Sanitation - Focus India

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1. Abstract

As per survey 85% projects related to social welfare (Sanitation and Water Supply) failed to achieve desired goals due to haphazard approach in taking up programs, poor planning, tremendous delays, cost overruns, missing stakeholders buy-in, lack of use of technology, missing accountability.

Sanitation is a large issue in today's rural India. Many NGO's and government reports stats that there is 65% lack of sanitation facility in India.

A success story was written in village at Kerala with 6000 households within an area of 18 KM with help of Socio-economic unit foundation and local Panchayat. They took new approach with detail baseline study and plan formulation, Grass root level education to all stakeholders, demand generation by public, Community based institution building, capacity building of community with focus on women, information of cost effective technology and regular community based with Panchayat level monitoring system.

This successful implementation was able to solve most health related issues like hydra, Diarrhea, Cholera, Intestinal worms etc., It was a tremendous help to woman security and social empowerment to community in village.

Key words

Sanitation, Water scarcity, Program Management, public, community, technology, people empowerment, stakeholder management, education, institution building, open defecation free society.
2. Introduction

Environmental sanitation envisages promotion of health of the community by providing clean environment and breaking the cycle of disease. It depends on various factors that include hygiene status of the people, types of resources available, innovative and appropriate technologies according to the requirement of the community, socioeconomic development of the country, cultural factors related to environmental sanitation, political commitment, capacity building of the concerned sectors, social factors including behavioral pattern of the community, legislative measures adopted, and others. India is still lagging far behind many countries in the field of environmental sanitation. The unsanitary conditions are appalling in India and need a great sanitary awakening similar to what took place in London in the mid-19th century. Improvement in sanitation requires newer strategies and targeted interventions with follow-up evaluation. The need of the hour is to identify the existing system of environmental sanitation with respect to its structure and functioning and to prioritize the control strategies according to the need of the country. These priorities are particularly important because of issue of water constraints, environment-related health problems, rapid population growth, inequitable distribution of water resources, issues related to administrative problems, urbanization and industrialization, migration of population, and rapid economic growth. For every $1 spent on sanitation at least $9 is saved in health, education and economic development. The entire Indian population has greater access to mobile phones than toilets, according to a recent United Nations study. Highlighting the country’s hazardous sanitation issues, a study conducted by the United Nations University said, only 366 million people (36% of the population) had access to proper sanitation.
3. Definition of Sanitation (World Health Organization)

Sanitation generally refers to "The provision of facilities and services for the safe disposal of human urine and feces. Inadequate sanitation is a major cause of disease world-wide and improving sanitation is known to have a significant beneficial impact on health both in households and across communities. The word 'sanitation' also refers to the maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal".
4. Present scenario

As per estimates, inadequate sanitation cost India almost $54 billion or 6.4% of the country’s GDP in 2006. Over 70% of this economic impact or about $38.5 billion was health-related, with diarrhea followed by acute lower respiratory infections accounting for 12% of the health-related impacts. Evidence suggests that all water and sanitation improvements are cost-beneficial in all developing world sub regions.

Sectoral demands for water are growing rapidly in India owing mainly to urbanization and it is estimated that by 2025, more than 50% of the country’s population will live in cities and towns. Population increase, rising incomes, and industrial growth are also responsible for this dramatic shift. National Urban Sanitation Policy 2008 was the recent development in order to rapidly promote sanitation in urban areas of the country. India’s Ministry of Urban Development commissioned the survey as part of its National Urban Sanitation Policy in November 2008. In rural areas, local government institutions in charge of operating and maintaining the infrastructure are seen as weak and lack the financial resources to carry out their functions. In addition, no major city in India is known to have a continuous water supply and an estimated 65% of Indians still lack access to improved sanitation facilities.

India’s Failure to achieve millennium development Goals (MDGs) on Sanitation.
Even to meet India’s own commitment of “toilets for all” by March 2012 it has to construct a toilet every second for a year. Now do the math’s. India has the largest number of people defecating in the open. According to a joint finding of the World Health Organization (WHO) and the Unicef in 2012, about 683 million of the 1.1 billion people worldwide who defecate in the open are Indians. Meaning, every second person in the country defecates in the open.

Worried about India’s slow progress in sanitation coverage— it is the least among the SAARC (South Asian Association for Regional Cooperation) countries—experts and policymakers unofficially admit it is not possible to achieve the millennium development goal on sanitation. A mid-term assessment of India’s progress towards the goals by the Union Ministry of Statistics and Programme Implementation in May last year shows 63 per cent of rural India is likely to have no access to sanitation by 2015; the target was to reduce the no sanitation areas to 47 per cent. In urban India, 15 per cent of the areas would have no sanitation facilities against a target of 12 per cent. Given the assessment, India’s own deadline seems unattainable.

In India, more than 1,000 children under 5 years of age die each day only due to diarrhoea caused by lack of sanitation.
Sanitation utilities in India have suffered from poor design, poor operational management and maintenance practice, lack of accountability, poor data collection and transparency, inadequate investments. While these were symptoms expert study shows that they arose due to certain fundamental deficiencies.

- The absence of an ethic and culture of service delivery utilities.
- Limited capacity with limited training for managers or technicians.
- Lack of Integrated Planning with little consultation with utilities when large development projects are planned
- Limited capacity with limited training for managers or technicians.
- Political Instability and vested interests
- No proper execution plan and monitoring system.
- Lack of stakeholders commitment and buy in
- Limited private sector participation with no or few standard policies, loan procurement process or willing financials for this sector.
- Limited knowledge program management for executing such a larger projects.
- Lack of use of technology and resistance to change.
- Lack of use Ideas, failure to identify defects with failed programs and no lesson learned from previous failure projects
6. How Project Management successful implementation has transferred life of people in a village Kerala (Case Study)

Sanitation Problem Analysis: A Team expert of SEFL (Socio economic unit foundation) was set up to identify sanitation problems in village of Kerala and they come up with analysis document which states that

- There is no one-size fits all solution to sanitation & hygiene problems in India. The Govt. of India & local govts. have tried this approach and failed. Rural & urban slum areas each need different solutions
- Awareness of the importance of sanitation and hygiene is lacking amongst certain segments of populations
- Over population and lack of adequate facilities is also a major issue
- Supply driven projects have been a failure in India, they are under-used and poorly maintained
- Lack of funding for sanitation and hygiene projects at the local government level causes the problem to increase each year with increases in population
- Regulations to control these unsanitary conditions are lax or don’t exist in some areas, and will need to be tightened so that enforcement is meaningful
7. Project Management and Administrative structure

SEFL decided to implement this program in a structured way by adopting a standard project management framework. The blocks shown in diagram 1 were the approach they took to execute and implement this program.

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<th>Steps</th>
<th>Description</th>
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<td>1. Project planning &amp; launching</td>
<td>• Identifying the problem, through contact to local population, and agreeing upon common goals with authorities.</td>
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<td>2. Collecting baseline studies</td>
<td>• &quot;Baseline studies&quot; = Collecting information of project area, from literature and studies and reviews previously made. Conducting own studies, together with local partners.</td>
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<td>3. Creating demand for sustainable sanitation</td>
<td>• Household and community level awareness raising activities to all genders, ethnic groups and classes of people. Recording demographic data, for designing education targeted to specific groups of people.</td>
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<td>4. Identifying a feasible product (a sanitation solution for area)</td>
<td>• Deciding the specific toilet type, and making decisions on the approach of the implementation. Done together with village level involvement.</td>
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<td>5. Confirming implementation plans in detail</td>
<td>• Developing an action plan, including specific work tasks and management responsibilities. Also task specific maximum costs are decided based on the budget. Done together with local partners.</td>
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<td>6. Implementation</td>
<td>• Implementation has a life of its own. It requires a flexible project management structure and continuous feedback system between all partners including the village level.</td>
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<td>7. Participatory monitoring &amp; evaluation</td>
<td>• Participatory monitoring and evaluation is done throughout the project mainly at village level. It serves as a feedback system which can be used for making corrective movements on project developments.</td>
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Diagram 1. Participatory method steps /11/
8. Project Planning and launching

Community-Led Total Sanitation (CLTS) is one of method used by SEFL for sustainable. The Goal of this team was to elimination of open defecation through awareness raising and affordable sanitation options. SEFL brought all stakeholders on board. Diverse stakeholders were working together to support sanitation including ministers, local councils, NGOs, local communities and Panchayat.

CLTS spurs community members to action through an 'ignition' moment when they are 'triggered' by collectively realizing that open defecation amounts to eating each other's fesses. Facilitators use direct language and local terminology to describe fasses and defecation with the goal of engaging communities in frank discussion of what has traditionally been a taboo subject. The triggering process aims to generate a sense of shame and disgust, which in turn mobilizes community members to take immediate action to end open defecation. Participants are guided to develop low-cost latrine designs and a sanitation plan for their village, and to immediately start latrine construction using local resources and expertise.

‘Natural Leaders,’ activists and enthusiasts who emerge and take the lead during the CLTS processes, also play a critical role in triggering communities to adopt the approach and follow through with planned activities. Men, women, youth and children can all be Natural Leaders. Some then become community consultants, triggering and providing encouragement and support to communities other than their own. Likewise, CLTS empowers children to advocate for cleaning up within the community through slogans, songs and presentations.
9. Collecting baseline studies

**Baseline study and Preliminary data collections:** The objective of the baseline survey is to collect primary data on a number of indicators related to the 16000 people living in village. This information is extremely important for monitoring progress as a result of program. Therefore the baseline survey seeks to establish the baseline information and indicators to be used for measuring the progress in water supply, sanitation and hygiene which may be attributed to the implementation of program. The information collected through this survey helped the program to adapt its approaches of sanitation and demand creation, in particular for access to adequate sanitation in village.

**Survey Design:** A self-weighting sample of 1600 households was selected in three stages. First, 9 out of the 18 locations purposefully selected for their available data (at start of project) and geographical distribution over the total Programme area. From these, 80 clusters of equal size (approximately 100 households) were selected using a systematic random selection procedure so that the total number of clusters in each of the 9 locations was proportional to its population size. The strategy for the Programme impact evaluation includes future comparison of households targeted by the Programme and those not targeted. For this purpose the households were stratified (or grouped by similar characteristics) into two groups – one, the target stratum including households in communities where the programme will start with water and sanitation interventions, and two, the rest of the households. Thus the survey includes a sample from the *target stratum* (40 clusters) and a sample from the general population to serve as the *control stratum* (also 40 clusters). It then disaggregates the results of some key indicators by these two groups for the purpose of comparison of indicator values of the base year (2008) with those as measured during mid-term and final Programme impact evaluations.
10. Creating demand for sustainable Sanitation

During the week-long trainings, participants joined in working groups, workshops and extensive field exercises during which they practiced facilitating CLTS in communities. At the end of the workshop, 14 different teams had triggered CLTS in villages in urban, semi-urban, rural and coastal communities. Natural Leaders from the triggered communities then joined the training to present how they planned to clean up their communities. This created a vibrant exchange of ideas among participants and other community members. The workshop closed with the participants returning to their various districts and institutions to develop action plans for the next six-month period.

Community-building and strengthening support and collaboration. CATS is spurring a new wave of community collaboration, helping to renew ties destroyed or weakened during the conflict. Communities are coming together to ensure that even the poorest households are able to build a latrine. Often the community organizes itself to go from house to house digging latrines for each households that needs assistance.

Spreading CLTS to communities. Following the workshop, district councils and NGO partners began to work with communities across Village in the ‘pre-triggering’ and ‘triggering’ stages of CLTS. The Public Health Superintendent serves as the CLTS focal point, coordinating meetings of stakeholders as well as acting as the link with the district health system. District councils take a lead role in training and monitoring the programme. In regions where an NGO partner is not facilitating CLTS, the council will facilitate the triggering process.

Engagement and capacity building of government officials. Political engagement, particularly at the local level, is vital for inspiring communities to take ownership of sanitation programming. The Ministry of Health and Sanitation and district councils have provided essential support for implementing CLTS and bringing CATS to scale. To sustain this progress, sanitation programming is giving significant attention to building the capacity of government partners.
11. How It is Implemented

A Major success of any project lies on proper planning and implementation. A Plan was developed with help of CLTS and assigned tasks to local peoples. It was easy to get buy in from all relevant stakeholders since they were included in all decision making system. SEFL empowered to local communities with decision making which would be suitable for their requirement. The village level implementation approach was taken by SEFL. This was established by the engagement and training of the field coordinator, as well as by forming sanitation clubs to each village. By the formation of the sanitation clubs, the project attempts to build capacity among village leaders to enable them to acquire skills for community mobilization and project management.

The sanitation clubs were formed based on workshop offered to interested members from the villages included in the project. Villager were asked to select a group of participants to the workshops, during which a meal would be provided every day. A total of 31 participants attended the five day workshop, and members village

The objectives of the workshops were enlisted as follows;

- To deepen participants’ understanding of leadership.
- To deepen participants’ understanding on the duties and responsibilities of key community leadership positions.
- To facilitate the formation of community based clubs for INSP.
- To conduct an in-house training for the INSP Field Coordinator on Report writing
- To produce material (handouts) and report on the training contents and proceedings.

The participants were engaged in exercises on defining leadership and the qualities of it, as well as defining the tasks and responsibilities of the different leadership positions, namely the chairman, secretary, treasurer and committee members. Following the exercises those leadership positions were assigned to the participants, thus forming the sanitation clubs for village. Following this, further exercises were given to each individual sanitation club, in which they were to form an action plan for improving dry sanitation in their village, including specific tasks and timetables. The action plans produced by the club members included tasks such as finishing the construction of the dry toilet, and establishing the organic farming test fields. Those parts of the action plans that were acceptable to villagers, were financed to the clubs whose treasurer would record the purchases. The sanitation club members have been highly committed, and are nowadays a significant supporter and actor of the project.
12. Participatory monitoring and evaluation

The key of any success of project is determined by managing all stakeholders affected by project. The participatory method was selected to be core policy of the project. Participatory methods are such that aim at getting the local population to be a part of the decision making, as well as to be actively involved in the field work. The method was used in the attempt to establish sustainability and continuity for the project. The idea is that through being involved in everything in the project, it will help the local population to establish a sense of power and responsibility of the project, as well as a sense of ownership over the toilets. Achieving these goals is combined to the promotion of benefits of the dry sanitation concept, and to providing the local population with skill needed to continue the project independently. A participatory diagram for involving the local population at different stages of the project is shown below.

In the project planning stage, the participatory approach requires a wide perspective to the matter, because there are more stages and details to it than there is in Implementation.
13. Creating a forum for collaboration and sharing lessons learned

The CLTS Task Force, with strong government leadership and support, has provided a forum for the development and spread of CLTS in Village. Most agencies active in sanitation are members and use meetings to share and coordinate activities; organizations not yet implementing community-led sanitation programming are also invited to attend. Ensuring CLTS trainings are readily available to NGO staff members is contributing to the uptake of total sanitation programming by new partners.

Apart from community led engagement, CLTS Team was involved to determine Criteria and parameters to improve

- Determine the population, demographics, needs of business and institutional sector
- Determine types of sanitation facilities required for each unique application
- Determine feasible technologies for each application
- Understand the role of local govt. NGOs, and volunteer organizations in the local project area
- Check applicable local regulations affecting each project

SEFL created process document and assignment of responsibilities for successful project implementation.

- Initial Public Awareness and Education (NGO, consultant or local govt.)
- Conducting sanitation facility feasibility & site location studies & surveys (consultant)
- Developing a conceptual master plan and cost estimates (consultant. Local govt)
- Assisting with public meetings and meetings with regulators (consultant)
- For financing the capital costs required for infrastructure (Local govt. NGO, investors, private-public partnerships, charity organizations),
- Collecting funds to run and maintain the systems (local govt., NGOs, private public partnerships)
- Operating and maintaining the systems (local govt, local waste services contractor)
Project integration so that the overall project is eco-friendly, sustainable for a long period of time and adequate for the intended purpose (project leader, consultant, private-public partnership)

SEFL has created their own criteria to consider in selection of viable technologies which includes

- Availability of water for sanitation & toilet systems
- Availability of electricity or need for electrical generators
- Vicinity to solid waste disposal facilities
- Pick up service for liquid or semi-solid sanitary waste
- Geological characteristics of local area, depth of seasonal high groundwater level, soil density & porosity
- The magnitude of sanitation facility needs (# of toilets reqd., number of customers to be served at normal and peak hours, services reqd. for large institutions, schools, govt. buildings, community centers, etc.)
Above flow chart depicts the process followed by SEFL

This successful implementation was able to solve most health related issues like hydra, Diarrhea, Cholera, Intestinal worms etc., It was a tremendous help to woman security and social empowerment to community in village
14. Conclusions

The campaign could succeed basically because of the motivators and the support of the local bureaucracy who could create sustainable demand, action for sanitation through properly engineered social marketing and attitudinal-behavioral transformation of the villagers and successful project management methodology. The study refutes the myth that poor people will construct toilets only if they get financial assistance from the government. The Kerala experiment has, indeed, been an eye opener that poor people opted for loans to construct their toilets once they had been educated and motivated. It is hoped that much can be learnt from this model which can be replicated elsewhere. For this, natural leaders have to be properly identified and nurtured. Equally significant, the government agencies/officials have to act more as managers and team leaders and have to cast off their bureaucratic styles. Proper implementation of project made a village open defection free ads well health indicators of villagers improved drastically. It was an integrated approach to eliminate open defection with proper sewage and water projects associated with it.
15. Abbreviation

SEFL - Socio economic unit foundation
MDGs - Millennium Development Goals
CLTS - Community-Led Total Sanitation
INSP - India Sanitation Program
16. Reference

[14] MOHFW (2010), Annual report to the people on health, Government of India, Ministry of Health and Family welfare, September 2010

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