





LIGHT HOUSE INITIATIVE JOURNEY OF 75 GRAM PANCHAYATS TOWARDS LIGHT HOUSE ODF PLUS MODEL STATUS













ACKNOWLEDGEMENTS

We would like to take this opportunity to express our gratitude to the people and organizations that have contributed to the preparation of the Light House Initiative Phase 1 report. Without their support, guidance and insights, this report would not have been made possible. First and foremost, our deepest gratitude to the Department of Drinking Water and Sanitation, Ministry of Jal Shakti for always being our source of guidance and inspiration all throughout the Light House journey and in preparation of this report. The DDWS team including WASH experts and consultants patiently gave their insights and feedback that have provided accuracy and insight to the report.

The contribution of the state level teams was equally vital and critical to ensuring that the GPs were able to meet their goals in achieving lighthouse status. Their active support and guidance starting with the SMD to the DCs and BDOs allowed the GPs to attain their goals in record time.

We would also like to acknowledge the immense contribution of our partners, Aga Khan Foundation, Ambuja Cement Foundation, HCL Foundation, ITC Ltd., Jindal Steel and Power Foundation, JSW Foundation, Nayara Energy Limited and TATA Trusts in achieving the ambitious task of documenting the incredible journey of 75 gram panchayats across 15 states. We are indebted to the teams of our corporate partners for helping us collate large volumes of data and pictures from the field and in sharing their experiences and insights on the Light House Initiative. The experiences and learnings shared by them would be of immense value going into phase 2 of the program.

MESSAGE





Investing in water and sanitation results in several benefits, including economic, environmental, quality of life, and health. Ever since we embarked on this amazing journey of making India open defecation free (ODF), with the launch of the Swachh Bharat Mission (SBM) in 2014, we have witnessed huge accomplishments in the field of WASH, beginning with rural India that became open defecation free on October 2nd, 2019, on the auspicious occasion of the 150th birth anniversary of Mahatma Gandhi. In the subsequent years, we have worked towards achieving sustainability for the assets created and behaviours induced through Phase-1 of the mission, while also tackling the critical issues of solid and liquid waste management.

The cornerstone of our achievements thus far has been the strong partnerships that have not only strengthened our hands, but also brought fresh perspective and innovative solutions specific to the rural context. Light House Initiative (LHI) launched in January 2023, was a one-of-a-kind initiative that saw the coming together of Department of Drinking Water and Sanitation, Ministry of Jal Shakti, India Sanitation Coalition, and corporate giants, all working towards a common goal. The Public Private Collaboration within the broad purview of SBMG and based on the principle of inclusive sanitation and equitable access, worked in 75 GPs across 15 states over a period of several months. The intervention employed a participatory and consultative approach through mobilization of the village communities, corporates houses, district & block administrations, village, and Gram Panchayat officers, working side by side on the vision of a Swachh India.

I congratulate my team at DDWS, India Sanitation Coalition and the corporate partners—that were part of the LHI Phase 1 program towards their tireless effort in making this program a success while also wishing them the best for LHI Phase 2.

The LHI Phase 1 report, titled "Journeys of 75 GPs towards Model Status - The Light House Initiative Phase 1" which is released today is an inspirational account of the journey that these gram panchayats undertook to achieve the ODF Plus 'Model' status and become a Light House GP.

My best wishes to India Sanitation Coalition led by Ms. Naina Lal Kidwai, Chair and Ms. Natasha Patel, Chief Executive, for a successful Phase 2 of the Light House Initiative.

Vini Mahajan Secretary, Department of Drinking Water and Sanitation Ministry of Jal Shakti

MESSAGE





The Swachh Bharat Mission launched in 2014 under the visionary leadership of Honourable Prime Minister, Shri Narendra Modi Ji, was a fitting tribute to Father of the Nation, Mahatma Gandhi's dream of a Swachh Bharat. For rural India, this entailed a drive towards making our villages Open Defecation Free and improving the levels of cleanliness. ODF meant the termination of faeco-oral transmission, defined by, (a) no visible faeces found in the environment/village and (b) every household as well as public/community institution(s) using safe technology option for disposal of faeces which in turn would lead to not just a 'Swachh' but also a 'Swasthya' Bharat.

In 2019, we proudly achieved the objectives of phase 1 of the program by making rural India open defecation free, and then set about the vision of making our villages ODF Plus Model. An ODF Plus Model village is one that sustains its ODF status, ensures solid and liquid waste management and is visually clean. Today close to 20% of our villages are ODF Plus Model and the remaining well on their way to becoming ODF Plus by March 2024.

This feat could not have been achieved without the combined effort of our rural communities, administration, experts, and private sector, at all levels. Acknowledging the immense strength in partnerships and collaborations, the Light House Initiative (LHI) was conceptualized as a Public Private Collaboration with the principle of collaborative and participative approach at its core. Under the oversight of Department of Drinking Water and Sanitation (DDWS) and India Sanitation Coalition, the initiative saw the coming together of 8 corporates in 75 GPs across 15 states in making these 75 GPs Light House GPs. A Light House GP was one that had successfully and sustainably developed and maintained infrastructure and practices across all the components of the said value chain.

Through this report titled "Light House Initiative Journey of 75 Gram Panchayats Towards Light House ODF Plus Model Status", I am proud to share with you the transformative journey of the GPs that were part of the LHI program. This report documents some inspiring stories from communities, corporates and institutions that made possible the success of this initiative through their constant support and contribution. I believe that true to their name, the Lighthouse GPs shall be a beacon of light to all other GPs on a path to safe and sustainable sanitation destination.

My heartiest congratulations to all our partners who were instrumental in making the LHI Phase 1 a success and wishing them the best for LHI Phase 2.

Jitendra Srivastava

Joint Secretary, and National Mission Director, SBMG Department of Drinking Water and Sanitation Ministry of Jal Shakti



ABBREVIATIONS

| AKF | Aga Khan Foundation |
|----------|--|
| ACF | Ambuja Cement Foundation |
| ВСС | Behaviour Change Communication |
| CSC | Community Sanitary Complex |
| CSR | Corporate Social Responsibility |
| DAY-NRLM | Deendayal Antyodaya Yojana - National Rural Livelihoods Mission |
| DDWS | Department of Drinking Water and Sanitation |
| FSM | Faecal Sludge Management |
| FSSM | Faecal Sludge and Septage Management |
| FSTP | Faecal Sludge Treatment Plant |
| GP | Gram Panchayat |
| GPDP | Gram Panchayat Development Plan |
| HCLF | HCL Foundation |
| НН | Households |
| HRD | Human Resource Development |
| ICDS | Integrated Child Development Scheme |
| IEC | Information, Education and Communication |
| IHHL | Individual Household Latrine |
| IMIS | Integrated Management Information System |
| ISC | India Sanitation Coalition |
| JSPF | Jindal Steel and Power Foundation |



| JSWF | JSW Foundation |
|---------|--|
| LHI | Light House Initiative |
| LWM | Liquid Waste Management |
| MGNREGA | Mahatma Gandhi National Rural Employment Guarantee Act |
| MLP | Multi Layer Plastic |
| NRLM | National Rural Livelihood Mission |
| O&M | Operations and Maintenance |
| ODF | Open Defecation Free |
| PMAY-G | Pradhan Mantri Awas Yojna Gramin |
| PRA | Participatory Rural Appraisal |
| PRI | Panchayati Raj Institution |
| PWMU | Plastic Waste Management Unit |
| RRC | Resource Recovery Centre |
| SBM-G | Swachh Bharat Mission (Gramin) |
| SHG | Self Help Group |
| SLWM | Solid Liquid Waste Management |
| STP | Sewage Treatment Plant |
| SUP | Single Use Plastic |
| SWM | Solid Waste Management |
| ТСВ | Training and Capacity Building |
| VAP | Village Action Plan |
| WASH | Water Sanitation and Hygiene |

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EXECUTIVE SUMMARY







EXECUTIVE SUMMARY

Rural India was declared Open Defecation Free (ODF) on October 2nd, 2019, and the nation on that day achieved one of the most significant milestones in its developmental history as a tribute to the Father of the Nation on his 150th birth anniversary. The year 2020 saw the launch of the Swachh Bharat Mission Gramin 2.0, for merely achieving the ODF status was not sufficient. Sustainability of the assets created, associated behavioural change, and solid and liquid waste management arrangements were also required to be achieved in fulfilment of the requirements of SDG 6, Target 6.2. The Light House Initiative (LHI), conceived at the behest of the Department of Drinking Water and Sanitation (DDWS), Ministry of Jal Shakti, and the India sanitation Coalition (ISC) at FICCI piloted an initiative within the broad purview and boundaries of SBM-G 2.0 to assess corporate partnership in its new and enhanced format that could hasten up the process and activities within the SBM-G to achieve timely milestones.

Executed with 7 big corporate houses and 1 development foundation, 15 State SBM-G missions under the joint oversight of DDWS and ISC, the LHI Phase 1 was an exemplary model of collaborative effort. The initiative saw the coming together of Aga Khan Foundation (AKF), Ambuja Cement Foundation (ACF), HCL Foundation (HCLF), ITC Ltd., Jindal Steel and Power Foundation (JSPF), JSW Foundation, Nayara Energy and TATA Trusts as corporate partners. Phase 1 of the initiative is ending on a successful note with 57 of the 75 GPs becoming ODF Plus Model on the journey and out of these 30 GPs also becoming Light House GPs.

The success of SBM-G Phase 1 was attributed to 4 Ps: Political intent, Public money, Partnership and People's participation. All the 4 Ps remain crucial to ensuring the success of phase 2 of the mission. LHI Phase 1 embodied partnership at its core and brought in new perspective by involving corporates in their enhanced roles. It was for the first time that some of the corporate partners were involved in an initiative within SBM-G where they took the position of lead partner to help the gram panchayats implement everything right from planning, execution, and monitoring of the work. Besides, the corporate partners were given the freedom to not only assess the gap but also flag it with the relevant government authorities, with ISC's support, aimed at quick resolution. The partnership led to innovations in the execution of the initiative on the ground that ensured sustenance of the assets created including its functionality. For



instance, the user fee model in waste management already part of the intervention of one of the corporates and that was adopted by the gram panchayats in Bihar not only ensured the community's ownership and partnership in the program but also offered a solution that was sustainable over a long period of time.

Again, the Swachhta Mitra app in Bihar developed with insights and support from one of the corporates was a typical example of simple yet useful technology being applied to track and monitor the process of waste management in villages at the lowest level of the stakeholder participation. Such data becomes useful in enabling the concerned stakeholders and program managers to take stock of the progress in time preceding an informed decision with regard to sanitation governance benefiting the programme.

Source-segregation is one of the key indicators of success when it comes to waste management both in rural and urban spaces. One of the primary objectives of LHI was to ensure techno-managerial support by the corporate to achieve the sanitation milestones. Corporates lived up to that expectation and demonstrated in several states that plastic waste can be effectively segregated at source and put to value. One of the corporates empowered women SHGs for up cycling the MLP waste which would otherwise end up in landfill. The program was based on converting waste multi layered plastic waste in to luxurious and fashionable products like tote bags, hand bags, planters, etc. Four SHGs comprising of 60 women from vulnerable community received livelihood support through this initiative.

Community participation was the backbone of the LHI initiative, as the onus for taking initiative in making their villages ODF+ Model and Light House GP, ultimately, rested with the community. The LHI partners worked by empowering the communities in achieving their objectives and making their GPs ODF+ Model and Light Houses. One among the many ways of ensuring community ownership was to involve them from the initial stages of the work through an PRA exercise and other innovative ways. In Andhra corporate partner used Kalajathha, a traditional folk song-based awareness and behaviour change programme which helped in awareness and participation of community. In Uttar Pradesh, at baseline, a mapping exercise was facilitated to be made directly on a 08 sg. ft by 08 sg. ft. cloth piece in consultation with, and presence of the target community. With the introduction of the mapping exercise on a piece of cloth, the community could revisit and mark the developments in the future during community meetings. It led to the community getting involved in the mapping process and owning the map as a credible 'document' to be reused and revamped from time to time. The map was used in villages to identify sanitation assets and because it was prepared with, and by the beneficiaries, it lent a sense of ownership to the community. Moreover, community participation and ownership was ensured through user fee model that was leveraged by one of the corporates across geographies. Paying user-fee towards waste collection, not only brought ownership in community but also contributed towards self-sustenance of the waste management activities, led by community groups like Self Help Groups.

It is also important for the success of any developmental initiative that the human capital available in and around the vicinity of the geographies is optimally utilized. A significant highlight of LHI was the



role of women SHGs in several GPs in solid waste management and in operations and maintenance of the sanitation assets created under the programme. In several states, corporates supported SHGs by enabling them to use an entrepreneurial model to generate revenue out of waste. Like in Karnataka a corporate partner trained SHGs to take over waste management and act as service provide to panchayat. SHG being strong institution helped in decentralisation thus reducing cost and service fee collection thus ensuring sustainability. In some other states, SHGs were actively engaged in spreading awareness and promoting safe sanitation behaviour and practices.

In sanitation programme generally sanitation workers who play very important role to make it successful are being ignored or do not get due recognition. One of the corporates ensured inclusion and wellbeing of waste collection workers in the programme. In states like Andhra Pradesh, Bihar, Punjab, Karnataka, Maharashtra, West Bengal, Uttarakhand and Uttar Pradesh waste collector and sanitation workers were linked to government social security schemes like financial and health schemes of government, covered under health camps, provided safety equipment and training to handle hazardous waste and provided financial literacy trainings. These steps will play a very important role in ensuring dignity and safety of the important pillar of the programme.

Another important finding is about the constraints around funds flow and utilization at the gram panchayat level. It is understood by all concerned that the targets under SBM-G are to be achieved using a novel model of convergence between different verticals of financing and various schemes of the Central and State governments. And this is positioned as a unique convergent and co-financing model, wherein apart from budgetary allocations from the Centre and State, remaining funds are to be dovetailed from the 15th Finance Commission and private sector participation. However, a successful utilization of the convergent funding for water and sanitation works under the mission was a challenge that LHI highlighted further. The cases from Andhra Pradesh, West Bengal, Telangana, Uttarakhand, Tamil Nadu and Odisha can be cited in this context. These cases merit an immediate intervention by the Centre, and the States concerned, at the apex level.

Himachal Pradesh presented a unique set of problems that highlighted the lack of land for constructing RRCs impeding the progress on SWM in the State. The Mission Directorate HP, categorically stated that lands that were potentially available for construction of RRCs fell within the jurisdiction of the forest department in the State and were therefore not available for the said construction under SBM-G. They also highlighted that having the forest department agree to spare the land for these constructions under the mission in the State, without harming the environment, was never easy and always time-consuming.

LHI further highlighted the need for rural urban convergence under SBM-G to ensure effective mechanism for faecal sludge and septage management (FSSM). In UP corporate partner with the support of district collector has been able to develop a mechanism of linking faecal sludge to FSTP in the city. The assessment survey conducted in Angul (Odisha) where 4 GPs were intervened under LHI, revealed that there was a need and feasibility to put that convergence model in place for FSSM.



In terms of recommendation and learning from LHI Phase 1, the use of technology for operations and maintenance (O&M) of assets, tracking waste collection and management, facilitating collection of user fee, etc. would be extremely useful in ensuring efficient resource utilization as we embark upon the second phase of the initiative. Technology can also be leveraged in obtaining 'Utilization Certificate' from the GP Head and Village Secretary in time and submitting it to the Government of India through proper channels for a timely release of the next tranche of funding under the programme.

Community contribution and ownership has proven to be one of the success factors in Phase-1 and enabled movement of GPs in becoming model. Therefore, wider adoption of user-fee model and community contribution in cash or kind towards infrastructure creation as well as Operations & Maintenance of infrastructure can be emphasised upon in LHI Phase 2. Also, leveraging SHG platform for low-cost self-sustaining model must be scaled-up in LHI Phase-2.Currently, there is no provision of funds for O&M built into the program. However, considering the criticality of O&M to sustainability of the assets created, it is recommended that provisioning for O&M should be an integral part of the program design with earmarked funds for it. Such O&M can be linked with the performance of GPs based on a leader board where GPs performing well against defined outcomes would be supported in O&M, which would not only act as a reward mechanism, but would also create a healthy competition between states at national level and GPs at state level.

In Phase 1, there were many alterations in village development DPRs and there was no one time sanction that was provided to the activities proposed in DPRs resulting in delays. It was rather an activity-based approval. It is proposed that DDWS may develop a mechanism with State mission Directors for one time approval for the activities that are proposed by GPs after they are being cleared by the respective authorities.

Whereas LHI Phase 1 focused on ODF+ Model and Light House status for targeted GPs, it did not account much for the other aspects in implementation, such as inclusivity, equity, and equality in program benefits. Inclusivity requires a holistic approach that tackles wider issues, especially the factors that allow sanitation services of all kinds to be accessed by all, managed, and delivered sustainably over time. It is recommended that these be built into the program components in Phase 2 such that there are no inequalities and disproportionate impacts on marginalized or disadvantaged social groups including women, girls, transgender persons, and persons with disabilities. This is all the more important considering the menstrual hygiene needs of rural women and girls.



INTRODUCTION







SWACHH BHARAT MISSION-GRAMIN AND 75 YEARS OF AZADI KA AMRIT MAHOTSAV

With the launch of the Swachh Bharat Mission-Gramin (SBM-G) on October 2nd 2014, rural India embarked on an ambitious journey of bringing good health and well-being for all its citizens by eliminating the practice of open defecation. By October 2nd, 2019 on the occasion of Mahatma Gandhi's 150th birth anniversary, the nation had collectively achieved the seemingly impossible by making India Open Defecation Free (ODF). The achievement was recognized as the world's largest behavioural change programme that transformed the lives of countless individuals by enabling them access to safe sanitation by constructing more than 11 crore IHHLs, and over 2 lakh community sanitary complexes¹.

With SBM-G 2.0 the focus expanded to include not only the sustainability of the assets and behaviours developed in Phase 1 of SBM-G but also the proper treatment of solid and liquid waste and overall cleanliness of our villages. The importance of long-term behaviour change was also recognized and the SBM-G program encompassed crucial software components such as training and capacity building, behaviour change campaigns and role of IEC media in spreading awareness and reinforcing safe sanitation behaviour.

Sanitation being state jurisdiction, SBM-G 2.0 was implemented by state governments, with the central government providing technical and financial support and issuing guidelines for smooth implementation. The Department of Drinking Water and Sanitation (DDWS) in the Union Ministry of Jal Shakti oversaw SBM-G 2.0's nationwide implementation. DDWS also recognized the role of the private sector in SBM-G 2.0 and accordingly released the Corporate Collaboration Framework which suggests how corporates can associate with the SBM-G. DDWS also issued guidelines to facilitate the involvement of CSR resources in sanitation works. These guidelines and framework suggested that Corporate/PSUs may take up the issues of sanitation through IEC, HRD, or through direct targeted interventions. Support to Corporates from DDWS in the implementation of sanitation projects is committed in the guidelines issued.

In context of the above, the India Sanitation Coalition which is a multi-stakeholder platform that facilitates the interaction between the private sector and the government to work in the sanitation space and drive sustainable water and sanitation solutions through a partnership model, conceptualized the "Light House Initiative" in consultation with DDWS and the private sector.

¹https://pib.gov.in/PressReleaselframePage.aspx?PRID=1907510#:~:text=Under%20SBM(G)%2C%20so,in%20having %20access%20to%20toilets.



The Light House Initiative

The LHI based on the Public Private Collaboration model, supports the Swachh Bharat Mission Gramin, Department of Drinking Water and Sanitation, to provide managerial, technical, and financial support to villages across India.

In Phase 1 of the initiative, 75 gram panchayats, were selected and supported in becoming ODF+ Model and Light House GPs, marking the commemoration of 75 years of India's independence. These GPs were also offered support in becoming Light House GPs that could inspire their neighbours in achieving the same standard of sanitation infrastructure and practices by way of setting an example.

The collaborative brought together, 7 corporates, 1 International Development Agency, their implementation partners, and the Government (both central and state) along with the community to work together to achieve sustainable solid and liquid waste management solutions in the selected GPs which could be scaled up across the country in subsequent phases of the project. The private sector collaborators in Phase 1 were the Aga Khan Foundation (AKF), Ambuja Cement Foundation (ACF), ITC Ltd., JSW Foundation (JSWF), Jindal Steel and Power Limited Foundation (JSPL), Nayara Energy Limited and TATA Trusts.

Apart from the installation of SLWM infrastructure across all the 6.6 lakh villages of India, The Lighthouse Initiative (LHI) aims to address the SBM-G objectives of sustainability, and behaviour change. It envisions establishing and sustaining the GPs/villages under the project as Open Defecation Free Plus through the use of technology based solutions as well as behaviour change programs which advocated for communities to be self-sustaining in the long run. The villages which would qualify as model Light Houses would be used as positive examples across the country encouraging other villages to follow suit.

Based on the DDWS definition of ODF+ (Aspiring, Rising, and Model) villages, a WASH committee for each GP comprising of members of the local GP, Corporate partner and Block and District level officials would finalize a development plan for each village in that GP.

The corporates would pledge their CSR funds for awareness through IEC and BCC programs, and the government would fund infrastructure through its various schemes.





LHI Phase 1 geographies – make an infographic

LHI: Structure and Functions

LHI was based on the principle of inclusive sanitation and leaving no one behind. The initiative aimed to effectively implement Solid and Liquid Waste Management (SLWM) structures in the villages of the 75 GPs, employing a participatory and consultative approach through mobilization of the village communities, Corporates, District & Block Administration and Village or Gram Panchayat officers, who would work side by side to achieve the Development plans drawn for the villages in question.

Apart from the Government both at the centre and at the state/district/block and GP levels, the other partners in the LHI initiative were the Corporates themselves that provided the techno – managerial support required by the project and the India Sanitation Coalition, that played the role of central facilitator working with the principal participants – Government and Corporates – as well as other intermediaries committed to creating a sustainable WASH infrastructure for the country.





Program Approach and Methodology:

As stated earlier, LHI used a participative and consultative program approach ensuring all partners be on the same page as regards, setting of objectives, defining of roles and responsibilities, processes and activities to be undertaken, feedback mechanisms and expected project outcomes.

Several participatory consultations, facilitated by ISC, were undertaken with corporates and the SMDs. These meetings led to a detailed understanding of the role to be played by the party.

Corporates involved in Phase 1 of the initiative selected the states they wished to work in based on their presence in the state. Subsequently, in consultation with the State Missions of the respective states gram panchayats were mapped, WASH committees formed and field implementation commenced.

The first step was a baseline assessment to document the current status of the GP with regards to ODF+ categories non-ODF+, ODF+ Aspiring, ODF+ Rising or ODF+ Model. Thereafter, using a participatory approach, a needs assessment was carried out in the intervention areas to identify gaps in sanitation infrastructure and provisions.

In parallel, corporates engaged with the communities to understand their concerns come up with an allinclusive development plan for the village. This plan was then endorsed by the BDO, approved by the as



well as the District Collector and finally funds were allocated for infrastructure development and maintenance.

Simultaneously, - corporates undertook capacity building and training of community members such as craftsmen involved in laying the sanitation infrastructure, women SHGs, entrepreneurs, village leaders and elders, young children and adolescents. BCC campaigns for generating awareness on safe sanitation behaviours and practices was also carried out through a series of IEC activities and tools such as wall painting, banners, hoardings, street plays, camps, workshops and exposure visits.

ISC facilitated coordination between different government departments for convergence on SBM-G 2.0. objectives and any bottlenecks that may arise in implementing the village plan. It was decided that the Gram Panchayats were the leading agencies for implementation while the corporates would provide regular and systematic technical and managerial support to the Gram Panchayat in creating high-quality, innovative, and responsive solutions. It was agreed that the infrastructure needed to be functional, practical and sustainable for a village to be declared ODF +.

LHI: Relevance and Impact

Access to clean water and sanitation is one of the 17 Sustainable Development Goals established by the United Nations General Assembly in 2015. According to the United Nations, the goal is to: "Ensure availability and sustainable management of water and sanitation for all²." The world recognizes access



¹https://www.un.org/sustainabledevelopment/water-and-sanitation/



to safe water, sanitation and hygiene is the most basic human need for health and well-being and the UN goes so far as to call it a basic human right, since it impacts the health and well-being of citizens as well as having proven impact on poverty reduction, food security, peace and human rights, ecosystems and education. The Light House Initiative was conceptualized and designed to support the SBM program in achieving universal access to WASH among the rural community. The keyword in all its program outputs and outcomes was "sustainability". The program hoped to bring about long term behaviour change among the community for lasting socio-economic benefits that transcend beyond the project duration.

The LHI aimed to have long term impact on the socio-economic well-being of community members by employing a series of processes and outputs that would in turn bring about outcomes for long-term impact. The correlation between health and WASH has now been established by a large number of research studies. Safe drinking-water, sanitation and hygiene are crucial to human health and wellbeing. Unsafe WASH is linked to many adverse health outcomes. It is associated with infectious diseases, health risks from exposure to chemicals and other contaminants in drinking-water, as well as impacts on well-being. Evidence from WHO highlights the link between water, sanitation and hygiene with mortality and morbidity from diarrhoeal disease as well as other health outcomes³. Burden of disease is attributable to unsafe WASH for diarrhoea, acute respiratory infections, undernutrition, and soil-transmitted helminthiasis⁴. This is especially relevant for our country with a billion plus population and limited resources. Ensuring the health of our citizens and reducing the burden of disease has a direct correlation with the socio-economic environment of our country as it enhances productive hours for the working age groups and lowers the expenditure on seeking healthcare. It also impacts education by reducing school drop-outs and sick-days. There is also gathering evidence for the relationship between WASH and climate change. Climate change has a tremendous negative impact on water, sanitation and hygiene (WASH) services. But at the same time, the WASH sector presents a huge opportunity to contribute to global adaptation and mitigation goals, through the building of a climateresilient, low-carbon WASH sector⁵. The LHI project also focused on contributing to rural livelihoods by building and demonstrating business models centred around waste management that could provide a source of income to rural communities.

LHI: Key Performance Indicators

There were certain Key Indicators agreed to by DDWS and ISC to measure the progress/success of the initiative. Each ODF+ GP was to be tested against these KPIs.

³https://www.who.int/teams/environment-climate-change-and-health/water-sanitation-and-health/burden-of-disease ⁴https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)00458-0/fulltext



Table 1: Key Performance Indicators

| SI. No | Key Indicator of Performance | Responsibility | |
|--------|---|--|--|
| А | Capacity Building for PRIs and Field Functionaries conducted | Corporate/Govt | |
| В | Gram Sabha / community planning meeting conducted | Corporate/Govt | |
| С | ODF plus Model Village Action plan with details of SLWM activities developed | Corporate/govt | |
| D | The ODF plus plan Integrated with GPDP with financial allocation from 15 FC/SBMG fund/MNREGA | Corporate/govt | |
| E | IEC/BCC/IPC conducted for awareness on Waste management | Corporate | |
| F | All the gaps addressed in terms of toilet access and usage (HH & Institutions) | Corporate in techno-managerial role /Govt to build assets | |
| G | All the SWM generated in the village is managed Arrangement of collection and transportation of waste in place with route plan Arrangement for segregation of mixed waste/ storage of plastic in place Availability of arrangements for management/treatment of bio-degradable waste in the village at community/HH level (through Compost pit/vermicomposting/NADEP etc.) Forward linkage for transportation & final treatment done (through scrap Dealers/ PWMU/MRF/Industries) | Corporate in techno-managerial role /Govt to build assets | |
| Н | All the LWM generated in the village is managed Availability of arrangements for grey water management at community/HH level (Community grey water arrangements may include community soak pits/WSPs/DEWATS, etc.) | Corporate in techno-managerial role /Govt to build assets | |
| I | Plan developed for FSM (through cotreatment/STP/FSTP) | Corporate/govt | |
| J | Village linked with FSM facility | Corporate/govt | |
| к | Village is visually clean – Minimal litter and Minimal Stagnant water in village premise and surroundings | Corporate/govt | |
| L | Villages Declared and Certified ODF Plus Model | Corporate/govt | |
| М | Documentation of Journey Completed | Corporate/govt | |

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⁵https://www.unwater.org/news/why-wash-must-be-top-climate-agenda

CHAPTER – 2

REFLECTIONS FROM CORPORATES







ITC Ltd.

From the desk of the Head – Social Investments:





ITC has been working on Sanitation & Solid Waste Management Program in 48 districts across 13 States focussing on Individual Household Toilets, Community Toilets, Child and Gender Friendly WASH in Schools, and Decentralized Solid Waste Management. ITC's Program aims to bring about social behaviour change among households through community institutions and to get them to take ownership for creating and sustaining clean, safe and hygienic habitations. ITC had already been working with several State Governments and District Administration on this Program. It is in this context, that we found the Lighthouse Initiative relevant and an opportunity to further strengthen our efforts in partnership with Central and State Governments. ITC, therefore decided to participate in the Lighthouse Initiative by selecting 36 GPs in 10 states out of the total 75 GPs required to be covered in Phase 1 of the Initiative.

ITC has leveraged the strength of existing partnerships, past experience of working on sanitation and waste management, mobilization capabilities of its implementing NGOs; and engagement with community institutions. Coupled with the active engagement of India Sanitation Coalition and the proactive support of state SBM Teams, ITC has seen an encouraging movement in the selected 36 GPs across the stages of Aspiring, Rising and Model Villages. 18 GPs have already become Light House GPs till date and the remaining 18 are also at an advanced stage of becoming Light Houses.

Apart from helping GPs in assets creation for sanitation, behaviour change communication, introducing service fee for sustainability and setting up a monitoring mechanism, ITC also provided support for inclusion of sanitation workers wellbeing, integration of SHGs as service providers in waste management, front line government workers (like ASHA, ANM & Anganwadi Worker) and school children as agents of behaviour change in the LHI, which are also the core aspects of ITC Social Investments program.

We are sure all the villages as Model Lighthouses under the Initiative would be used as positive examples across the country encouraging other villages to follow suit. Our compliments to DDWS, State SBMs and ISC for creating this collaborative, and look forward to a continued engagement.

Mr. Prabhakar Lingareddy

Executive Vice President and Head - Social Investments ITC Ltd.



JSW Foundation

From the desk of the CEO:





The Light House Initiative (LHI) is a novel PPP model jointly designed by SBM-G, Ministry of Jal Shatki and India Sanitation Coalition. It demonstrates a comprehensive strategy towards achieving ODF++ status in rural India, for which the infrastructure support comes from various government schemes, coupled with CSR funds for creating awareness to ensure sustainability of the program. JSW Foundation undertook the LHI program in 8 Gram Panchayats, 4 in Maharashtra & 4 in Karnataka, where LHI served as a logical extension of JSWF's emphasis on ensuring safe and hygienic sanitation practises for the communities. I certainly hope that LHI emerges as a model that can be scaled up across the country.

Ashwini Saxena

Chief Executive Officer JSW Foundation



Ambuja Cement Foundation

From the desk of the CEO:





The Lighthouse project has indeed created behaviour change in our three villages of Chandrapur. Ambuja Foundation is glad to have been a part of this initiative building capacity and engaging stakeholders to build cleaner villages. Thrilled that the Water and Sanitation Department has come forward to construct segregation sheds and compost pits under the district 15 scheme of our 3 gram panchayats. We look forward to the government doing much more.

Pearl Tiwari

Chief Executive Officer Ambuja Cement Foundation



HCL Foundation

From the desk of the CEO:





The Swachh Bharat Mission, initiated in 2014, marked a significant step towards improving sanitation and waste management practices in India. Phase 1 of this mission primarily focused on the importance of toilets and the multitude of benefits associated with their usage. It sought to address the critical issue of open defecation and promote hygiene and cleanliness.

In the second phase of the Swachh Bharat Mission, which represents a higher level of commitment and dedication, the emphasis has shifted towards solid waste management, waste segregation, vermicomposting, and greywater management. Collaboration with the Gram Panchayat (GP) plays a pivotal role in implementing these aspects effectively. To achieve this, a range of activities and initiatives have been undertaken.

One key aspect of this phase is the creation of informative posters as part of Information, Education, and Communication (IEC) materials. These posters serve to raise awareness about sanitation and solid waste management among the villagers. Moreover, training programs have been conducted for Self-Help Groups (SHGs) on waste management, instilling knowledge and skills in this vital area.

To enhance the local capacity and ownership of waste management, Waste Management Committees have been established within the villages. These committees are instrumental in driving waste management efforts at the grassroots level. The commitment of HCL, in providing training to various stakeholders, such as Asha workers, Anganwadi workers, Gram Panchayat members, and the youth of the village, is commendable. It has helped in building a strong foundation for effective waste management practices.

Additionally, the development of greywater management systems, drainage networks, and the creation of ponds for beautification further signify the comprehensive approach of the mission. These measures not only improve sanitation but also contribute to the overall aesthetic appeal of the villages.

Another significant achievement in this phase is the encouragement of household waste segregation into dry and wet waste categories. The establishment of plastic waste collection units and a dedicated focus on managing plastic waste further exemplifies the commitment to sustainable waste management.



Vermicomposting has been promoted, offering the youth in villages an opportunity to generate revenue from this eco-friendly practice. This not only aids in waste reduction but also empowers local communities.

To amplify the impact of the mission, a substantial number of IEC posters have been created to promote awareness regarding sanitation, solid waste management, and greywater management.

The Indian Sanitation Coalition has played a crucial role in bringing together all stakeholders, including the government. Their support in terms of regulatory compliance and policy advocacy has been invaluable. It has helped align government schemes with the mission's objectives, ensuring a more effective implementation.

Monthly meetings with government authorities have been instrumental in sharing the progress made and the challenges faced. This collaborative approach is essential in addressing the complexities associated with sanitation and waste management.

In summary, the Swachh Bharat Mission Phase 2 is a testament to the unwavering commitment towards improving sanitation, solid waste management, and greywater management at the grassroots level. The collaboration of various stakeholders and the diligent efforts of all involved have brought about positive transformations in the villages, contributing to a cleaner and healthier India.

Alok Varma Director HCL Foundation



Aga Khan Foundation





As jointly envisioned by SBM-G, Ministry of Jal Shakti and the India Sanitation Coalition, the Light House Initiative (LHI), is emerging as an effective model to attain 'ODF Plus' status through effective implementation of Solid and Liquid Waste Management (SLWM) across 75 ram panchayats through a community-led approach. As a development partner under the LHI initiative, it has indeed been an enriching experience for us at the Aga Khan Foundation to support six gram panchayats in five districts of Uttar Pradesh (Bahraich, Shravasti, Barabanki, Sitapur and Lucknow) to strengthen SLWM approaches. A combination of community-led planning and implementation was facilitated by us which included the preparation of Village Action Plans (VAPs) and Detailed Project Reports (DPRs) at the gram panchayat level, supporting communities to adopt best practices on Solid and Liquid Waste Management including home composting, segregation of waste at the household level, promotion of Resource Recovery Centers (RRCs) and greywater management. Community ownership and the active involvement of the community in the operation and maintenance of created infrastructure are helping to sustain ODF Plus status. The Lighthouse Initiative is certainly evolving as a model to be scaled up across the country.

Tinni Sawhney

Chief Executive Officer Aga Khan Foundation



Nayara Energy Limited

From the desk of the CEO:





Swachh Halar Program, integrated under the Lighthouse initiative is designed with the objective of enhancing the value within the waste management system by investing in strategic methodologies, systematic processes, stakeholder engagement, and innovative solutions. Encompassing 7 wards of Jamnagar, the entire Khambhalia taluka, and 15 nearby villages situated in the vicinity of the refinery areas, the project also intends to improve the scoring in the garbage-free cities initiative, introduce and sustain behaviour change in communities through sustained IEC programs, as well as develop a sustainable plastic waste management solution that minimizes environmental impact and health hazards in India.

Deepak Kumar Arora

President, Public Affairs Nayara Energy Limited



TATA Trusts

From the desk of the CEO:



TATA TRUSTS

"Tata Trusts, through it's associate organisations, have partnered with the Light House Initiative (LHI) in 8 Gram Panchayats across the states of Uttar Pradesh, Gujarat, Assam, Rajasthan and Andhra Pradesh. Through this partnership, the Trusts have facilitated design and implementation of various interventions such as an effective behavioural change communication campaign, setting up of solid & liquid waste management system, capacity building of Village Water and Sanitation Committee to set up sustainable operation & maintenance mechanism. The LHI, we hope, will bring more corporates, social sector partners, the government and local communities on single platform to collaborate and help enhance the quality of lives of rural communities by setting up improved & sustainable sanitation services."

Mr. R. Pavithra Kumar

Chief Programme Director Tata Trusts

CHAPTER – 3

STATE-WISE LHI LOCATIONS AND THEIR JOURNEYS







STATE-WISE LHI LOCATIONS AND THEIR JOURNEYS

ANDHRA PRADESH

LHI phase 1 in Andhra Pradesh saw the coming together of DDWS, State Mission, 2 corporates namely ITC and TATA Trusts and ISC to support 7 GPs spread over 4 districts in reaching their SBM-G 2.0 milestones. Three of these districts, i.e. Guntur, Palnadu and NTR lie in the central region of the State, while Anakapalle lies towards the north-eastern region.

| SI. No | Corporate Support | District | GP | Villages | Baseline status | Current ODF+ status | LHI GP |
|-----------|----------------------|------------|---------------|--|--------------------|---------------------------|--------|
| 1. | ITC | Guntur | Nadimapalem | Nadimapalem | Aspiring | Model | No |
| 2. | ITC | Palnadu | Thummalapelam | Thummalapelam | Aspiring | Model | No |
| 3. | ITC | Palnadu | Nandigama | Nandigama | Aspiring | Model | No |
| 4. | ITC | Palnadu | Abburu | Abburu | Aspiring | Model | No |
| 5. | ITC | Palnadu | Thalarlapally | Thalarlapally | Aspiring | Aspiring | No |
| 6. | ITC | Palnadu | Jangalaplly | Jangalaplly | Aspiring | Aspiring | No |
| 7. | TATA Trusts | Anakapalle | Laxmipuram | Laxmipuram | Aspiring | Aspiring | No |
| 8. | TATA Trusts | NTR | Annaraopeta | Annaraopeta, Lambadi Thanda, Seethapuram | Aspiring | Aspiring | No |

Table 2: Andhra Pradesh geographies under LHI Phase 1

Journey Under LHI Phase 1

Nadimapalem, Thummalapelam, Nandigama, Abburu, Thalarlapally, and Jangalaplly

The 6 GPs in Guntur and Palnadu were selected by ITC in consultation with DDWS, AP State Mission and ISC. ITC has a long standing relationship standing with farmers in AP where it helps farmers to adopt climate smart agriculture. It also has a global spices



Child/gender friendly toilets




processing facility that produces export quality organic spices in Guntur, as well as two green leaf threshing plants in East Godavari and Baptala districts of Andhra Pradesh. Guntur and Panadu were thus catchment areas for the corporate, and following its philosophy of improving public health in its catchment areas using a multi-pronged approach, the corporate selected the 2 districts under LHI.

ITC undertook a needs assessment study in the intervention areas prior to commencement of the initiative. The study revealed the requirement of an efficient SLWM arrangements in the GPs. It was also observed that a majority of IHHLs were single pit, thus retrofitting was seen as a requirement. In addition, need for further development and maintenance of community toilets specially in public spaces such as schools was noted. In general, there was observed limited awareness among the community regarding the benefits of twin pit toilets and safe sanitation and hygiene habitsfaecal management.

Under the LHI, a comprehensive approach was chartered keeping in mind identified gaps in needs assessment including community knowledge, awareness and practices regarding safe sanitation. The initiative focused on impactful IEC activities to sensitize the community. One notable initiative involved unique IEC activities, including awareness programs in the form of plays, wall paintings, and capacity-building exercises for the community. Development and dissemination of IEC materials on ODF Plus activities, along with campaigns such as Kalajathas, rallies, and ODF+ events,



Kalajathas to spread awareness on ODF+

were undertaken across all Gram Panchayats (Gps). Kalajathas, in particular, emerged as a distinctive approach, utilizing traditional folk art forms to disseminate information on ODF practices. The plays attracted large gatherings, turning the events into successful platforms for mass outreach in villages. This demonstrated the effectiveness of using cultural elements to convey messages, turning awareness



Capacity building of women SHG

activities into both entertainment and effective information dissemination tools.

The GPs did face the challenge of initial release of funds since the VDP was not approved which impacted asset development. However, despite working under such constraints, the LHI team was able to empower the community in construction on 5 community soak pits, 32 IHHLs, and a community toilet and retrofitting in over 140 toilets to convert them to twin pit toilets. Most importantly, the

⁶ https://www.itcportal.com/about-itc/shareholder-value/annual-reports/itc-annual-report-2023/pdf/ITC-Report-and-Accounts-2023.pdf
⁷ Kalajhata is an effective mass awareness generation tool in rural settings where traditional art, dance and music are extremely popular, and messages imparted though this medium has very high recall value.



community was empowered to carry forward the program objectives and outcomes, by a series of capacity building initiatives. Essential training sessions for Gram Panchayat (GP) officials and Water, Sanitation, and Hygiene (WASH) committee members and SHG members were carried out. Support was provided for the MLP (Mason, Lining, and Pit Digging) process. Further, awareness generation sessions were conducted with women because women are the driving force behind sanitation. Apart from this, these GPs have been managing their solid waste exceptionally well by utilising the existing infrastructure. Almost 90% HHs have been segregating waste, wet waste is managed through home composting and NADEP, and recyclable waste is linked with recyclers including plastics from Material Recovery Facilities. This has helped in reducing waste dumping in these GPs. ITC along with Govt has helped panchayat to set up an innovative practices of charging Rs 1 per day per households (i.e. Rs 30/month per HHs) for waste collection services which is helping in ensuring financial sustainability of waste management system.

Additionally, interventions were undertaken for faecal sludge management by composting the faecal waste toilet manure composting and its application in agriculture field, ensuring wellbeing of waste collectors also known as 'Green Ambassadors' through government scheme linkages and financial literacy trainings.

One of selected LHI village Nadimapalem has been awarded as Healthy Grama Panchayath Awards for best solid waste management in self sustainableself-sustainable solid waste management model. The award was conferred upon by the Honble. Shri. Giriraj Singh, Union Minister of Panchayath Raj and Rural Development, Govt of President of India to the Sarpanch of the GP in Delhi at 75th Republic Day Celebration. The GP has also received the 1st Rank at state level in Swachhta Sarvekshan.





IEC kit to GPs

Master trainer training



Exposure visit to nearby panchayats



Laxmipuram, and Annaraopeta

Under LHI Phase 1, Vijayavahini Charitable Foundation supported by TATA Trusts, supported the GPs Laxmipuram, and Annaraopeta. The LHI in these 2 GPs progressed by carrying out a needs assessment to gauge the gaps in sanitation infrastructure and provisions that could be supported via the initiative. The coordinated efforts in both GPs showcased a multi-faceted approach, combining infrastructure development with awareness and community involvement, aligning with the broader goals of SBM-G 2.0.

In Laxmipuram, a village-level training program empowered the Village Water and Sanitation Committee (VWSC), Gram Panchayat members, and volunteers. The innovative "Clap Mitra" initiative involved designated individuals ensuring cleanliness in specific clusters. Village youth engaged in a one-day Shramdhan, addressing cleanliness, and raising awareness. For greywater management, a 25 Kilo Litres per day, Soil Bio Technology (SBT) was put in place at Laxmipuram GP with VCF-Supported by TATA Trusts own funds up to Rs. 15 Lakhs.

Strategic planning included the identification of locations for community soak pits and an awareness campaign to deter open defecation. The corporate mapped solid waste and collaborated with scrap dealers for responsible disposal, resulting in reduced littering.

In Annaraopeta a collaborative meeting discussing LHI activities, emphasizing tricycle conditions, dustbin distribution, and source-level waste collection was conducted. Events under the Swachhata Hi Seva Campaign involved cleaning jungle areas, roadsides, drainage, and government buildings. Clap-Mitra received training on waste collection and composting procedures.

IEC activities, monitoring household-level segregation, focused group meetings with women and Self-Help Groups (SHGs), dustbin distribution, and wall writings on Solid Waste Management contributed to comprehensive community engagement in both Laxmipuram and Annaraopeta.

State achievements, highlights and learnings

The importance of asset creation in tandem with Information, Education, and Communication (IEC) activities is evident from the observations derived from Andhra Pradesh. Although the GPs witnessed improved awareness and practices geared towards safe sanitation, the impact is compromised without timely asset creation. The delay in implementing the necessary infrastructure can hinder the effectiveness of sanitation efforts, underscoring the need for synchronized and prompt action in both awareness campaigns and tangible asset development. Sanitation infrastructure and service provisions go hand in hand with community knowledge awareness and practices in ensuring sustainability of program outcomes. While, the State did excellent on the latter, the former still needs firming up. The State should support infrastructure creation in order to achieve program milestones in a timely manner. The outcomes and learning from the State highlight once again the necessity of convergence between different functions of the administration and stakeholders in ensuring availability of resources that are crucial for development of sanitation infrastructure.



ASSAM

As part of north-east India, Assam is a land of plains, river valleys, and the mighty Brahmaputra and Barak rivers. Receiving an average annual rainfall of almost 2200 mm, the State is susceptible to annual floods in the monsoon season⁸. WASH infrastructure and service provisions in the State, therefore need to account for damage caused by floods, and explore local solutions suitable to the geography and climatic conditions of Assam.

Under the Light House Initiative, Gram Panchayat Paschim Chayagaon located in the district of Kamrup was selected for support by TATA Trusts in consultation with DDWS, State Mission and ISC. The GP falls under district Kamrup which is a relatively large district in Assam with 2 sub-divisions, 11 revenue circles, and 14 development blocks and 139 Gram Panchayats. It covers a geographical area of 2740 sq. km (approx.). Within Kamrup lies the Panchayat Samiti (Block) Chayagaon with about 7 GPs and 140 villages under its administration. One of these GPs is the Paschim Chayagaon covering 14 villages and 2816 households, that was made a part of the first phase of the Light House Initiative in the state of Assam.

Table 3: Assam geographies under LHI Phase 1

| Sl. No | Corporate Support | District | GP | Villages | Baseline status | Current ODF+ status | LHI GP |
|--------|----------------------|----------|----------------------|--|--------------------|------------------------|--------|
| 1. | TATA Trusts | Kamrup | Paschim Chayagaon | Ambari, Andheri, Andheri F.V, Batakuchi, Choudhuri Khat, Dakuwa Para, Dhekena Bari, Fala Ghat, Jugibari, Kaimari, Nowamati, Pachim Dhuli, Pub Dhuli, and Rahpur FV | Aspiring | Model | Yes |

Journey Under LHI Phase 1

Paschim Chayagaon

TATA Trusts has been actively engaged in inclusive, long-term, impact-driven interventions in the northeastern states of India including Assam. When starting its LHI journey in the State it adopted a consultative and participatory approach. The initiative began with community engagement through PRA exercises for needs assessment with regards to sanitation infrastructure and provisions. Using consultative approach, the proposed activities and related capital requirement was included in the village development plan and subsequently the Gram Panchayat Development Plan.

As per the needs assessment done in stage one of the initiative, sanitation assets were developed in the villages. Under LHI, 231 household level compost pits were developed in the Gram Panchayat. A vehicle

⁸ https://waterresources.assam.gov.in/portlets/flood-erosion-problems





for collection and transportation of waste from households were engaged and 1 waste segregation shed was developed. For liquid waste management, 152 community soak pits were also developed along with 88 waste stabilization ponds. Almost 80% of the wet waste was managed at source. It is interesting to note that traditionally the community had practices for management of bio-degradable waste as manure in kitchen gardens. Also, almost all households in the GP had personal kitchen gardens and several also had small animal farms raising poultry, and small ruminants. Thus, managing waste at source was a practice that was passed down as generational wisdom for almost all households in the GP.



Material Collection Facility

Household waste collection vehicle

Further, Tata Trusts used Social and Behaviour Change Communication (SBCC) for bringing about improved WASH practices. Through these initiatives, it was able to influence mindsets regarding safe sanitation, initiate the construction of twin-pit toilets and sustain the open defecation-free status of the GP. Awareness generation campaigns were undertaken through a variety of media such as wall paintings, banners and posters, one on one interactions, role plays etc. The major themes for these SBCC were construction of twin pit toilets, segregation of waste at source, management of solid and liquid waste through use of compost pits, duck feed ponds etc.

It was also prudent on the part of the SBM State Mission to differentiate the approaches that were adopted under phase 1 and 2. While phase1 was about adopting individual household approach



IEC wall painting on gram panchayat building

leading to the construction use and ownership of the IHHLs, phase 2 called for community infrastructure covering the different components of the value chain. For instance, phase 2 saw construction of Material Collection Facility (MCF) where the source segregated waste could be collected for further forwards linkages. Households were made aware of the importance of source segregation through awareness and behaviour change campaigns via multiple mediums such as wall paintings, demonstrations, awareness camps and messages through mass media. The source segregated waste was brought to the MCF by sanitation functionaries on a cycle rickshaw after collecting it door-to-door.



From the MCF, the segregated waste was further collected and transported to a block level unit for the plastic waste management called Plastic Waste Management Unit (PWMU) at block level for processing and further forward linkages. The operations and PWMU in Paschim Chayagaon is managed by women SHGs that oversee its operations and maintenance. Thus, planning an implementation and measures for sustainability were thought of at the beginning of the intervention itself that have stood the LHI program in good stead.

The major issue faced by the state were initial delays in availability of funds due to which some of the work started late. In addition, heavy rains were experienced in the State and Kamrup district during monsoon season 2023 leading to massive flooding. The floods further impacted work in the district on sanitation infrastructure and IEC campaigns. Once the floods receded all stakeholders involved in the

LHI program redoubled their efforts to achieve sanitation milestones which they were successfully able to achieve.



Plastic Waste Management Unit – Chayagaon



State achievements, highlights and learnings

Through collective action of the GP community, local state mission, TATA Trusts and ISC, the GP has made a lot of progress in terms of attaining and now sustaining its 'Model' status. 100% of the households in the GP have access to a toilet and the practice of open defecation has been eradicated completely.

Another positive feature for the GP was the focus on well thought out action points pre implementation - planning, convergence of the village action plan for sanitation with GPDP to ensure funds utilization from 15th finance commission, plastic waste management with robust infrastructure and operations and maintenance systems in place and also support from women SHGs in convergence with National Rural Livelihood Mission.

In Paschim Chayagaon, the LHI initiative further found exponents in the form of proactive block level, district level and state level officials involved in the LHI program, were part of the institutions which implemented LHI-1 SBMG phase 2.0 worked in synergy. For example, the Chayagaon Block Development Officer oversaw and also helped in designing a very robust training program to train the program stakeholders on the ground that ensure an instant buy-in on the part of the community with their approach to own the program and the benefits arising out of it.

What also worked for Paschim Chayagaon was the traditional wisdom of grey water management using duck weed ponds, kitchen gardens at household level. Almost all the households in the Gram Panchayat



LHI team with SBM-G State Mission Director Assam

maintained a kitchen garden where household grey water was diverted and used. Many of the household also maintained small ponds for domestic animals such as poultry and small ruminants.

To summarize, synergy between the block level, district level and state level officials involved in the intervention along with the local community and LHI team, resulted in better

communication between all the stakeholders involved in the program leading to smoother implementation and process flow. The game changer for Assam however was merging scientific methods with traditional wisdom in a way that eased community's understanding and adoption of safe sanitation habits.



BIHAR

As the 12th largest state in India in terms of area and 3rd largest in terms of population⁹, Bihar must always be cognizant of the challenges of ensuring that all its citizens have access to the benefits of a social development program and that no one is left behind. A feat that they successfully accomplished under the LHI. The State saw the coming together of DDWS, local State Mission, ITC and ISC in the GPs journey towards ODF+ Model and in becoming Light Houses by assisting the communities in having proper SLWM systems, construction and retrofitting of sanitation infrastructure and generating awareness for sustained ODF+ Model benefits. Bihar holds a significant place in ITC's CSR endeavors by virtue of having three major factories in Munger¹⁰. It has been actively involved in training officials on decentralized SWM under Public Private Collaboration in the Ganga region across 12 districts of Bihar. For the comprehensive LHI, ITC was the only corporate to engage in Bihar and selected 8 GPs across 7 districts in consultation with other program partners like the DDWS, State Mission and ISC.

| Sl. No | Corporate Support | District | Gram Panchayat | Villages | Baseline ODF+ status | Current ODF+ status | LHI GP |
|--------|----------------------|------------|--------------------|--|-------------------------|------------------------|--------|
| 1. | ITC | Munger | Etahri | Etahri | Rising | Model | Yes |
| 2. | | Munger | Kateria | Kateria, Bakarpur, Bakarpur Inglish, Chak Bharthi, Hasanpur, Kalyan Chak, Kataria, Khatib Chak, Manikpur, Nankar | Aspiring | Model | Yes |
| 3. | | Bhagalpur | Khankitta | Khankita, Sultanpur Bhitti | Rising | Model | Yes |
| 4. | | Banka | Dumaria | Bachaur, Dumariya, Oraia, Gawachak, Pasia, Gorgawan, Jamua | Aspiring | Model | Yes |
| 5. | | Buxar | Kamarpur | Baluwa, Mishrawaliya, Kamhariya, Laxmipur, Kiritpura, Kamarpur, Balirampur | | Model | Yes |
| 6. | | Begusarai | Nipania | Nipania | Aspiring | Model | Yes |
| 7. | | Samastipur | Madhopur Sarari | Madhopur, Sarari | | Model | Yes |
| 8. | | Patna | More East | More, Sultanpur | | Model | Yes |

Table 4: Bihar geographies under LHI Phase 1

⁹ https://www.hindustantimes.com/delhi/population-density-bihar-west-bengal-among-world-s-most-crowded/story-A7DSe1oWI5cYxBrnWPn6VP.html

¹⁰ https://www.itcportal.com/about-itc/shareholder-value/annual-reports/itc-annual-report-2023/pdf/ITC-Report-and-Accounts-2023.pdf





Journey Under LHI Phase 1

Munger, Bhagalpur, Banka, Buxar, Begusarai, Samastipur, and Patna

The journey of the Lighthouse Initiative (LHI) in Bihar unfolded across seven districts and 8 gram panchayats, encompassing a comprehensive approach toward achieving ODF+ Model and Light House status for the selected GPs. Engaging every stakeholder, from state to district to Gram Panchayat (GP), was integral to this transformative mission. At the grassroots level, Bihar's GPs embarked on a PRA exercise. This inclusive and consultative effort involved key players such as GP and block-level officials, Jeevika Self-Help Group members, ASHA workers, Anganwadi workers, Auxiliary Nurse Midwives (ANM), teachers, and village community. Together, they identified sanitation gaps and conducted a village-level baseline assessment, shaping a detailed action plan based on feasibility.



Bihar success story with the highest number of Light House GPs



School WASH Kiosk Training

Following the PRA, identified gaps were documented to achieve ODF+ Model and Light House status, and this information was shared with local governments to secure additional funding. Simultaneously, capacity-building initiatives, including training sessions, workshops, door-to-door awareness campaigns, rallies, and wall paintings, were conducted, engaging diverse stakeholders.

Initially, baseline data revealed that less than 89% of the population had access to toilets, but the LHI propelled this to 100%, ensuring every household had individual toilet facilities. Waste management also witnessed a substantial leap. Crucially,

behavioural shifts were evident, as 90% of households embraced waste segregation at the source, a stark contrast to the meagre 10% before LHI. Under the LHI, the 8 LHI GPs implemented a systematic daily waste collection from 30 villages (104 wards), collecting source segregates waste through tricycles and E-rickshaws. Waste disposal methods diversified, with 35% of households adopting decentralized systems like individual or community soak pits, a significant increase from the initial 10%. Centralized solid waste management systems now covered 64% of households,



Sanitation Worker Daily Weighing - WPU



up from 36%. The introduction of 7 Waste Integration Points (WIPs) and 112 functional vehicles streamlined the collection process. In addition, the removal of legacy waste was also carried out to ensure visibly clean villages.

The program addressed these activities through robust Panchayat-level coordination, leveraging schemes like MGNREGAs and the 15th Finance Commission grants. The #SwachhtaSeSamridhhi campaign ensured that no one was left behind, emphasizing inclusivity and community participation. Sustainability in waste management was reinforced through diverse strategies. User charges were collected to establish a sustainable funding model, supporting the comprehensive waste management initiatives. The sale of manure and recyclables not only contributed to financial sustainability but also promoted the circular economy.



Waste segregation game with children

Programme also included well being of waste collection workers who played a pivotal role in making waste management successful. They were provided with protective gears, helped in linking with govt social security schemes, were also provided with financial literacy and. Besides these, 97% of the waste collectorsthem were also covered under health camps.

The initiative also accomplished retrofitting of 50 toilets and promoting the use of toilet slurry as manure in over 400 households, benefiting local farms. Training initiatives reached 728 Panchayat and ward committee members, while 185 sanitation

workers were linked to various social security schemes.

The involvement of Jeevika Didis (Self-Help Groups) and school children was instrumental in driving behavioural change. A continuous, coordinated campaign approach across the board fostered a culture of cleanliness and sustainability, manifesting the GPs commitment to Swachh Bharat. Monthly meetings of the Panchayati Raj Institutions (PRI) - Waste Management Committee (WIMC) provided a platform for structured discussions and collaborative decision-making, ensuring a coordinated and community-driven approach.

Best Practices

- **Description:** There was no concept of user fee in the communities before the intervention. Introduction of user fee model (Rs. 30 to 60) for waste management and community cleaning composting and home composting proved to be a game changer for the villages under ITC in all its geographies. This amount varies depending on number of HHs, capacity of the community to pay and cost of managing waste.
- **Outcome:** More than 91% of the household willingly pay user fee using which the community engages a waste collector who collects segregated waste from households and composts the green (wet) waste. As waste is segregated by households, recovery of resource from waste becomes easy.
- **Learnings:** User fee is key to community ownership and sustainability. Lohiya Swachh Bihar Abhiyan has taken this initiative to other GPs too outside LHI making it a replicable initiative.





"Invaluable support and assistance provided by ITC Mission Sunehra Kal through various initiatives aimed at promoting awareness and cleanliness drive. Regular visits and guidance meetings conducted by the ITC team at panchayat & block level were instrumental in maintaining the momentum of the initiative"

I express my sincere gratitude to ITC Mission Sunehra Kal for their continuous support and partnership in realizing the vision of a cleaner and healthier GP. The concept of Light house as helped district to drive SBM programme.

-Mr. Nishant Ranjan DC LSBA Bhagalpur

Selection of Kamarpur as Light House created a benchmark of visually clean GP in the district. The activities undertaken in this GP were milestone for my block. The processes followed in this GP has helped me to replicate in other GPs of my block.

-Smt. Geeta Kumari BC LSBA Sadar Buxar





I am forever grateful to the team of Mission Sunehra Kal for their invaluable contribution towards Solid Liquid Waste Management in Gram Panchayat Khankitta. Their dedicated efforts have brought about a remarkable transformation in our panchayat, completely eliminating the pervasive filth that once plagued our surroundings. Today, our community thrives in a clean and hygienic environment, all thanks to the relentless work of the ITC Mission Sunehra Kal team. I extend my heartfelt gratitude to them for their remarkable service, which has positively impacted the lives of every resident in our panchayat.

> -Mr. Sunil Kumar Choudhary, Mukhiya Ji, Gram Panchayat – Khankitta

State achievements, highlights and learnings

All the GPs in Bihar under LHI showed remarkable progress attaining ODF+ Model status. This was made possible through comprehensive and successful integration of efforts, marking a significant milestone in Bihar's quest for sustainable and inclusive sanitation practices. Effective fund management was a key factor in the LHI journey's success in Bihar. LHI offered decentralized solutions aligned seamlessly with government schemes. Timely utilization and close monitoring of funds through the Public Financial Management System (PFMS) ensured operational efficiency and sustained progress.

Further, emphasis on source segregation through a number of IEC and BCC campaigns proved to be highly successful in encouraging residents to classify waste at its origin. As mentioned earlier, 90% of households started waste segregation at source as a result of LHI, as opposed to the 10% at baseline.





GUJARAT

Gujarat experiences a diverse climate due to its vast geographical expanse and varying topography. Along with Rajasthan, the State is considered one of the drier states in India in terms of rainfall and can be vulnerable to droughts and scarcity of water in general¹¹. The long coastline of 1,600 km also makes its coastal districts increasingly susceptible to the adverse effects of climate change, including sea level rise, salinity ingress, and other related impacts. Thus, sanitation solutions for Gujarat need to take into account the State's vulnerability to availability of water and impact of coastal climatic phenomena.

Under LHI, 5 GPs across 4 districts of the State were selected for Phase 1 in consultation with DDWS, State Mission and 3 corporates namely Ambuja Cement Foundation (ACF), Nayara Energy Limited and TATA Trusts.

| Sl. No | Corporate Support | District | GP | Villages | Baseline Status | Current ODF+ Status | LHI GP |
|--------|--------------------------|-------------|------------|------------|--------------------|------------------------|--------|
| 1. | ACF | Gir Somnath | Jagatiya | Jagatiya | Aspiring | Rising | No |
| 2. | ACF | Gir Somnath | Vadnagar | Vadnagar | Rising | Model | Yes |
| 3. | Nayara Energy Limited | Jamnagar | Mithoi | Mithoi | Aspiring | Model | Yes |
| 4. | TATA Trusts | Bhavnagar | Sakhavadar | Sakhavadar | Aspiring | Rising | No |
| 5. | TATA Trusts | Vadodara | Madhodhar | Madhodhar | Model | Model | Yes |

Below table shows the geographies:

Journey Under LHI Phase 1

Jagatiya, Vadnagar

Under the LHI, corporate ACF selected to work in the GPs of Jagatiya and Vadnagar in the Gir Somnath district in consultation with other LHI partners. Gujarat is significant in terms of CSR initiatives for ACF on account of two major cement manufacturing plants located in Gujarat¹². Adhering to their policy of environment conservation and social well-being, the Foundation selected the above 2 GPs to support their journey towards ODF+ Model GPs and in becoming Light House GPs.



Sanitation Infrastructure in Vadnagar

¹¹ https://timesofindia.indiatimes.com/india/drought-hits-gujarat-every-3-years-report/articleshow/49264062.cms?from=mdr

¹² https://eaindustry.nic.in/cement/report2.asp



The initiative commenced with a baseline analysis to document the current sanitation infrastructures and provisions and identify gaps. Baseline showed inadequate SLWM arrangements in the two GPs. There was also requirement for waste collection vehicle, waste collection and segregation sheds and community soak pits, kitchen gardens and waste stabilization ponds. Awareness with regards to waste segregation at source was observed to be low among the community, with not a single household practicing it. Awareness regarding single use plastic was also low with the community freely using SUPs. The villages were also not visibly clean with waste being dumped at legacy waste sites.

Under LHI, SLWM progress happened well in both GPs. With construction of segregation sheds, community soak pits, community compost pits, the GPs were able to manage their SLWM processes better. In Vanagar, construction of assets went ahead at a smoother pace compared to Jagatiya where timely rerelease of funds was an issue.



SHG groups of rag pickers

During the initiative, a revenue generation model for managing plastic waste was also successfully demonstrated in the GPs by having an SHG of ragpickers formed to collect regular plastic waste from the villages and sell it though forward linkages to vendor. An MoU was signed between Gram Panchayat and Mahadev Mahila Bachat Mandel for regular plastic collection. The GPs successfully generated income from

the sale of plastic waste and the government under GLPC paid Rs. 10 per KG of plastic to the SHG. The corporate Ambuja Cement provided facility to transport plastic waste from village to company and safely disposed it. About 2 MT of plastic waste was disposed of at Ambuja Cement Co-processing unit.

Further, IEC for awareness generation and long term behaviour change was carried out as a systematic plan including wall paintings, nukkad nataks, school WASH programs as well as capacity building exercises of PRI members. A direct outcome of these BCC is that villagers are now conscious of any garbage dumped by the roadside and the villages are visually clean from any garbage. Community members have also adopted the practice of source segregation that was negligible prior to the initiative.



Wall painting



Mithoi

Under LHI Nayara Energy Limited selected Mithoi village in Lalpur block in consultation with other LHI partners. During the baseline survey it was observed that there was lack of waste management infrastructure.

None of the households segregated their waste. There were no dustbins provided at public places like market, religious places, gardens and the GP did not have a vehicle for waste transportation. Approx 70% of solid waste was openly dumped. There was lack of awareness in the community regarding ODF+, and efficient waste management.

In Mithoi under LHI 309 household were reached through the program. One school, one SHG group, PRIs (gram panchayat) and community members were engaged for spreading awareness and education around WASH. Four hundred and two Safai sathis were engaged and provided vehicle for the door-to-door waste collection services.



Safai Sathis



Segregated waste being handed over

Currently, 100% HH are covered under the waste collection system from the door step in the village. Soak pit and and construction of compost pit for biodegradable waste management has been done by district rural development agency (DRDA) Jamnagar. In addition, On-site training of Safai Saathis /

labours / helpers on visual cleanliness, road cleaning, segregation of waste at source, handling of waste including hazards has also been conducted. Construction of waste segregation units - Swachhta Kendra for dry waste and compost pits for wet waste was undertaken and technical advisory to the Gram Panchayat leadership on relevant government schemes and requirements was also provided.

IEC activities were also carried out under the project that aimed to increase awareness in



Composting pit in Mithoi





Soakpit in Mithoi

communities and schools. Sessions were conducted on the harmful impacts of Single Use Plastic (SUP), its ban, and the urgent need to switch to practical alternatives and reduce usage. Two hundred students participated in the awareness generation drive on the types of waste, segregation at source, health and hygiene practices, and other waste management initiatives, including the harmful effect of Single Use Plastic (SUP) and the importance of banning the same. Nayara Energy Limited demonstrated unique alternative of Single

Use Plastic (SUP) among the community through promoting using of cloth bags to each Household in the village. Sensitisation of citizens through mohalla meetings, prerak samiti meetings, and multiple

other awareness sessions, which also attempted to initiate behaviour change among the village communities across age groups, were conducted. Regular interactions, capacity building exercises proved to be empowering and enriching for the community. School awareness activities including competitions, students' promotion marches, screening of documentaries were carried out. Activities and IPC on toilet usage, hand washing, Behaviour Change Communication (BCC) or FGDs on emptying the septage from septic tank, single pit toilets were also undertaken from time to time.



School Handwashing campaign





LHI, focused on ensuring a clean and open defecation free rural India, is not just about constructing toilets. It's about changing mindsets, ensuring usage, and imbibing the principle of "sanitation is everyone's business".

Thanks to the efforts of our Nayara CSR, DRDA and community, we have achieved nearly 100% toilet coverage, surpassing our own expectations. We didn't stop there. We have taken initiatives for solid and liquid waste management to make our village cleaner and healthier. The composting pits and the waste segregation drives have played pivotal roles in this.

-Mayabhai Dayabhai Roshiya Sarpanch, Gram Panchayat: Mithoi District: Jamnagar

Mayabhai Dayabhai Roshiya

"In the past, we used to wake up before dawn to fulfill our sanitation needs. This was especially challenging in the dark hours, and it exposed us to various safety hazards. But with the introduction of accessible toilets, our vulnerability has decreased, and we now have a private and dignified space for personal hygiene. This has also reduced the risk of health hazards, as we now have a clean and hygienic place."

> -Maluben Dhosiya Villager, Gram Panchayat: Mithoi, District: Jamnagar





"The RRC has transformed our village, making it cleaner and healthier. Waste, once scattered haphazardly, is now efficiently managed. Thanks to the support of Nayara Energy Limted's 'Swachh Halar' initiative, we continually work to raise awareness within our community about the importance of waste segregation."

"We've discovered that we can also earn a livelihood through waste segregation at the RRC, and we are dedicated to making the most of our waste by turning it into valuable resources."

Mayur Vinodbahi Waghela Safai Sathi, Gram Panchayat: Mithoi, District: Jamnagar

Sakhavadar, and Madhodhar

Both Sakhavadar, and Madhodhar were selected by TATA Trusts under the LHI program in consultation with other partners. Consultation with the Panchayat members and the community leaders were held in the initial stage to document the work to be undertaken under the programme.

Under LHI 100% of household were covered under door-to-door solid waste collection. Door to Door solid waste collection system by pay for service model was initiated. Service users paid monthly Rs.40 for door-to-door collection. A private service provider was engaged for waste management and was







Mobilization of community

paid through the income received from collection of service charges. Community also started source segregation of waste. Wall Paintings and other IEC was undertaken in the project village in order to motivate the community for the segregation of wet and dry waste at the household level that was found to be very effective. The GPs generated Rs. 24,500 through sale of plastic and other segregated

waste. Production of compost using wet waste processing was also initiated in the GPs. Where grey water management was concerned, individual and community soak pits for non-gutter areas were constructed.

Around 22 families were motivated to construct individual soak pits to avoid grey water disposal resulted in clean surrounding around houses. Contributed own labour to the CSR aid. The families that did not have individual toilets due to the problem of high-water table, were provided with technical support and managed to get the toilets constructed.



Madhodar construction of soak pits



Besides, TATA Trusts undertook a comprehensive awareness generation and behaviour change campaign in the GPs. Swachhata Committee undertook capacity building exposure visit organized to Parul University, Vadodara to know more about handling waste at segregation units. Regular village meetings were conducted to spread awareness. Sawchhta rallies were conducted with school children to raise awareness level regarding solid waste segregation at source among the children who were then motivated to use their learnings at home while segregating the waste. Training of menstruating women and adolescent girls, and demonstration of matka incinerator for safe disposal of sanitary pads was also conducted. Awareness campaign: "Karishu to Thashe" (Karenge to Hoga SBCC Campaign designed by TATA Trusts) covering 1200 HH across the GP was undertaken. Awareness was also generated about plastic waste with the school children to raise awareness levels regarding plastic use and waste disposal.



Awareness generation campaigns on safe WASH practices with school children

State achievements, highlights and learnings



Sanitary waste awareness : Training of menstruating women and adolescent girls, demonstration of matka incinerator for safe disposal of sanitary pads



Stop Open defecation : " Samajadar campaignto sensitize people to use the toilet, construction of new toilets under CSR

Gujarat was a unique state in that while some of the GPs did remarkably well in achieving and then successfully maintaining their ODF+ Model and Light House status, the others were slow on progress. The State learnings highlight the need for mechanisms for operations and maintenance to be incorporated in the plan right from the initial stages. Also, it is important to have all stakeholders agree on the plan objectives, tasks, timelines, and expected outcomes in order to enable them to perform their roles with absolute clarity. For GPs that showed a collaborative approach and engaged stakeholders from the conception to the execution of the sanitation strategy, the progress was steadier and therefore more sustainable.



HIMACHAL PRADESH

Himachal Pradesh occupies a region of snow-clad mountains, deep gorges, thickly forested valleys, large lakes, terraced fields, and cascading streams and rivers in the western Himalayas. The name of the state is a reference to its setting: Himachal means "snowy slopes" (Sanskrit: hima, "snow"; acal, "slopes"), and Pradesh means "state.¹³". Given its terrain and fragile ecosystem the State is particularly vulnerable to flash floods, and the devastation caused by floods such as soil erosion and landslides. Lately, the State is witnessing growing threats of these unfortunate climatic events due to climate change. Thus, Climate action and adaptation at local (panchayat) levels should go parallel with disaster-proof strategies at national and global levels¹⁴.

Under LHI Phase 1, 3 GPs all from the Solan district were included under the initiative. In consultation with DDWS, State Mission and ISC, ACF undertook the responsibility of supporting these GPs in their journey towards ODF+ Model and Light House GPs. Ambuja Cement Ltd. has two major cement plants in the State of Himachal and therefore the State is important for ACF from a CSR perspective.

| Sl. No | Corporate Support | District | GP | Villages | Baseline Status | Current ODF+ Status | LHI GP |
|--------|----------------------|----------|-----------|--|--------------------|------------------------|--------|
| 1. | ACF | Solan | Darlaghat | Baga, Bater, Dawaru, Darla, Rauri, Sayar | Aspiring | Rising | No |
| 2. | ACF | Solan | Nawagram | Nawangraon | Aspiring | Rising | No |
| 3. | ACF | Solan | Dabhota | Ratyor | Aspiring | Rising | No |

Table 5: Himachal Pradesh geographies under LHI Phase 1

Journey Under LHI Phase 1

Darlaghat, Nawagram and Dabhota,

At baseline, the status of all 3 GPs selected under the LHI in Himachal Pradesh was ODF+ Aspiring. In a needs assessment study, it was highlighted that the GPs needed better arrangements for SLWM and more focus on awareness regarding source segregation and safe management of plastic waste which is becoming a pressing challenge for hilly states of late. Despite the ban on plastic in Himachal, a proper disposal system for plastic waste was notably absent. Wastewater from kitchens and washrooms was channelled through open drains, posing environmental concerns.



¹³ https://www.britannica.com/place/Himachal-Pradesh

¹⁴ https://timesofindia.indiatimes.com/city/shimla/monsoon-fury-in-himachal-pradesh-uttarakhand-as-climate-change-alters-humidity-temperature-pattern-experts/articleshow/102835462.cms



The need for constructing underground drainage systems, individual household-level soak pits, and community soak pits outside the village to prevent contamination of open streams was evident. Converting single pits into twin pits and constructing soak pits for septic tanks emerged as essential steps for sustainable waste management.



Open Drainage system at Nalagarh

Laid Underground Drainage system

Under the LHI, the communities from the 3 GPs worked together with ACF, local State Mission, and ISC to ensure that all households have access to IHHLs. 455 IHHLs were constructed in the GPs under LHI to plug the gap between toilet access and use.

Under LHI, The GPs pioneered an innovative door-to-door garbage collection service using a tractor trolley, collecting Rs 80 per household for the service. This endeavour witnessed full participation from every household. Households also began composting bio-degradable waste.

To address LWM challenges identified at baseline, a detailed plan was made of which 60% of the Liquid Waste Management work has been completed in two Panchayats of Nalagarh Block under LHI. The relocation of drinking water pipelines, previously traversing open drains, mitigated the risk of contaminating drinking water. At Ratyor village in Nalagarh block, Wastewater Stabilization Ponds were constructed. While most villages in Kunihar Block drain wastewater into local streams, one village was linked with the Ambuja Sewage Treatment Plant (STP).

Under LHI, A significant milestone was that fifty percent of the wastewater from kitchens and washrooms was successfully collected through an underground drainage system. This strategic move





IEC wall painting

aimed at preventing unhygienic conditions and health hazards yielded positive results, notably reducing waterborne diseases within the community. The success underscores the importance of efficient waste management systems in safeguarding public health and enhancing overall well-being.

State achievements, highlights and learnings

Himachal Pradesh offered many challenges and consequently many learnings for future sanitation endevours. The state's mountainous terrain presented demographic challenges, making the construction of soak pits a formidable task. Additionally, the scarcity of land posed an obstacle to establishing Material Recovery Facility (MRF) facilities. In response, ongoing consultations and ideation involving the State Mission Director (SMD), the corporate sector, and the Integrated Solid Waste Management Corporation are underway to address these challenges and find sustainable solutions. This collaborative effort reflects a commitment to overcoming obstacles and fostering effective waste management practices in the unique context of Himachal Pradesh.

Additionally, Himachal Pradesh grappled with fund-related challenges due to the smaller population in its villages. The LHI program had a series of consultations with the community and State Mission to navigate these hurdles, aiming to find a middle ground to kickstart on-ground initiatives. Complicating matters, there was confusion over funding heads, adding a layer of complexity to the situation. Although significant strides were made under LHI, particularly on collection and management of solid waste and arrangements for liquid waste, comprehensive advancements need further collaborative effort and time to achieve. A collaborative effort to identify a middle ground is crucial, seeking solutions that balance financial constraints and land constraints with the pressing need for comprehensive waste management infrastructure. Finding common ground will be key to resolving these challenges and advancing the waste management agenda.



KARNATAKA

Karnataka lying in the southwestern region of India, is a State that has coastal regions, hilly terrain (Western Ghats) and plains. The bulk of the state is in the Bayaluseeme region, the northern part of which is the second-largest arid region in India. Under the LHI, 8 GPs across 6 districts were selected in the State for support on their ODF+ Model and in becoming Light House GPs journeys by DDWS, State Mission, ISC and 2 corporates namely ITC, and JSW Foundation (JSWF).

| Sl. No | Corporate | District | GP | Villages | Baseline Status | Current ODF+ status | LHI GP |
|--------|----------------|--------------------|-------------------|--|--------------------|---------------------------|--------|
| 1. | | Bengaluru Urban | Doddajala | Doddajala | Aspiring | Model | Yes |
| 2. | ITC | | Bilikere | Belikere, Jeenahalli, Mallinathapura | Aspiring | Model | Yes |
| 3. | | Mysore | Devirammanahhalli | Hosakotte, Masage, Karlapura | Aspiring | Model | No |
| 4. | | | Devanuru | Chikkakowlande, Chunchanahalli, Devanur, Kakkarahatti, Varahalli | Aspiring | Aspiring | Yes |
| 5. | | Ballari | Taranagara | Taranagara | Aspiring | Aspiring | No |
| 6. | JSW Foundation | Chitradurg | Bheemasamudra | Bheemasamudra, Malali, Nallikate, Palya, N. Ballikate, Thurebailu, Battadanagenahalli, Dindadahalli | Aspiring | Aspiring | No |
| 7. | | Vijaynagar | Danapur | Venkatapura, Dhanapura, Iyyanahalli, Hanumankatti, Galemannagudi, Hampinkatti, Vyasanakere | Aspiring | Aspiring | No |
| 8. | | Koppal | Kaltavaragere | Abbigeri | Aspiring | Aspiring | No |

Table 6: Karnataka geographies under LHI Phase 1



Journey Under LHI Phase 1

Doddajala, Bilikere, Devirammanahhalli and Devanuru

ITC has significant presence in the State on account of several of its plants located in the State. In line with its CSR commitment the corporate selected the above 4 GPS in consultation with DDWS, State Mission, and ISC. Prior to commencement, a thorough gap analysis was conducted which uncovered the crucial needs to elevate waste and liquid waste management. The community sought the establishment of 5 compost units, 3 shredding machines, and 3 bailing machines. Additionally, the gap analysis identified a demand for retrofitting 120 toilets, constructing a sanitary complex, and building 4 toilets dedicated to school facilities. Further, the need for 583 individual household soak pits, 42 community soak pits, 13 in-line treatment units, 4 constructed wetlands, and a drainage length of 11,270 meters was also identified. Post baseline studies, an action plan was prepared based on the feasibility.



Drum Composter_Bilikere Gram Panchayat



Pipe composter_Bilikere Gram Panchayat



After



Inline Treatment Bilikere Gram Panchayat





Under LHI, with support from ITC, the Gram Panchayats embarked on a journey to bridge these gaps. In Doddajala, a Faecal Sludge Treatment Plant (FSTP) was completed. Additionally, inline treatment was implemented in drainage lines. Inline treatment refers to the process of treating greywater, which is wastewater generated from non-toilet fixtures in buildings, such as sinks, showers, and laundry machines, before it is reused or discharged. In Devanur and Deviramanahalli, construction of the Faecal Sludge Treatment Plant (FSTP) is underway through collaboration

Feacal sludge Management- Household Toilet construction

with the Taluk Panchayat. Further, construction of 216 new toilets for left over beneficiaries and retrofitting of 15 toilets were done to ensure all households access to IHHLs.



Collected Dry waste & processing



Composting of wet waste



Solid waste management –Door to door collection

As regards SWM, the GPs took to source segregation in a big way, with over 90% of waste being segregated at source. The villages also adopted daily waste collection system and management using Auto tipper and Tractor. RRCs were constructed at village level to further manage the waste collected from households. For biodegradable waste, awareness was spread on home/backyard composting which was adopted to a great extent by households. GPs of were facing

challenge in handling waste management due to constraint of manpower and private vendor were not taking interest as quantum of waste was not making sense for outside vendor to get engaged in it. To overcome this a SHG were involved in waste management as service provider for Panchayats in 3 GPs. The GPs handed over waste management and monitoring to Women SHGs (NRLM) trained by ITC and



Zilla Panchayat, to establish sustainable waste management program. SHGs due to strong institutional mechanism, financial discipline and influencing power were able to motivate households to segregate waste and pay service fee. Programme revived old practice of composting called "Thippe" locally, resulting lesser transportation of waste as over 80% HHs are doing composting. Old buildings were used as MRF which helped in significantly reducing requirement of infrastructure cost.

It's commendable that solid waste management was implemented in all households across the four Gram Panchayats and high segregation results in minimal waste to landfill compared to baseline where almost all waste was getting dumped. Consistent waste management at the community level is crucial for environmental sustainability. SHG model in waste management is also got replicated in other non LHI GPs and Ms Aspiya Bano, a women SHG member working in non LHI GP with support from ITC was awarded as the Women Change Maker in ISC FICCI Conclave 2023.

Wall painting, school WASH, capacity building of stakeholders was also undertaken under the LHI. Such as training of NRLM SHG group members on wate management and microenterprise, village seniors and leaders, Youth association members, School teachers/SDMC members/ASHA/AW workers/BVS committee members. Commercial workers and vendors. Exposure visits were also conducted with several community members even from neighbouring villages for replication of programme in future.

Additionally, interventions were undertaken to ensure wellbeing of waste collectors. 20 waste collectors were linked to government social security schemes and provided financial literacy trainings.





IEC Wall painting



Taranagar, Bheemasamudra, Danapur, and Kal Tavaragere

The above 4 GPs in the State were selected by JSWF in consultation with DDWS, State Mission, and ISC. JSW has a major plant in the State namely the Vijayanagar Plant, the 6th largest steel plant in the world¹⁵ and largest single location steel-producing facility in India. Thus, Karnataka is a major catchment area for CSR activities for the Indian Steel Giant.

Under LHI, JSWF started by conducting a baseline assessment to identify households without IHHL, and needs assessment for other sanitation infrastructure and processes. Flow measurement at proposed greywater treatment sites were used to assess both quantity and quality.

For solid waste management, efforts were underway for retrofitting of old waste management unit as well as planning for a new one. Installation of an incinerator was completed at the government school. Awareness initiatives, including exposure visits and stakeholder engagement, were also conducted. Community level compost pits and soak pits were also developed for effective waste management and awareness was spread regarding the same. Kaltavargere GP, collaborated with Hulige GP for Non-Bio Degradable waste management, with a budget approval process for an access road to the Solid Waste Management (SWM) site, aiming for independence from Hulige GP in the long run. For greywater management, infrastructure was established based on identified needs and Quality & Quantity (Q&Q) assessments. Danapur opted to use the Malpanagudi Faecal Sludge Treatment Plant (FSTP) for disposal in the short run, avoiding investment in a new facility in the short to medium term.

JSW Foundation also has a separate program, 'SAKHI' for up cycling the MLP waste which would otherwise end up in Landfill which they aligned with the Light House program. The program is based on converting waste MLPs in to Luxurious and fashionable products like tote bags, Hand bags, planters, etc. Four SHGs comprising of 60 women from vulnerable community received livelihood support through this initiative.

Best Practice

• **Description:** LHI GPs of Mysuru was facing challenge of handling and monitoring waste management through its resources as manpower was not adequate. They tried involving private vendors but vendor did not show interest as quantum of waste was less and was not lucrative for outsider to come as service provider. Service fee collection was irregular and panchayat was finding difficulty to influence households to segregate, compost and pay service fee. To overcome this, ITC and Zilla Panchayat trained State Rural Livelihood SHGs in waste management and motivated them to take it up as a paid service of Panchayat. SHGs with handholding support took these interventions in LHI GPs of Mysuru. Being strong village level institution, they were able to influence households for waste segregation which went above 90% and helped in managing various categories of waste and

¹⁵https://www.jswsteel.in/vijayanagar-works



thus earning revenue from sale of recyclable. Since SHG has strong financial discipline and most of the households of villages are part of these groups, they are able to ensure timely collection of service fee, ensuring timely payment of wages to waste collectors. SHGs apart from selling the recyclable, also charge fixed amount from Panchayat in lieu of waste management service that they provide, which adds to SHG members income.

- **Outcome:** High segregation (over 90%) and composting (around 80%) by HHs resulted in decentralisation of system. This also helped in managing recyclable waste easily as quantum of waste coming for secondary segregation was less and thus SHGs were able to manage it in old infrastructure (like old panchayat building) reducing requirement of fixed cost.
- Learnings: SHG involvement in waste management has not only helped GPs to address manpower issue but also helped in making it a low cost sustainable model with additional earning to SHG members. Low-cost models have potential for scaling up. This model has also been adopted by other GPs of Mysuru currently



Bilikere, Hunsur Taluk, Mysuru District Testimonials

Malathi uthappa doing composting of wet waste & promotion og nutrition garden in Bilikere Village

I am Bilikere resident. Initially I use to hand over mixed waste to Gram Panchayat.

ITC has sensitized all the Households in the village including me and trained on source segregation & Home composting (Pipe composting ,NADEP & Thippe composting). Now I am composting all wet waste of my house through this pipe composting method.

Due to this , mosquito issues are reduced & got enriched compost. This compost is applied to Fruit trees like Jack, Guava, Mango

,sapota & flowers & now we can see its vigorous growth. We don't have words to express thanks to ITC Ltd., OUTREACH & Gram Panchayat. The programme has helped us to keep our village & environment clean.



Gowramma in front of newly constructed Household Toilet in Bilikere Village.



Gowramma, wife of Govinda from Bilikere Village, faced several challenges due to the absence of a toilet in her house. The primary reasons for the toilet not being built initially included insufficient awareness about proper toilet usage and cleanliness, and a shortage of suitable space.

The absence of a toilet posed numerous difficulties for Gowramma and her family. They had to resort to open defecation in the

plains, often waiting until night, even in adverse weather conditions, out of fear of snake bites. The lack of privacy during open defecation became a source of embarrassment as people frequently passed by.

The transformation came when the Village Panchayat, along with ITC, under LHI took proactive measures to address these issues as part of Light House Initiative. They conducted awareness campaigns on cleanliness and on health multiple times, emphasizing the significance of constructing toilets.

As a result of these efforts, Gowramma's household now enjoys the convenience and benefits of having a toilet.

Gowramma says "ITC along with Gram Panchayat under LHI had done Door to door awareness & trainings about importance of toilet & its usage. So later through gram panchayat support, I constructed a toilet in my house. The construction of the toilet had not only relieved my family from stress and anxiety associated with open defecation but also improved my overall quality of life.

Toilet left out Beneficiary : Gouramma w/o Govinda, Bilikere,Mysuru District



With support of SBM Karnataka, Zilla Panchayat Mysuru & ITC Ltd, Bilikere is the first Gram Panchayat in Mysore district to implement the Rural Solid Waste Management Program. Solid Waste Management is initiated in old Poultry farm with low cost model, Secondary sorting of collected waste is done in this old building & sorted waste is sent to authorised Reseller in Mysore for processing.



Gram Panchayat collaborated with women SHGs federation for solid waste management. We are collecting only dry waste from all the Households & all the wet waste is being managed at Home & producing nutrient rich compost.

Revenue is generated through user fee collection & sale of dry waste. Compost produced in the village is used for nutrition gardening, for agriculture & for avenue tree plantations.

As part of LHI, constructed Household toilets for left out beneficiaries ,Inline treatment & soak pits are done for liquid waste management .

We are managing solid, liquid & Faecal waste effectively. Now our GP is the model LHI Gram panchayat.

ITC supported since inception by providing regular trainings, organising Gram sabha meetings, exposure visits & providing technical support. Thanks to ITC & its partner NGO, Taluk Panchayat, Zilla Panchayat Mysuru & SBM Karnataka.

Panchayat Development Officer : Mr HM Mahadevaswamy, Bilikere Gram Panchayat, Hunsur Taluk, Mysuru District



Initially, we are not doing waste management. Drains are clogged with plastic wastes. We are having dumping sites in all the streets. We don't have Building to take waste management. Drains are the breeding places for mosquitos.

ITC trained PDO, GP President, Swachhagrahis, GP Members, Women SHGs on Solid & Liquid waste management. Supported to conduct Door to door awareness, organising exposure visits & helped us to initiate low cost waste management in old poultry farm.

Now Solid & liquid waste management is being done in entire gram panchayat, we are collecting user fee to generate revenue for sustaining the waste management. Now our Villages streets looks clean, Community health is improved, This is very happy to us. Thanks to ITC for the continues support & making our GP as first Model LHI Gram panchayat in Karnataka.



Taranagar, Bheemasamudra, Danapur, and Kal Tavaragere

The above 4 GPs in the State were selected by JSWF in consultation with DDWS, State Mission, and ISC. JSW has a major plant in the State namely the Vijayanagar Plant, the 6th largest steel plant in the world ¹⁶ and largest single location steel-producing facility in India. Thus, Karnataka is a major catchment area for CSR activities for the Indian Steel Giant.

Under LHI, JSWF started by conducting a baseline assessment to identify households without IHHL, and needs assessment for other sanitation infrastructure and processes. Flow measurement at proposed greywater treatment sites were used to assess both quantity and quality.

For solid waste management, efforts were underway for retrofitting of old waste management unit as well as planning for a new one. Installation of an incinerator was completed at the government school. Awareness initiatives, including exposure visits and stakeholder engagement, were also conducted. Community level compost pits and soak pits were also developed for effective waste management and awareness was spread regarding the same. Kaltavargere GP, collaborated with Hulige GP for Non-Bio Degradable waste management, with a budget approval process for an access road to the Solid Waste

Management (SWM) site, aiming for independence from Hulige GP in the long run. For greywater management, infrastructure was established based on identified needs and Quality & Quantity (Q&Q) assessments. Danapur opted to use the Malpanagudi Faecal Sludge Treatment Plant (FSTP) for disposal in the short run, avoiding investment in a new facility in the short to medium term.

JSW Foundation also has a separate program, 'SAKHI' for up cycling the MLP waste which would otherwise end up in Landfill which they aligned with the Light House program. The program is based on converting waste MLPs in to Luxurious and fashionable products like tote bags, Hand bags, planters, etc. Four SHGs comprising of 60 women from vulnerable community received livelihood support through this initiative.

Case Study: Sakhi: Waste to Wealth

Source-segregation is one of the key indicators of success when it comes to waste management both in rural and urban spaces. One of the primary objectives of LHI was to ensure techno-managerial support by the corporate to achieve the sanitation milestones. In Karnataka JSW Foundation empowered women SHGs for up cycling the MLP waste which would otherwise end up in landfill. The program was based on converting waste multi layered plastic waste in to luxurious and fashionable products like tote bags, hand bags, planters, etc. Four SHGs comprising of 60 women from vulnerable communities received livelihood support through this initiative.



¹⁶ https://www.jswsteel.in/vijayanagar-works





Making wealth out of waste - Sakhi Women SHG

State achievements, highlights and learnings

Karnataka is a State that boasted of mixed results in achieving ODF+ Model status for its GPs. While 4 of its GPs showed remarkable progress, the remaining 4 GPs had a challenging journey. Slow progress was majorly attributed to timely release of funds and lack of clarity on convergence between different government functions. For the GPs where there was better clarity and collaborative action, the initiative progressed much more smoothly and sustainability of assets and process was visible. What worked for the State was, Community-Led Initiatives, such as source segregation, Home Composting involving Women groups in the villages. Behavior Change Campaigns using cascade trainings, Street play, and Workshops, to raise awareness about the importance of proper waste management and sanitation practices. Involvement of Women's Self-Help Groups & Volunteers. These groups also served as agents of change by involving in door-to-door campaigns and monitoring of the programme.



MAHARASHTRA

Maharashtra saw the coming together of DDWS, State Mission, ISC, and 3 corporates namely ITC, JSW Foundation and Ambuja Cement across 8 GPs and 16 villages under LHI towards assisting these GPs embark on a journey towards creating ODF+ Model villages and in becoming Light House GPs.

Table 7: Maharashtra geographies under LHI Phase 1

| SI. No. | Corporate | District | GP | Villages | Baseline Status | Current ODF+ Status | LHI GP |
|------------|-------------------|------------|------------|---|--------------------|------------------------|--------|
| 1 | ITC Limited | Pune | Malthan | Malthan, Lakewadi | Aspiring | Model | No |
| 2 | ITC Limited | | Dahiwadi | Dahiwadi | Aspiring | Model | Yes |
| 3 | ACF | | Mangi Buj. | Mangi BK | Aspiring | Model | Yes |
| 4 | ACF | Chandrapur | Kukudsatha | Kukudsatha | Aspiring | Model | Yes |
| 5 | ACF | | Upparwahi | Upparwahi | Aspiring | Model | No |
| 6 | JSW Foundation | | Dolvi | Dolvi, Kamat Wadi, Ghoul wadi, Number wadi, Borwe | Aspiring | Aspiring | No |
| 7 | JSW Foundation | Raigad | Masad | Masad BK, Masad KH, Masad Beli | Aspiring | Model | No |
| 8 | JSW Foundation | | Div | Bairamwatak, Benewale, Div, Narwel | Aspiring | Aspiring | No |
| 9 | JSW Foundation | Alibaug | Shahabaj | Ghaswad, Shahbaj, Talband, Walawade | Aspiring | Model | Yes |

Journey Under LHI Phase 1

Malthan, and Dahiwadi

Maltan and Dahiwadi GPs were supported by ITC in Maharashtra, based on its presence in the State and in consultation with LHI partners. The corporate, ITC, undertook a gap analysis study in the GPs through village walk, PRA exercises, survey/questionnaire mode and discussions with stakeholders. The needs assessment exercise revealed the necessity of about 50 IHHLs, proper faecal sludge management systems, better solid waste management system including source segregation and collection of waste from households. The villages also lacked in visible cleanliness with many roadside dumps of waste and





choking of open drains by waste. Furthermore, both GPs lacked an MRF centre. Plastic waste accumulated at houses was collected by a green worker and stored temporarily before being sent to a vendor. Similarly, households accumulated dry waste, which was then collected by a green worker for sale to a dry waste vendor. Due to the absence of proper drainage facilities, wastewater, primarily greywater, was observed draining into the village stream without treatment, leading to contamination of pond water. Additionally, it was noted that several houses had septic tanks, necessitating soak pits for the management of blackwater. ITC also identified 10 leftover beneficiary households without toilet access, primarily due to a shortage of funds, highlighting affordability issues.

Assets like soak pit construction, compost pits, waste segregation, and community NADEP were constructed under the project, addressing identified gaps with technical assistance from ITC. Under LHI, 260 new compost pits were created, 1 vehicle was provided for transportation, and 2 waste segregation sheds were established based on the Village Development Plan (VDP) requirements. For LWM, 16 leach pits/magic pits/soak pits, 10 kitchen gardens, 2 community soak pits under LHI, and a greywater management system were implemented. Additionally, three new individual household toilets were constructed. The project also involves converting faecal sludge to manure through the construction of drying beds, which is utilized in agriculture.

In Malthan, Self-Help Groups run by women were instrumental in ensuring IHHLs for all households. These groups actively supported Left Over Beneficiary households through short-term loans for toilet construction. The LOB households initiated construction soon after receiving the loan, and five have already completed construction. For both GPs, awareness programs, including plays, wall paintings, and PRI capacity building exercises, were conducted, covering waste segregation, home composting, plastic management, soak pit construction, toilet construction, and retrofitting. Wall paintings emphasized retrofitting, using toilet slurry as manure, and constructing soak pits.



Grey Water Treatment Structure, Dahiwadi, Pune

Waste collectors in Manthan and Dahiwadi were covered under health camps and were linked to government social security schemes like Pradhan Mandtri Jeevan Jyoti Bima Yojana, Pradhan Mantri Suraksha Bima Yojana, Jan Arogya Yojana, etc.

Two major challenges were faced during the program, i) the reluctance of families to invest in Individual Household Toilets (IHHT) due to financial constraints and ii) lack of awareness, and the mobilizationavailability of common land for

community toilet construction for the households not having land. The first challenge was addressed through extensive social behaviour change communication campaigns. Women's Self-Help Groups played a pivotal role by providing low-interest loans to beneficiary households, who would then repay the loan upon receiving incentives under the Swachh Bharat Mission. This approach helped overcome financial barriers and promote IHHL construction.



Mangi Buj, Kukudsatha, and Upparwahi

The blocks selected under the project by the corporate Ambuja Cement Foundation were Rajura and Korpana and GPs under the blocks were Mangi Bhuj, Kukudsatha and Upparwahi in Chandrapur district of Maharashtra. ACF had been working in these GPs since several years now under its CSR initiative and was therefore well familiar with the GPs. Under LHI, it carried out a needs assessment to document the sanitation related needs of the GPs and progressed accordingly.



Community level soak pits at Mangi Buj

Under LHI, households were enabled to start segregating waste at source using specific bins. To make their village cleaner and to initiate household-level segregation of waste, the GP distributed two bins to each household so that waste could be segregated at source. Further, ACF provided large bins each with a capacity of 120 litres to the GPs, thereby rolling out a community-level garbage segregation system. The Ganta Gadi which is a waste collection vehicle was assigned to collect segregated garbage from households. The biodegradable waste was deposited into NADEP pits where it was converted into rich manure for use in agriculture. Plastic wastage management was also better managed under LHI by way of spreading awareness on the same and enabling the community to segregate and then sell the plastic waste to vendors for forward linkages. Further, the problem of poorly managed garbage collection was addressed through exposure visits to villages of Rajgad and Kosambi to learn and understand how other villages were effectively managing household as well as dumpsters. These exposure visits organised to the model villages of Rajgad and Kosambi proved to be a game changer for the GP members of Kukudsath. When people from Kukudsath saw for themselves how systems for garbage collection and segregation including plastic collection and disposal were in place, they felt the need to make some positive changes in their own village.





NADEP pits at Upparwahi

Waste segregation

Compost pit

There were several IEC and BCC activities undertaken by the corporate to spread awareness in the village through "Nukkad Natak, Wall painting, awareness meetings and Hand Wash sessions and poster making competitions with School students. PRI capacity building and awareness drives were undertaken in the villages. School WASH programs was also initiated to inculcate safe WASH practices among the children from a young age.



Nukkad nataks for spreading awareness on WASH

Best Practices

- **Description of the Intervention**: Kukudsath village in Chandrapur district of Maharashtra had a poor system for garbage collection and segregation. Managing the problem of poorly managed garbage collection through exposure visits to villages of Rajgad and Kosambi for the GP members was conducted to learn and understand how other villages were effectively managing household waste as well as dumpsters.
- Impact of the Intervention: When people from Kukudsath saw for themselves how systems for garbage collection and segregation including plastic collection and disposal were in place, they felt the need to make some positive changes in their own village. To initiate household-level segregation of waste, the GP distributed two bins to each household (440 bins in total) so that waste could be segregated at source. Further, ACF provided 16 large bins for community-level garbage segregation system.
- **Key Learnings**: Such exposure visits help in information sharing and learning from others' successful and not-so-successful (lessons learnt) interventions.





IEC/BCC activities




Testimonials:



The Ambuja Cement Foundation imparted crucial lessons on garbage collection, segregation, and solid-liquid waste management. Collaboration with SBM team at block and district levels, effective solid waste management systems were implemented across villages. The Light House Project significantly contributed to village development, motivating residents. As a result, Open Defecation- Free status and improved solid-liquid waste management systems were successfully established

-Mr. Shankar Atram, Sarpanch, Grampanchayat : Kukudsath, Ta. Korpana Dist. Chandrapur

Sanitation activities was most important for my grampanchayat because didn't proper system for garbage collection, segregation, liquid waste management & plastic collection system. Under the Light-House initiative Ambuja Cement Foundation has organized various awareness program, need assessment with the SBM team then prepare proper village development plan, regular home visits, review meeting with GP members, wall painting for awareness. Now, establish village level garbage collection and segregation shed with Naddep Pits, Leach pits, Community level dust bins, plastic collection units etc. Without Ambuja Cement Foundation team & Swachi Bharat Mission team didn't possible for achieving the mission.



-Mr. Anil Kaurase, Sub-Sarpanch, Grampanchayat : Upparwahi, Ta. Korpana Dist. Chandrapur



Valuable support provide by Ambuja Cement Foundation for the Light house project, under the project ACF team regular visits and guidance meeting conducted with the collaboration with SBM department at Block and district level. ACF motivate to community for Gramsafai Abhiyan so 40 to 50 people participated every morning for gramsafai movement. Our mission is "Swachatetun Gram-Vikas" we are continuous thinking about village development work , we have create Oxygen Park for better environment sanitation. I express my singcere gratitude to ACF for their continuous support and partnership in realizing the vision of a cleaner and healthy Grampanchyat. The concept of light house has helped for developed sanitation infrastructure through the support by fifteenth finance district level scheme.

> -Mr. ShankarTodase, Grampanchyat : Mangi buj.



Dolvi, Masad BK, Div, and Shahabaj

Corporate JSW Foundation selected the district of Raigad for the intervention under LHI. JSW undertook comprehensive Gaps assessment through PRAs and surveys involving local community and administration. The study revealed the need for construction of IHHLs and community toilets. The prevalent on-site system observed here were single soak pit followed by septic tanks. It was also observed that the septic tanks were not necessarily followed by soak pits (which should ideally be the case) and were unscientifically built owing to space constraint and high-water table. Community toilets infrastructure was found to be poorly maintained, unavailability of water in toilets being one major issue. An urgent need was identified for renovation and retrofitting of community toilets as well as in schools The need for IEC and BCC activities on maintaining sanitation and hygiene was identified. In many public spaces like schools and anganwadis, there was no separate toilet for men and women.

As regards, solid waste management, the need for more vehicles for collection & transportation of waste was identified. It was also noted that no segregation of waste was happening at household level. Waste was directly being thrown into the creek. Dry waste was being collected once a month.. For LWM, the GPs had mostly open drains that directly disposed grey and storm water into the creek. A few households had also connected blackwater to the creek, thus inhouse treatment systems needed to be explored. Incorrect gradient of drains was leading to stagnation in some places within the GP's.



Home visit conducted in Shahbaj

Under the project, construction of identified assets was undertaken but progress was extremely slow due to fund for the activities being released in an untimely manner. Funds were required for IHHL construction, Community sanitation complex, greywater management solutions including inline treatment, stormwater drain correction, wetland development and solid waste composting and drop off centre however there was confusion at the GP levels regarding the 'Heads' these funds should be released under. This was addresses by the State Mission Director and meetings were conducted to sort these

issues out but this process ate valuable time. However, once the funds got released, the activities are expected to continue well without further delays.

Also due to some geographical features like high water tables, some Nature-based solutions need to be explored. Some solutions like constructed and natural wetlands, wastewater treatment ponds and soil infiltration systems, and green roofs and vertical gardens could be explored. Out of the rising GPs Shahbaj has a few LWM related works still to be completed and is likely to attain the model status soon. There is a need to explore NBS in these two GPs because it is difficult to construct soak pits here because of the water table being very high. It has been seen that high water tables disrupt the soils' ability to soak.



A number of IEC activities were conducted in all the 4 GP's by inviting external resource persons. IEC activities also included Wall Paintings, School events, FGD's involving various stakeholders, Street plays, Event on WASH theme etc.



Exposure visit to Kosambi and Rajgad

on-site system were single soak pit followed by septic tanks. It was also observed that the septic tanks were not necessarily followed by soak pits (which should ideally be the case) and were unscientifically built owing to space constraint and high-water table. Community toilets infrastructure was found to be poorly maintained, unavailability of water in toilets being one major issue. An urgent need was identified of renovation and retrofitting in community toilets as well as in schools wherever needed, followed by IEC and BCC activities on maintaining sanitation and hygiene. In many public spaces like schools and anganwadis, there was no separate toilet for men and women.



Awareness generation posters in Raigad

As regards, solid waste management, the need for more vehicles for collection & transportation of waste was identified. Also it was noted that no segregation of waste was happening at household level. Waste was directly being thrown into the creek. Dry waste was being collected once a month by Mumbai. For LWM, the GPs had mostly open drains that directly disposed grey and storm water into the creek. A few households had also connected blackwater to the creek. Most labour quarters were discharging their wastewater into the creek, thus inhouse treatment systems needed to be explored. In some areas incorrect gradient of drains was leading to stagnation in some places within the GP.





Waste collec*on bins distributed in the villages.

It's a pride of ours that our Masad Village has been selected as an exemplary village under the Light House Project. We are getting valuable support and guidance from JSW Foundation and Swachh Bharat Mission, Raigad Zilla Parishad to make Aadarsh Gaon.

JSW Foundation supports us for the awareness created among the villagers as well as financial support for the construction of individual toilets, community toilets, waste storage shade with the collaboration of Swachh Bharat Gramin Mission. It is expected that our village will become ideal soon with the community participation and support of JSW Foundation.

-Harichandra Vasant Patil, Sarpanch, Gram Panchayat: Masad District: Raigad

State achievements, highlights and learnings

The State offered clear evidence of the close linkage between public health and safe sanitation access and use. In Maltan and Dahiwadi, studies in the Gram Panchayats show a reduction in communicable diseases, particularly diarrhea in children, due to open defecation-free status and improved cleanliness. Last-mile sanitation demonstrates that community ownership can be ensured through innovative finance, such as community contributions and SHG loans.

The impact on women, the elderly, and children was significant, leading to improved access to safe sanitation, ensuring safety, dignity, and reduced ill effects of open defecation. Engaging the elderly and influencers like teachers, frontline workers, village heads, and ward members played a key role. Targeted Social Behavior Change communication campaigns resulted in deep-rooted community sensitization, prompting action to secure the right to safe sanitation. The success of these interventions suggests their effectiveness and the potential for replication.



ODISHA

Located on India's eastern coast, the State of Odisha has been facing the severe impact of climate change in recent years. The state has witnessed high variability of rainfall, leaving people with two peak periods of food shortage, drought, and dry weather events becoming more frequent and intense. The state has seven coastal districts, and sea erosion has been observed in these districts apart from the damage caused by cyclonic activities¹⁶. Sanitation infrastructure in the State is susceptible to these climatic events.

Under LHI Phase 1, 4 GPs in Angul district were selected in the State using a consultative approach by DDWS, State Mission, ISC and corporate partner Jindal Steel and Power Limited (JSPL). JSPL has a 6 million tonne per annum (MTPA) integrated steel plant comprising India's largest 4.25 MTPA Blast Furnace at Angul, Odisha¹⁷.

| SI No | Corporate Support | District | GP | Villages | Baseline Status | Current ODF+ Status | LHI GP |
|-------|----------------------|----------|--------------|--|--------------------|------------------------|--------|
| 1 | JSPL | Angul | Jarasingha | Ankurbahal, Jarasingha, | Non ODF | Model | No |
| 2 | JSPL | Angul | Sanakerjanga | Basudevpur, Beherabhuin, Derjang Jungle, Dhabaradhua, Golabandha, Krishna Chandrapur Jungle, Pathuria, Sanakherganj Jungle, Sankarjung | Non ODF | Model | No |
| 3 | JSPL | Angul | Paranga | Paranga, Ramadiha, Ambapali, Badhajharan, Badamahitala | Non ODF | Model | No |
| 4 | JSPL | Angul | Natada | Bethianali, Natada, Sanamahitala | Non ODF | Aspiring | No |

Table 8: Odisha geographies under LHI Phase 1

¹⁶ https://magazines.odisha.gov.in/Orissareview/2016/Jan/engpdf/38-42.pdf

¹⁷ https://www.jindalsteelpower.com/odisha.html





Journey Under LHI Phase 1

Jarasingha, Sanakerjanga, Paranga, Natada

The above GPs, were selected by JSPL in the district of Angul under consultation from DDWS, State Mission, and ISC. Angul is primarily an industrial district and as mentioned earlier, JSPL has a mega steel plant in the district. Angul therefore lies in the catchment area for JSPL for its CSR initiatives. At the commencement of the initiative JSPL carried out a baseline assessment to gauge the sanitation scene in



IEC activity at Ambapala, Natada school

the intervention areas. In Natada and Parang, it was observed that though majority of households had their own, about 10 percent were in need of IHHLs. Though most of the toilets were double pits, they were poorly maintained. While for Sanakerjanga and Jarasingha, the toilets were mostly single pits. The success of toilet construction and water supply initiatives was evident in the GPs, but challenges like incomplete toilet usage and limited water supply duration persisted, reflecting the complexity of addressing sanitation and water often stored and later discarded at nearby dumping spots, leading access comprehensively.

Some households practiced waste segregation, with wet waste being fed to animals. However, there was no systematic collection for inert or dry waste. Dry waste, after cleaning, was to burning. High-value waste items were sold to kabadiwalas (waste collectors) who regularly visited the villages. Construction waste was observed scattered around the villages. Each village had a Material Recovery Facility (MRF), but these facilities were underutilized. Despite government plans to link them with Self-Help Groups (SHGs), the villagers displayed a lack of interest in waste management



GP level orientation at Sankarjang

initiatives. Animal waste was commonly heaped in front of houses and later applied to fields before the



Natada SHG Capacity building

monsoon. In Shankarjang GP, community-level dustbins were present at public locations, designed to collect dry waste. In Jarasingha, some households had pits with rings-one for dry waste and another for wastewater. However, only a few households used these pits to store dry waste for later burning. Parang and Jarasingha GPs faced frequent waste burning, contributing to pollution. Plastic waste, especially thermocol plastics used for food packaging, dominated the dry waste. Liquor glass





bottles were also visibly present in significant quantities throughout the villages. These observations highlight the need for increased awareness and community engagement to promote effective waste management practices, discourage burning, and explore the untapped potential of existing facilities.

As regards LWM, in Natada, very few households had emptied their toilets, and those who did typically engaged private operators from nearby towns. Participants mentioned that only a limited number of trucks (around 2) would have come to empty tanks in the last year. Sankerjang, on the other hand, demonstrated better toilet usage, with about 50% of households reporting toilet emptying. The average cost of emptying ranged from Rs. 2,000-2,500. These toilets had been in use for approximately 5 years. Fecal sludge from emptied toilets in Sankerjang was disposed of in the nearby forest or empty land within a radius of 1-2 km. In Parang, there was limited information regarding FSM. In Jarasingha, where the cost of toilet emptying was reported as Rs. 4,500, higher than in other GPs, could be attributed to larger septic tanks or holding tanks. Villagers, in general, lacked awareness about where the fecal sludge gets disposed of and had limited information about the nearest Fecal Sludge Treatment Plant (FSTP) in Angul. The discrepancies in toilet emptying practices and awareness highlight the need for enhanced communication and education on proper fecal sludge management.

In all GPs there was no drainage system, leading to open flow of wastewater from kitchens, bathrooms, and water points. Many households use pits in their backyards to collect this water, inadvertently creating breeding grounds for mosquitoes. Soak pits wherever present were rarely used, as residents lacked awareness about their purpose and how to connect them for greywater treatment. Main roads in Parang, Sankerjang, and Jarasingha had a single drainage line, but it was open and covered only one side, not extending to most households. Some families independently connected their wastewater outlets to these drainage lines. Cleaning of drains emerged as a common complaint among villagers.

The findings from the survey revealed critical challenges and areas for intervention in rural Angul like a pressing need for major retrofitting efforts to align toilets with standards for safely managed sanitation systems. Awareness about safe sanitation technologies was notably lacking, necessitating educational



Jarasingha ASHA Anganwadi capacity building

initiatives. The Angul Municipality had successfully implemented a Faecal Sludge Management (FSM) system, showcasing a low-cost and nature-based FSTP. However, private operators found transportation costs to the Angul FSTP economically unviable. Alternative options for safe faecal sludge disposal from rural GPs needed to be explored. The survey indicates that only 39.3% of households had piped water on their premises, impacting toilet usage and placing an additional burden on women and adolescent girls for water fetching. Tap

connections existed, but water availability was limited in many places. Solid and liquid waste management posed significant challenges. No systematic collection of solid waste exists, leading to inorganic waste, especially single-use plastics, strewn across villages. Waste burning was common, contributing to air pollution. Lack of drain lines or their full functionality resulted in unmanaged





greywater. Many stakeholders, including community members, government officials, and sanitation practitioners, lacked awareness and understanding of ODF sustainability measures. Stakeholder engagement, education, and capacity-building efforts are crucial for sustainable sanitation solutions.



GP level orientation at Paranga block

Addressing these multifaceted challenges required a comprehensive, multi-stakeholder approach that encompasses capacity-building, policy development, financial and technical support, and active community engagement in decision-making processes.

The progress made in improving access to safe water and sanitation in Angul is commendable. However, continued reinforcements are needed to bring about long term behaviour change. A major hurdle in the GPs

was the non-acceptance of the Village Development Plan (VDP) which led to paucity of funds, indicating a crucial hurdle in the implementation process. Addressing the concerns or revising the VDP to meet the required criteria could be a pivotal step to unlock the necessary funds for the project. Clear communication and collaboration with relevant stakeholders may facilitate the acceptance of the VDP.

State achievements, highlights and learnings

The assessment of the water, sanitation, and hygiene (WASH) situation in Angul reveals both progress and persistent challenges. While strides were made in enhancing access to safe water and sanitation, there is a critical need for sustained efforts to bridge remaining gaps and foster lasting behaviour change. The reluctance towards toilet use, particularly due to concerns about pit filling and personal preferences, underscores the importance of addressing cultural and social factors.

The non-acceptance of the Village Development Plan (VDP) poses a significant barrier to progress, leading to the withholding of funds. Resolving this issue through constructive dialogue, revisions, or collaborative efforts is essential to unlock the financial resources required for the project's success.

Moving forward, a comprehensive and multi-stakeholder approach that integrates community engagement, awareness campaigns, infrastructure development, and policy adjustments will be pivotal. By addressing behavioural barriers and enhancing infrastructure, Angul can achieve sustainable improvements in WASH services, ensuring the well-being of its residents and contributing to broader public health goals.



PUNJAB

Punjab is a State well-serviced by a network of rivers and canal systems and several aquifers and water bodies. While it is rich in terms of availability of water, there is all the more need to establish safe and environmentally conscious WASH infrastructure and service provisions such that the State's water bodies remain free of pollutants and contaminants.

Under the Light House Initiative, two Gram Panchayats were selected in Punjab in the district of Kapurthala. Kapurthala is one of the smallest districts of Punjab with 5 blocks, 535 Gram Panchayats and 688 villages. For LHI Phase 1, Dhilwan block was selected which has 78 Gram Panchayats under its administration. The two Gram panchayats selected under LHI Phase 1 in Dhilwan block were Nurpur Lubhana and Nurpur Jatta.

ITC has an integrated food processing facility at Kapurthala spread over 72 acres, manufacturing ITC's popular food brands, . The facility is also involved in sustainable agri-value chains in the state, buying agri produce such as potato, wheat and other crops from the local farmers. These GPs were selected by the corporate in consultation with DDWS, Punjab State mission, and ISC in order to support the GPs in meeting their milestones under SBMG and to achieve an ODF Plus 'Model' status.Table : Punjab geographies under LHI Phase 1

| SI no | Corporate Support | District | GP | Villages | Baseline status | Current ODF+ status | LHI GP |
|-------|----------------------|------------|-------------------|-------------------|--------------------|------------------------|--------|
| 1 | ITC | Kapurthala | Nurpur Lubhana | Nurpur Lubhana | Rising | Model | Yes |
| 2 | ITC | Kapurthala | Nurpur Jatta | Nurpur Jattan | Rising | Model | Yes |

Table 9: Punjab geographies under LHI Phase 1

Journey Under LHI Phase 1

Nurpur Lubhana and Nurpur Jatta

PRI Members meeting and Planning at N. LubanaPrior to the commencement of the initiative in the two GPs, ITC undertook a baseline assessment to take stock of the current SBMG infrastructure and service provisions and identify gaps that could be plugged in order to help achieve the ODF Plus Model status. At baseline, both GPS were at ODF+ Rising status. In Nurpur Jatta there was observed a requirement of construction of IHHLs for about 2 percent of households. It was observed that in both GPs all IHHLs had septic tanks. There were informal vendors who are working in both the villages for clearing the sludge from the sewage tanks. However, they are emptying the faecal sludge into the open ground without





PRI Members meeting and Planning at N. Lubana

treatment. As regards SWM, efficient MRF facility was lacking in both the villages. There was need for water, and electricity provisions at the MRF and also need for incinerators. The MRF also required adequate space to segregate solid wastes to function efficiently and effectively. Both the villages had partial drainage links, and water stabilization ponds were not available in both villages. There were also gaps in funding in both villages with N. Lubana at 12% and N. Jattan at 11%.

Assets under LHI were developed in the villages as per needs assessment done and included in the GPDP. Apart from over 60 household level compost pits, 6 community level compost pits were developed in both GPs combined. A vehicle for collection and transportation of waste from households were engaged and a waste segregation shed was developed. In addition, forward linkages with scrap

vendors and facilities to effectively manage Multilayered packaging waste (MLP) and Single Use Plastic (SUP) was undertaken under the initiative that have become a growing concern in solid waste management. Forward linkages as a means of supporting the operations and maintenance of MRF was also demonstrated in the villages For liquid waste management, each of the GPs constructed a waste stabilization pond and wastewater after treatment is being used in Agriculture.



Door to door WASH awareness drive by SHG members



Waste stabilization pond - N. Lubana



Waste stabilization pond - N. Jattan

Extensive BCC campaigns to drive home the importance of safe sanitation, segregation of waste, and maintenance of sanitation household and community assets was key in reinforcing desired behavior in the community. These campaigns were targeted at all age groups and showcased at multiple touch points. For example, in Nurpur Lubhana, a rally & capacity building of students on SLWM was undertaken on the occasion of World Toilet Day. This has helped in increased awareness on sanitation





and waste management. **Over 90% households are segregating the waste and paying service fee for waste management making it completely sustainable model.** Sanitation and waste collection workers were trained on handling various types of waste and were also provided safety equipment. They are also been linked with applicable government schemes related to social security and health.



Community Toilet in Village Nurpur Lubana



NADEP Composting in Village Nurpur Lubana



Hand WASH Unit In Village Nurpur Jattan School



Cluster Composting in Village Nurpur Jattan

State achievements, highlights and learnings

Thanks to the collaborative efforts of the local community, local State mission, ITC, and ISC, remarkable progress has been achieved and maintained in the GPs, ensuring its 'Model' status. Notably, every household in the GP now has access to a toilet, effectively eradicating the practice of open defecation entirely. This achievement stands as a testament to the collective commitment and actions undertaken by the various stakeholders involved. What worked for the state was the focus on community involvement and ownership right from the stage of needs assessment to implementation and then operation and maintenance. Willingness of HHs for paying service fee for improved sanitation services was also established. The GPs strategically developed structures and implemented processes that aimed not only at securing ownership of assets established under the LHI-1 but also at reinforcing and emphasizing behavioral changes among its citizens. This was achieved through a series of IEC and BCC campaigns, ensuring a comprehensive approach to sustaining the improvements and fostering community involvement and ownership.



RAJASTHAN

Rajasthan, the largest Indian state by area, is widely regarded as an arid or semi-arid state. as large parts of its land areas receive low to moderate rainfall¹⁹. Consequently, conservation of its water bodies for clean and safe drinking water and sanitation solutions to ensure the same, are of paramount importance for the health and well-being of local communities. Proper treatment and utilization of wastewater is perhaps more critical in a state that faces water shortages than any other.

To offer locally contextual sanitation solutions, 6 gram panchayats across 3 districts were covered in Phase 1 of the LHI. DDWS, State Mission and corporates Ambuja Cement Foundation (ACF) and TATA Trusts along with ISC worked in tandem towards creating SLWM systems and generate awareness to embark on a journey for developing villages under the 6 GPs to become ODF+ Model and also Light House GPs. 5 of these GPs worked with ACF, while Veerwara worked with TATA Trusts on this journey.

| SI no | Corporate Support | District | GP | Villages | Baseline status | Current ODF+ status | LHI GP |
|-------|----------------------|----------|-------------|---|--------------------|------------------------|--------|
| 1. | ACF | Nagaur | Inana | Inana, Khen, Roopasar | Aspiring | Model | No |
| 2. | ACF | Nagaur | Didiya Kala | Naradhana, Didiya Kalan, Didiya Khurd, Kherwar | Aspiring | Model | No |
| 3. | ACF | Pali | Rabriyawas | Rabriyawas, Paratapura | Aspiring | Model | No |
| 4. | ACF | Pali | Amarpura | Balupura, Amarpura | Aspiring | Model | No |
| 5. | ACF | Pali | Balada | Balara, Gyas | Aspiring | Model | No |
| 6. | TATA Trusts | Sirohi | Veerwara | Kotra, Veerwara | Aspiring | Model | Yes |

Table 10: Rajasthan geographies under LHI Phase 1

Journey Under LHI Phase 1

Inana, Didiya Kala, Rabriyawas, Amarpura, Balada

The above GPs falling under the districts Nagaur and Pali were taken up by ACF under LHI in consultation with DDWS, State Mission and ISC. ACF which is the CSR arm of Ambuja Cements has a

¹⁹ https://rajasthan.gov.in/pages/sm/department-page/149122/931



prominent presence in the districts on account of its major cement plants located in Marwar (Nagaur) and Rabriyawas (Pali)²⁰. ACF took the Gram Panchayats, Inana, Didiya Kalan, Rabriyawas, Amarpura and Balara under the phase 1 of the LHI. At the time of commencement of the program all these GPs were under the ODF Plus Aspiring category. Thus while there was no open defecation in the GPs there was still requirement for ensuring sustainability of solid and liquid waste management provisions at GP level and also in ensuring that villages displayed relevant IEC materials prominently and stayed visually clean.



Community sanitary complexes at , Rabariyawas and Amarpura

With this outlook, ACF held a consultation with GP stakeholders to take stock of current situation, and document the sanitation requirements both at village level and GP level. Members from the community,





IEC wall painting

SBM directorate, ISC and ACF were part of the consultation and provided inputs for the LHI program. Based on the initial assessment the desired development work was documented and approved for the VPDP. Work in the initial stages was hampered due to lack of sufficient funds. The released funds were not adequate to complete the entire developmental plan. However, the corporate is collaborating with the local administration and community to get the remaining funds and complete the construction and other activities that would develop the GPs towards an ODF+ Model status and become a Light House.



²⁰ https://www.thehindubusinessline.com/companies/ambuja-cements-starts-commercial-production-from-marwarplant/article36775449.ece





Campaign on Single Use Plastic at Gram Panchayat Rabariyawas

Veerwara

TATA Trusts undertook the responsibility of supporting 1 Gram Panchayat in Rajasthan, Veerwara, under the Light House Initiative. The GP falls under the Pindwara tehsil of Sirohi district in Rajasthan. Prior to the commencement of the program the GP was in ODF+ Aspiring category. With the combined effort of State SBMG directorate, ISC and TATA Trusts, the village achieved its Model status. Post the intervention, there was household level waste segregation achieved in the villages of Veerwara. Follow up meetings with community were held regularly to reinforce waste segregation behaviour. In addition, legacy waste sites in the village were cleaned and there was visible cleanliness in the villages. RRC work platform was also completed to further manage the source segregated waste. In consultation with the community, drain repair and construction work was also done in Veerwara village. In addition, TATA Trusts worked closely with women SHGs in spreading awareness and in bringing about long term behaviour change such as use of cloth bags as alternative to plastic. The corporate also extensively organized IEC/BCC campaigns in the villages, especially in schools to target young children and adolescents.



Community soak pit



Community soak pit

Prior to the commencement of the LHI program, the GPs under TATA Trusts had limited knowledge of the hardware & software components of SBM(G)-II, and the conditions in the villages were not sanitary. Planning, implementation and monitoring of village sanitation plan was a challenging feat, as well as finding sustainable, cost-effective solutions for SLWM models. It was also challenging to mobilize the





community to meet the LHI milestones. However, the LHI team using a collaborative approach was able to not only raise awareness but also empower the community to achieve and sustain ODF+ Model status for their GP and become a Light House GP.





SHGs spreading awareness on WASH practices



"My dream was to make my village the cleanest Gram Panchayat in the district, in which my village was selected under the Lighthouse Initiative (LHI) initiative, in which I worked for the cleanliness and beauty of the village with the cooperation of all the villagers. In this work the villagers, came together with TATA Trusts and administration. Community awareness work was done in which women and school children played the main role. In the beginning, I had to face a lot of challenges in this work regarding the arrangement of garbage collection vehicles, but I did it with the help of donors (Bhamasah) at the local level, due to which today, every day in my village, garbage is being collected from every house and cleaning is being done by the cleaning workers, due to which garbage is not seen anywhere in the village. All the villagers are happy with this initiative."

-**Mr. Yogesh Rawal,** Sarpanch, Gram Panchayat: Veerwara, District: Sirohi

I am studying in class 10th. In our village (Veerwara, Rajasthan), there was a lot of garbage lying in the open on the road. Even outside our school, people of the village used to throw garbage and go away. We felt very bad. One day in our school, Sagar Bhaiya acted as a school trigger. We understood that this How are dirty habits harming us? We, all the children, started cleanliness from school, then took out a rally in all the streets of the village and all the children explained to the family members the right way to dispose of the garbage. Today our Veerwada village looks clean and beautiful.

-Ms. Kumari Chanchal Pita Dhursingh Villager, Gram Panchayat: Veerwara, District: Sirohi







I work as a sweeper in Verwara Panchayat (Rajasthan). Our village is very big due to which there was a lot of garbage and there was a lot of difficulty in doing this work. Since the cleanliness programme, many meetings have taken place in the village due to which a change has started to be seen among the people. People have started putting garbage in garbage carts. Today, through this work, people have started treating us with a little respect. Also, if the street is not cleaned, then they inform the Panchayat about it and demand cleaning. Today our Veerwada has started looking cleaner and more beautiful than before. We are proud that we have a big role in making our village clean and beautiful.

> -**Mr. Pukha Ram,** Safai Karamchari, Gram Panchayat: Veerwara, District: Sirohi

State achievements, highlights and learnings

To overcome some of the challenges encountered in the LHI journey, partners focused on having a shared vision with the local community. Corporate partners also employed women SHGs working within the community in multiple ways to spread awareness among the community and also in motivating and mobilizing the women and youth. Corporates and State SBMG directorate provided handholding support and capacity building of women SHGs to train and empower them in achieving sanitation milestones. The waste to wealth program in generating wealth from efficient solid waste management was managed by SHGs with community contribution.

What also worked was use of technology for village sanitation map and for holistic planning and use of participatory rural appraisals and record keeping in keeping the program on track. Currently out of the 6 GPs in Rajasthan, 1 has become LHI model (Veerwara) and is inspiring its neighbouring GPs in achieving their sanitation milestones. The remaining 5 GPs are under Aspiring category and progressing fast on their journey to become model. For these 5 GPs some funds had been released for asset development and the remaining funds are likely to be released soon, enabling completion of pending construction work.



TAMIL NADU

Under LHI Phase 1, the GP Kemrampalayam in the Coimbatore district was selected in Tamil Nadu under consultation from DDWS. State Mission, ISC, and ITC. Situated in the extreme west of Tamil Nadu, near the state of Kerala, Coimbatore is surrounded by mountains on the west, with reserve forests on the northern side. The eastern side of the district, is predominantly dry. The entire western and northern part of the district borders the Western Ghats with the Nilgiri biosphere as well as the Anaimalai and Munnar ranges. Because of its close proximity to the Western Ghats, the district is rich in fauna and water bodies. ITC has a major paper and paperboard mill at Thekkampatty in Coimbatore²¹ and therefore the district is important to the corporate in terms of its CSR initiatives.

Table 11: Tamil Nadu geographies under LHI Phase 1

| SI No | Corporate Support | District | GP | Villages | Baseline Status | Current ODF+ Status | LHI GP |
|-------|----------------------|------------|---------------|---------------|--------------------|------------------------|--------|
| 1 | ITC | Coimbatore | Kemrampalayam | Kemrampalayam | Aspiring | Model | No |

Journey Under LHI Phase 1



Social mapping for LHI



Social mapping for LHI

At baseline it was observed that the majority of households had toilets. However, there was a gap of 168 toilets, and there was requirement of construction of IHHLs to fill this gap. Not all households were

segregating waste at source . Gaps also existed in the requirement for both individual and community level soak pits, indicating challenges in managing used water. There was requirement for effective solutions for the safe disposal of faecal sludge.

While some progress was made under the initiative like construction of compost pits, waste collection sheds, and community compost pits, there still exists requirement of sanitation infrastructure for which work is under way.

²¹ https://www.itcportal.com/about-itc/shareholder-value/annual-reports/itc-annual-report-2023/pdf/ITC-Report-and-Accounts-2023.pdf





Community Toilet Complex at Karnamadi Block

Like solid waste management, progress in greywater management was observed, but the completion of suggested initiatives was limited. The completion of the suggested drainage network was positive, indicating a planned approach to address water flow and management.

In Tamil Nadu, significant progress has been observed in terms of household waste segregation, waste management, and greywater management. Ongoing efforts indicate a positive trajectory, with decentralized solid waste management implemented in 1628 households. Greywater management is being addressed

through individual and community soak pits, while the twin-pit method is employed for faecal sludge disposal along with composting of faecal waste which is used in agriculture fields by 55 households. Toilet manure application was done for 55 units in LHI panchayats. Waste collectors were also linked with government schemes and an awareness training covering waste collectors was conducted on government schemes.



Awareness generation camp on grey water management

The submission of the Detailed Project Report (DPR) to the State Mission Director (SMD) and subsequent communication to the District Collector (DC) in Coimbatore signify important steps. The engagement with Panchayat and Block Development Office (BDO) for fund release, with expectations of completion within a short span, reflects active follow-up by the corporate team.



Community engagement on WASH infrastructure and practices

Positive responses from SMD, agreement to recommendations, and the impending fund release indicate a promising momentum. The groundwork is poised to commence, marking a crucial phase in translating plans into tangible results for waste and water management initiatives.



State achievements, highlights and learnings

Overall, the State showed a positive trend in the adoption of sanitation facilities and waste management practices in the community. Significant gaps, especially in FSM and waste management initiatives, suggest areas that need urgent attention and resource allocation. Going forward, community awareness and participation may be the key focus areas to address gaps in waste management practices. In addition, streamlining funding allocation processes to expedite the implementation of pending initiatives and bridge the existing gaps would be crucial for the GP securing a ODF+ Model status and becoming a Light House GP. Further, robust monitoring and evaluation mechanisms to track progress, identify challenges, and adjust strategies accordingly would be key tools for progress and course correction.

Case Study

In Karamadi block of Coimbatore, a committee comprising of women from the LOBs (left over beneficiaries) was formed in selected villages to take ownership of toilet construction as well as its operation & maintenance. After rounds of discussions with women groups to understand the nuances of their needs and challenges, it emerged that access to toilets to these LOBs can be provided through construction of community toilet complex. The women committee took ownership and initiated discussions with panchayat and block development officials. ITC provided technical and financial support towards its completion. As a result, the panchayat supported the women committee by providing a commons land area for construction of the community toilet complex, laying piped water lines and ensuring electrical supply to the proposed complexes.

The community toilet complex was designed in participation with the committee and were constructed under their closed supervision. This leads to a sense of ownership and in turn ensures sustainability. As a result, the panchayat supported the women committee by providing a commons land area for construction of the community toilet complex, laying piped water lines and ensuring electrical supply to the proposed complexes.

Formation of committees comprising women from LOBs demonstrates a bottom-up approach, empowering local communities to take charge of their sanitation needs. The consultation with women groups reflects a sensitivity to the unique needs and challenges of the community, ensuring that interventions are tailored to local requirements. The initiative to involve the Panchayat and block development officials demonstrates a proactive approach to engaging with local governance structures.



Learnings:

- Providing technical and financial support signifies a practical commitment to overcoming barriers faced by the community, ensuring that the project is feasible and sustainable.
- Implementation of a robust monitoring and evaluation system to track the impact of community toilet complexes on sanitation practices and health outcomes is imperative.
- Assessing the potential for replicating this model in other regions, considering variations in local context and needs is desirable.
- There is a need to invest in capacity-building initiatives for local committees, empowering them with the skills needed for sustainable management and maintenance. Scaling up opportunities for successful interventions to contribute more significantly to the broader sanitation goals.



TELANGANA

Telangana saw the coming together of DDWS, State Mission, ISC, and ITC, to support 4 GPs under LHI Phase 1 to embark on a journey towards creating ODF+ Model GPs. ITC has two major paper and paperboard mills in Telangana as well as a Food Factory in the State, making it significant with regards to ITC's CSR initiatives. Two of the company's largest paper manufacturing plants are located at Bhadrachalam and Bollaram in Telangana state.

| S.No | Corporate Support | District | GP | Villages | Baseline Status | Current ODF+ Status | LHI GP |
|------|----------------------|-------------------------|-----------------------|-----------------------|--------------------|------------------------|--------|
| 1 | ITC | Bhadradri Kothagudem | Iravandi | Iravandi | Aspiring | Model | Yes |
| 2 | ITC | Bhadradri Kothagudem | Moranpalli Banjara | Moranpalli Banjara | Aspiring | Model | No |
| 3 | ITC | Bhadradri Kothagudem | Mondikunta | Mondikunta | Aspiring | Model | No |
| 4 | ITC | Bhadradri Kothagudem | Ramachandra puram | Ramachandra puram | Aspiring | Model | No |

Table 12: Telangana geographies under LHI Phase 1

Journey Under LHI Phase 1

Iravandi, Moranpalli Banjara, Mondikunta, and Ramachandrapuram



Social mapping for LHI

The journey of the LHI in Telangana unfolded across 4 gram panchayats, encompassing a comprehensive approach toward achieving Open Defecation Free Plus (ODF+). The initiative started by undertaking a needs assessment in the 4 GPs. The assessment revealed the requirement of household level soak pits, along with community level soak pits with ring. A soak pit at Public Water Distribution Point was also deemed essential for wastewater management alongside an institutional soak pits for the schools. Requirement for a constructed wetland was also noted in the assessment. There was also requirement for retrofitting of existing single-pit toilets and community sanitary complexes.





HH soak pits

Once the needs assessment was completed the requirements were fed into the VDP. Under LHI 412 household level soak-pits and 8 community level soak pits were built. Community was enabled to construct 58 kitchen gardens. With regards to SWM, 8 community compost pits were established and the community was extensively reached through a series of IEC campaigns to spread awareness on waste segregation at source, home and backyard composting, as well as deriving value out of waste. Extensive IEC/BCC activities were undertaken by the corporate to sensitize the community towards waste management. Separating dry waste and utilizing segregation sheds for plastic waste, linked to local vendors, reflects a proactive waste management approach at the village level. The functionality of the Village Segregation Shed is a positive step. The GP's plan to upgrade toilets to twin pits aligns with sustainable sanitation practices, contributing to improved waste management and environmental sustainability. As a result, community took up waste segregation at source in large numbers. Plastic waste was collected in village sheds and linked to local vendors.





Community Sanitary Complex

Gram Panchayat Iravendi has recently been declared an LHI GP. Work started late due to funding issues hence the other GPs are still to achieve the LHI status. While some assets were built under the project, the other 3 GPs are yet to be LHI. While some LWM work is yet to be completed in the 3 GPs, the GPs are heading in the right direction. The higher number of retrofitted single-pit toilets it is an indication that significant efforts are being made to improve existing infrastructure. The presence of constructed wetlands indicates an ecological consideration in waste management.

State achievements, highlights and learnings

The State has an example of GP Iravandi as an inspiration for its other GPs to progress on their LHI GP journey. In other GPs work started late due to funding issues, therefore the GPs could not become Light Houses, however the progress from baseline is clearly visible in the State in terms of awareness of community on safe WASH practices including waste management. The State once again highlights the importance of timely release of funds and convergence between different government functions to support the GPs.



UTTARAKHAND

Located at the foothills of Himalayan mountain ranges, Uttarakhand is largely a hilly state with diverse topography featuring snow-capped peaks, glaciers, deep gorges, rivers, streams, lakes, and sporadic plains in its southern region. These diverse topographical features also make the State vulnerable to climatic and weather extremes, such as intense rainfall leading to landslides and flash floods. The Geological Survey of India pegs 72% of Uttarakhand area to be landslide prone²², and Rudraprayag and Tehri, the two districts being the most at danger. This has ramifications on any construction activity within the State including sanitation infrastructure. Any program with regards to development of safe sanitation infrastructure and provisions in the State, thus requires specialized planning and execution. GPs member meeting and discussed about the DPR and LHI Work plan. The Light House Initiative intervention in Uttarakhand was undertaken in 5 Gram Panchayats across 3 districts, under the combined efforts of DDWS, State Mission, ITC Ltd. and ISC. The districts selected for the LHI intervention in the State were Haridwar, Dehradun and Rudraprayag. District Hardiwar in Uttarakhand is an important hub for ITC with its packaging and printing factory, food factory and personal care product factory located in Haridwar industrial area. Under LHI Phase 1, the corporate supported five GPs Anneki Hetampur, Aurangabad, Khadri Khadakmaf, Shayampur, and Bhatwadi Sunar to support in their journey towards achieving ODF+ Model milestones using a comprehensive approach and become Light House Gps.

GPs member meeting and discussed about the DPR and LHI Work plan.

| SI No | Corporate Support | District | GP | Villages | Baseline Status | Current ODF+ Status | LHI GP |
|-------|----------------------|-------------|---------------------|---------------------|--------------------|------------------------|--|
| 1 | ITC | Haridwar | Anneki Hetampur | Anneiki Hetampur | Aspiring | Model | No |
| | | | Aurangabad | Aurangabad | Aspiring | Model | No |
| 2 | ITC | Dehradun | Khadri Khadakmaf | Kharakmaf | Aspiring | Model | No |
| | | | Shayampur | Shyampur | Aspiring | Model | No |
| 3 | | | Bhatwari | Bhatwari Sunar | Aspiring | Model | rrent ODF+ StatusLHI GPModelNoModelNoModelNoModelNoModelYesModelYesModelYes |
| | ITC | Rudraprayag | Sunar | Duwadkhu | Aspiring | Model | |
| | | | | Matkhani | Aspiring | Model | Yes |

Table 13: Uttarakhand geographies under LHI Phase 1



²² https://timesofindia.indiatimes.com/india/a-sinking-feeling-across uttarakhand/articleshow/102872610.cms?from =mdr#:~:text=The%20Geological%20Survey%20of%20India,12%2C385%20—%20between%201988%20and%202022.8



Journey Under LHI Phase 1

Anneki Hetampur, Aurangabad, Khadri Khadakmaf, Shayampur, and Bhatwari Sunar



PRA in progress

Prior to the commencement of the LHI initiative in the 5 GPs, ITC undertook a baseline assessment to take stock of the current SBM-G infrastructure and service provisions and identify gaps. The initial status of all the GPs that were considered in Uttarakhand under LHI initiative was 'ODF Plus Aspiring' meaning that they were successfully maintaining their ODF status achieved in phase 1 of SBMG program. Individual need assessment of the 5 GPs revealed the customized solution that would be required to take them from Aspiring to Model GPs.

Some of the major factors unearthed in the GPs were proper faecal sludge management as some IHHL with septic tanks did not have soak pits, and there was need also for community soak pits, there was lack of efficient drainage systems, improper/lack of segregation of waste at source, need for dry waste collection/storage facility and limited awareness and knowledge among the community as regards the SBM value chain. There was requirement of construction of about 260 IHHLs across all 5 GPs. In addition, some of the twin pit toilets did not have honeycomb model Soak pits structure, while some other toilets had septic tank without a soak pit structure. Across all 5 GPs waste was not being segregated at source and there was no efficient system for waste collection and management. Waste was getting dumped in open spaces and sometimes near water bodies, or on bank of rivers or on roadside. MRF centres were either not available or not functional. Wastewater management was also not efficient as villages lacked community soak pits/waste stabilization ponds and proper drainage facilities. It was estimated that more than 25,000 meters of drains needed to be laid down in all 5 GPs combined, in addition to proper waste treatment procedures.



Kitchen garden





Chronic spot waste removal at GP Anneki Hettampur

ITC used a consultative and participatory approach in identifying and documenting the sanitation needs of the community. A Social Cum Resource Mapping along with Rapid Rural Appraisal (RRA) and a Transit walk with local Community to understand the status of KPIs under LHI was conducted prior to commencement of LHI program in all 5 GPs. After conducting Participatory Rural Appraisal (PRA) with the village communities, the identified gaps necessary to achieve ODF+ were documented. This information was then shared with local governments to secure additional funding. Concurrently, a series of capacity-building initiatives, such as Triggering activity with SWAJAL on the concept of LHI for Panchayat members & Panchayat Secretary, workshops for local community at SHG level and school level were conducted. These efforts aimed to engage a wide range of stakeholders in the pursuit of ODF+ status and foster community participation and awareness. By December 2023, 26 HH level compost pits were created. As a result of the initiative, over 60 percent of households were segregating waste at source and community had made adequate arrangements for the regular and timely collection & transportation of Solid Waste. Households were also composting bio-degradable waste using 'windrow composting' method. In addition a community toilet was also completed and geo-tagged by SWAJAL for easy access and use. Work was also progressing slowly on construction of IHHLs to cover all households and drainage constructions.



Soak pits constructed at GP Bhatwari sunar





In Uttarakhand the major issue faced in completion of work was the availability of funds. Within the State, SWAJAL (DDWS State Agency to manage SBM) faced challenges for additional funding as in many GPs the funds available for Panchayat under SBM 2.0 had already been exhausted. Considering that corporate support in LHI Phase 1 extended only towards the soft components of the SBM value chain, fund constraints were a serious impediment in completing the work on time. In addition, some GPs under consideration in LHI Phase 1 had PRI members newly elected in month of Nov 2022. This caused the program to take time in gaining momentum. Inclusion of village action plan in the GPDP also took time. Out of the 5 GPs in the State, 1 had become LHI GP. Though work was progressing well after the initial hiccups and the remaining GPs hoped to become LHI by early 2024 with continued support and good collaboration between SWAJAL and ITC.



3 pit filter system connection drainage at the water stream at GP Aurangabad



WASH awareness campaign for community members

WASH awareness campaign at school



State achievements, highlights and learnings

Despite the challenges caused by a mountainous terrain such as floods and landslides²³, newly elected PRI members and timely release of funds, the State of Uttarakhand has done reasonably well in its SBMG milestones with one of the GPs even becoming a model LHI GP. Some of the key takeaways from the LHI program in the State was the importance of inclusion of village action plan in the GPDP for timely release of funds and the combined commitment of PRI members in ensuring that their GP achieves sanitation milestones. This was a State in which all GPs had involvement and engagement of stakeholders right from program initiation through transit walks and RRAs and PRAs, yet without capex for asset requirements identified in the need assessment, the program struggled to keep up with its milestones. This underlines the importance of convergence for timely release of funds.

²³ https://www.indiatoday.in/india/story/heavy-rainfall-alert-active-monsoon-phase-himachal-uttarakhand-delhi-rain-forecast-2407991-2023-07-18







UTTAR PRADESH

With 51,914 gram panchayats, the State of Uttar Pradesh, has the unique distinction of having the most number of gram panchayats and villages in an Indian state¹. Given that close to 70 percent of the State's population resides in rural areas and the State has one of the highest population densities in the country, the sanitation needs of the State are also unique.

Keeping in mind the challenges and opportunities posed by a large rural population, the Light House Initiative in Uttar Pradesh saw the coming together of ITC, Aga Khan Foundation (AKF), HCL Foundation (HCLF) and TATA Trusts as partners along with the State mission, local government and communities, under the combined oversight of DDWS and ISC. Overall, 11 Gram Panchayats were covered under Phase 1 of the initiative; 6 with AKF, 2 with ITC, 2 with HCL Foundation and 1 with TATA Trusts. The collaborative effort led to a transformative journey of the GPs as they progressed in meeting their milestones related to development and maintenance of sanitation infrastructure and behaviours.

| S.No | Corporate Support | District | Gram Panchayat | Villages | Baseline ODF+ status | Current ODF+ status | LHI GP |
|------|----------------------|--------------------|---------------------|---------------------|-------------------------|------------------------|--------|
| 1 | | Bahraich | Jagdishpur Sokha | Jagdishpur Sokha | Aspiring | Almost Model | No |
| 2 | | Shravasti | Pure Adhari | Pure Adhari | Aspiring | Model | Yes |
| 3 | | | Kalianawa | Kajiyapur | Aspiring | Aspiring | No |
| | Aga Khan | Barabanki | Kajiapur | Raidhar Mau | Aspiring | Aspiring | No |
| 4 | Foundation | | Basantpur | Basantpur | Aspiring | Aspiring | No |
| 5 | | Sitapur Lucknow | Ahmadpur | Ahmadpur Jat | Aspiring | Aspiring | No |
| | | | | Mirzapur Mafi | Aspiring | Aspiring | No |
| 6 | | | Manpur Lala | Manpur Lala | Aspiring | Aspiring | No |
| 7 | ITC | Shahranpur | Lakhnour Must. | Lakhnour Must. | Aspiring | Model | Yes |
| 8 | | | Nandi | Nandi Must. | Aspiring | Model | Yes |
| 9 | HCL Foundation | | Purva | Purwa | Aspiring | Model | Yes |
| 10 | | Hardoi | Akbarpur Talu | Akabarpur Talhu | Aspiring | Model | Yes |
| 11 | TATA Trusts | Bahraich | Madhaupur | Madhaupur | Rising | Model | Yes |

Table 14: Uttar Pradesh geographies under LHI Phase 1

¹ https://pib.gov.in/newsite/PrintRelease.aspx?relid=68122&ref=hir.harvard.edu



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Journey Under LHI Phase 1

Jagdishpur Sokha, Pure Adhari, Kajiapur, Basantpur, Ahmadpur, and Manpur Lala

The highest number of GPs in Uttar Pradesh (6) under the LHI initiative were selected by the Aga Khan Foundation (AKF) in consultation with State mission, DDWS and ISC. Prior to commencement of the initiative, a State-level meeting was held with all stakeholders, comprising senior government officials of SBM-G, ISC representatives, and AKF. This paved the way for both AKF and SBM-G state teams to commence working together to bring these 6 panchayats to ODF+ Model status and turn them into Light House GPs.

The initiative began with community meetings to assess the situation and emphasise the need for appropriate management of solid and liquid waste among participants. Thereafter, village surveys were conducted to identify the gaps and requirements of infrastructure and technological solutions. This provided a clear understanding of the types and quantities of waste being generated, as also the existing managerial practices. During this process, participatory techniques were employed for community engagement at all levels – right from planning to implementation.

At baseline, the status of all GPs was ODF Plus Aspiring. As per needs assessment, the GPs needed an efficient and sustainable SLWM plan encompassing infrastructural components, namely, compost pits, community dustbins, plastic collection bags, a vehicle for the transportation of waste, etc. A Resource Recovery Centre (RRC) was also required for further segregation and disposal of saleable materials to the identified vendors. With the specific needs of the community in mind, the LHI team went about enabling the community in filling the identified gaps.

As the result of appropriate planning, engagement with the community, bringing all stakeholders together and ensuring convergence and leveraging with other schemes, progress in execution in these villages was remarkable. In Poore Adhari village of Shrawasti district, community dustbins were installed, a vehicle to transport solid waste was procured, and the construction of an RRC was also completed. To facilitate liquid waste management, 19 community and 8 individual soak pits were developed. Furthermore, work on the rejuvenation of a pond, installation of a nature-based greywater management unit, and piped water supply was also enabled.

Additionally, community-level awareness drives were held to promote segregation at source, transportation, and adequate management of solid waste. Similarly, awareness was spread on the role, importance and maintenance of individual and community soak pits, rejuvenated ponds, drainage systems, and grey water treatment units under the elements of liquid waste management initiatives. The necessity of community ownership and their active involvement in the operation and maintenance of the infrastructures were addressed by strengthening and capacity building of Village Water Sanitation Committees on a regular basis.

Lakhnour Must. and Nandi

Under the LHI, Gram Panchayats Lakhnour Must. and Nandi were selected by ITC in consultation with DDWS, based on their catchment area, that is Saharanpur district where ITC has a factory location. Prior





to commencement of the LHI, ITC conducted a needs assessment in the proposed geographies with regards to SBM-G, to understand the GPs' requirements. At the time of the needs assessment, both the GPs were ODF Plus.



Community engagement for needs assessment

A baseline study was conducted to map the available resources and to identify gaps in assets, and awareness levels in the villages. ITC, undertook a gap analysis study in the GPs through village walk, PRA exercises, use of questionnaires and discussions with stakeholders. The study revealed that there was no waste collection mechanism in the GP. Waste was dumped at various points in the villages and in drains. The wastewater drained into the village pond and river. 63 households in the community lacked IHHL, and 82 toilets were single pit toilets. The local school had toilets, but they were in poor condition. Some of street drains were damaged and most of the drains in the villages were open. The sludge was disposed of on the riverbanks since there was no FSM mechanism in place. It was also observed that the GPDP for both GPs did not include SLWM. Household solid waste was discarded along the roads or near river beds.

Under LHI, awareness campaigns were run to educate the community on waste reduction and material reuse, resulting in a decrease in waste generation. Single-use plastic consumption was effectively reduced, and households implemented source segregation practices, separating waste into dry and wet categories at the origin. The active involvement of SHGs was also pivotal in SWM. SHGs took up the responsibility of monitoring waste segregation, collecting service charges, and ensuring timely payment of waste collectors' wages, thus contributing to a more efficient waste management system. This resulted in over 80% waste being segregated and almost 95% HHs paying service fees. Segregated waste was collected and transported to the designated RRC for further management.

Community was also sensitized and enabled to manage bio-degradable wet waste within the household itself through kitchen gardens and composting, and use of wet waste as fodder. Community was trained on NADEP composting that reduces the amount of organic waste going to landfills, thereby helping in waste management and reducing the production of harmful methane gas in landfills. The compost produced through NADEP method is a natural and nutrient-rich fertilizer that improves soil structure, enhances water retention, and provides essential nutrients to plants. Thus, the villagers were trained on deriving value out of waste. LHI also facilitated forward linkage of plastic waste at the Resource Recovery Centre (RRC) site by selling it to vendors as a valuable resource.





Waste Collection by Waste Collector and Use Charge collection by SHGs at Nandi



Community and household NADEP pits for composting

As regards Liquid Waste Management, community and individual assets such as Filter Media chamber, Individual Soak Pits, Community Soak Pits and Phytoremediation for grey water management, were developed and the community was enabled in their usage and maintenance. Moreover, 56 households adopted toilet manure composting and using it in the agriculture field.

Before the LHI intervened, the faecal sludge in the GPs was gathered and disposed of near a river bund. Under LHI, ITC facilitated collaboration with DM Saharanpur such that faecal sludge from both villages would be handled at the FSTP under Saharanpur Municipality's jurisdiction. Additionally, the team facilitated the connection between panchayat officials and municipal resources, enabling the collection of faecal sludge using municipal vehicles as needed.

For sustained benefits of the initiative and long term behaviour change, the corporate conducted capacity building of PRIs and community members through trainings and workshops. Targeted behavior change campaigns were organized with community including young children at their schools in order to inculcate safe sanitation habits from a young age. IEC for the campaigns included diverse media – pamphlets, posters, banners, one-to-one interaction, role-plays, jingles, wall-paintings, etc. Waste collectors were linked with social security schemes and provided financial literacy trainings.

Purva and Akbarpur Talhu

Gram Panchayats Purva and Akbarpur Talhu were selected by HCL Foundation (HCLF) in consultation with DDWS and ISC. HCLF is the CSR arm of HCLTech which has a major presence in Uttar Pradesh. HCLF



which has been contributing to rural development under its Samuday program is currently operational in 11 blocks of Hardoi district in Uttar Pradesh, covering 285 Gram Panchayats. Owing to its already extensive presence in the District, the two GPs under LHI were selected by HCLF in Hardoi in consultation with DDWS, State mission and ISC. Under the two GPs, HCLF covered 466 households.

An initial needs assessment was undertaken in the two GPs involving all major stakeholders for the program. At baseline, both the GPs had ODF Plus Aspiring status. The GPs were however in need of better SWM and LWM arrangements. The villages under the GP were also not visibly clean. HCLF using a collaborative and consultative approach, documented the needs of the GP with respect to WASH before coming up with a strategic plan to address them.

Under the initiative, a well thought out SWM plan was put under action. Focus was given to the cleaning of lanes and drains, removal of garbage vulnerable points, managing of bio-degradable waste using composting techniques at household and community levels, and plastic waste management using scientific methods. A system for segregation of dry waste at source and collection of waste from every household was established.



HH Mesh bag for plastic waste segregation



Compost pit for bio-degradable waste management



Vermicompost production from bio-degradable waste

LIGHT HOUSE INITIATIVE JOURNEY OF 75 GRAM PANCHAYATS TOWA

JOURNEY OF 75 GRAM PANCHAYATS TOWARDS LIGHT HOUSE ODF PLUS MODEL STATUS





Waste collection vehicle



Resource recovery centre



Waste segregation at RRC

While wet waste was managed by converting it into compost using scientific methods at the village level itself, dry waste was collected and stored to be sent for recycling purposes. For plastic waste, households were given a jute bag (colloquial: bori), and encouraged to collect all plastic waste in the jute bag that would then be collected at regular intervals. This method, employing locally available resources was effective in encouraging easy adoption by the villagers. RRCs were constructed in both GPs where waste was collected, stored and then sent for further management.

For wet waste, the villages collaborated with a local entrepreneur for composting household wet waste into 'vermicompost manure' which was packaged and sold to local nurseries and farms under the name 'Kaala Sona'. The source segregated wet waste from each household was collected by the entrepreneur once every 2-3 days and the households were paid a small amount for the waste depending on quantity. Owing to the initiative, 147 households had adopted composting, and 16 garbage identified garbage vulnerable points had been removed from the villages.





Beautification of community spaces around water bodies (selfie-point)



Rejuvenation and beautification of water bodies

Another major challenge for the GPs was LWM prior to the initiative. With support from HCLF, 406 households were linked to the drainage system. Grey water, generated from kitchens and bathrooms, was treated through natural chambers and routed to natural water bodies in the village. Rejuvenation of these water bodies resulted in increasing the groundwater levels in the vicinity while also ensuring a healthier environment. These water bodies were beautified with seating arrangements and construction of selfie-points for the community to gather and relax in their leisure times. This not only enabled the community to take pride in the asset but also ensured ownership for future sustainability once the corporate support is gradually withdrawn.

Further, to ensure long-term sustainability of the project, capacity building of key stakeholders was organised. Orientation sessions on decentralized operation of waste were held with safai karamcharis, PRI members, Self-Motivated Groups, and various other samitis. The workshops at the block level engaging all administrative functionaries helped them conduct the groundwork smoothly, fostering long-term sustainability of efforts.

Under the LHI, GPs came up with structures and processes that would help its citizens to secure ownership of not only the assets developed under the LHI-1 but also reinforce and reiterate the associated behaviour change through a number of IEC and BCC campaigns. School going children were actively engaged in the program using IEC/BCC initiatives. They were sensitized in importance of source segregation of waste along with other safe sanitation habits including menstrual hygiene for girls.

Madhaupur

The GP Madhaupur in district Bahraich was adopted by TATA Trusts under LHI Phase 1 intervention in consultation with DDWS, local State mission and ISC. The baseline status of Madhupur was ODF Plus Aspiring.

In consultation with local stakeholders at the Block and GP level, a needs assessments was conducted to understand the requirement of the GP. Focus was given to community involvement right from the initial stages of the initiative to ensure not just optimal outcomes but also program sustainability. Under the initiative, the community was enabled to construct required household level assets and community assets including 5 community compost pits and 20 community soak pits. A comprehensive IEC/BCC



Best Practices

- **Description:** A mapping exercise was facilitated to be made directly on a 08 sq.ft by 08 sq.ft cloth piece in consultation and presence of the target community. With the introduction of the mapping exercise on the piece of cloth, the community could revisit and mark necessary developments in the future during community meetings.
- **Outcome:** It led to the community getting involved in the mapping process and owning the map as a credible 'document' to be reused and revamped from time to time. The map is used in the villages to identify assets because it was prepared with the and by the beneficiaries hence lending it a sense of ownership within the community.
- Learnings: Community owned initiatives tend to be more sustainable.

campaign targeting local community, particularly children and adolescents was also carried out to promote long term behaviour change with respect to safe sanitation habits. Additionally, capacity building of PRI members, and local community was undertaken by TATA Trusts to ensure Best Practices

State achievements, highlights and learnings

Being a geographically and socio-culturally diverse state, Uttar Pradesh was important in terms of learnings derived from the LHI program. All 4 corporate partners operating in the State, understood the importance of stakeholder engagement right from the initial phase to zero in on specific community needs with regards to sanitation, and also to involve the community in solutions that can be locally sourced and therefore sustainable. It was a bottom-up approach that relied on community mobilization and capacity building for fostering solutions that would to lead to long term behaviour change. Currently the State has 7 LHI GPs and the others are well on their way of becoming Light Houses, a remarkable achievement considering the scale of planning and operations and stakeholder engagements.


WEST BENGAL

In West Bengal, 2 GPs were selected in Phase 1 of the LHI by ITC in consultation with DDWS, State Mission, and ISC. The corporate supported the GPs in their journey towards creating ODF+ Model villages and develop them into Light House Gps.

| SI No | Corporate Support | District | GP | Villages | Baseline Status | Current ODF+ Status | LHI GP |
|-------|----------------------|----------|---------------|---|--------------------|------------------------|--------|
| 1 | ITC | Hoogly | Chandrahati 1 | Damra, Bishpara, Chapatala, Chapatola,Balikata, Bishpara Pochanontala, Nyasarai, Raghunathpur. | Aspiring | Model | No |
| 2 | ITC | Hoogly | Chandrahati-2 | Madhusudanpur, Madhusudanpur CT, Chandrahati, Amalnagar, Refaithpur, Gaharpur,Benipur, Banpara, Uttar Hazipur. | Aspiring | Model | No |

Table 15: West Bengal geographies under LHI Phase 1

Journey Under LHI Phase 1

ITC selected the states it wished to work in, based on its presence in the said States and in consultation with LHI partners. For the LHI initiative in West Bengal, 2 GPs were selected – Chandrahati 1 and Chandrahati 2. The program worked towards ensuring that no one is left behind and everyone uses a toilet. In this regard, various capacity-building programmes along with toilet retrofitting solid waste and liquid waste management activities had been initiated in the two GPs.

At baseline, in Chandrahati 1, the need for construction of drains (15000 m) was identified to alleviate water flow and to ensure wastewater does not spill onto roads, fields, and streets especially during the monsoon since West Bengal is a wet state. Floods and cyclones are quite common in these parts. Kal Baisakhi (cyclone) in summer sometimes wreaks havoc in certain parts. There was a need for retrofitting single pit toilets in 857 households and ensuring Operation and Maintenance (O&M) for 13 community toilets and 26 Anganwadi units in order to address essential sanitation needs. There was further need for enabling the community for effective SWM including source segregation. Before LHI, there was no proper method for disposal of biodegradable waste in the GPs. The lack of a decentralized model for biodegradable waste management suggested a need for community involvement and localized solutions. Solutions for grey water management were also required as the Grey water generated was being passed through existing RCC drains to open land , pond and nearby river. There was also assessed to be a need for retrofitting single pit toilets.





Under LHI, community was made aware of the methods and benefits of source segregation. It was further enabled to segregate waste at household level by use of separate dustbins for dry and wet waste. As a result, communities had started source segregating and composting to a large extent.

While SWM process under the initiative showed a lot of progress, the LWM development plan was slower to progress. There was substantial delay in liquid waste management because of the soil quality in the area not supporting the soak pit system.

As regards software components of SBM-G 2.0, community mobilisation, wall painting, designing IEC/BCC materials, awareness generation activities and capacity building activities were also undertaken by ITC under LHI.

State achievements, highlights and learnings

Every GP is unique with its unique set of challenges and successes. It is noteworthy, however, that under the aegis of the LHI lives have been touched and improved to some extent in a few GPs and to a large extent in most. The arduous journey of LHI is a long one. To sustain these positive changes, rigorous and intense IEC activities need to be continued. Corporates need to hand-hold for the next 6 to 8 months before the GPs attain self-sufficiency to uphold and maintain the positive changes that have taken place in the tenure of this ambitious project.



Training to waste collectors on occupational health and safety



Capacity building of PRI members on SLWM



Flip Book on Home Composting

Flash card on Retrofit Toilet



CHAPTER – 4

WASH AND BEHAVIOUR CHANGE - AN UNBREAKABLE BOND







CHANGING BEHAVIOURS TO HABITS – THE ONGOING CHALLENGE OF SUSTAINABLE SANITATION

WASH and Behaviour Change - An Unbreakable Bond

With rapid environmental degradation and global warming, effective waste management and improved sanitation and hygiene calls for a collective response.

Where WASH is concerned, Behaviour Change Communication (BCC) has emerged as the only way forward to a successful and all-encompassing approach to achieving 100% success rate at elimination of the menace of open defecation and irresponsible waste disposal.

While Social and Behavior Change Communication (SBCC) is a framework that uses the strategies of advocacy, it cannot succeed in isolation. It must be preceded by a well-planned and well-executed BCC implementation plan, tools, and media, targeted to bring about both individual and societal change.

The 3 pillars of a successful BCC campaign are **-Community Mobilization** towards mass behaviour change, positive and consistent **Behaviour Change** through targeted messaging and finally **sustaining** the change through consistent behaviour and practice. It is parallel to asset creation resulting in gradual adaptation of newer, desirable practices on the ground.

A well-planned communication strategy revolves around the following:

- Setting the context with SMART (specific, measurable, achievable, relevant and time-bound) objectives
- Communication Needs Assessment (CNA) through community interactions
- Identification of barriers to behaviour change- SWOT analysis
- Creating sensitive, simple, clear, and effective messages and tools tailor-made to suit the target audience and setting
- Creating prototypes and pilot testing the same and finally,
- Monitoring of the process and evaluation of the outcome.

Under the aegis of the Light House Initiative (LHI), the Department of Drinking Water and Sanitation (DDWS), 8 corporates, and India Sanitation Coalition (ISC) worked





tirelessly across 15 states of India to achieve maximum success in 78 Gram Panchayats (GP) towards ensuring that all the GPs are truly ODF+ in terms of Solid and Liquid Waste Management (SLWM) arrangement and gently nudging the community towards changing their age-old practices through well-planned and well-researched BCC campaigns.

It is a well-known fact that behaviour change is complex, requiring individuals to disrupt practiced, comfortable and easy habits, to adopt a set of actions that are unfamiliar and sometimes difficult to implement. Scientists have researched that something as simple as drinking an extra cup of water a day can take an average of two months to become a consistent, habitual behaviour.

(Reference)

A recent example from Mumbai is relevant in this context. On October 7th, 2023, a fire broke out in an SRA building, killing 7 people and injuring 62. Apart from all the challenges of bad fire management facilities, the root cause of the problem was that the inhabitants were all ragpickers who had for want of a better place stored their goods - rags, plywood and other inflammable materials - in the parking lot of the building. While relocating the families, the main concern was to give them a brick-and-mortar residence - little heed was paid to explaining the changes to their lifestyles that would be required once they moved to their new residences.

The clearest example of the vulnerability of behaviour change in WASH was highlighted during Covid. It became clear very quickly that actions taken to manage the pandemic such as lockdown procedures were leading to other crises which primarily affected those living in extreme poverty. According to a UN study at the time, an additional 71 million people were pushed into extreme poverty affecting already fragile health systems. A parallel situation arose in the maintenance of hygiene and cleanliness with common sanitation facilities being bypassed due to a fear of attracting the disease.

(*Responding to the Multifaceted Covid 19 Crisis : The case of Mumbai*, India, Maren Duvendack, Progress in Development Studies 21, 4 (2021))

Is it possible to change behaviour to make it a habit and hence sustainable into the future?

While researching this challenge we came across Richard Thaler's illuminating theory on Nudges (*From Cashews to Nudges: The Evolution of Behavioural Economics*, American Economic Review 2018). In that he makes 2 very significant discoveries which we believe are extremely relevant when dealing with behaviour change in the development sector.

The first discovery which was also the starting point of his own journey in behavioural economics relates to the importance of anecdotal data when considering behavioural change. This leads eventually to the second theory which is his theory of Nudges.

Statistical data in the development sector, especially in a country like ours, is inadequate and since systematic data collection has been and continues to be a significant challenge for various reasons,





these data cannot be relied upon, when devising solutions to address behavioural change issues. Instead, as Thaler suggests, the large body of anecdotes which NGOs and developmental organisations rely on to develop their theories of change, are vitally important and play a significant role in all behaviour change programs and learning.

Kukudsath village in Chandrapur district of Maharashtra received the Government's SMART Gram Puraskar in 2016, for its improved sanitation indicators such as 100% toilet usage, regular cleaning of village, supply of RO water to all households, 100% wastewater management through magic pits, installation of solar panels at the school and Gram Panchayat office and the use and maintenance of CCTV cameras. Nevertheless, it had a poor system for garbage collection and segregation.

Keen to resolve the problem of poor garbage collection, corporate partner, Ambuja Cement Foundation (ACF) along with the panchayat of Kukudsatha village, held meetings with the village development committee as well as the panchayat members, which led to the development of a concrete plan. ACF shared with the panchayat members an anecdote relating to the neighbouring village Rajgad which had managed to develop an effective garbage disposal plan.

To this effect, a field visit to Rajgad was planned by the village panchayat. The exposure visit organised to the model villages of Rajgad and Kosambi proved to be a game changer when people from Kukudsath saw for themselves the systems for garbage collection and segregation as also for plastic collection and disposal.







Exposure visit to Kosambi and Rajgad



Waste collection bins distributed in the villages





However, if these anecdotes are taken in themselves as the basis to implement behaviour change solutions in the field, there could be significant challenges that might arise. Given that these solutions would be based on anecdotes and not driven by scientifically studied solutions, the solution would reside in the interpretation of the implementing agency (ex : use of charts, etc in IEC) and potentially better methods of dealing with the issues might not be explored. In such a scenario, sustaining behaviour change over time can become a challenge, for example if the agency ceases to support its theory or if the community where it is being implemented has not bought in completely to the change suggested.

Thaler's Nudge theory while taking anecdotal evidence into consideration, suggests that when given alternatives, people tend to choose the alternative that is easier and more convenient, rather than one that could lead to better outcomes. In this context, a nudge is required, which is essentially a small push that guides people to make decisions that benefit them best in the long term.

Thaler bases his theory on the work of Daniel Kahneman and Amos Tversky, two Israeli psychologists, who researched how people make predictions. Based on their early research, he finally came up with a theory where the use of anecdotal information along with the right kind of stimuli or nudges can have a substantial impact on the way people behave. Those that create the environment for choices are referred to as "choice architects" encouraging rather than forcing people to make the better decisions. Most importantly, this process also assumes that people will eventually veer towards what is in their best interest and hence the original anecdote that created the theory and hence the nudge morphs into a new truth creating stronger roots within the individual to sustain that behaviour.

Most behaviour change programs, to ensure people veer towards desirable behaviour and practises, use peer education as an important tool. Training community members to spread awareness works very well because it comes from a peer. In the health sector, peer education has proved to be a very effective awareness generation tool.

Inspiring and forming new habits is a matter of playing the long game. Effectively and successfully

changing behaviour requires a longterm approach in which the full range of options need to be considered.

And changing behaviour and adopting new habits can be hard, nudging people along in the right direction by explaining the 'what' and the 'why' before presenting the options and allowing them to choose. To embed this choice which is the next step is then a question of time.



Flash Card on Grey water management





Flash Card on Grey water management

Over time, several behavioural change theories have evolved and are helping us to understand how to deal with the complexities of human behaviour. It is important here to distinguish between Models of Change and the Theories that accompany them. Models of Change address the "why a behaviour occurs and continues to occur". For example - Open defecation.

The theory that accompanies this model looks to address the question of how we can stop it by focussing on the 2 motivators - why will people stop defecating in the open + how will it benefit society at large?

Whereas models of behaviour are more diagnostic and geared towards understanding the psychological factors that explain or predict a specific behaviour, "Theories of Change" are more process-oriented and generally aimed at changing a given behaviour. Thus, from this perspective, understanding and changing behaviour are two separate but complementary lines of scientific investigation which need time and dedicated application if they are to be sustainable in the long term.

About Sanitation and BCC under LHI:

Behaviour change strategy plays a vital role in guiding project implementation to change people's behaviour and increase access to WASH for even the poorest households in the targeted communities. The formulation of this strategy is the result of the combined efforts of many people and organizations. However, in recent times, the focus has been mainly on tactical response. While that does yield the desired result to some extent, the question that crops up is how sustainable this strategy would be in the long run after the campaign runs its course.

The practice of defecating in the open has been an age-old one, one that has never been questioned or frowned upon up until now. It is not enough to create mass messages to raise mass awareness. Tailor-made, customized messaging appears to be the need of the hour. That open defecation is an unhealthy and undesirable practice is not an alien concept. Be it rural or urban, thanks to smart phones and internet access, there is no paucity of information. And yet, the barriers to achieving 100% ODF+ cities, towns, or villages are manifold. Therefore, it is imperative to dig deeper into the mindset and perhaps not simply rely on the age-old BCC methods. It takes years for the right messages to trickle down to the smallest units of a country such as ours.





Some examples of targeted messaging involve:

- School WASH programmes where messages are customized to sensitize school authorities towards the need for separate toilets for girls and boys and installation of incinerators for mensurating young girls and link it to dropout rates being directly proportionate to lack of girls' toilets in schools.
- Women can help to drive change and be the face of change- Where pregnant women are concerned, messages are created to raise awareness regarding the risks involved in defecating in the open be it contracting different infections when they defecate in the open or how it harms their bodies when they are not able to urinate frequently (and wait for sundown) during pregnancy when pressure builds up in the bladder that can potentially lead to bladder rupture and miscarriage. It is also, without doubt, imperative to discuss issues of women's safety which is severely compromised when they go to fields (many rapes and molestation cases have been reported to have occurred).
- **Safety first** -The risks involved when men and women go to forests (vulnerable to attacks by wild animals) at night or early hours of the morning to defecate, are some examples of clear, targeted messaging and interventions.

To this end, 8 corporates across 15 states undertook to relentlessly campaign in their respective GPs and villages to achieve the best possible result. The project recognized that besides lack of infrastructure, water source, faecal waste management processes and convenience of defecating in the open, there are traditional and cultural influences which act as barriers to change of behaviour and undesirable practices. Years of conditioning cannot be changed overnight.

Under the LHI, there are several instances of successful BCC campaigns resulting in awareness generation. As an example of a successful mass awareness generation activity, the social behaviour change communication campaigns under ITC's SIP through diverse media - pamphlets, posters, banners, one-to-one interaction, role-plays, jingles, wall-paintings, etc. have resulted in deep rooted sensitisation of the community on issues pertaining to health & hygiene. This has also resulted in the community taking action to avail of their right to safe sanitation.

In Nurpur Lubana, a small village with only 257 households in Kapurthala district of Punjab, household and other wastes were dumped by the roadside. To generate awareness, cleanliness drives and BCC campaigns were undertaken by ITC. With the assistance of the panchayat and mohalla committees, as well as local gurudwara committee, narrating stories on cleanliness and waste management from Guru Granth Sahib (the central holy religious scripture of Sikhism), a cleaner and greener village was created.

Community mobilization is crucial to sustained behaviour change. Incentivizing the community to instill the desired behaviour has proved to be a more sustainable approach. For example, the HCL Foundation, under its flagship project, HCL Samuday, in Uttar Pradesh's Hardoi district, decided to build a water tank



to take care of the water scarcity in the district. This proved to be a game changer. The people displayed willingness to pay for the uninterrupted water supply to their households as well as maintenance and upkeep of the asset.

Another example of community involvement triggered by incentive was seen in Madhuapur gram Panchayat. Tata Trusts undertook a mapping exercise to map all the available assets in the village on an 8 sq. ft by 8 sq. ft cloth piece in consultation with the community. This fostered a sense of community ownership.

However, there is a lot that still needs to be done to achieve 100% results. We have barely scratched the surface. Hence, the face of BCC must undergo a change to help achieve the desired result. It needs to be more intense and customised because one size does not fit all.

Our learnings from the Lighthouse Initiative opens an entire universe of ideas and thoughts wherein traditional BCC approaches can be paired with psychology-based approaches alongside incentivizing the stakeholders to gently nudge them towards adapting the desired behaviour. A structured approach to complex choices by simplifying the concept would lead to consistent positive behaviour.

Studies have found that the effectiveness of the water and sanitation projects was strongly associated with women's participation in decisions about water supplies, transparency and management of sanitation interventions. A study in Kenya suggests that if women had the decision-making power on major household purchases, then they would influence sanitation improvement. Many development programmes acknowledge the need for women participation for their success, and women participation in water and sanitation sector is highly emphasised for the programme's sustenance

(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5443550/#:~:text=In%20most%20low%2Dincome% 20settings,sanitation%5B1%2C%206%5D.)

Some recommendations based on our learnings under LHI are:

 Households and communities need to be educated on social, economic, and health benefits of adopting good sanitation practices. In addition, IEC/SBCC should be run on a Campaign mode for sustained benefits.



Nukkad nataks for awareness generation in Lakhnour Must. And Nandi Must. (U.P.)





- Anganwadi workers, ANMs, and ASHAs should be integrated with sanitation programmes to play an effective role in imparting knowledge on sanitation and hygiene. SHGs should be given the highest priority for long term sustainability of the assets created through O&M and Governance
- Linking sanitation to the pride and dignity has shown to resonate with the community.
- To encourage sustained toilet use, the choice of toilet technology, building material and superstructure design should be left to communities and households to decide because, after all, they are the end users. This should engender a sense of ownership and ensure that toilets are used.
- To adopt PPP models wherever feasible and create employment opportunities in institutional selling of recyclable garbage and final products thereof, with the help of central policies.
- The government should strengthen convergence by further aligning its flagship programmes of the Integrated Child Development Service (ICDS), National Rural Health Mission (NRHM), Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) to promote sanitation and hygiene. State government should take active part in these schemes with sanitation as a priority.
- Capacity building of the members of PRIs and that of the community/natural leaders is an important activity that needs to be undertaken on a regular basis.



CONCLUSION AND RECOMMENDATIONS







CONCLUSION AND RECOMMENDATIONS

The Light House initiative was conceived as a collaborative governance effort for the first time in sanitation space in India. Also in a unique first, corporates went outside their CSR catchment areas to support entire gram panchayats in their journey towards ODF+ Model status and in becoming Light House GPs. Conceived as the highest form of sustainable sanitation solution, the ODF+ Model Light House status is a multifactor approach towards the health, well-being, safety and dignity of not only the communities but also the socio-ecological environment in which communities reside. By using, scientifically proven methods for safe sanitation practices, Light House GPs ensure that we efficiently and effectively employ our resources into ensuring better health and lifestyle for our current generations and preserving our planet for future ones.

The initiative, saw the coming together of DDWS, State Missions, ISC, the CSR arm of 7 corporates and 1 Foundation along with local communities at a never-before-seen scale. As with any development project, that is rolled out at such a scale, there are always challenges and derived learnings. Externalities such as socio-economic diversity of the country, weather patterns and climatic events, State mandates, resource and funding constraints all impact the program's outcomes. The important thing is to look at the net positive gain and carry forward the learnings derived from challenges encountered along the way.

The LHI Phase 1 had set itself the ambitious target of supporting 75 GPs across 15 different states in their journey towards ODF+ Model GPs and in making these GPs Light Houses. A Light House GP was one that true to its name, be a shining beacon of light to its neighbors and motivate them by setting an example to follow. As of this report going to print, 57 of the GPs had already achieved and are sustaining their ODF+ Model status as per the government IMIS. Of these, 30 GPs had become Light Houses and are maintaining the highest standard of swacchhta in their villages through community collective action and collaborative approach.

During the course of this initiative, the story of each state unfolded differently and within the state itself GPs have shown different trajectories on their journey towards LHI GP status. One of the most important factors that this initiative highlighted, was the complexity of our diverse country and the need of hyper-contextual solutions





employing local resources. Another critical factor was the importance of consultative and collaborative approach. The GPs where the community was actively involved right from needs assessment to getting their sanitation plan approved in the VDP and consequently the GPDP, and thereafter during plan execution, did so much better than GPs where the communities took a secondary role in the initiative. This underscores the significant role of community awareness and knowledge on sanitation objectives and outcomes. In the LHI, capacity building and community empowerment to achieve sanitation objectives was the key to success for all the GPs that achieved the ODF+ Model status and become Light Houses.

We must also highlight the role of women SHGs in several GPs in solid waste management and the operations and maintenance of sanitation assets. In Gujarat, Rajasthan, and Uttar Pradesh, corporates supported SHGs by enabling them to use an entrepreneurial model to generate revenue out of waste. In several other states, SHGs were actively engaged in spreading awareness and promoting safe sanitation behaviour and practices. What also worked great for the program was use of technology in tracking and managing waste. For example, the Swachhata Mitra app in Bihar helped track waste data in All GangaGram Districts in Bihar. The App was also used to track user fee for waste collection.

As stated earlier, there were also many challenges encountered along the way and externalities that impacted progress pace and outcomes. In states like Uttarakhand, Himachal Pradesh and Assam, devastation caused by natural events like flooding and landslides not only halted the pace of progress but also affected sanitation infrastructure. In states like West Bengal and Telangana, local elections slowed the program activities leading to delays in release of funds, etc. In some states like Odisha, it was far more challenging to counter traditional practices with regards to sanitation among the community, especially in the elderly population group. However, the learnings derived from each of these experiences form the basis of stronger planning and contingency allowance in Phase 2 of the initiative.

Recommendations for Phase 2:

Partnerships - Partnerships among the State and non-State actors are crucial for the success of any development program as it brings in not only an unbiased perspective but also leverages the strengths of the private sector. It is noteworthy that corporate partners come with a different approach vis-à-vis developmental organizations like the international and national NGOs like UNICEF, UNDP, Water For People, Water.org, etc. who have been working in the developmental and social sector for many years. LHI brought to the fore, the techno-managerial skills of the corporate partners in several key aspects of the program such as in designing and executing behaviour change campaigns around sanitation using a variety of conventional and innovative IEC media such as wall paintings, pamphlets, banners, street plays, and traditional dance forms such as Kalajhata. Corporates were also crucial in capacity building activities putting their skills to use in running training and workshops for local masons and plumbers, SHG groups, entrepreneurial groups and community members. The role of ISC in supporting SBM was also unique in that it worked as a multi-stakeholder platform that facilitated the interaction between the



private sector and the government to work in the sanitation space and drive sustainable water and sanitation solutions through a partnership model. ISC was instrumental in driving the collaboration forward by guiding smooth and seamless communication between all the multiple stakeholders so that all partners could be informed at all times of program progress and impediments, if any, facilitating swift course correction.

Community Ownership and Sustainability - One of the learnings of the LHI program was that the community played the most important role in ensuring success of the program in meeting its objectives. The onus for taking initiative in making their villages ODF+ Model and Light House GPs ultimately lies with the community. Right from needs assessment to getting their VAP approved and included in the GPDP, community must take the front seat. GPs with proactive communities showed remarkable progress on their sanitation journeys as opposed to those where a more top down approach was followed. Going forward, it should be imperative to take the community on board and ensure their awareness and knowledge on sanitation infrastructure and provisions. An aware community is an empowered community that can then advocate for their rights and bring about change with support from the Central and State Missions, corporates and ISC. Community ownership would also be essential for sustainability of program outcomes for when the corporate support is gradually withdrawn. Therefore, wider adoption of user-fee for Operations & Maintenance of infrastructure can be emphasised upon in LHI Phase 2. With examples in Andhra Pradesh, Karnataka, Bihar and Uttar Pradesh it is evident that if quality services are provided, households are willing to pay for improved sanitation services. Another best practice demonstrated in Phase - 1 was leveraging SHGs to ensure community led low-cost self-sustaining model. Considering very good network of SRLM SHGs, it should be be scaled-up in LHI Phase-2 across geographies.

Corporate Planning - LHI taught us that greater liberty for the Corporates to plan from the very beginning such as in defining their role and resources including budget would work out better for all partners in having a clear understanding of the corporate's role with regards to program activities, funding, and outcomes. This decision should be taken by senior management in consultation with local State Mission such that the solutions offered are not only contextual but also play on the strength of the corporate partner.

Convergence - It is noteworthy that DDWS has been advocating greater convergence among different government schemes and departments for utilizing resources for SBM-G activities. However, it was observed that there were several convergence issues as a result of Village Action Plan not getting included in GPDP leading to delays in release of funds. It is proposed that the corporate partners operating in a state be allowed to get involved in the planning stage at the beginning of each financial year so that they are better able to facilitate the community in getting VAP included in the GPDP. This would lay the foundation for a more robust program by ensuring the funds for development of assets are available to the community at the right time. It is also recommended that future intervention explore the possibilities of SBM rural and urban convergence. As highlighted in Angul (Odisha), utilization of





urban FSTP systems could prove to be a game changer for rural communities such facilities may not be viable or efficient.

Technology - Corporates work in an eco-system where they are far more familiar with latest technologies which they can bring over to the program. Use of technology for operations and maintenance of assets, tracking waste collection and management, facilitating collection of user fee, etc. would be extremely useful in ensuring efficient resource utilization. Technology can also be leveraged in attaining 'Utilization Certificate' from the GP Head and Village Secretary in time and submitting it to the Government of India through proper channels for release of the next tranche of funding under the program.

Operations and Maintenance - Currently there was no provision of funds for O&M built into the program from the initial stages. However, considering the criticality of O&M in sustainability of assets created, it is proposed that provisioning for O&M should be an integral part of the program design with earmarked funds for the same. Such O&M support can be linked with the performance of GPs based on a leader board where GPs performing well against defined outcomes would be supported in O&M, which would not only act as a reward mechanism, but would also create a healthy competition between states at national level and GPs at state level.

Inclusivity - Phase 1 of the program focused on ODF+ Model and Light House status for GPs. It did not touch on other aspects such as inclusivity, equity and equality in program benefits. However, there it has been observed that few corporates have also focused on wellbeing of waste collectors in the programme. Inclusivity Apart from such initiatives, inclusivity requires a holistic approach that tackles wider issues, especially the factors that allow sanitation services of all kinds to be accessed by all, managed, and delivered sustainably over time. It is recommended that these be built into program components in Phase 2 such that there are no inequalities and disproportionate impacts on marginalized or disadvantaged social groups including women, girls, transgender persons and persons with disabilities. This is all the more important considering the menstrual hygiene needs of rural women and girls.



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