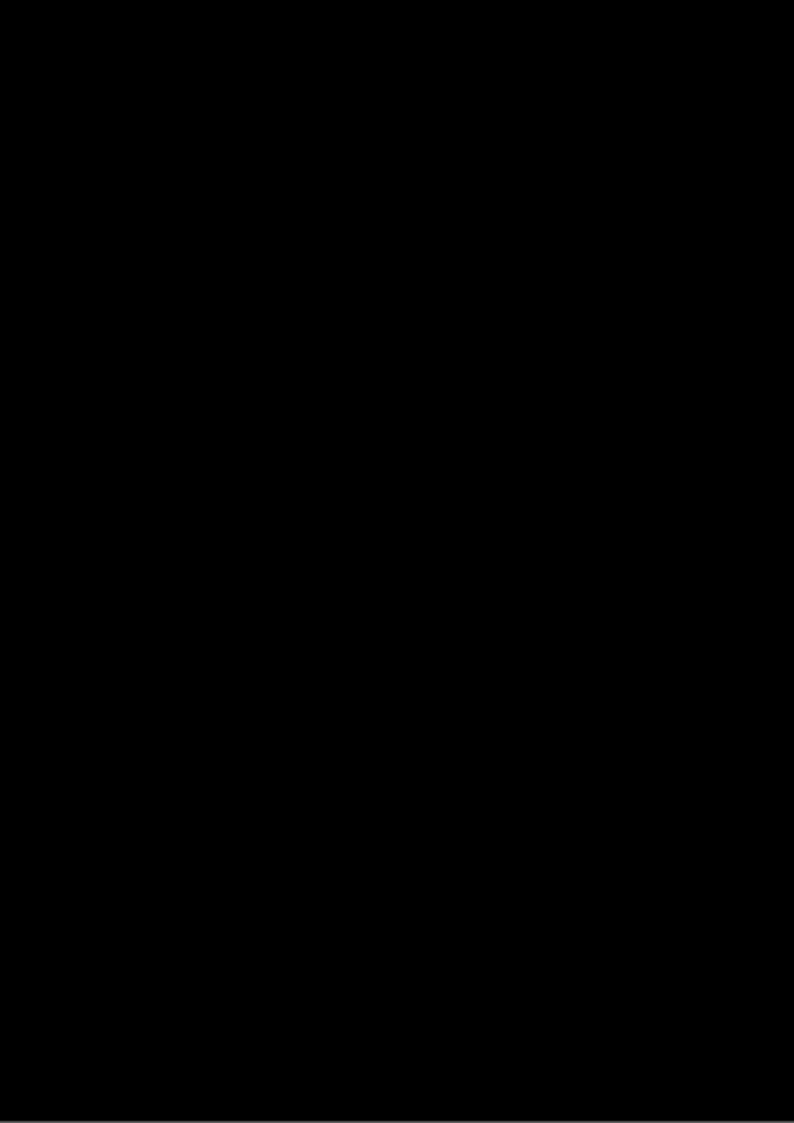
A key component of the project involved raising awareness within families and communities about the importance of education. This included fostering a sense of ownership among community members regarding their involvement in school activities.

# The programme achieved its objectives through the following interventions:



The research methodology employed a pre and post intervention comparative approach. Field implementation utilized a mixed-method approach, integrating both qualitative and quantitative methods, and employing a combination of primary and secondary data for data collection. Quantitative data was gathered through surveys of students in grades 5 to 8 and Bal Mitras, while qualitative data collection involved interviews with various stakeholders, including headmasters, SMC presidents, Bal Mitra supervisors, Bal Mitras, NGO resource persons, and NSE Foundation repre sentatives. In addition to surveys, learning outcome assessments were conducted for students in grades 5, 6, 7, and 8 who participated in Project Vidya during the program's

duration.







#### **CSRBOX & NGOBOX**

A 404 - 405, Swati Trinity, Applewoods Township, SP Ring Road, Near Shantipura Circle, Shela, Ahmedabad - 38005



### **Impact Assessment of**

# Project Samarthya in Nandurbar district

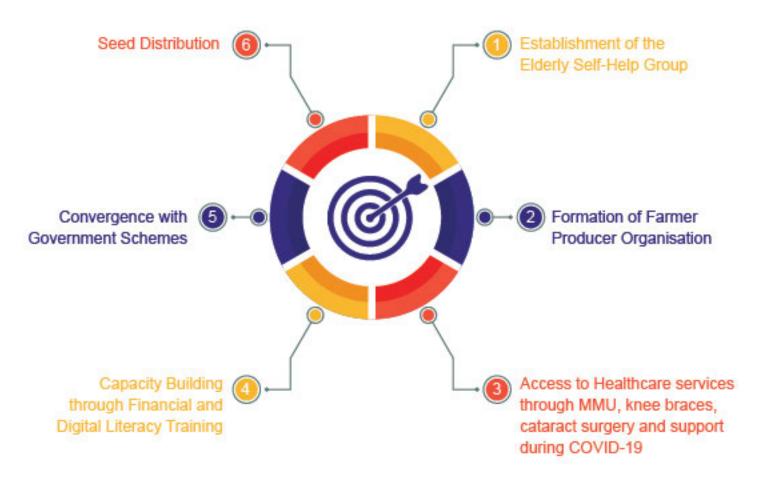




The NSE Foundation, a Section 8 company responsible for the CSR initiatives of the National Stock Exchange of India Limited, initiated Project Samarthya in collaboration with the ISAP India Foundation across four blocks within Nandurbar district, namely Nandurbar, Dhadgaon, Navapur, and Akkalkuwa

The project aimed to achieve multiple objectives, including enhancing the social sustainability and overall well-being of elderly citizens. The primary goal was to empower them through digital, financial, and legal means while also raising awareness about their collective rights and entitlements. Furthermore, the project aimed to create synergy with various government programmes and schemes to promote social and financial inclusion, ultimately improving livelihoods.

The programme achieved its objectives through the following interventions:



The research methodology employed a pre-and-post-intervention comparative approach. Data collection utilised a purposive sampling method, encompassing a blend of qualitative and quantitative research methods. Quantitative data was gathered through surveys of the elderly population, while qualitative data collection involved interviews with various stakeholders, including Up Sarpanch, Sarpanch, Functionaries of ESHG, NGO resource persons, and NSE Foundation resource persons.



#### **Key Insights from Impact Assessment Study**

#### Establishment of Elderly Self-Help Group

- Primary reasons for taking loans from ESHG Medical issues (23%), Livelihood needs (36%), Farming Input cost (33%)
- Programme inculcated the habit of savings among the elderly population
- 60% of beneficiaries have monthly savings after the programme
- 98% of ESHG members stated that their ESHG received chairs

#### Access to Healthcare services

- Regular MMU Visit every week in each block
- 99% of beneficiaries mentioned that Mobile Medical Unit (MMU) provided free-of-cost services
- 62% of beneficiaries experienced an improvement in their well-being after using the knee braces
- 91% of beneficiaries stated that minor health issues were resolved after consultation

#### Capacity Building through Financial and Digital Literacy Training

- 61% of the beneficiaries agreed that the digital literacy training was beneficial for them
- 53% of the elderly reported an improvement in their ability to independently use these phones, after attending the training sessions
- 81% of beneficiaries experienced a significant improvement in efficiently handling various bank-related activities

#### Seed Distribution and Formation of Farmer Producer Organisation

- Average yield of Chia per acre: 2.5 Quintal
- Average yield of Quinoa per acre: 10-12 Quintal
- Formation of a Farmer Producer Organisation (FPO), 'Devmogra Agro Samarthya Producer Company Limited' across the 4 blocks of Nandurbar district





#### CSRBOX & NGOBOX

A 404 - 405, Swati Trinity, Applewoods Township, SP Ring Road, Near Shantipura Circle, Shela, Ahmedabad - 38005



# **IMPACT ASSESSMENT REPORT**

Student Teacher Empowerment Programme (STEP) Plus





Despite 77.1% of children aged 6-14 being enrolled in government schools, only 36.4% of students in class III-V can read at the level of standard II.

In 2011, India's educational landscape witnessed a significant transformation with the implementation of flagship programmes like Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA). These initiatives aimed to bolster education accessibility and quality across states like Tamil Nadu. However, the educational trajectory faced a setback axis highlighted in the ASER 2022 report. The report revealed a disconcerting trend, indicating a regression in children's basic reading and arithmetic skills nationwide, reminiscent of pre-2012 fevels. Despite monumental efforts, disparities persist, with urban areas boasting a significantly higher literacy rate of 87.7% compared to 73.5% in rural regions, according to data from the National Statistical Office.

Ramanathapuram, a district in Tamil Nadu, boasts a rich tapestry of cultural heritage and natural beauty. As per the Annual Status of Education Report (ASER) 2022, the district faces its own educational challenges. Despite 77.1% of children aged 6-14 being enrolled in government schools, only 36.4% of students in class III-V can read at the level of standard II. Similarly, while 54.9% can perform basic subtraction, there's room for improvement, especially in foundational skills like literacy and numeracy. Progressing to class VI-VIII, 70.5% can read standard II level text, with 49% demonstrating proficiency in division.

NSE Foundation, in partnership with Learning Links Foundation (LLF), initiated 'Project STEP Plus' in 2020. The objective was to enhance primary education for underprivileged children in Ramanathapuram. The project aimed to narrow learning gaps through capacity building, learning enhancement, and community engagement.

Grant Thornton Bharat LLP was engaged to conduct an impact assessment of Project STEP Plus in Ramanathapuram, employing a mixed-methods approach. The objective of the assessment is to evaluate the impact and effectiveness of project, focusing on its education component. This involves assessing various aspects such as improving students' learning levels, capacity building of teaching staff and principals, ensuring support during ongoing classes, and increasing community participation in children's education.



# **Key highlights**



#### Student assessment results

- Class 3 students scored higher in Tamil (87.7%) than Math (73.2%), indicating stronger proficiency in Tamil.
- Class 4 students performed better in Math (83.6%) compared to Tamil (77.4%), showcasing a higher grasp of mathematical concepts.
- Class 5 students performed average in both Math (74.7%) and Tamil (73.3%), with slight room for improvement in Tamil.



#### Assessment of learning progress

- Consistent increase in average scores from Baseline to Impact Assessment, indicating continued improvement in learning levels, particularly in Math.
- Participation in extracurricular activities positively impacted holistic development, fostering creativity, critical thinking, and teamwork skills



#### Student engagement and classroom dynamics

- 90% of students reported enjoying learning in the classroom.
- 85% of students felt comfortable asking questions in class, indicating a positive learning environment.
- Improvement in student confidence & personality: Group-based and play-based learning methods contributed to enhanced confidence and personality development among students.
- Teacher training and enhancement: The programme significantly enhanced pedagogical skills for teaching staff, particularly in classroom management and student engagement.



The assessment study faced significant challenges due to various factors. Eracking students beyond the 5th class became difficult due to the project's duration, which lasted from February 1, 2020, to February 1, 2021, resulting in many students moving to different schools. Scheduling meetings with parents, govt officials and 5MC members proved challenging due to their work commitments and religious obligations. The exit of the implementation partner further complicated matters. Furthermore, teaching staff faced new challenges with virtual classes and frequent staff transfers.

The COVID-19 pandemic presented significant huntles in project implementation. School closures disrupted the traditional learning environment, while economic disruptions intensified issues such as limited access to technology, learning loss, and reduced student engagement. Teachers and academic staff had to quickly adapt to virtual teaching methods, which was a set of new challenges including the need for digital literacy, effective online communication, and maintaining student motivation in a virtual setting. These combined difficulties significantly impacted the overall educational landscape.

In conclusion, the recommendations for the STEP Plus programme focus on enhancing its effectiveness and sustainability. Annual refresher training sessions for Shikshan Mitras and teaching staff are crucial for reinforcing key programme elements and adapting to new educational challenges. These sessions help ensure that teaching staff remain updated on best practices, new teaching methods, and programme objectives. Increasing Shikshan Mitra's visits to schools could amplify their impact on student learning. Addressing teacher shortages through collaborative efforts would ensure smoother programme implementation. Additionally, the desire for similar initiatives in English proficiency highlights the need for comprehensive subject coverage. Continuous training for Shikshan Mitras and more frequent sessions for teaching staff could further enhance teaching practices and student outcomes. While acknowledging the programme's positive impact, addressing staffing issues and subject coverage gaps remains crucial for its sustained success, as expressed by both principals and teaching staff.



#### Disclaimer

This compilation of data of NSE Foundation's CSR initiatives is meant for information purposes only. The information provided in this document is provided on "as is" basis and "as available" basis. NSE Foundation does not warrant the accuracy, adequacy, or compileteness of this information and material and expressly disclaims liability for errors or omissions in the information compiled under this document. No warranty of express or statutory including but not limited to the warranties of non-infringement of third-party rights, title, merchantability, and fitness for a particular purpose is given in conjugation with the information mentioned in this document. In no event will NSEIL, NSE Group Companies or NSE Foundation be liable for any damages, including without limitation direct or indirect, special, incidental or consequential damages, losses or expenses arising in connection with this document or use of any content thereof or inability to use or in connection with any failure of performance, error, omission, interruption, defect, even if NSEIL, NSE Group Companies, NSE Foundation or the representatives thereof, are advised of the possibility of such damages, losses, or expenses. The readers of this document must independently determine the appropriateness of the contents of the document for their purposes.



National Stock Exchange of India Ltd.

Exchange Plaza, C-1, Block G. Bandra Kurla Complex, Bandra (E). Mumbai – 400 051









#### Program Overview

The program was designed to create equitable learning opportunities and promote holistic development among students, with a focus on marginalized communities like the Santhali tribe. It included establishing learning centers in underserved villages, ensuring access to essential learning materials, and implementing innovative teaching methodologies tailored to local needs.

#### Impact Assessment

A rigorous impact assessment study was conducted to evaluate Sahajpath's effectiveness. Comprehensive data collection methods, including surveys, interviews, and observations, provided detailed insights into program outcomes. The assessment revealed significant improvements:

#### Learning Outcome Improvement:

Significant increase in student achievement levels were observed, with English scores rising from 10.2% to 84%, Mathematics from 25.4% to 88%, and vernacular language proficiency from 24.4% to 86%.

#### Community Engagement:

The program fostered strong involvement from parents and SMC members, with 95% actively participating in program activities and decision-making processes.

# A D

#### Infrastructure and Resources:

Enhanced school facilities and effective utilization of learning materials contributed to creating a conducive learning environment, supporting improved student outcomes.





#### Key Findings

The assessment highlighted key findings:

#### Academic Progress:

Students demonstrated marked improvement in academic performance, reflecting the effectiveness of Sahajpath's educational strategies.

#### Community Participation:

High levels of engagement from parents and SMC members were critical in supporting student development and program implementation,

#### Infrastructure Impact:

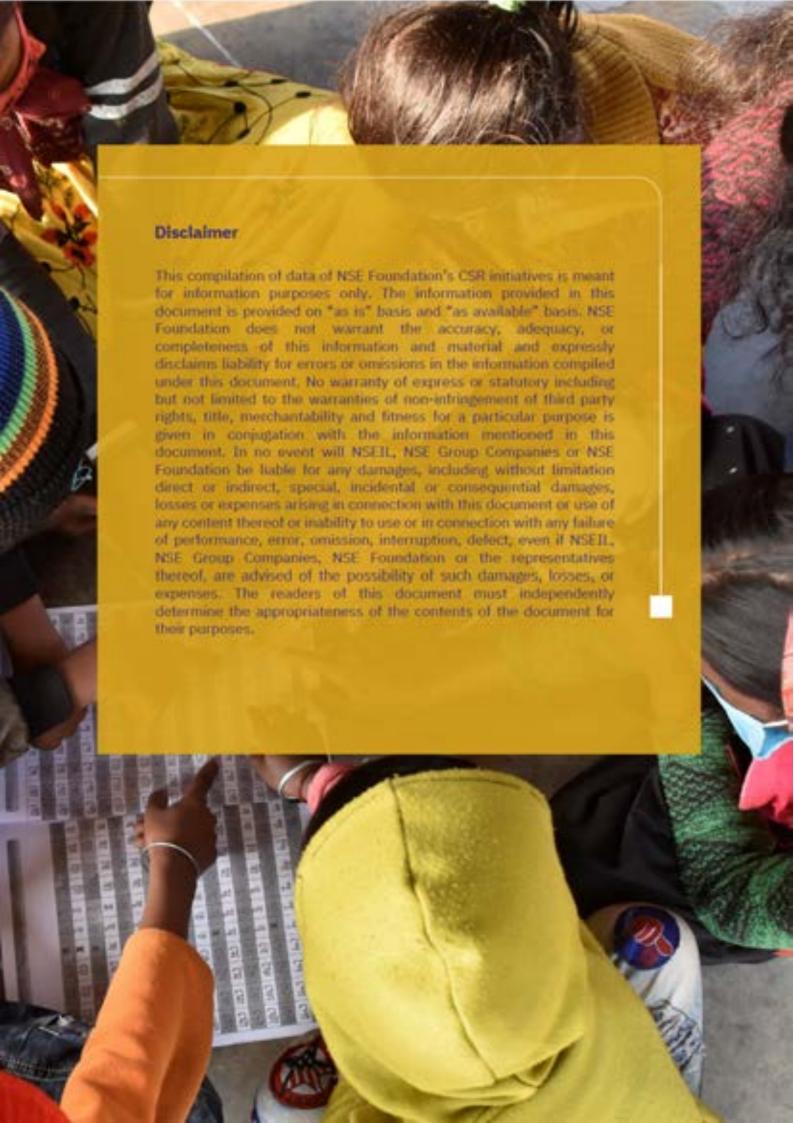
Upgrades in school facilities and resource utilization positively influenced student learning experiences and educational outcomes.

#### Recommendations

To build on achievements and ensure sustained impact, the following recommendations are proposed:

- Empowering Educators: Collaborate with local schools and community organizations to offer customized professional development opportunities for teachers and School Management Committee (SMC) members, emphasizing the provision of innovative teaching methods and community engagement strategies.
- Improving Learning Environments: Partner with stakeholders to prioritize investments in infrastructure improvements and technology integration in underserved schools.

Sahajpath represented a transformative initiative aimed at empowering marginalized communities through quality primary education in Birbhum district. By implementing these recommendations, the program can aim to foster sustainable socio-economic development and advance educational outcomes, ensuring long-term benefits for students and communities in the region.







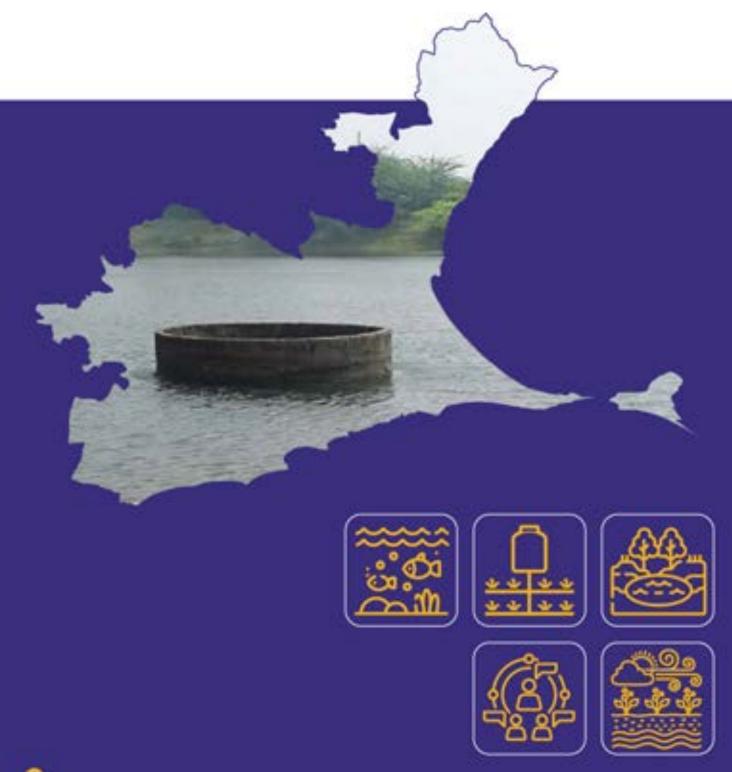
### National Stock Exchange of India Ltd.

- S. Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E), Mumbai – 400 051 National Stock Exchange of India Ltd.
- S Tel: 022-2659 8100 (Extension 26133)



# **Impact Assessment Report**

Environment Sustainability Projects in Ramanathapuram District of Tamil Nadu



The Ramanathapuram district in Tamil Nadu has long grappled with severe water scarcity due to erratic rainfall patterns, saline groundwater, and over-reliance on seasonal irrigation sources. With an average annual rainfall of 827 mm and a predominantly arid climate, the district faces significant challenges in meeting the water needs of its agriculture-based economy, which employs 81% of the workforce. The district's primary water sources, such as the non-perennial rivers Vaigai and Gundar, often reduce to minimal flow levels during dry periods. This has led to over-extraction of groundwater, further exacerbating water scarcity. Recognizing these challenges, the SCORE project, implemented by the NSE Foundation in partnership with DHAN Foundation, aimed to restore water bodies, promote sustainable agriculture, and enhance community livelihoods through participatory water management practices.

### Infrastructure Assessment

The SCORE project focused on the renovation of 70 water bodies, including 30 irrigation tanks and 40 drinking water ponds (Ooranis), to improve water storage and availability for agriculture, livestock, and domestic use. The project resulted in an increase in irrigated land, with the average area rising from 1.34 acres to 1.60 acres across beneficiary villages. Villages such as Gokulapuram and Kadambankudi reported remarkable improvements, with irrigated land increasing from 1.81 to 3.07 acres and 1.38 to 2.30 acres, respectively.

Water availability also improved, with 44% of respondents reporting that water in tanks now lasts for 6–8 months annually. Community participation was notable, with 78% of respondents actively involved in maintenance activities. However, challenges such as irregular maintenance schedules and financial constraints persist, highlighting the importance of sustained community engagement and institutional support.

### Behaviour Change Assessment

The SCORE project successfully fostered significant behavioural changes within the community, promoting sustainable practices and improving livelihoods. Awareness of infrastructure support activities was high, with 83% of farmers acknowledging their participation in the project. Community engagement was further reflected in the 78% of respondents actively involved in maintaining renovated water bodies. However, challenges like insufficient financial resources and inconsistent community participation remain barriers to long-term sustainability.

Environmental benefits were evident through improved groundwater levels, with 65% of respondents noting increased availability in wells. The project also promoted increases in cultivation of cash crops such as paddy and chillies. Land reclamation was another success, as the average abandoned land across villages decreased from 1.11 acres to 0.99 acres post-intervention.





The economic impact of the project was significant. The average agricultural incomes rose from ₹15,239 to ₹19,195 annually, while livestock farming expanded due to improved water access. The number of farmers rearing goats, cows, and chickens increased, and monthly average income from livestock saw a modest rise from ₹709 to ₹743. Additionally, employment opportunities grew through initiatives like tree plantations and fisheries, with 67% of respondents reporting higher incomes due to project-linked activities.

The SCORE project has delivered transformative benefits to the Ramanathapuram district, addressing critical challenges related to water scarcity, agricultural productivity, and community livelihoods. The project's interventions have reclaimed arable land, improved water availability, and enhanced biodiversity, while fostering sustainable practices and empowering marginalized groups, particularly women. The rise in agricultural and livestock incomes, coupled with increased community participation, reflects the program's success in driving economic and environmental resilience. Despite challenges such as financial constraints and maintenance gaps, the project has established a strong foundation for long-term sustainability, making it a model for similar initiatives in other regions. Future efforts should focus on scaling these interventions, strengthening institutional frameworks, and ensuring equitable benefits across all communities.



FGD conducted at Keelathillaiyenthal, Thattarmadam Ooroni





National Stock Exchange of India Ltd. Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E), Mumbai – 400 051

### Disclaimer:

This compilation of data of NSE Foundation's CSR initiatives is meant for information purposes only. The information provided in this document is provided on "as is" basis and "as available" basis. NSE Foundation does not warrant the accuracy, adequacy, or completeness of this information and material and expressly disclaims liability for errors or omissions in the information compiled under this document. No warrantly of express or statutory including but not limited to the warrantles of non-infringement of third-party rights, bitie, merchantability and fitness for a particular purpose is given in conjugation with the information mentioned in this document. In no event will NSEIL, NSE Group Companies or NSE Foundation be liable for any damages, including without limitation direct or indirect, special, incidental or consequential damages, losses or expenses arising in connection with this document or use of any content thereof or inability to use or in connection with any failure of performance, error, omission, interruption, defect, even if NSEIL, NSE Group Companies, NSE Foundation or the representatives thereof, are advised of the possibility of such damages, losses, or expenses. The readers of this document must independently determine the appropriateness of the contents of the document for their purposes.



# **PROJECT SAMRAKSHA**

Healthcare access to Geriatric Population through Technology

**IMPACT ASSESSMENT REPORT** 





### PROJECT SAMRAKSHA

Healthcare access to Geriatric Population through Technology

The NSE Foundation's project Samraksha: Healthcare access to Geriatric Population through Technology aimed to increase the affordability, accessibility, and quality of healthcare through technology, with access to speciality care services through telemedicine.



The project focused on geriatric populations (aged above 55 years) in Nandurbar district, Maharashtra and Ramanathapuram district, Tamil Nadu. With Neurosynaptic Communications Private Limited (NCPL) as the on-ground partner, mobile clinics were deployed in vitiages of Shahada and Ramanathapuram blocks. Trained project medical staff delivered telemedicine services including testing of basic vitals through ReMeDi NOVA devices, teleconsultations from general and specialist doctors, and distribution of medicines. All these services were free of cost for the geriatric patients.

To assess the outcomes and overall impact of the project, the Logical Framework Approach was employed. The assessment was done through mixed methodology, utilising both quantitative and qualitative techniques of data collection. A total of 800 geniatric patients were covered through quantitative surveys. For qualitative interaction with other stakeholders such as family members, community members, medical staff, community workers, Gram Panchayat and other government officials, indepth interviews and focus group discussions were carried out to cover about 160 individuals from both project locations.

The project was implemented across 141 villages/ habitations, in Shahada (Nandurber district) and Ramanathapuram (Ramanathapuram district) blocks in

Maharashtra & Tamil Nadu. The community workers mobilised the geriatric populations to avail telemedicine services in their villages. Once in every 15 days, ANMs (Auxiliary Nurse and Midwife) set up mobile clinics, and teleconsultations were conducted with project doctors. Based on the diagnosis and prescriptions, medicines were disbursed by the ANMs. They explained the dosage details and provided basic health and hygiene awareness. For geriatrics who could not reach the mobile clinics, home visits were carried out. During the study, the family members expressed that they were able to save a signification amount. of money. Every time the telemedicine service was availed, about INR 1000 was saved by each member on an average per visit. The interviewed family members rated the overall project activities as 'Excellent'.

A total of 27,771 geriatric patients from Ramanathapuram and Nandurbar received telemedicine services during the project. The project facilitated a total of 61,347 teleconsultations. About 64 % of the geriatric patients availed the telemedicine services 2-5 times during the project duration. From the quantitative surveys, it was noted that 97% of respondents recollect undergoing tests through ReMeDi NOVA device. 88% of them were aware that their medical history was stored electronically. 99% of respondents reported receiving medicines under the project, at zero cost. Two district level tertiary hospitals were empanelled for cases that required specialised doctors. They were Meenakshi Mission Hospital and Research Centre in Madurai and Dr Vasantrao Pawar Medical College and Hospital in Nashik. Under the project, 1,058 specialist teleconsultations were conducted. 42% of the survey respondents rated the quality and effectiveness of the specialist consultations as 'Excellent'.

The project facilitated general health camps, for all community members belonging to all age groups (expect infants). A total of 22 health camps were conducted (11 in each of the 2 blocks). Number of community members screened at health camps was more than 2,370, in each of the 2 locations.

Project helpdesks were set up in each of the 7
Primary Healthcare Centers (PHCs) in the vicinity of the project locations. The helpdesks acted as information centers, providing awareness about the project, its activities, schedules of mobile clinics, and general health practices. A total of 20,350 counselling interactions were conducted at the PHCs. Additionally, 237 awareness sessions were conducted. These sensitisation and awareness efforts aided in improving behaviours related to hygiene and general health within the community. 67% of the study respondents confirmed utilizing the PHC help desk services and 70% recalled receiving health awareness materials. The PHC staff were aware about the project and its activities with

geriatric population. About 80% of the interviewed staff rated the quality of geriatric healthcare as 'very good'.

Under the project, Elders' Self-Help Groups (ESHGs) were formed. A total of 1,746 members formed 173 ESHGs. Of them 90 were formed in Ramanathapuram with 1,121 members, and 54 in Nandurbar with 625 members. A total of 142 training sessions were conducted for ESHG members. They were trained to understand the basic financial and operational concepts of SHGs. 100% of the survey respondents recollected receiving trainings about ESHGs.

The project played a pivotal role in spreading awareness about geriatric healthcare among community members. It facilitated the capacity development of ANMs and community workers, who continued to play an integral role in the healthcare scenario of the project locations. The project fostered development of valuable skills and healthcare awareness within the community, instilling a sense of responsibility and ownership towards health, hygiene, and nutrition in the community.

Overall, the project's comprehensive approach and sustained support significantly enhanced access to reliable healthcare for geriatric populations. Its positive influence persists, shaping the geriatric healthcare perceptions in Ramanathapuram and Nandurbar districts.



### Disclaimer

This compilation of data of NSE Foundation's CSR initiatives is meant for information purposes only. The information provided in this document is provided on "as is" basis and "as available" basis. NSE Foundation does not warrant the accuracy, adequacy, or completeness of this information and material and expressly disclaims liability for errors or omissions in the information compiled under this document. No warranty of express or statutory including but not limited to the warranties of non-infringement of third-party rights, title, merchantability, and fitness for a particular purpose is given in conjugation with the information mentioned in this document. In no event will NSEIL, NSE Group Companies or NSE Foundation be liable for any damages, including without limitation direct or indirect, special, incidental or consequential damages, losses or expenses arising in connection with this document or use of any content thereof or inability to use or in connection with any failure of performance, error, omission, interruption, defect, even if NSEIL, NSE Group Companies, NSE Foundation or the representatives thereof, are advised of the possibility of such damages, losses, or expenses. The readers of this document must independently determine the appropriateness of the contents of the document for their purposes.



National Stock Exchange of India Ltd.

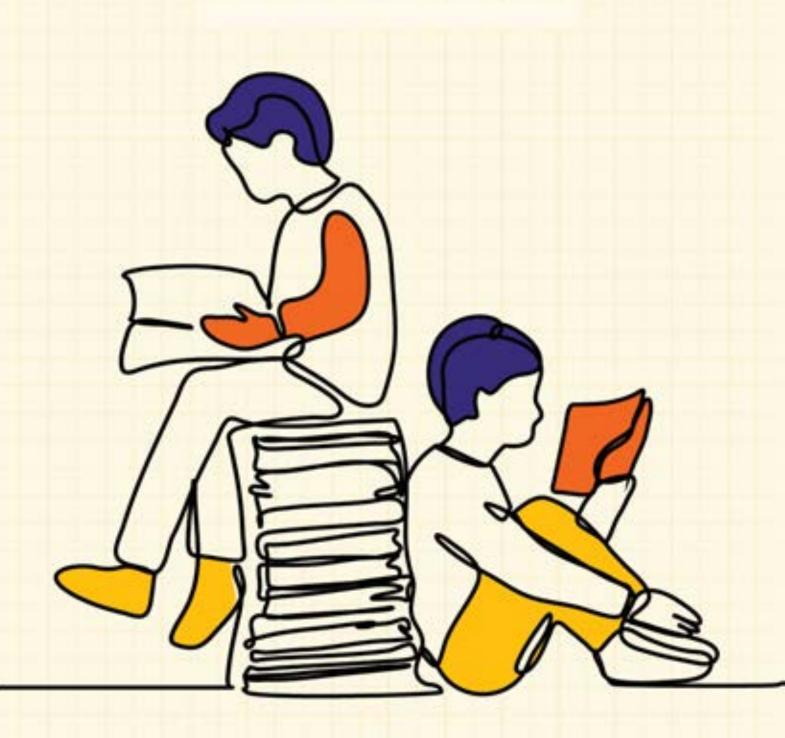
Exchange Plaza, C-1, Block G. Bandra Kurla Complex, Bandra (E). Mumbai – 400 051



# ANUPAI

Bridging learning gaps of students in Ashramshalas

Nashik District, Maharashtra



Students in Ashramshalas across the tribal regions of Nashik district, Maharashtra, have historically struggled to achieve foundational literacy and numeracy skills. Despite regular attendance, learning outcomes remained significantly below expected levels, with many students lacking basic reading comprehension, writing abilities, and arithmetic proficiency. Baseline assessments conducted in 2018 exposed severe learning gaps, with over 60% of students able to recognize letters and numbers but struggling with comprehension and problem-solving. The absence of structured academic support further exacerbated these challenges, preventing students from progressing to age-appropriate competency levels. Recognizing the urgent need for intervention, the Anupad Programme was launched, supported by the NSE Foundation and implemented by QUEST.

The programme aimed to improve student learning outcomes in Marathi and Mathematics through a structured, community-driven approach. It incorporated the Shikshak Mitra model, a system that provided individualized teaching support, mentoring, and close collaboration among teachers, headmasters, parents, and Shikshak Mitras<sup>1</sup>. Over its implementation period, the programme achieved significant improvements in both literacy and numeracy skills. In Marathi, 68% of students reached foundational or grade-level proficiency, a remarkable shift from the baseline where the majority had struggled with basic recognition. Female students particularly benefited, outperforming boys in reading fluency by 9% and demonstrating stronger comprehension skills. In Mathematics, more than 65% of students progressed to higher competency levels. Boys showed greater proficiency in arithmetic operations, while girls demonstrated stronger problem-solving

A significant 81% of students reported increased confidence in attempting new learning tasks, highlighting the role of structured interventions in fostering self-efficacy and motivation. and applied mathematics skills, suggesting that the programme not only improved fundamental numeracy but also fostered analytical thinking.

Beyond academic performance, the programme had a notable impact on student engagement, confidence, and classroom participation. A significant 81% of students reported increased confidence in attempting new tearning tasks, highlighting the role of structured interventions in fostering self-efficacy and motivation. Teachers also observed tangible changes, with 77% reporting improved attentiveness and classroom discipline, indicating that students were more

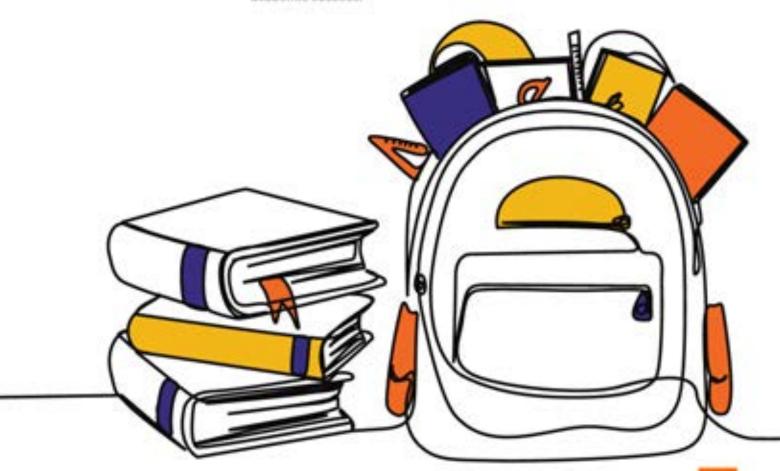
engaged and proactive in their learning. Additionally, 79% of parents noted visible improvements in their children's academic progress, reinforcing the effectiveness of the home-school learning continuum promoted through the programme. Principals echoed these observations, linking the increased participation and enthusiasm of students to the structured learning interventions introduced under Anupad.

District of Physics is a reside that he does in disselling a relationing between school leading sight, porents, community interests and electeds by completing blockets from within the community characters for interest the guardy of selections for interest of that community, NVL householder that fundable property of Maharathitis (beinning and Sections) for interest to wide-privileged Mulei Collection of that the privileged Mulei Collection of the privileged Mulei Collection (MIL-NC) has SIGN to SIGN flast and utilisated a literature Phys. Mulei.

A key driver of the programme's success was its emphasis on parental engagement and community involvement. Mothers played a particularly important role, with 70% reporting that their daughters showed a stronger interest in studies, marking a shift in gender learning dynamics within households. Additionally, 65% of parents noted that their children had developed independent learning habits, a crucial skill that ensures long-term academic progression beyond the scope of the intervention. These improvements were targety facilitated by regular interactions between Shikshak Mitras and parents, which reinforced home-based learning and ensured continuity outside the classroom.

The COVID-19 pandemic posed an unprecedented challenge, threatening to disrupt learning gains due to prolonged school closures. However, the programme demonstrated remarkable adaptability by swiftly transitioning to alternative learning modes. Shikshak Mitras played a critical role during this period, conducting weekly home visits, distributing learning materials, and providing individualized support to 85% of students. This proactive approach mitigated learning loss and helped students retain and build upon their foundational skills despite the absence of formal classroom instruction.

The Anupad programme's structured and data-driven approach offers a replicable model for improving educational outcomes in underserved tribal communities. By integrating teacher capacity-building, interactive pedagogies, and sustained parental engagement, it has not only enhanced student learning but also strengthened the overall academic ecosystem. The insights drawn from Anupad serve as a strong foundation for future interventions, demonstrating that well-structured, community-supported educational programmes can lead to lasting improvements in foundational literacy and numeracy. Ensuring the continuity and expansion of such initiatives will be critical in bridging persistent learning gaps, fostering equitable access to education, and enabling students to progress toward academic success.



### Disclaimer

This compilation of data of NSE Foundation's CSR initiatives is meant for information purposes only. The information provided in this document is provided on "as is" basis and "as available" basis. NSE Foundation does not warrant the accuracy, adequacy, or completeness of this information and material and expressly disclaims liability for errors or omissions in the information compiled under this document. No warranty of express or statutory including but not limited to the warranties of non-infringement of third-party rights, title, merchantability and fitness for a particular purpose is given in conjugation with the information mentioned in this document. In no event will NSE1L, NSE Group Companies or NSE Foundation be liable for any damages, including without limitation direct or indirect, special, incidental or consequential damages, losses or expenses arising in connection with this document or use of any content thereof or inability to use or in connection with any failure of performance, error, omission, interruption, defect, even if NSEIL, NSE Group Companies, NSE Foundation or the representatives thereof, are advised of the possibility of such damages, losses, or expenses. The readers of this document must independently determine the appropriateness of the contents of the document for their purposes.



### National Stock Exchange of India Ltd.

Exchange Plaza, C-1. Block G, Bandra Kurla Complex, Bandra (E), Mumbai – 400 051 National Stock Exchange of India Ltd. Tel: 022-2659 8100 (Extension - 26133)



**Education Quality Improvement Programme** 

**Impact Assessment Report, 2024** 

Ramanathapuram District of Tamil Nadu



The Eureka Education Quality Improvement Programme (EQUIP), implemented in Ramanathapuram district with the support of the NSE Foundation, aimed to improve foundational literacy and numeracy among students in 151 government schools across 140 villages in Mandapam and Thirupullani blocks. This impact assessment report provides a comprehensive evaluation of the programme's objectives, implementation strategies, learning outcomes, and broader community impact.

EQUIP was designed to address the significant learning gaps observed among students in primary and middle schools. The programme sought to enhance literacy and numeracy skills through structured, activity-based learning interventions while strengthening teacher capacity by equipping educators with innovative pedagogical tools and training. In addition, it encouraged parental and community engagement to reinforce learning support beyond the classroom and leveraged technology-driven solutions to ensure continuity in education, particularly during disruptions like the COVID-19 pandemic.

The impact assessment employed a mixed-method approach, integrating baseline and postimplementation assessments to measure student competency levels before and after the intervention. Competency-based tests were conducted across Tamil, English, and Mathematics to track learning progress, while stakeholder interviews and focus group discussions with students, teachers, parents, and school administrators provided qualitative insights. Quantitative and qualitative surveys further evaluated the programme's effectiveness and sustainability.

The findings indicate that the programme successfully improved student proficiency in literacy and numeracy. Baseline assessments revealed that students struggled with basic reading comprehension,

Tamil proficiency improved significantly, with postintervention scores ranging between 43% and 45%, compared to the baseline average of 32% to 37%. sentence construction, and arithmetic operations. However, post-implementation assessments demonstrated an increase in competency levels across all subjects. Tamil proficiency improved significantly, with post-intervention scores ranging between 43% and 45%, compared to the baseline average of 32% to 37%. English registered higher gains compared to other subjects with increase from a baseline average of 28% to 32% to post-implementation scores ranging from 41% to 49%. Mathematics performance also improved, with scores rising from 33% to 36% at baseline to 45% to 48% after programme implementation. Overall, students who initially fell into the

beginner and developing competency levels transitioned into higher proficiency brackets, demonstrating tangible learning gains and the success of targeted interventions.

The programme also placed a strong emphasis on teacher capacity building. Training workshops covered activity-based teaching methodologies to improve engagement and comprehension, strategies for differentiated instruction to cater to diverse student learning needs, classroom management techniques to create an inclusive and supportive learning environment, and digital learning tools for enhanced instructional delivery. Teachers responded positively to these interventions, with 24 out of 25 surveyed educators acknowledging increased confidence and effectiveness in lesson delivery after participating in EQUIP training sessions.

Beyond direct classroom impact, EQUIP successfully strengthened school-community collaboration. Parental participation in student learning increased significantly, with many parents actively engaging in at-home literacy and numeracy activities. School Management Committees (SMCs) became more involved in monitoring student progress and school performance, while the programme helped bridge the communication gap between schools and local stakeholders, fostering a collective commitment to educational improvements. The EQUIP programme's ability to mobilize and engage communities played a critical role in ensuring the sustainability of its interventions. A key feature of the EQUIP programme was its ability to adjust to the disruptions caused by the COVID-19 pandemic. In response to prolonged school closures, the programme introduced remote learning methods such as WhatsApp-based spoken English and mathematics assignments to maintain student engagement. To support learning at home, printed materials were distributed, and teachers gradually adopted basic digital tools to continue instructional support. These measures helped sustain learning momentum during a challenging period and demonstrated how simple technology-based solutions could be incorporated into regular teaching practices to improve accessibility and continuity.

While EQUIP achieved considerable success, certain challenges were identified. Variability in student learning progress highlighted the need for more tailored support for students who required additional interventions to reach grade-level proficiency. Digital access constraints posed barriers for some students who struggled to engage with remote learning due to a lack of devices and internet connectivity. Teachers expressed the need for continuous refresher training and mentoring to sustain pedagogical improvements, while addressing learning losses caused by the COVID-19 pandemic emerged as a priority requiring focused remedial interventions.

The EQUIP model presents a scalable framework for improving foundational learning in underserved regions. Future efforts should focus on expanding the programme to additional schools to reach more students, strengthening teacher mentorship programmes, and integrating blended learning approaches to enhance instruction. Greater collaboration with government institutions will be critical in aligning programme interventions with national education policies. Establishing community-led education models can ensure sustained impact and reduce dependency on external support, while leveraging data-driven decision-making will help continuously monitor learning outcomes and refine instructional strategies for long-term success.

The EQUIP programme has demonstrated a measurable and positive impact on student learning, teacher capacity, and community involvement. Its emphasis on targeted interventions, assessment-driven improvements, and community collaboration makes it a robust model for addressing foundational learning gaps in rural education. By building on these successes and addressing identified challenges, EQUIP can continue to drive meaningful educational change and serve as a replicable framework for improving learning outcomes across underserved communities.



### Disclaimer

This compilation of data of NSE Foundation's CSR initiatives is meant for information purposes only. The information provided in this document is provided on "as is" basis and "as available" basis. NSE Foundation does not warrant the accuracy, adequacy, or completeness of this information and material and expressly disclaims liability for errors or omissions in the information compiled under this document. No warrantly of express or statutory including but not limited to the warranties of non-infringement of third-party rights, title, merchantability and fitness for a particular purpose is given in conjugation with the information mentioned in this document. In no event will NSEIL, NSE Group Companies or NSE Foundation be liable for any damages, including without limitation direct or indirect, special, incidental or consequential damages, losses or expenses arising in connection with this document or use of any content thereof or inability to use or in connection with any failure of performance, error, omission, interruption, defect, even if NSEIL, NSE Group Companies, NSE Foundation or the representatives thereof, are advised of the possibility of such damages, losses, or expenses. The readers of this document must independently determine the appropriateness of the contents of the document for their purposes.





National Stock Exchange of India Ltd.

Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E), Mumbai – 400 051 National Stock Exchange of India Ltd. Tel: 022-2659 8100 (Extension - 26133)



# SKILL MITRA AND UDYOG MITRA MODEL FOR LIVELIHOOD

Ramanathapuram (Tamil Nadu)

**Impact Assessment Report, 2024** 



Youth and marginalized communities in the Ramanathapuram district of Tamil Nadu have historically faced challenges in securing stable employment and sustainable livelihoods. Limited access to skill development programmes, coupled with a lack of industry linkages and entrepreneurial support, has contributed to persistent underemployment and income instability. Women, in particular, have had fewer opportunities to engage in economic activities due to social and structural barriers. Recognizing these challenges, the Skill Mitra and Udyog Mitra initiative was launched by NSE Foundation in collaboration with Kalike Trust.

The programme aimed to equip rural youth and women with industry-relevant skills, enhance employability, and promote self-reliance through skill-based entrepreneurship. It adopted a structured, community-driven approach that involved skill mapping, targeted training, employment facilitation, and business incubation. Over its implementation period from 2020 to 2022, the initiative trained over 4,500 individuals in trades aligned to local market demand such as tailoring, palm leaf handicrafts, jute production, healthcare, data entry, and two-wheeler mechanics. Among a representative sample of 367 youth surveyed, 85 percent reported improved technical skills after training, and 63.2 percent had secured employment or entered self-employment.

Palm leaf craft and tailoring emerged as the most preferred trades, accounting for 52 and 35 percent of total enrolment, respectively. These trades were chosen for their alignment with home-based income generation and minimal capital requirement. Women constituted 95 percent of all surveyed participants, reflecting the programme's success in overcoming gendered barriers to economic participation. In fact, among women trained in palm leaf craft, over 80 percent reported regular income generation, and around

15 percent had already launched their own businesses, some employing additional women from their communities.

Over the course of its implementation, the initiative successfully trained more than 4,500 individuals across multiple trades, including tailoring, palm leaf handicrafts, general duty assistance, welding, and two-wheeler mechanics.

Beyond technical skilling, the programme supported microentrepreneurship through the Udyog Mitra model. These trained facilitators mentored aspiring business owners, provided financial literacy training, and helped connect them with market linkages. At least 50 micro-enterprises were started with support from Udyog Mitras, many of which were focused on eco-friendly products like palm leaf items and locally relevant services such as tailoring and general healthcare support. In parallel, 22 small and medium enterprises (SMEs) were engaged in the programme, of which 19 directly hired trained youth. This not only enhanced placement outcomes but also helped local businesses meet their workforce needs.

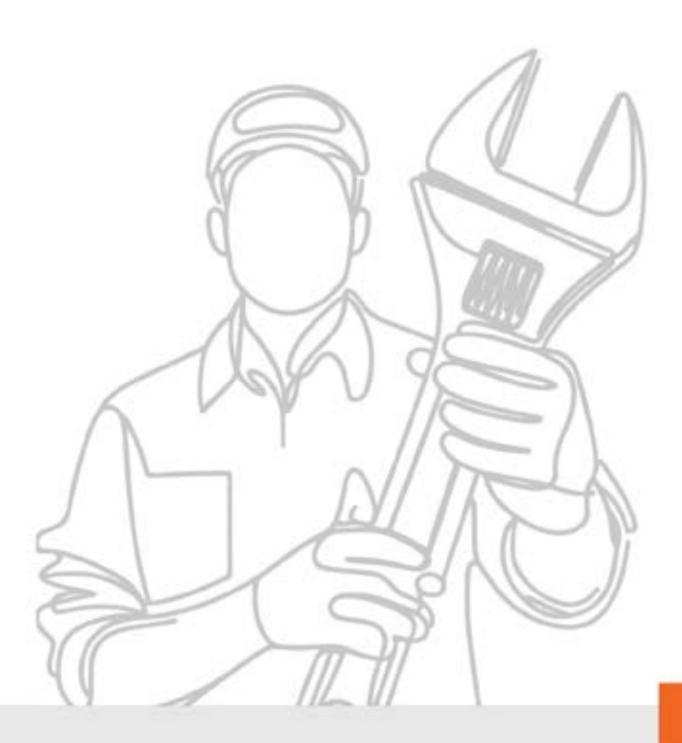
The programme's effectiveness extended to household and community levels. Parent interviews revealed that over 92 percent observed increased confidence among their children and over 82 percent saw a rise in household income. Local functionaries, including panchayat leaders and SHG conveners, played an active role in mobilisation and training facilitation. Among those surveyed, more than 80 percent were directly involved in outreach, and nearly 70 percent contributed to monitoring and post-training engagement. Trainers, too, unanimously reported strong improvements in technical competence, confidence, and soft skills such as communication and problem-solving.

The initiative faced operational challenges during the COVID-19 pandemic, including disruption of inperson training and delayed job placements. However, the programme adapted quickly, leveraging remote counselling, digital training modules, and phone-based outreach to retain continuity. This adaptability allowed most trainees to remain engaged despite pandemic restrictions.

By combining community mobilisation, employer partnerships, and data-backed programme management, the Skill Mitra and Udyog Mitra model demonstrated scalable outcomes. Its alignment with national frameworks like the National Education Policy (NEP) 2020 and Skill India Mission further enabled institutional convergence and policy support. The success of the initiative was evident in the creation of sustainable enterprises, improved financial independence for women, and strengthened local economies.

The programme presents a viable model for replication in other underserved regions, particularly those with high levels of informal employment and gender disparity in workforce participation. Going forward, scaling up the Skill Mitra network, strengthening post-training placement support, enhancing digital learning infrastructure, and improving access to credit and enterprise incubation will be key to sustaining and expanding its impact.

By focusing on skills that are both locally relevant and market-driven, and by embedding these efforts within community systems, the programme has contributed to long-term socio-economic transformation in Ramanathapuram. It has helped build pathways to economic mobility for rural youth and women and has laid the foundation for inclusive and resilient livelihood ecosystems.





### Disclaimer

This compilation of data of NSE Foundation's CSR initiatives is meant for information purposes only. The information provided in this document is provided on "as is" basis and "as available" basis. NSE Foundation does not warrant the accuracy, adequacy, or completeness of this information and material and expressly disclaims liability for errors or omissions in the information compiled under this document. No warranty of express or statutory including but not limited to the warranties of non-infringement of third-party rights, title, merchantability and fitness for a particular purpose is given in conjugation with the information mentioned in this document. In no event will NSEIL, NSE Group Companies or NSE Foundation be liable for any damages, including without limitation direct or indirect, special, incidental or consequential damages, losses or expenses arising in connection with this document or use of any content thereof or inability to use or in connection with any failure of performance, error, omission, interruption, defect, even if NSEIL, NSE Group Companies, NSE Foundation or the representatives thereof, are advised of the possibility of such damages, losses, or expenses. The readers of this document must independently determine the appropriateness of the contents of the document for their purposes.





National Stock Exchange of India Ltd.

Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E), Mumbai – 400 051 National Stock Exchange of India Ltd. Tel: 022-2659 8100 (Extension - 26133)



Impact Assessment Report, 2024

Ramanathapuram District, Tamil Nadu



The education landscape in Mandapam Block of Ramanathapuram district, Tamil Nadu, has historically grappled with foundational learning challenges among early-grade students. Many children enrolled in government primary schools entered upper primary levels without achieving age-appropriate competencies in reading, comprehension, and arithmetic. The socio-economic profile of the region—marked by high incidence of daily wage labor, seasonal migration, and limited parental literacy—posed significant constraints on children's consistent access to quality learning support. Baseline assessments and teacher feedback indicated that a substantial proportion of students in Grades 1 to 5 lacked fluency in reading Tamil and English and struggled with basic arithmetic operations. These learning gaps, if left unaddressed, would widen as students progressed through higher grades, further diminishing their academic confidence and performance.

In response to this urgent need, the Akshara programme was launched with the objective of improving foundational literacy and numeracy among children in government schools, strengthening teacher capacity in remedial instruction, and fostering community participation in education. The intervention reached a total of 394 students across seven government schools, exceeding its initial target of 350 students. These included 208 boys and 186 girls, with class-wise distribution spanning from Grade 1 to Grade 5. Grades 4 and 5 had the highest participation, reflecting a strategic focus on bridging learning gaps among older primary students who were nearing the transition to upper primary education. The

Teacher demographics showed a balanced gender profile—58% female and 42% male—with an average of 18 years of teaching experience. programme was implemented through a community-based model, which engaged 45 community tutors—64% of whom were women and 70% of whom were aged between 25 and 40. While only 22% of tutors had prior teaching experience, every tutor reported a significant gain in confidence after undergoing training and hands-on mentoring. These tutors conducted over 500 small-group remedial sessions during the implementation period, often working with clusters of 5–10 students each, allowing for personalized attention and tailored instruction.

The programme also worked intensively with 24 schoolteachers and seven headmasters. All teachers attended at least one formal training session, with 87% participating in multiple workshops focused on level-appropriate pedagogy, diagnostic assessments, and multilingual instruction. Teacher demographics showed a balanced gender profile—58% female and 42% male—with an average of 18 years of teaching experience. These educators emerged as key enablers of the intervention, integrating activity-based learning, continuous assessment, and student-centric planning into their daily classroom routines. Every teacher surveyed affirmed that they had adopted new instructional practices introduced by the programme. They also reported that student engagement improved considerably, classroom participation, attentiveness, and willingness to attempt reading and math tasks all increased noticeably. Teachers highlighted that formerly non-participative students were now regularly solving problems on the blackboard and reading aloud in class.

Academic progress among students was evident in the post-intervention competency assessment. In Mathematics, approximately 32.7% of students scored in the top band (71–100%), while another 47.5% achieved moderate proficiency (41–70%). The average math score across the cohort rose to 60.6%. Literacy outcomes also improved: 52.3% of students scored in the mid-band for Tamil, and 44.4% for English. Although only about 3% reached advanced proficiency in languages, over 75% of students improved upon their baseline scores, and qualitative feedback suggested enhanced reading fluency, particularly among girls. In contrast, boys demonstrated greater improvement in arithmetic and problem-solving tasks. However, challenges persisted; around 45% of students continued to score below 40% in Tamil and English, indicating the need for continued remedial attention in language learning. One of the programme's notable achievements was the increased involvement of parents and School Management Committee (SMC) members in supporting students' education. Over 85% of parents attended at least two community meetings, and 89% expressed satisfaction with the programme, citing observable improvements in their children's academic skills. Parents reported that their children had started reading household signage, solving sums mentally, and displaying greater curiosity in learning. SMC members in all seven schools played a supportive role by helping tutors conduct meetings, organize space for remedial sessions, and monitor student attendance. Community leaders and block-level government education officials also participated in review meetings. All three officials interviewed confirmed the programme's alignment with government curriculum frameworks and acknowledged its contributions to improved learning levels, particularly among slow learners.

The intervention, however, was not without challenges. While community tutors were instrumental in delivering instruction, their long-term engagement remained uncertain given the lack of a formal institutional mechanism to retain them post-project. Only three of the seven schools had begun exploring ways to continue tutor support through local fundraising or integration into government-led programmes. Teachers, although empowered by the training, expressed a need for continued mentorship and refresher courses to reinforce newly acquired pedagogical practices. In a few schools, irregular attendance and time constraints for tutors, who were often balancing multiple roles in the community, affected session continuity. Some parents, especially those engaged in daily wage work or who migrated seasonally, struggled to maintain consistent involvement in their children's education, requiring more flexible, home-based engagement strategies.

To sustain the programme's gains and expand its reach, several forward-looking recommendations emerged from the assessment. First, regular and structured refresher trainings for teachers, coupled with peer-learning opportunities and mentorship networks, would help embed child-friendly, differentiated instruction into the school culture. Second, the community tutor model, while effective, needs formal recognition—either through school development plans or integration into state-supported schemes such as Shiksha Sahayaks or Learning Facilitators. Third, for students requiring continued support, targeted remedial interventions with small group instruction and individualized progress tracking will be essential. Fourth, sustained community engagement can be achieved through periodic parental workshops, resource-sharing among SMCs, and the use of locally developed home-learning kits. Finally, institutional integration of the Akshara model into the government education system-aligned with the National Education Policy (NEP) 2020 and Samagra Shiksha-will be vital for scalability and long-term impact. For students requiring additional support, introducing remedial learning interventions and individualized student progress tracking can provide targeted assistance to those struggling with foundational concepts. Blended learning approaches, integrating digital tools with classroom instruction, can enhance student engagement and personalized learning experiences. Expanding community participation through structured parental workshops, interactive awareness campaigns, and home-learning materials can strengthen the support system for students. Leveraging local networks and school management committees (SMCs) to create sustainable engagement models will ensure that families remain active partners in children's education.

In conclusion, the Akshara programme has demonstrated that it is possible to catalyse measurable improvements in early-grade literacy and numeracy, even within challenging contexts marked by poverty and educational inequity. The programme's reach—394 students, 24 teachers, 45 tutors, and over 80 active community stakeholders—underscores the scale of engagement achieved. Its structured design, community-based approach, and emphasis on capacity-building created a foundation for lasting educational change. With over three-quarters of students showing academic improvement, and with universal support from teachers, parents, and administrators for programme continuation, Akshara presents a strong case for replication and scale. By investing in teacher development, institutionalising tutor-led support, and aligning with public education systems, the programme can evolve into a sustainable, scalable model for transforming foundational education in underserved communities across India.



### Disclaimer

This compilation of data of NSE Foundation's CSR initiatives is meant for information purposes only. The information provided in this document is provided on "as is" basis and "as available" basis. NSE Foundation does not warrant the accuracy, adequacy, or completeness of this information and material and expressly disclaims liability for errors or omissions in the information compiled under this document. No warrantly of express or statutory including but not limited to the warranties of non-infringement of third-party rights, title, merchantability and fitness for a particular purpose is given in conjugation with the information mentioned in this document. In no event will NSEIL, NSE Group Companies or NSE Foundation be liable for any damages, including without limitation direct or indirect, special, incidental or consequential damages, losses or expenses arising in connection with this document or use of any content thereof or inability to use or in connection with any failure of performance, error, omission, interruption, defect, even if NSEIL, NSE Group Companies, NSE Foundation or the representatives thereof, are advised of the possibility of such damages, losses, or expenses. The readers of this document must independently determine the appropriateness of the contents of the document for their purposes.





National Stock Exchange of India Ltd.

Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E), Mumbai – 400 051 National Stock Exchange of India Ltd. Tel: 022-2659 8100 (Extension - 26133)



### **Impact Assessment Report**

# PROJECT AALAMBANA AND SHRADDHA

ACROSS 7 STATES IN INDIA



Over the years, India saw a significant increase in its elderly population with 104 million elderly persons comprising 8.6% of the total population. Projections suggest an increase to 12.4% by 2026. This significant rise in the elderly population presents several challenges, as about 70% of the elderly are not employed and thereby rely on their families for day-to-day expenses.

Recognising the increasing welfare needs of a growing elderly population, there are several international frameworks and agreements, and national level laws and programmes aimed at alleviating the condition of the elderly. However, despite these efforts, several challenges still remain. Mentioned below are some of the key challenges:

Projections suggest an increase of elderly persons population from

8.6% 12 4

by 2026



### Health challenges -

Elderly persons develop chronic illnesses and conditions that affect their quality of life. Limited access to healthcare services, coupled with lack of awareness and health literacy has worsened these issues.



### Economic challenges

- Elderly persons face several economic challenges as they are not considered to be of productive age. Further, with increased socio-economic change coupled with migration, several elderly persons have been left vulnerable due to families migrating to other locations.



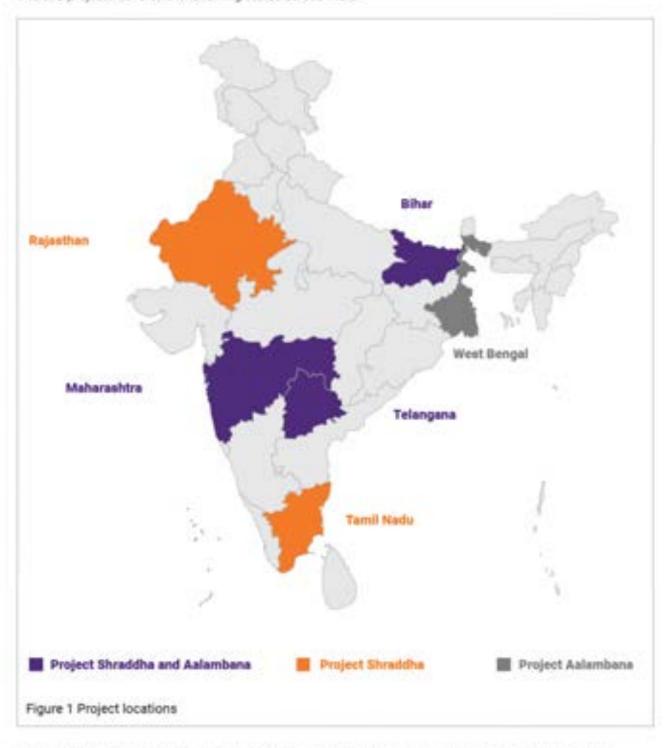
### Social challenges

- Elderly persons face several health and physical social challenges as well which leads to their isolation within their homes. This, many a times, further leads to mental health challenges such as anxiety, depression and cognitive decline.

To address these challenges, NSE Foundation in partnership with HelpAge India initiated two projects – Shraddha (2017 to 2022) and Aalambana (2018 to 2023). The key objective of the projects was to cater to the needs of the elderly persons by improving healthcare, addressing social challenges and ensuring economic support. This was implemented in multiple states across India.



The two projects covered the following states across India:



Grant Thornton Bharat LLP was engaged to conduct a comprehensive assessment of the projects. The objective of the assessment was to evaluate the impact and effectiveness of the two projects. This involved assessing various aspects such as involvement of the beneficiaries in the project, family support, improvement in socio-economic conditions, access to healthcare and digital literacy<sup>1</sup>.

The study design mirrored the multi-stakeholder focus of the project. With elderly persons, the aim was to assess their project recall, their involvement with the the project and their feedback. With other key stakeholders such as family members, PRI members and community volunteers, the focus was to understand their involvement, their role, the extent to which they have benefitted, and their feedback. The study covered a total 2,555 participants across two projects covering 7 states in India.

Digital Literary section was only included in Project Automises.

## Key highlights

### Project Shraddha:



Social Inclusion: The formation of Elderly Self-Help Groups significantly boosted social interactions. In Supaul, the percentage of respondents who had no social interaction dropped to just 5%. Meanwhile, 98% in Pochampally, 30% in Supaul, 100% in Ghatanji, and 22% in Kolaghat reported engaging in social activities at least once a month. 99% in Pochampally, 93% in Supaul, 99% in Ghatanji, and 99% in Kolaghat confirmed that they had seen a positive change and influence in their social and daily life due to the formation of ESHG.



Financial Inclusion: Respondents across four regions reported improvements in their economic status. Specifically, 98% in Pochampally, 91% in Supaul, 89% in Ghatanji, and 93% in Kolaghat mentioned a positive change. When inquired about the factors that contributed to this economic uplift, 81% in Pochampally and 59% in Ghatanji identified an "increase in income" as the key driver. Meanwhile, financial literacy played a substantial role in Supaul, Ghatanji, and Kolaghat, where 48%, 43%, and 24% of respondents, respectively, acknowledged it as instrumental in enhancing their financial knowledge and stability. This indicated an extremely positive economic impact of the project on its beneficiaries.



Healthcare inclusion: The project yielded remarkable health improvements across several regions, with 99% of respondents in both Pochampally and Supaul, 95% in Ghatanji, and 98% in Kolaghat reporting significant enhancements. A key factor that contributed to this success was the consistent availability of doctors and the provision of same-day healthcare services, which was highly appreciated by the beneficiaries. Furthermore, the project's influence extended to financial savings; the GCC notably reduced medical expenses, easing the economic strain on many beneficiaries. This was mentioned by most respondents who experienced a decrease in the costs associated with medication, travel, and waiting time for medical services.

### Project Aalambana:



Social Inclusion: The establishment of Elderly Self-Help Groups (ESHGs) was a catalyst for positive change in the lives of many, as mentioned by 99% of participants in Birbhum, 98% in Karauli, and an impressive 100% in Ramanathapuram. These groups fostered increased social interactions, with regular meetings providing a platform for seniors to convene, discuss their challenges, and collaboratively devise solutions. The benefits of such gatherings extended beyond practical advice, as highlighted by 96% of respondents in Ramanathapuram, 89% in Karauli, and 66% in Birbhum, who found emotional solace and support within their ESHG networks, particularly during trying times. This strong sense of community and mutual aid underscored the transformative impact of ESHGs on both the social and emotional dimensions of elderly life.



Financial Inclusion: The Elderly Self-Help Groups (ESHGs) had a profound impact on the economic welf-being of their members, with 100% in Birbhum, 94% in Karauli, and 97% in Ramanathapuram reporting an improvement in their financial circumstances. Access to credit was a significant factor in this positive shift, as indicated by 94% of respondents in Ramanathapuram and 84% in Karauli. Moreover, the ESHGs were instrumental in enhancing financial literacy, with 54% in Birbhum, 70% in Karauli, and 79% in Ramanathapuram acknowledging that the knowledge gained empowered them to make more informed personal finance decisions. This collective progress underscored the pivotal role of ESHGs in fostering economic empowerment and financial management among the elderly.



Healthcare Inclusion: The Gram Chikitsa Centre was embraced enthusiastically by the local communities, as reflected in the high utilization rates reported by 98% in Birbhum, a full 100% in Karauli, and 99% in Ramanathapuram. The members expressed satisfaction with the quality of healthcare provided, praising the calibre of doctors, availability of medicines, and access to specialists. This positive feedback underscored the success of the healthcare interventions. The widespread acceptance and satisfaction highlighted the centre's significant role in enhancing the health and well-being of the local population.



**Digital Literacy:** The survey indicated a modest **uptick in digital literacy** among respondents, as evidenced by their increased use of digital devices, including mobile phones, and a **greater engagement with digital payment platforms**. This trend reflected a growing comfort with technology and an embrace of the conveniences it offered, marking a positive step towards broader digital inclusion.

**COVID-19 Support:** All respondents were able to recall the COVID-19 support provided by NSEF and HAI during the pandemic. They were grateful for the food security and healthcare support such as the vaccination drives which helped all vulnerable elderlies receive both doses of the vaccines in a timely manner.

The study faced challenges due to various factors:

- 1. The project faced several disruptions due to challenges with the COVID-19 pandemic. The continuous lockdowns and social distancing measures put in place did impact the smooth implementation of the project.
- 2. The data collection aspect of the project was delayed due to the Indian elections. This lengthened the data collection process significantly.

In conclusion, the recommendations mentioned have been made basis our study of Project Shraddha and Aalambana. They touch on various aspects aimed at maximizing its impact and sustainability. To bolster the sustainability of healthcare services for the elderly, NSE Foundation may enhance the capabilities of local Primary Health Centres (PHCs) and Community Health Centres (CHCs) by integrating the Gram Chikitsa Centre's model. This would ensure continuous and accessible healthcare beyond the project's tenure through partnerships and health camp models. Additionally, recognizing the limited scope of income-generating activities among the elderly, NSE Foundation might offer extensive training and support to help them establish small-scale enterprises, thus fostering financial inclusion and contributing to the better economic condition. Furthermore, to address lack of retention among beneficiaries of digital literacy programme like PMGDISHA, NSE Foundation may introduce regular revision sessions, reinforcing their digital skills and optimizing the initiative's impact.

Readers are requested to refer the Notice to the Reader section on the last page of the report. The notice contains pertinent information to help the reader understand the usage of this report and the assumptions made during the study.



National Stock Exchange of India Ltd.

Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E), Mumbal – 400 051





### CREATING A LEARNING CULTURE

CSR Project in Kurla L Ward, Mumbai

Impact Assessment Report 2024-25









Name of the project

Creating a learning culture Project duration

October 2020 -September 2023 On-ground partner

Pratham Mumbai

FF Education Initiative

parents, predominantly mothers.

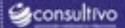
volunteers facilitated daily classes

participated in workshops and

learning support initiatives

and distributed resources

Independent Impact Assessment by



### Target

Foundational literacy and numeracy improvements for children in Grades 1 to 5 while fostering community engagement and inclusive education. Key metrics include:

**₹₹7,314** 

children engaged in foundational literacy and numeracy interventions.

**Ĉ**□ >100

teachers were trained in activity-based learning and assessment techniques

40 Schools Covered

7.5% Marathi 3 schools

Location



Sample size 478

52.5%

Urdu

21 schools

288

Students

Parents

Principals/ Teachers-in-charge 26

Teachers.

Members

40%

Hindi

16 schools

Supervisors/ Program Implementation Team



### Creating a Learning Culture

The NSE Foundation sponsored the 
"Creating a Learning Culture" program, which was implemented in collaboration with Pratham Mumbal Education Initiative (the on-ground partner). The program ran from October 2020 to September 2023 across 40 schools in the Kurla area of Mumbai. Designed to improve foundational literacy and numeracy, it employed a hybrid learning approach, combining digital resources such as storybooks and worksheets with offline interventions like activity-based learning and personalised support.

Targeting students in Grades 1 to 5, the program aimed to address learning gaps exacerbated by the COVID-19 pandemic while fostering holistic development through structured, child-friendly activities. A major focus was placed on engaging the broader community, including parents, teachers, and School Management Committees (SMCs), to ensure collaborative efforts in education. The program reached 7,314 children and conducted regular assessments to track progress.





In addition to benefiting students, the program engaged 4,407 parents, empowering them to support their children's learning through workshops and regular updates. It also worked closely with over 100 teachers and school staff, offering training sessions to enhance teaching practices and align efforts with the program's goals. Moreover, 54 community volunteers played a critical role in implementing activities and providing personalised assistance to families.

The program's activities extended beyond academics, incorporating public health awareness campaigns and disseminating information about government welfare schemes like Ayushman Bharat and mid-day meal distribution. By the time of its conclusion, the program had successfully strengthened local capacities for education, laying the foundation for sustainable, community-driven learning initiatives.



### The Program Objectives

The program objectives were:



Improve grade-appropriate level learning for approximately 8,000 children (subject to actual baseline) in primary grades (1-5), focusing on building reading, writing, and arithmetic abilities to achieve at least 70% of state-level competencies for the relevant grade.



Create a conducive learning environment in all intervention areas through sustained activities at both school and community levels.



Strengthen parental involvement, especially of mothers, in children's learning from the early years across all programs.



Enhance the effectiveness of the school management committee to support the implementation of enrollment, attendance, dropout prevention, schemes, and services.



Provide guidance and support to families to help them cope with the impacts of COVID-19 by creating awareness about health and hygiene, education, learning, and the importance of attending school in Year 1 and Year 2.





### Key Activities Undertaken

### Mental Health and Stress Orientation During COVID-19

- The Pratham team, with the support of SMC members, organised Zoom meetings and conducted orientations on mental health issues at the start of the program during the pandemic.
- Reached out to the parents of 5,000 children during 2021-22 through this intervention.
- Topics covered in the sessions included precautions to take during COVID-19, home remedies for recovery, first aid, and ways to deal with COVID-related anxiety.

### Training for School Teachers

- Conducted training for Block Officers and Superintendents in January 2021 on analysing the progress of children based on school assessments.
- Provided training to school teachers in August 2021 on administering tests using the ASER testing tool.
- Some teachers have adopted 'Teaching at the Right Level' (TaRL) methods to engage children and improve learning outcomes. The adoption of these methods by teachers is a significant impact of Pratham's work within schools.

### Distribution of Library Books

- During Year 1, which coincided with the lockdown phase, only digital storybooks were provided to children. However, in Years 2 and 3, with the reopening of schools, both digital and printed books were distributed.
- Feedback mechanisms were implemented to determine whether children read the books and understood their content.
- By March 2023, books had been provided to all children, with almost 99% having read them.
- Children displayed improvements in vocabulary and writing skills, as evidenced by their written feedback on the books.

### Strengthened Parental Involvement (Focusing on Mothers)

- Monthly workshops were conducted with the mothers of children in Standards 1 and 2. These workshops provided simple techniques to teach children at home using household resources, along with parenting tips and guidance on good parenting practices.
- Approximately 50% of parents regularly attended these workshops, which were held at schools with the support of school teachers.



### Volunteer-Led Classes

- Paid volunteers were appointed (one for Standards 1 & 2 and one for Standards 3 to 5) to conduct daily language and maths classes during school hours. Each session lasted an hour and helped improve children's learning levels.
- For Standards 1 and 2, all children were taught language and maths competencies. For Standards 3 to 5, only children lagging behind participated in the intervention.
- School teachers were encouraged to observe the fun, activity-based teaching methods used by volunteers, with the aim of adopting these methods in their own classrooms.
- Regular in-school classes resumed after reopening, with 19 schools providing separate classrooms for these sessions.
- Practice worksheets were distributed to children in both groups (Standards 1 and 2 and Standards 3 to 5) to reinforce learning at home. Teachers were also involved in distributing these worksheets and encouraged to create similar resources for future use.

### Workshops for SMC Members

- Initially, active and non-active SMC members from all 40 schools were identified. Non-active members were engaged and encouraged to participate in meetings. For schools requiring new SMC members, coordination with teachers and principals ensured committees were updated.
- Monthly workshops were conducted for SMC members to orient them on their roles and responsibilities, Pratham's objectives, and the goals of working in their schools. Members were also encouraged to identify dropouts and non-attentive children and help reintegrate them into schools.
- SMC members, with Pratham's support, conducted social audits of school infrastructure and participated in community-level assessments of children.





### Key Outcomes and Impacts

### Improvement in Learning Outcomes

### >>> Reading Proficiency



### Reduction in Beginner-Level Students

- Grades I-II: In 2020-21, 24% of students struggled to recognise letters compared to just 1% post-intervention, marking a 96% reduction in beginnerlevel reading skills.
- Grades III-V: There were cases of beginner-level reading skills in 2020–21, whereas post-intervention assessments show that such deficiencies were entirely eliminated (100% reduction), indicating that all students moved beyond the initial phases of reading.



### Improved Comprehension Skills

- Grades I-II: At pre-test, comprehension skills were not strongly demonstrated, with only 13% of students eventually showing strong reading comprehension by 2022-23.
- Grades III-V: The reading program led to robust gains, with 45% of students demonstrating high-level comprehension in the latest assessments, a considerable leap compared to the pre-test performance, where such proficiency was minimal.

### >>>> Numeric Proficiency



### **Number Recognition**

Grades I-II: In 2020–21, 10% of students had difficulty recognising numbers. This
figure dropped to 0% post-intervention, achieving a complete (100%) resolution
of the initial deficiencies.



### Advanced Number Recognition

- Grades I-II: Pre-test data indicated recognition primarily of single-digit numbers. In the latest assessment, nearly 50% of students can identify numbers up to 999, reflecting an expansion in their number recognition abilities.
- Grades III-V: Previously, assessments focused on basic numbers; the program
  expanded the scope to include 4-, 5-, and 6-digit numbers, with all students
  demonstrating the ability to engage with these more complex concepts.



### Arithmetic Skills

 Grades I-II: Pre-test assessments did not cover addition with carry-forward or subtraction with borrowing. Post-intervention data now show that 85% of these students can perform addition with carry-forward, while 60% are capable of subtracting with borrowing, marking a significant improvement from what was unassessed or unachieved in 2020–21.



### **Program Reach and Retention**

### >>> Increased Enrolment

 Total enrolment increased by 40.6% from 2020-21 (2,959 students): to 2022-23 (4,160 students).

### >>> Improved Retention

Post-test participation improved from 50.9% in 2020-21 to 99.8% in 2022-23, indicating excellent program retention and data collection.

### Attendance and Enrolment Gains

- Attendance rates improved significantly, rising from a range of 50%-85% pre-program to 70%-90% post-program.
- Enrolment grew in several schools, with one school reporting an 80% increase, showcasing the program's success in restoring trust in education.

### Teacher Development and Innovations

- 45.83% of teachers credited the provision of resources, such as worksheets and flashcards, for enhancing their teaching methods.
- Activity-based methods, including "Teaching at the Right Level," were widely adopted, fostering inclusive and student-centred learning.

### Parental and Community Engagement

- 41.18% of parents attributed their children's continued education during COVID-19 to program resources.
- Monthly workshops enabled parents, particularly mothers, to actively support their children's learning, fostering a strong home-school connection.
- School Management Committees (SMCs) played a pivotal role, with 85.71% of members reporting a strengthened sense of ownership.

### Support During COVID-19

- 33.33% of migrating families accessed program resources, ensuring continuity in education despite disruptions.
- Digital content, worksheets, and volunteer-led classes helped mitigate the learning gaps caused by the pandemic.











### Impact Highlights



Foundation Literacy and Numeracy Gains: The program effectively transitioned students from basic to advanced levels of literacy and numeracy.



Collaborative Learning Environment: Stakeholders, including teachers, parents, and community members, worked collectively to support student progress.



Targeted Interventions: Remedial sessions and tailored resources addressed socio-economic and pandemic-related challenges, ensuring equitable learning opportunities.

### Way Forward

Sustainability requires enhancing resource delivery mechanisms, strengthening teacher training, and deepening community involvement. Expanding successful practices like the hybrid learning model and activity-based teaching will further consolidate gains and foster resilience in education.

Photograph 1: Students share their thoughts during a focus group discussion as part of the field survey.





### **SDG Interlinkages**

### **Direct SDG Interlinkages**

### SDG 4: Quality Education

- Target 4.1 The program directly ensured inclusive and equitable quality education by improving foundational literacy and numeracy for children in Grades 1 to 5.
- Target 4.5 It reduced disparities in education by focusing on children from underprivileged communities, ensuring no child was left behind due to socio-economic or technological challenges.
- Target 4.7 By implementing a hybrid learning model and engaging communities, the program cultivated a lifelong learning culture that prepared children for future educational demands.



### SDC 3: Good Health and Well-being

- Target 3.2 The program indirectly improved children's well-being by addressing learning losses, reducing the mental stress associated with educational stagnation.
- Target 3.8 Awareness campaigns on public health, vaccination, and COVID-19 protocols enhanced community health outcomes during the pandemic.



### **SDG 10: Reduced Inequalities**

- Target 10.2 The program addressed educational inequalities by tailoring learning solutions for children without access to digital tools, reducing disparities caused by economic and social inequities.
- Target 10.3 By involving marginalised communities in decision-making and participation, the program ensured equal opportunities for underrepresented groups.







### Indirect SDG Interlinkages



### SDG 1: No Poverty

- Target 1.4: The program indirectly contributed to breaking the cycle of poverty by equipping children with essential skills that enhance future opportunities for economic mobility.
- Target 1.5 By establishing community-led education models, the program strengthened resilience against vulnerabilities exacerbated by the pandemic.



### SDG 2: Zero Hunger

Target 2.1 While not a direct objective, the program indirectly complemented mid-day meal initiatives, which supported children's nutritional needs alongside education.



### SDG 8: Decent Work and Economic Growth

Target 8.6 By mitigating learning losses and keeping children engaged in education, the program reduced the risk of child labour and strengthened pathways toward decent work.



### SDG 5: Gender Equality

- Target 5.1 The program promoted gender equity by ensuring girls participated equally in its learning activities.
- Target 5.5 By involving mothers in community engagement efforts, the program empowered women to play an active role in decision-making processes.



### SDG 17: Partnerships for the Goals

Target 17.16 The program demonstrated the impact of effective partnerships between NGOs, funding organisations, schools, and local communities in achieving sustainable development goals.





### Lessons Learned

The implementation of the program provided valuable insights into the challenges and complexities of educational interventions, especially in resource-constrained settings. These lessons highlight critical areas that require attention for more effective program delivery and sustained impact.

### The Rationale of the Program

The varying levels of teacher preparedness and motivation significantly influenced the program's impact across schools. While some educators effectively embraced new methodologies, others struggled due to gaps in training, experience, or willingness to adapt.

### Key Learning

Comprehensive and ongoing teacher training is essential to equip educators with the skills and confidence to implement innovative practices like activity-based and student-centred teaching. Teachers' varying levels of experience and commitment directly influenced the program's outcomes.

### Addressing Differential Impact Across Schools

The program outcomes revealed disparities in effectiveness across schools. Substantial improvements were observed in some, while others reported only marginal gains. Factors such as resource constraints, high teacher turnover, and inconsistent parental involvement contributed to these differences.

### Key Learning

Context-specific factors, including school infrastructure and the socio-economic conditions of the community, directly affect program outcomes. Uniform program design without accounting for these variations can lead to uneven success.



### Strengthening Infrastructure and Logistical Support

### Inconsistent Availability of Materials

Delays in distributing essential learning materials, such as worksheets, flashcards, and digital tools, impeded the timely implementation of the program in some schools. These interruptions reduced the program's overall efficiency and limited its ability to deliver consistent results.

### Key Learning

Efficient resource planning and supply chain management are critical to ensuring uninterrupted access to essential materials in schools.

### Crowded Classrooms

High student-teacher ratios in certain schools posed challenges to personalised teaching. Overcrowded classrooms limited teachers' ability to provide individual attention or implement interactive and activity-based methods effectively.

### Key Learning

Smaller class sizes or additional teaching support are essential for delivering engaging and impactful education. Crowded classrooms reduce the effectiveness of innovative teaching methods.

### Limited SMC Involvement

School Management Committees (SMCs) struggled to actively participate in program activities in some schools. A lack of training and time constraints hindered their ability to take ownership of their roles effectively.

### Key Learning

Empowering SMCs through capacity-building initiatives can enhance their engagement and contribution to program success. Active SMC involvement plays a crucial role in creating sustainable support systems for students and teachers.



### Way Forward

Based on the challenges identified, the following strategies are recommended to address gaps and enhance the program's overall effectiveness:

### Tailored Teacher Training Create differentiated training models to cater to teachers' varying levels of preparedness and experience. Provide ongoing support through peer mentoring, on-site coaching, and structured follow-ups to ensure uniform adoption of innovative teaching practices. Context-Specific Program Design Conduct pre-implementation assessments to identify schoolspecific needs and allocate resources accordingly. Strengthen school leadership and foster collaboration between stakeholders, including teachers, parents, and SMCs, to address unique challenges effectively. Efficient Resource Distribution Implement real-time inventory tracking systems and decentralise material distribution to reduce delays. Establish regional hubs to ensure that learning resources reach even the most remote schools promptly. Addressing Overcrowding Recruit additional teaching aides or volunteers to support educators in overcrowded schools. Introduce staggered teaching sessions or group rotations to manage class sizes effectively. Empowering SMCs Provide targeted training for SMC members on their roles and responsibilities.

Simplify participation requirements to accommodate time constraints and integrate regular feedback mechanisms to keep them engaged.

## About the Independent Impact Assessment Agency





### About Consultivo



Consultivo is an ESG, Sustainability, Business Excellence & Risk Management consulting firm - offering 100+ solutions globally in CSR, Social, Safety, Environment, Climate Change & Energy, Management Systems, Organisational Development and Business and Human Rights across the value chain.











Metal & Mining Hospital Engineering Mall & Hypermarket Cement Technology & Telecom Oil & Gas FMCG Chemical Supply Chain Construction Agribusiness

Consultivo works with 200+ National and International codes, standards and guidelines.

- Approved ESG consultant of International Finance Corporation (World Bank Group)
- Approved Social Impact Assessment (SIA) Agency of Govt. of Jharkhand, India
- Global Approved Auditor of Pharmaceutical Supply Chain Initiative (PSCI), UK
- Approved Audit Body for CORE (Code of Responsible Extraction)
- Knowledge & Technical Partner of Confederation of Indian Industry (CII), Training & Knowledge Partner of Indian Chamber of Commerce (ICC)
- Approved Audit and Monitoring Partner of Ethical Tea Partnership (ETP), UK

Consultivo is uniquely placed to offer advisory and assurance services free from commercial constraints and conflict of interest to find ways to improve business performances.

Consultivo Academy is the strategic business unit for training and capacity building services.

### Partnering in your journey towards ESG, Sustainability and Risk Management

Audit and Assurance | Consulting and Advisory | Research and Analytics | Training and Capacity Building

### **Disclaimer**

This compilation of data of NSE Foundation's CSR initiatives is meant for information purposes only. The information provided in this document is provided on "as is" basis and "as available" basis. NSE Foundation does not warrant the accuracy, adequacy, or completeness of this information and material and expressly disclaims liability for errors or omissions in the information compiled under this document. No warranty of express or statutory including but not limited to the warranties of non-infringement of third party rights, title, merchantability and fitness for a particular purpose is given in conjugation with the information mentioned in this document. In no event will NSEIL, NSE Group Companies or NSE Foundation be liable for any damages, including without limitation direct or indirect, special, incidental or consequential damages, losses or expenses arising in connection with this document or use of any content thereof or inability to use or in connection with any failure of performance, error, omission, interruption, defect, even if NSEIL, NSE Group Companies, NSE Foundation or the representatives thereof, are advised of the possibility of such damages, losses, or expenses. The readers of this document must independently determine the appropriateness of the contents of the document for their purposes.





Strengthening Education in Municipal Schools

Ahmedabad District, Gujarat

**Impact Assessment Report, 2024** 



In Ahmedabad's municipal schools, many students in grades 3 to 5 entered classrooms with persistent gaps in foundational tearning, particularly in Gujarati, Environmental Science (EVS), and Mathematics. Baseline assessments conducted in 2018 indicated that over 60% of students struggled with basic tasks such as letter recognition, sentence reading, and simple arithmetic. Despite regular school attendance, a significant number of students remained below grade-level expectations. Alongside academic challenges, schools also reported limited access to hygiene infrastructure and low awareness of basic sanitation practices—highlighting the need for a more integrated, school-wide intervention.

To respond to these needs, Rochak project was launched by NSE Foundation in collaboration with the Centre for Environment Education (CEE). The project adopted a dual focus: to improve foundational competencies through structured, activity-based learning, and to strengthen Water, Sanitation, and Hygiene (WASH) infrastructure and hygiene-related behaviours. The initiative aimed to create enabling environments in classrooms and school premises by combining teaching support, WASH improvements, and community participation.

Over the course of implementation, the project recorded measurable progress. By the endline assessment, nearly 75% of students demonstrated improved competencies across the three target subjects. Students who had previously struggled with basic recognition skills advanced to reading Gujarati texts, solving arithmetic problems, and engaging more confidently with EV5 concepts. These gains were supported by teacher training sessions that emphasized participatory methods, structured learning materials, and regular in-class monitoring.

On the hygiene front, the project addressed key infrastructure gaps identified during baseline. While all schools had access to drinking water and handwashing facilities, only half had provisions for sanitary napkin disposal. Infrastructure upgrades included the installation of additional handwashing stations and

Around 75% of students demonstrated grade-level proficiency in Gujarati, EVS, and Mathematics, compared to baseline assessments where most students had struggled with basic literacy and numeracy skills. enhancements to sanitation facilities. Hygiene sessions were also held regularly. By project end, 85% of students reported practicing handwashing with soap daily, and schools reported fewer hygiene-related absentee cases.

Behavioural changes were also visible outside the classroom. Students were observed encouraging peers and even family members to adopt better hygiene habits. Visual cues such as posters, routine-based hygiene messaging, and structured reinforcement by teachers contributed to normalizing these practices across schools. Teachers played a key role in this shift, with 7 out of 9 WASH focal teachers being women, reflecting strong female leadership in hygiene promotion.

Community engagement contributed to both learning and WASH outcomes. School Management Committees (SMCs) and parents actively participated in monitoring progress, providing feedback, and helping sustain improvements. While the extent of engagement varied across schools, feedback mechanisms enabled by the project helped build shared responsibility among stakeholders.

The COVID-19 pandemic introduced challenges, including school closures and limited face-to-face instruction. The project responded by distributing home-based learning materials and hygiene kits. Teachers remained in contact with students and parents through phone calls and visits, ensuring that both learning and hygiene messages continued to reach households.

Rochak project illustrates the effectiveness of integrating education and hygiene efforts in school settings. By focusing on both academic learning and health behaviours, the initiative supported students' holistic development. The experience offers a useful reference for similar urban school systems where learning gaps and hygiene infrastructure deficits coexist. The project's emphasis on foundational competencies, behavioural reinforcement, and community-led change presents a scalable model for future programming.





### Disclaimer

This compilation of data of NSE Foundation's CSR initiatives is meant for information purposes only. The information provided in this document is provided on "as is" basis and "as available" basis. NSE Foundation does not warrant the accuracy, adequacy, or completeness of this information and material and expressly disclaims liability for errors or omissions in the information compiled under this document. No warranty of express or statutory including but not limited to the warranties of non-infringement of third-party rights, title, merchantability and fitness for a particular purpose is given in conjugation with the information mentioned in this document. In no event will NSEIL, NSE Group Companies or NSE Foundation be liable for any damages, including without limitation direct or indirect, special, incidental or consequential damages, losses or expenses arising in connection with this document or use of any content thereof or inability to use or in connection with any failure of performance, error, omission, interruption, defect, even if NSEIL, NSE Group Companies, NSE Foundation or the representatives thereof, are advised of the possibility of such damages, losses, or expenses. The readers of this document must independently determine the appropriateness of the contents of the document for their purposes.





National Stock Exchange of India Ltd.

Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E), Mumbai – 400 051 National Stock Exchange of India Ltd. Tel: 022-2659 8100 (Extension - 26133)



### PROJECT SHIKSHA SETU

### IMPROVEMENT OF EDUCATIONAL OUTCOMES

Ensuring improvement in the learning levels of students in Ashramshala school, using the Mindspark application in Nandurbar district, Maharashtra

Social Impact Assessment Report, 2024



### **Project Overview**

The Shiksha Setu project, implemented by NSE Foundation under its Corporate Social Responsibility (CSR) mandate from 2019 to 2022. Designed as a technology-enabled intervention to address foundational learning gaps, the initiative directly benefited over 20,000 students across Grades 1 to 8, 333 teachers, and approximately 3,500 parents in the tribaldominated district of Nandurbar, Maharashtra.

Leveraging an adaptive learning platform, Mindspark, the project provided targeted support in three core subjects: Marathi (first language), Mathematics, and English as a Second Language (ESL). The program was implemented across 35 Ashramshalas and Zilla Parishad schools in six blocks of the district, with a focus on marginalized, first-generation learners from socio-economically disadvantaged communities. The COVID-19 pandemic significantly impacted the continuity of education nationwide, particularly in rural areas. During extended school closures, the Shiksha Setu project ensured uninterrupted learning by shifting to a hybrid model. Mindspark served as a vital bridge, helping students maintain academic momentum. Despite many students engaging with the platform for less than 20 hours, over 37 % demonstrated progress in Mathematics and English, while students with higher engagement-20 hours or more-showed markedly better learning outcomes, with 67.2 % improving in Mathematics, 62.6 % in Marathi, and 58.4 % in ESL.

The project also strengthened teacher capacity through continuous training on digital pedagogy, contributing to improved delivery and classroom integration. Over 84 % of students reported that teacher support significantly helped them understand difficult concepts, highlighting the program's blended approach to instruction.

Key features of the implementation included the integration of real-time progress tracking, personalized feedback loops, and regular reporting to school, education, and tribal administration. These elements informed classroom planning and contributed to the development of more effective teaching strategies.

Quantitative and qualitative findings from the impact assessment underscored improvements not only in academic performance but also in learner confidence, motivation, and digital literacy. Notably, 83.3 % of students reported increased motivation, while 85.6 % felt more confident engaging with complex subjects. Language skill development in ESE was particularly significant, with 86.7 % of students reporting improvement.

Parents and community stakeholders played an active role throughout the project. Awareness about Mindspark stood at 97 % among parents, and 83 % reported that their children regularly attended community learning sessions facilitated by the program. Moreover, 95 % of parents said their children were eager to return to school after lockdowns, underscoring the project's role in fostering a positive learning culture.

Through its structured Monitoring, Evaluation, and Learning (MEL) systems, the project continuously adapted to on-ground challenges, including post-pandemic learning recovery, subject-specific difficulties (such as grammar in Marathi or fractions and decimals in Mathematics), and varied levels of digital engagement. These insights enabled program team to refine content, delivery, and support mechanisms to drive greater inclusivity and impact.

In its design, implementation, and outcomes, Shiksha Setu demonstrated a replicable model for scale. Its convergence of technology, pedagogy, community engagement, and institutional feedback laid the groundwork for sustainable educational transformation within tribal education systems. By aligning with government infrastructure and emphasizing local relevance, the project established a foundation for policy-aligned replication and broader systemic change.



### Disclaimer

This compilation of data of NSE Foundation's CSR initiatives is meant for information purposes only. The information provided in this document is provided on "as is" basis and "as available" basis. NSE Foundation does not warrant the accuracy, adequacy, or completeness of this information and material and expressly disclaims liability for errors or omissions in the information compiled under this document. No warranty of express or statutory including but not limited to the warranties of non-infringement of third party rights, title, merchantability and fitness for a particular purpose is given in conjugation with the information mentioned in this document. In no event will NSEIL, NSE Group Companies or NSE Foundation be liable for any damages, including without limitation direct or indirect, special, incidental or consequential damages, losses or expenses arising in connection with this document or use of any content thereof or inability to use or in connection with any failure of performance, error, omission, interruption, defect, even if NSEIL, NSE Group Companies, NSE Foundation or the representatives thereof, are advised of the possibility of such damages, losses, or expenses. The readers of this document must independently determine the appropriateness of the contents of the document for their purposes.





### PROJECT OUTCOME REPORT

### Innovative Medical Devices for Affordable Healthcare



The NSE Foundation-BETIC initiative successfully worked to improve healthcare access in underserved regions through the deployment of affordable, innovative medical devices. The project focused on developing locally manufactured devices, providing training to healthcare providers, and building partnerships with NGOs and government agencies. These efforts aligned with the "Made in India" vision by promoting indigenous manufacturing and fostering local talent to address regional healthcare needs.

The program, titled "Innovative Medical Devices for Affordable Healthcare," targeted three core objectives: deploying three innovative medical devices post-field trials, training 12 aspiring researchers and innovators, and utilizing integrated facilities for product development. Collaborations with NGOs, government hospitals, and healthcare providers enabled widespread deployment and monitoring, ensuring improved health outcomes in regions with high prevalence of cardiovascular diseases, diabetes, and mobility challenges.

By the project's conclusion, substantial progress was made, with 80% of device deployments completed and KAFOs fully deployed at 100%. However, the planned Health Technology Assessment (HTA) study by BETIC lab was not conducted due to the project's closure. Additionally, the development of an app to monitor the devices remained unfinished. Despite these setbacks, the achievements made during the project's duration lay a strong foundation for future advancements.



### Key Outcomes and Success Highlights

### Innovative Medical Devices:

- The Digital Stethoscope enhanced diagnostic accuracy and facilitated remote consultations in underserved regions.
- The Diabetic Foot Screener enabled early detection of neuropathy, significantly reducing the risk of complications in diabetic patients.
- The Knee-Ankle-Foot Orthosis (KAFO) improved mobility and independence for individuals with lower-limb disabilities, empowering them to participate in daily activities confidently.

### 2. Comprehensive Training Programs:

Flexible training modules were implemented to address the diverse needs of healthcare providers, combining online sessions for remote regions and in-person workshops for practical exposure. These programs covered device operation, secure data management, and troubleshooting, ensuring effective device utilization and long-term impact.

### 3. Strong Collaborations:

Partnerships with organizations like the IDEA Foundation, Kalyanam Foundation, Bethany Society, and UNICEF bolstered the deployment process. State governments in Sikkim and Goa played pivotal roles in integrating devices into public healthcare systems, demonstrating the effectiveness of collaborative frameworks.

### Tangible impacts on Healthcare:

- Early and accurate diagnostics improved preventive care and chronic condition management.
- Tailored KAFO fittings minimized stigma while ensuring user comfort and functionality.
- Deployment in challenging terrains enabled healthcare delivery in remote and underserved areas.



### Key learnings from the project emphasized the need for:-

- Flexible training tailored to healthcare providers with different experience levels.
- Building strong partnerships with local organizations was critical for effective deployment and sustainability.
- Promoting devices with indigenous content reduced dependency on imports and supported local manufacturing.
- Regular data reporting helped track device usage and outcomes, enabling timely improvements.
- Addressing logistical challenges through phased deployment and increasing community awareness about the devices were essential in ensuring widespread adoption and long-term success.

These insights provide valuable guidance for improving future healthcare initiatives.

The NSE Foundation-BETIC project not only met its immediate objectives but also laid the groundwork for future healthcare innovations. Its sustainable model of collaboration, training, and community engagement serves as a blueprint for improving healthcare accessibility and quality. The initiative's success, reflected in its measurable outcomes and stakeholder interest, underscores the transformative potential of locally-driven, innovation-focused programs in addressing regional healthcare disparities. Moving forward, leveraging these learnings and expanding partnerships will enable scalable, replicable solutions for broader healthcare impact.



National Stock Exchange of India Ltd.

Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E). Mumbai – 400 051



### PROJECT OUTCOME REPORT \_\_

Hyperlocal air pollution monitoring using mobile monitoring for Mumbai and Gurugram





The project focused on developing a network of low-cost, stationary, and mobile environmental monitoring units capable of collecting high-resolution data across urban areas.

This project serves as an initiative to combat urban air pollution through the use of innovative, cost-efficient, and hyperlocal air quality monitoring solutions. By integrating advanced technologies, it generates critical insights to guide individuals, stakeholders, and policymakers toward actionable solutions for cleaner, healthier urban environments.

### Purpose and Vision

- To develop hyperlocal air quality estimates and spatially resolved dynamic maps of environmental conditions.
- To empower citizens with personalized exposure assessments and facilitate informed decision-making.
- To inform policy changes and promote health-focused miligation strategies.

### Key Achievements

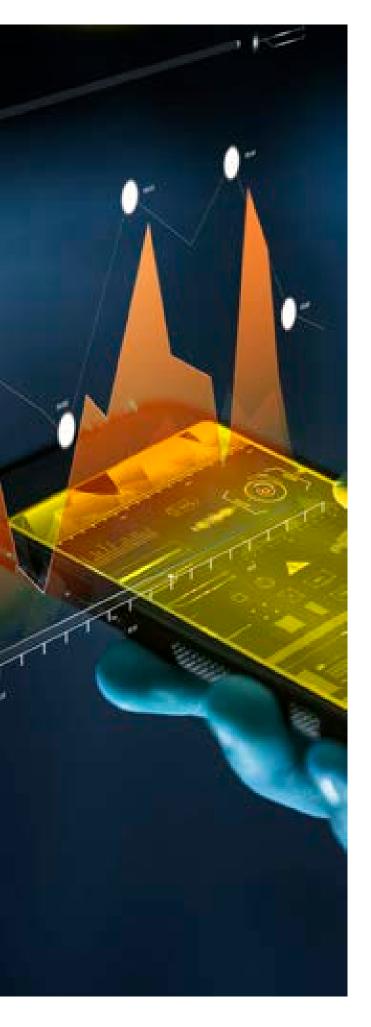
- Deployment of 25 vehicle-mounted and 25 stationary monitoring devices in Chennai, alongside 40 vehicle-mounted and 80 stationary devices in Gurugram.
- Development of a high-resolution (1 km x 1 km) air quality map accessible via a user-friendly web application.
- Successful replacement of Mumbal with Chennal as the project site, demonstrating adaptability to logistical challenges.
- Introduction of innovative mirror devices for two-wheeler riders, addressing urban commuter exposure.

### **Technology and Execution Highlights**

- Standardization and online calibration of lowcost mobile sensor networks for consistent accuracy.
- Seamless integration of loT technology with real-time data collection, visualized dynamically using Grafana dashboards.
- Strategic placement of stationary and mobile devices to maximize urban coverage, enhance spatial resolution, and address 'blind spots.'

### Key Learnings

- A programmatic and adaptive project management approach ensured effective navigation of institutional and regulatory hurdles.
- Iterative prototyping and robust manufacturing processes balanced innovation with scalability and practicality.
- Real-time monitoring enabled immediate insights into pollution hotspots and emerging patterns, fostering timely interventions.
- Enhanced stakeholder coordination highlighted the importance of transparent communication and proactive collaboration.

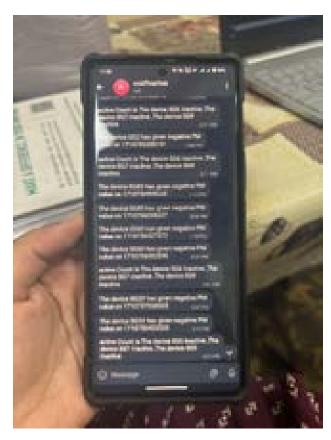


# TRANSITIONING TO 90% RENEWABLE ENERGY, THE SYSTEM HAS ACHIEVED SUBSTANTIAL COST SAVINGS

### **Impact and Future Implications**

- Comprehensive synergy between mobile and stationary devices provided a holistic view of urban air quality dynamics.
- Established a reliable data infrastructure to inform health outcomes, support future research, and advance public awareness.
- Set the foundation for scalable solutions and advocacy to influence air quality policies at local, state, and national levels.

The project laid a foundation for future advocacy in air quality regulation and public health. By fostering transparency and public engagement, it strengthened the framework for collaboration among authorities, stakeholders, and citizens. This initiative not only delivers critical data on urban air pollution but also sets the stage for healthier environments and sustainable urban development.











National Stock Exchange of India Ltd.

Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E). Mumbai – 400 051



### PROJECT OUTCOME REPORT

### Monitoring report for Integrated Energy Monitoring and Management System



## 76% OF INDIA'S ELECTRICITY COMES FROM COAL AND CRUDE OIL.



India is projected to construct 700-900 million square meters of urban space annually until 2030¹. The building sector accounts for approximately 160 million tons of CO2 emissions and nearly 30% of the nation's electricity consumption². Currently, 76% of India's electricity comes from coal and crude oil. In 2022, India was the world's 3rd largest greenhouse gas (GHG) emitter.³ Despite this, India's energy consumption remains much lower than that of most other countries. The declining costs of solar, wind, and storage systems signal a pivotal moment in the country's Net-Zero energy transition journey. With its vast potential for solar and wind energy, India is well-positioned for this transition.

India has set ambitious targets to combat climate change. By 2030, it aims to reduce the carbon intensity of its economy by less than 45%, ensure that 50% of its cumulative electric power comes from renewable sources, and achieve 500 GW of installed renewable energy capacity. Additionally, India aims to reach net-zero carbon emissions by 2070.4

This report provides a detailed overview of the Integrated Energy Monitoring and Management System (IEMMS) developed by the Centre for Excellence in Energy and Telecommunication (CEET) at the Indian Institute of Technology Madras Research Park (IITMRP), funded and supported by NSE Foundation (NSEF) for the project time period of 1st October 2021 to 31st July 2024. NSE's funding was crucial in advancing the energy management project, providing essential financial support for infrastructure installation, system development, and the integration of renewable energy sources. This partnership highlights a strong commitment to sustainable energy practices, enabling the project to achieve its goals effectively and contribute positively to environmental stewardship.

The Energy Management System (EMS) aims to optimize energy usage, leverage renewable energy sources, and improve energy efficiency. IITMRP aims to match the demand of energy with supply of Renewable Energy (RE). The EMS helps to save surplus renewable energy in the storage system and this energy is used during times of deficit. The system matches demand and supply with sensors updating every 60 seconds to so that little to no energy is wasted. By prioritizing renewable sources like solar and wind, organizations can significantly reduce utility costs and decrease their carbon footprint, supporting sustainability goals.

<sup>1</sup> India needs to add 700-900 mn sqmtr of commercial-residential space every year by 2030: Puri, ET Government

<sup>2</sup> https://www.niti.gov.in/

<sup>3</sup> GHG emissions in India- Statistics & Facts | Statista

<sup>4</sup> https://www.investindia.gov.in/sector/renewable energy#:~:text=India%20has%20set%20a%20target,energy%20 installed%20capacity%20by%202030.



# TRANSITIONING TO 90% RENEWABLE ENERGY, THE SYSTEM HAS ACHIEVED SUBSTANTIAL COST SAVINGS

By transitioning to 90% renewable energy, the system has achieved substantial cost savings, amounting to ₹2.68 per unit of electricity which translates to approximately Rs. 32,88,917 per month. Additionally, the system charges the storage during lower-rate rebate hours (10:00 pm - 5:00 am) and utilizes stored energy during peak tariff hours (6:00 am - 10:00 am and 6:00 pm - 10:00 pm), further reducing costs. This comprehensive approach not only enhances energy efficiency and reduces utility expenses but also significantly lowers the carbon footprint, aligning with India's sustainability goals.

With substantial targets for reducing carbon intensity, increasing renewable energy capacity, and achieving net-zero emissions IITMRP has developed the Integrated Energy Monitoring and Management System (IEMMS) with support from the NSE Foundation. By optimizing energy usage and prioritizing renewable sources, the EMS not only enhances energy efficiency but also leads to considerable cost savings and reduced carbon footprint. This strategic approach highlights the potential for sustainable energy practices to drive economic and environmental benefits in India's journey towards a greener future.



National Stock Exchange of India Ltd.

Exchange Plaza, C-1, Block G, Bandra Kurla Complex, Bandra (E). Mumbai – 400 051