
Impact Assessment Report on KEF Nirmaan Project

Prepared For



Prepared By



SOULACE CONSULTING PVT LTD

ISO 27001:2013 Certified

DELHI NCR | MUMBAI | KOLKATA

Website: www.soulace.in; Email: enquiry@soulace.in

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ABBREVIATIONS

KEF Kotak Education Foundation

RTE Right to Education Act

NEP National Education Policy

SDG Sustainable Development Goals

W West

KMPL Kotak Mahindra Prime Limited

PUF Polyurethane foam

EXECUTIVE SUMMARY

Schools are one of the major spaces that children engage in during their childhood and an important building block in their developmental journey. The NEP 2020 lays down the goal that every educational institution should follow: "A good educational institution is one in which each student feels welcomed and cared for, where a safe and stimulating learning environment exists, where a wide range of learning experiences are offered, and where good physical infrastructure and appropriate resources conducive to learning are available to all students. Attaining these qualities must be the goal of every educational institution." Paragraph 5.9 of the policy emphasizes the need for safe and adequate infrastructure to ensure that students and teachers, including children with disabilities, have access to an effective, safe, and inclusive learning environment. SDG3 also mentions the need to ensure healthy lives and promote well-being at all ages, while SDG4 highlights the need to ensure inclusive and quality education for all and the promotion of lifelong learning.

Despite strong international and national policy mandates that emphasize a safe, inclusive, and conducive learning environment, this theory has not practically translated to the most vulnerable areas of India, leading to less-than-ideal conditions for children's learning and development. Studies have identified reasons such as a lack of resources and administrative impediments. Poor infrastructure for child safety and conducive learning has been vividly highlighted in vulnerable communities and areas such as slum pockets, rural-tribal areas, and conflict zones. Most schools in these vulnerable locations have the poor physical infrastructure, including concerns related to flooring, walls, plumbing, and plastering.

Realizing the need to develop school infrastructure to ensure a quality and safe learning environment and retention for children, the Kotak Education Foundation began supporting partner schools. This impact evaluation was conducted to assess the infrastructural development carried out by the foundation in five schools in Mumbai. The evaluation is a qualitative research study that provides pre- and post-empirical evidence to support the claim of redevelopment.

Major Findings

- Under this intervention, five schools were provided with infrastructure support to ensure child safety and risk reduction.
- Plastering, electrification, and painting were some of the common concerns among the schools, which were resolved with the provision of plastering, new electrification, repainting, and repairing seepage.
- Ventilation was a major concern at Mohammadi Urdu High School, where new windows and ventilators were added to ensure the well-being of children.
- Asbestos was replaced with PUF panels to provide good thermal insulation, create leak-proof roofing, prevent any health-related risks, and provide a conducive temperature for children to learn.
- The painting was carried out in all five schools to ensure that the classrooms were cleaner, brighter, and more engaging for the children to feel welcomed.

CHAPTER 1: INTRODUCTION

Project Background

The fundamental rights of the children in our nation – the right to a dignified life and the opportunity to receive an education in a secure and nurturing environment that encourages growth and development – are guaranteed by the Constitution. International obligations like SDGs 3 and 4 have highlighted the need for healthy living, and inclusive and quality learning, putting the onus on national, state, and local stakeholders to ensure the same.

Numerous measures have been taken by the union and state governments to ensure that all children aged between 6 to 14 years attend school in a secure learning environment. However, the majority of the children either continue their education in an unprotected setting or leave schools due to diverse locations, frequent natural hazards, inadequate infrastructure, and unsafe facilities.

To ensure a safe and conducive learning environment, the availability and maintenance of physical infrastructure, a conducive environment, etc., are vital points. Some of the important infrastructure that ensures a safe and conducive learning environment for children include a strong school building, proper electrical wiring, proper fencing of the school boundary, safe and hygienic toilets, and well-maintained and child-friendly classrooms.

These concerns were also echoed through the KEF empanelled schools located in the most vulnerable communities, leading to the initiation of Project Nirmaan. Project Nirmaan was a unique approach to providing infrastructural support to KEF empanelled schools, based on specific criteria mentioned below:

- The school in need for infrastructural requirements raised/ requested to the KEF.
- Evaluation of requirements requested by school in terms of critically by Nirmaan team.
- Performance of other KEF interventions / programs in this school.
- Availability of required documents like proper trust registration, trust deed, clear and submitted audit reports, school registrations etc.
- Comfortability & feasibility of School sharing their part of Cost / amount proposed against the estimated cost.

An assessment was conducted to understand the infrastructure deterioration that impacts children's learning, with a risk measurement matrix followed by intervention. This impact report sheds detailed light on the interventions undertaken in five different schools in Mumbai. Through a systematic process of assessment, evaluation, planning, and intervention, individualized infrastructural support was provided to each school.

This report presents an evaluation of the intervention using a qualitative research method and provides an analysis of the same. During the research study, interviews were conducted using an interview guide, extensive field visits were carried out, and observation notes were taken. These were later collated to document the impact that was generated through the intervention for child-safe and friendly school spaces.

The objective of the study were as such:

- The study aims to understand the scope, process, and areas of intervention undertaken.
- It endeavors to find the changes that have occurred post-intervention in the respective schools.
- The study aims to understand the outcome and impact created by the project.

CHAPTER 2: RESEARCH METHODOLOGY

Research generally involves a systematic and rigorous process of gathering, analyzing, and interpreting data using methods and scientific principles to gain insights and understanding of discourse. Research methodologies are used in impact evaluation to assess the effectiveness of the projects and interventions in achieving intended outcomes for envisioned objectives. Since project interventions take account of the reach of beneficiaries and the quality of their experiences through the intervention, impact evaluation culminates in the aspects of methods, therefore, mixed research is seen as justifiable for such scenarios. This study also undertakes a mixed research evaluation approach, integrating both qualitative and quantitative approaches to theorizing a comprehensive understanding of the impact generated through the project. The approach has been systematically applied to data collection, data analysis, and interpretation to strengthen data reliability, the validity of findings, and inferences. This helps to deepen the understanding of outcomes and impacts achieved and how the context affected the implementation of the project. Mixed research was selected since it is one of the rare evaluation methods which accurately captures the complexities of how the project functions in the real field. Opposed to the idea of drawing subjective speculations, this scientific approach is applied to derive objective insights. The derivations are based on the data collected from the beneficiaries and other stakeholders engaged in the implementation of the project. The collected data was then analyzed to provide scientific inferences, backed by qualitative data collated from the participants. The data collected were structured and sorted, and computing tools were used to process them. The collection of data was done in two tiers: a primary and secondary collection of data. The insights of the study are accountable to the characteristics of scientific research, namely ethical neutrality, transparency, testability, and validity.

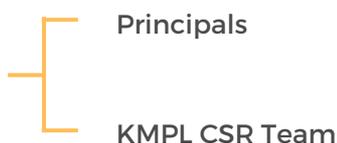
Research Design

- Name of the project : Nirmaan
- Implementation Agency : Kotak Education Foundation
- Research Design used : Descriptive Research Design
- Sampling Technique : Purposive Sampling
- Method Used : Participatory Observation Method

Ethical Considerations

The impact evaluation was undertaken with respect to the ethical consideration that was estimated to arise in the process. The study was conducted most ethically and responsibly possible way, by keeping in mind the sentiments of the school authorities. The participants were fully informed about the nature of the research and their participation. They were given the opportunity to fully consent to participate in the research study or withdraw at any time. The confidentiality of the participants was maintained and they were treated with fairness and respect by the SoulAce research team. Beneficiaries were not given any false promises and were not hurt culturally or economically.

Ethical Considerations



CHAPTER 3: MAJOR FINDINGS

The project Nirmaan, initiated by KMPL under CSR activities in partnership with KEF, endeavored to develop partnering schools and improve their existing infrastructure in the best possible way. The purpose was to make school spaces safer, accessible, and conducive to learning. The effort was to ensure that partner school spaces and their poor infrastructure did not pose a risk to children and their learning. Under this intervention, five schools were improved: Shree Sai Vidyalaya, Anjuman Khairul Islam, Mohammadi Urdu High School, Mahila Mandal Sanchalit Kanya Vidyalaya, Adarsh Vidyalaya Urdu High School. Some of the major reasons for poor infrastructure were a lack of availability of funds for repair, deprioritization of school infrastructure at the operational level, and other administration-related challenges.

However, this led to schools being in a poor state, which impacted children's health, well-being, and learning of the students. Lack of drinking water, clean toilets, scraped walls, leakage, asbestos roofs, poor electrification, poor ventilation, etc., were some of the many concerns that were expressed and identified. The infrastructure support was segregated into three types: tenantable (non-structural projects), non-tenantable projects (structural projects), and in-kind donations (movable infrastructure projects).

In the five schools, various types of support were provided, with major improvements including plastering, electrification, ventilation, painting, and replacement of asbestos. These infrastructure improvements led to the creation of safe and comfortable classrooms that were protected from weather conditions such as rain and heat and were also child-friendly and engaging. The schools with these improvements have seen increased safety, brighter and more engaging classrooms, improved thermal insulation to prevent health concerns due to leakage and dampness, and better ventilation and lighting to ensure the physical and mental well-being of the children using these spaces.

The following is a detailed school wise documentation of the intervention and its impact:

3.1 Shree Sai Vidyalaya

Shri Sai Vidyalaya is a school located in the Aksa Village, Madh Marve Road, Malad (W), Mumbai - 400905, constructed in 1986. The school accommodates students from pre-primary to the secondary section, with a total enrollment of 630 students. The school is over three decades old and was facing issues such as leakage/seepage, deteriorated plaster and paint, and damaged tiles, with three classrooms being more damaged than others. The school's eligibility for infrastructural support was assessed and the work scope was finalized with the help of a risk control matrix.

Proposed Intervention

The school trustees requested the project implementation agency for repairing three classrooms. During the proposed intervention, it was discovered that damaged walls needed finishing, such as plastering, along with a single coat of plaster. Additionally, new tiles were required for the walls up to a height of 1.5 meters, and a color coat on plastered surfaces above 1.5 meters was also needed. The exterior side of the school needed to be repaired and painted.

After the Intervention

After the intervention of KEF and KMPL, the school was renovated according to the proposed intervention. The walls were plastered and new tiles were fixed. The walls and roofs of the classrooms were painted, enhancing the children's and teachers' perception of the classroom. These simple redevelopments heightened the feeling of being welcomed and encouraged engagement.



The painted classroom



New tiles can be seen in another classroom

3.2 Anjuman Khairul Islam

Anjuman Khairul Islam is a school located at 2nd Ghelabhai Street, Madanpura, Byculla, Mumbai - 400008, constructed in the year 1960. The school comprises a ground floor and four (4) R.C.C. frame structures from primary to secondary sections, with a total enrollment of 795 students. The school upgraded its toilet blocks, but the passage leading to the toilets could not be improved due to financial constraints. The passage, which measures 15 feet x 4 feet, was in a deplorable condition with plaster/tiles removed or scraped from the walls at many locations.

Proposed Intervention

It was proposed that wherever necessary, old plaster would be scraped and removed from the walls, and a coat of plaster would be applied for affixing the tiles. Tiles will be provided for the walls as well as the floor, and a fresh coat of acrylic paint will be applied to the ceiling. To prevent further rusting of the beam, pesticide, and micro concrete will be applied. The passageway will be illuminated with lights where required.

After the Intervention

With KEF and KMPL's intervention, the school was renovated according to the proposed plan. Plastering of walls was done, along with fixing new tiles on the floor and walls. A fresh coat of paint on the ceiling was also applied. The rusting on the beams was treated first, and then micro-concrete was used to prevent any further deterioration. The electricity lines were fixed and the supply was restored. The passageway was also illuminated for safety and accessibility.



Painted wall to save wall damage



To prevent rusting, beams also painted



Tiles can be found on wall and floor

3.3 Mohammadi Urdu High School

Mohammadi Urdu High School is a ground plus one (1) structured school located at Haji Ayub Khan Khudadad, Khan Marg, Sonapur, Bhandup (W), Mumbai - 4000078. The school caters to students from primary to secondary sections, with a total enrollment of 1610 students.

Proposed Intervention

Upon receiving a request from the school for repairs and upgrades, KEF proposed certain interventions to address the following issues: leaks from broken asbestos and external/internal walls, peeling paint, poorly ventilated classrooms, inadequate steel framing, leaks from the toilet into the computer room, and faulty electrification.

Through the intervention of KMPL and KEF, steps were taken to remedy the identified issues. The asbestos sheets were replaced with PUF sandwich panels and the walls were plastered and painted. Windows and ventilation were added to the classrooms, and safety grills were installed for security purposes. A new structural steel frame was also added. To address the issue of leaks from the toilet into the computer room, trial and error was undertaken to prevent seepage. Finally, the electricity lines and points were upgraded.

After the Intervention

After the intervention, the asbestos roofs were replaced with PUF roofs, resulting in an increase in the height of the classrooms and a reduction in the temperature, making them more conducive to learning. The walls were made smoother and the leaks were fixed. With new paint, the classrooms looked welcoming, which had a positive impact on the emotional well-being of the students and teachers. Also, new electrical wiring was installed to ensure the safety of the children.



Replaced asbestos roof with PUF and new beams can be seen



Painted classroom with well ventilated system



Exterior roof installed to prevent rain water



Plastered wall can be found in the classroom

3.4 Mahila Mandal Sanchalit Kanya Vidyalaya

Mahila Mandal Sachalit Kanya Vidyalaya is a ground plus two (2) structured school situated at Pipe Road, Kurla (W), Mumbai - 400 070, with an enrollment of 738 students from pre-primary to secondary sections. It housed two independent ground classrooms covered with asbestos. During monsoons, these two classrooms faced severe issues of leakage, not just from the roof but also from the walls, due to ground pressure, as the classroom floor level was below the ground level of the adjoining structures.

Proposed Intervention

The proposed plan involved pinpointing the areas that needed fixing and improvement. These areas included settlements by constructing new walls in place of existing ones, changing the current asbestos roofing, elevating the plinth above the ground level of the surrounding area, fixing cracks in the plaster of the interior and exterior walls, repainting the inside of the classrooms, and locating and repairing any electrical problems.

After the Intervention

The proposed intervention for the above-mentioned issues included replacing the asbestos roofing with PUF panels, raising the height of the classrooms by filling the earth and tiling it to prevent water penetration, carrying out plastering on walls and painting and conducting minor electrical work.



Newly constructed electric board along with wi-fi facility



Exterior view of the constructed classroom



Interior view of the classroom with extended wall

3.5 Adarsh Vidyalaya Urdu High School

Adarsh Vidyalaya Urdu High School was constructed in the year 1993 and is situated at Yadav Nagar, L-ward, Survey No. 22 Hissa no. 3 (Part), CTS no. 52 (Part), Sakinaka, Mumbai. Initially, the school consisted of only a ground floor and in 1998, another floor was added.

As the roof was of asbestos, the classrooms faced issues of leakage during the monsoon season. The leakage was visible from the external walls, and there were also structural issues like cracks and upheaval of tiles on the first floor. The external plaster was in a dilapidated condition, and the windows and doors were damaged too.

Proposed Intervention

Upon the school's request for repairs and upgrades, the KEF proposed interventions to address the following issues: preventing leakage from the asbestos roofing along with supporting beams, repairing wide cracks caused by surrounding settlements, applying a fresh coat of plaster to rectified leakage and a fresh coat of paint on top of it, ensuring proper ventilation in classrooms, and replacing the existing windows.

After the Intervention

Post KMPL and KEF's intervention for the above-identified issues, the asbestos roofing was replaced with PUF sandwich panels, and a structural steel frame was installed to provide more stability to the structure. To tackle the issue of wide cracks in the walls, existing walls were demolished and new walls were constructed along with plinth beams. Steel and brick columns were added, and plastering of walls was carried out, followed by painting them. Sliding windows along with grills were added, and a ventilation system was developed as well.



Ventilation system can be found in the classroom



Painted wall and tiles can be visible along with well structure beams



Asbestos replaced with PUF sandwich panels



RELEVANCE

KMPL and KEF intervened and the project met its objective of providing infrastructural support to the schools for child-safe space.

RATING ● ● ● ● ●

COHERENCE

The project was well aligned with multiple SDGs
Goal 3: Good Health and Well-being
Goal 4: Quality Education
Goal 17: Partnership for the Goals

RATING ● ● ● ● ●



EFFECTIVENESS

The project improved infrastructure facilities in the schools by supporting school buildings and all the stakeholders accessing them.

The project was highly effective as it largely met its objectives, achieved the results expected, and also reached out to the right target groups. Hence, the project can be stated to be highly effective.

RATING ● ● ● ● ●

EFFICIENCY

Considering the investments made in school infrastructure and benefits obtained by the children in terms of increased well-being and safety level, as was reported by the beneficiaries, it can be stated that the project was highly efficient.

RATING ● ● ● ● ●

IMPACT

The project created an intended impact among children and other stakeholders like teachers. It created positive learning spaces outside the classroom and reduced the risk to the health and life of stakeholders accessing it.

RATING ● ● ● ● ●

SUSTAINABILITY

The project can be viewed as a sustainable intervention since it was built on the public-private partnership and empowered KEF empanelled schools. Infrastructure support in itself is sustainable as it has a long-lasting impact on all the beneficiaries accessing it.

RATING ● ● ● ● ●

CONCLUSION

Schooling is a crucial phase in children's lives that can impact their adulthood. A safe, secure, and healthy environment is a precondition to quality learning. The importance of quality and inclusive education is the foundation of international and national obligations to ensure learning outcomes and facilitate the holistic development of children. However, despite the policies that have been developed, vulnerable populations often fall at the intersection of inequality and deprivation. The school infrastructure in the urban slum pockets of Mumbai is no different. Government schools in the poorest rungs of society face marginalization and neglect. Their development is not a priority, and funds do not trickle down easily to meet all their needs. As a result, children who access these schools are deprived of quality education and a conducive learning environment and face well-being-related risks.

The Nirmaan Project under KMPL's CSR initiatives, steps in to fill this gap by providing partner schools with the infrastructure support they need. This intervention was undertaken through a systematic process of understanding the needs, conducting assessments, measuring the risks through a risk matrix, and following it up with intervention through vendors.

This impact report evaluates the Nirmaan project in five different schools mentioned above. These schools faced major concerns of electrification, deteriorating plastering and walls, damaged roofs, ventilation, etc., which posed a risk to the children and teachers using them. The evaluation found that all the identified and agreed interventions of each school were done. Electrification, leakage, and painting were major concerns; those were fixed, and the asbestos roofs were replaced. The painting and ventilation were taken care of to ensure the children's well-being and engagement. The project had a long-lasting impact, including the immediate outcomes generated by undertaking infrastructural support provision. It strengthened one of the important spaces of children's lives, i.e., school, making it safe and secure for them to access. It also generated a multi-domain impact affecting education, health, and safety.