Access to sanitation in rural areas: Role of NGOs in selected blocks of Dindigul district, Tamil Nadu

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Abstract

Access to sanitation is a fundamental need and human right. Sanitation is one of the most pressing global development issues in the contemporary world. Posing grave health challenges, exacerbating socio-economic and gender differences and thwarting the process of inclusive growth and development, lack of proper sanitation facilities have serious repercussions for any country. Given the strong direct and indirect linkages of sanitation with socio-economic and health aspects, it has been appropriately included in the Sustainability Development goals of United Nations.

Keywords: sanitation, rural areas, NGOs, Dindigul

Introduction

Sustainable sanitation is an essential ingredient of healthy life. NGOs play an important role in the field of sanitation and hygiene. While it is true that the Government has to play a major role, sanitation sector needs active involvement of NGOs. They are ideally suited to work as a link between the people’s felt needs and the planning process.

Among the one billion defecating in the open globally, 66 % of them live in India. Nearly all (92 %) of these Indians live in rural areas (WHO 2013). It is estimated in India’s Twelfth five Year Plan that in India 2.4 billion people lack access to basic sanitation services.

Milestones: Spirit of total sanitation campaign

In India, rural sanitation is a state subject. However, the efforts of the states are supplemented by the Central Government through technical and financial assistance under the Central Rural Sanitation Programme (CRSP), launched in 1986. Keeping in view the experiences of the central and state governments, civil society groups and other implementing agencies, in 1999, as parts of reform initiatives CRSP was improved and titled as Total sanitation Campaign (TSC) to change into a demand driven and people centered programme. There was a shift from a high subsidy to a low subsidy regime. TSC is one of the eight flagship programmes of the Government of India. TSC projects have been sanctioned in 607 rural districts of the country.

Along with subsidies to help households below poverty line (BPL) build latrines, the new programme was improved to make it participatory and community driven. Sensitising and mobilising through information, education and communication (IEC) was the major new feature. The results were not particularly satisfactory despite the new emphasis. Over 11 years of the TSC execution, households with a toilet in rural areas increased from 21 % in 2001 to 40.4 % in 2012, (Ministry of Rural Development 2012) however, data suggest that 20 % of
rural toilets were not working. In 2012, with further modification to the strategy, goals, and funding reallocation, the GOI renamed the TSC as Nirmal Bharat Abhiyan (NBA). Under the NBA, BPL households as well as families considered poor but without BPL cards are being targeted with higher government financial subsidies for installing a sanitation facility with the goal of 100% sanitised villages in which no one open defecates. The eligibility criteria for the PRIs to receive NGP include Gram Panchayats, Blocks and Districts, which achieve 100% sanitation coverage in terms of:
- 100% sanitation coverage of individual households
- 100% school and anganwadis sanitation coverage
- Free from open defecation and
- Clean environment maintenance (liquid and solid waste management)
Currently Nirmal Bharat Abhiyan is rebranded as Swach Bharat Mission

**Weak links in implementation**

- PRI systems lack technical support i.e. engineers to design and construct feasible toilets in the rural areas.
- The financial assistance given under NBA is not in pace with the inflation to meet out the expenditure on material, land and manpower required. Households that have benefitted once would not be eligible for any further assistance.
- There is no involvement of private sector and local leadership.
- Convergence of MNREGA and NBA is insufficient to build a complete walled toilet. The pattern of funding is different in the schemes.
- The behavioural practice of open defecation is yet another concern which cannot be solved by mere building toilets.
- In many areas there is absence of Non-government Organization to sensitis the people.
- Dedicated human resource is not in place to promote and monitor hygiene or sanitary practices anywhere in the country in Government system.

The sanitation sector is characterised by complex institutional settings in which multiple actors have a stake in providing and maintaining sanitation services. Government is responsible for the creation and implementation of policies, regulatory systems and also for service provision. In countries across Southeast Asia and the Pacific donors play a role in financing, designing and delivering sanitation services. A range of education and training institutions are also important in building a skills base and driving research and innovation across technical and soft system components of sanitation. At the local level, communities are critical stakeholders as end users and consumers and should be active in the design, construction and maintenance of sanitation systems.

With a tradition of local level community engagement, Non-Government Organisations (NGOs) have a comparative advantage in addressing some of these critical components of successful sanitation initiatives. Working with households and communities, they are well placed to add value to sanitation initiatives at the project, program and policy levels. NGOs are good at playing a variety of roles in the sanitation sector and have been credited with developing, trialling and promoting a number of innovative and locally-appropriate approaches.

They are known for being advocates of equitable, sustainable and cost-effective development and for playing a critical role as intermediaries, for example between communities and Local Government and other service providers.

**Community education, awareness-raising, sanitation promotion and marketing**

Service delivery in both rural areas still often take place without adequate focus on the necessary “software” elements like education and community mobilisation that will make spread the associated health benefits of sanitation. NGOs, with their history of strong community centred approaches, could be engaged to investigate the cultural acceptability of different sanitation options in different contexts including ability and willingness to pay, current sanitation practices and likely behaviour change strategies. NGOs could provide training for local service providers and could play a role in stimulating local markets including capacity building for small scale private sector service providers and development of sanitation supply chains. The Gandhigram Trust, for example, has successfully piloted a market based approach informed by detailed community surveys to identify acceptable solutions and define targeted behaviour change strategies facilitated through locally managed microfinance schemes and capacity building for local supply chain organisations.

**Objectives of the study**
The main objectives of the present study are to investigate the factors influencing access to sanitation services, to study the role of NGO in sanitation sector in the study area, to identify the reasons for low latrine uptake and to examine the implementation of women sanitary complex in the selected villages

**Methodology**
The study is based on descriptive design employing survey method. Multi-stage random Sampling Technique has been used for selection of district, blocks, Panchayats and households. Athur block and Thoppampatti blocks in Dindigul district constitute the area of the study. The respondents of the study cover 117 persons from Thoppampatti panchayat and 73 from Athur block based on simple random sampling. The tools for data collection included Interviews, Focus Group Discussions and observation checklist for the Panchayat area and women Sanitary Complex (CSC)

**Profile of sample households**
Among the 117 households surveyed, more than one third (36%) had wage labour (either as agricultural labourer or as daily wage labourer) as the primary occupation of the household. Another two third reported farming (on sharing or ownership basis) as their primary occupation. Less than one tenth (around 8%) households were woman-headed. More than one fourth (36%) belonged to SC, 8% to ST and 44% to OBC, around 12% to various religious minorities. More than one fifths (20%) had Kuchha houses, while more than two fifths (52%) had Semi-Pucca houses. While 5.4% did not own their homestead land, around 57% did not have agricultural land either on ownership or on sharing basis. In case of their ration card status, 7% had no ration cards, 7% had either Annapurna or Antyodaya type of ration card. While 52%
belonged to BPL category and 48% to APL category. Overall, among the household respondents - approximately, 51% were female, interviewed purposively by design.

Access to sanitation is defined as the percentage of population using sanitation facilities such as connection to a sewer or septic tank system or a simple pit latrine (HDR 2001).

### Table 1: Households with access to latrine

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Athur</th>
<th>Thoppampatti</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households with access to latrine</td>
<td>107(81.06)</td>
<td>25(18.94)</td>
<td>132(69.47)</td>
</tr>
<tr>
<td>Household without access to latrine</td>
<td>-</td>
<td>48(82.76)</td>
<td>48(30.53)</td>
</tr>
<tr>
<td>Households with access to community toilets</td>
<td>10(17.24)</td>
<td>-</td>
<td>10(17.24)</td>
</tr>
<tr>
<td>Total</td>
<td>117(100)</td>
<td>73(100)</td>
<td>190(100)</td>
</tr>
</tbody>
</table>

Source: field data

Note: figures within parenthesis indicate percentages

The findings of the field survey reveals that out of 117 households in Alamaruthupatti, 81.06 per cent of the households have access to individual toilets and 17.24 per cent have access to community toilets and all of the them use the facility. Out of 75 households in Thoppampatti block 18.94 per cent of the households have access to toilets, but about 86 per cent of the households do not use them.

Block wise analysis reveals that 81.06 per cent of the households in Athur block has access to toilet as against only 18.94 per cent in the case of Thoppampatti. The major reason for the lacklustre performance of Thoppampatti block and creating awareness about sanitation. About 17.76 per cent of the households received funds from Gandhigram Trust for construction of toilets.

Majority of the households (56.07 per cent) in both Alamaruthupatti panchayat of Athur block and Manoor block of Thoppampatti (80 per cent) constructed the latrines with government subsidy. In Alamaruthupatti the reputed NGO Gandhigram Trust played vital role in motivating the people and creating awareness about sanitation. About 17.76 per cent of the households received funds from Gandhigram Trust for construction of toilets.

### Collaboration with Panchayat - Women Sanitary complexes in the study area:

Any sanitation programme without providing women a lead role cannot achieve a holistic and lasting impact. Sanitation is critical to women’s health and is a matter of dignity. Lack of sanitation facilities often forces women to restrict themselves by reducing and controlling their diet, which leads to nutritional and health impacts.

A strengthened role for women is imperative to promoting sustainable sanitation. Therefore, it is imperative to have women participate to find workable solutions for their situation not just in the design, building and maintenance of sanitation but also representation at the policy level decisions and management of the programmes.

In this context women sanitary complex functioning in Alamaruthupatti assumes special significance. Integrated Women Sanitary Complexes with sanitary napkin incinerators is found in the panchayat. The complex consists of latrines, bathrooms and washing platforms with piped water supply facilities. The complex also has latrines for the physically challenged disabled, old age and latrines for children and are run by panchayat. There is a Caretaker appointed/ selected by the panchayat, who takes care of the daily maintenance of the complex. The person is paid around Rs.1000 a month. Funds towards this and other materials like phenyl, bleaching powder, etc. for day-to-day maintenance is raised from the users. An amount of Rs. 2 is charged from each user. The collected money is kept in the Panchayat office. An average of Rs. 3000/- is collected every month and the money is used to meet the salary of the caretaker and for the purchase of materials for maintenance.

Following are the reasons for the success of women sanitary complex atAlamaruthupatti

- It is a female headed panchayat and the Panchayat President is interested in the health of women. The Panchayat President is the key motivating factor behind the success of the scheme. Proper arrangement is made for the day-to-day maintenance of the sanitary complex.
- The Panchayat President has attended ‘training on sanitation drinking water’ organized at Hyderabad and Delhi and has good awareness about the sanitation schemes.
- The Panchayat has the support of Gandhigram Trust, an reputed NGO functioning in Athur block. The NGO

Note: figures within parenthesis indicate percentages
arranged several exposure visits for the President and the ward members
- The Social Security Group organized by the Panchayat and NGO keeps constant vigilance and prevents open defecation.

The Panchayat has won Gram Nirmal Puraskar award. The Panchayat has also undertaken Solid Liquid Waste Management activities by segregating degradable and non-degradable waste.

**Defunct women sanitary complexes in Thoppampatti**
There are two Women sanitary complexes in the Manoor village. The river Amaravathi flows through Manoor village of Thoppampatti Panchayat. Inspite of the water facilities available in the village, the Panchayat failed to maintain the Women Sanitary complexes and they remain dysfunctional. The main reasons for defunct state of the Women sanitary complex in Manoor village are as follows:
- The Panchayat is not interested in maintaining the sanitary complex
- The users are unwilling to pay for usage of the facilities available in the complex
- The women have no awareness about sanitation. No NGO is found in the area to mobilize and motivate the people
- Social mobilization is absent in the panchayat.

**Solid and liquid waste management**
Waste management which is primarily the collection, transport, processing or recycling or disposal, managing and monitoring of waste materials, usually ones produced by human activity, in an effort to reduce their effect on human health. Changes in the environment, especially with regard to disposal of waste and human excreta, are of vital importance to keep diseases away as well as keep the environment clean. The first step in the right direction is to recognize that waste, if managed properly, is a resource of considerable economic value. The cooperation, support and involvement of community, the willingness of the villagers to segregate waste at its source will determine the extent to which rural areas will begin to reduce, reuse and recycle.

There are a number of concepts about waste management which vary in their usage between regions. One concept is that of “Waste hierarchy”. The waste hierarchy refers to the "3 Rs" - reduce, reuse and recycle, which classify waste management strategies according to their desirability in terms of waste minimization. The waste hierarchy remains the cornerstone of most waste minimization strategies. The aim of the waste managements to produce the maximum practical benefits from products and to generate the minimum amount of waste.

Composting: In this process, the organic matter breaks down under bacterial action resulting in the formation of humus like material called compost. The value of compost as manure depends on the quantity and quality of feed materials poured into the compost pit. The main advantages of composting are that the biodegradable waste gets converted into good quality organic manure, which not only prevents vector breeding and breeding of rodents but also results in destruction of pathogens and weed seeds by generation of considerable heat during the aerobic composting process. Added advantage in this process is that the insanitary conditions arising out of solid waste are removed making the environment clean.

**Management of solid waste in Alamaruthupatti panchayat**
Alamaruthupatti panchayat adopts a scientific waste management technique for disposal of garbage emanating from the residential areas of the panchayat. It was done previously in each residential household of the locality by removing the waste only to be heaped at another location posing hazardous risk to the environment and health. The panchayat with the support of DRDA has allotted a land in the village and built a centre to install the solid waste management unit. The DEDA has sponsored a tricycle to collect the solid waste. The sanitary worker appointed for the purpose visits houses along with the cart. The houses are required to store the garbage in a drum so that the worker may collect the garbage from each house. Right from 6 a.m. to 11 a.m. the worker goes around the village and the cart is downloaded in the place which is built by the panchayat for the purpose of segregating the degradable and non-degradable wastes. The non-degradable wastes are kept separately for recycling purpose; it is the plan of the panchayat to use the degradable waste for vermiculture. Vermi-composting involves the stabilization of organic solid waste through earthworm consumption which converts the material into worm castings and is the result of combined activity of microorganisms and earthworms. Training on Vermi composting is organized in the village by the NGO.

**Management of liquid waste**
**Reuse of grey water:** Waste water is a dangerous breeding place for mosquitoes, which results in spread of diseases like dengue, malaria and filaria. Hence, disposal of waste water is a major public health problem in rural areas. Grey water management involves reuse of water for a variety of purposes including irrigation, domestic purposes and toilet flushing after appropriate treatment. The best option is to manage waste water at household level itself. This is done in the Alamaruthupatti by constructing a leach pit or a soak pit, using the waste water in the kitchen garden etc under the guidance of Gandhigram Trust field staff.

No efforts are taken by the Thoppampatti Panchayat for solid and liquid waste management. The Waste water from the households stagnate on the road breeding mosquitoes thereby causing health hazards.

**Athur Vs Thoppampatti – status of sanitation**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Athur</th>
<th>Thoppampatti</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head of the Panchayat</td>
<td>Female headed</td>
<td>Male headed</td>
</tr>
<tr>
<td>Open defecation</td>
<td>Open defecation free</td>
<td>Practice of open defecation exists</td>
</tr>
<tr>
<td>Award</td>
<td>Nirmal Gram Puraskar</td>
<td>Nil</td>
</tr>
<tr>
<td>NGO</td>
<td>Gandhigram Trust</td>
<td>Nil</td>
</tr>
<tr>
<td>SLWM</td>
<td>Implemented</td>
<td>Not implemented</td>
</tr>
<tr>
<td>Women sanitary complex</td>
<td>Functioning</td>
<td>Defunct</td>
</tr>
<tr>
<td>Water availability</td>
<td>Scarce</td>
<td>No water scarcity</td>
</tr>
</tbody>
</table>

**Beyond nirmal gram: Monitoring for sustainability**
Once the village, block, or district Panchayat has received the Puraskar, there is a responsibility thrust on them, to maintain the Nirmal Gram status. The sustainability features specially, community involvement with women and children would sustain the Nirmal Gram status. Such Nirmal Grams have to move now to the next stage of sustained SLWM and proper.
street drainages. This aspect of sustainability is well taken care by the NGO in Alamaruthupatti panchayat.

Key findings
The study reveals that Athur block has implemented the sanitation programmes more effectively compared to Thoppampatty block. Inspite of the water scarcity Athur block has performed better through rational usage. Inspite of the water facilities Thoppampatty block failed to implement the sanitation programmes.

Findings also reveal that providing infrastructure does not ensure use when there are significant and culturally engrained behavioural barriers to using latrines. Future sanitation programmes in rural India need to focus on understanding and addressing these behavioural barriers.

The findings suggest that absence of latrine infrastructure is not a primary factor for continued open defecation and that toilet building alone will not address the widespread problem of open defecation in rural India. Poor quality and an inappropriate and single latrine design made available to rural people under government sanitation schemes may be important factors but are not the sole reason for low latrine uptake and use. There are other behavioural aspects which constrain the adoption and use of latrines. These behavioural aspects vary with communities, across gender and different age groups and castes. Any future sanitation intervention, instead of achieving targets, needs to consider these aspects and approach the issue of sanitation behaviour change holistically.

The role assigned to the motivators is to contact people individually and persuade them to construct latrines. Motivators (through IEC activities) are required not only for demand generation for sanitary latrines but also for educating the people about toilet technology, operation and maintenance of sanitary facilities and hygiene promotion.

In recognition of the failures of latrine construction projects to adequately bring about the use of these facilities or the adoption of hygiene practices, there is a growing emphasis on the need to focus on ‘software’ elements of sanitation initiatives rather than on ‘hardware’ or technical components. Indeed, epidemiological research suggests that, the single hygiene behaviour of hand washing with soap can reduce incidence of diarrhoea by up to 43% (Curtis & Cairncross 2003). What has been learnt in the sector over many years is the need for strong community engagement and social and behavioural change processes to accompany more traditional ‘hardware’ solutions (Hardi 2000; Bartram et al. 2005). In the context of wider ‘hygiene improvement’ programs, sanitation initiatives must consider how to support household investment and behaviour change, rather than simply building and financing more toilets (WSSCC/WHO 2005). Compared with water, sanitation suffers from lack of expressed ‘demand’. Few un-served households are fully aware of the invisible costs of inadequate sanitation, including poor health, lower productivity, inconvenience and environmental degradation. Since these households are usually the poor and marginalised sections, existing demand for sanitation is often ignored (Robinson 2007). There is therefore a need for well-facilitated engagement processes to encourage articulation of demand at the household and community level, including marketing, promotion and educational strategies. Such processes are only possible through an in-depth understanding of what people do and, more importantly, what they want.

Successful sanitation initiatives make the essential links between technical and social realms, ensuring projects are locally owned, demand driven, linked to hygiene messages and that the capacity to undertake on-going maintenance is locally developed. Successful approaches of the NGO in the study area ensure that sanitation and hygiene interventions are selected based on their appropriateness to particular contexts and in response to the needs and desires of different user groups. NGOs can be classified as ‘intermediate level organisations’ within the water and sanitation sector framework and as such take on functions as ‘interface’ agents between national level agencies and local level service providers. These functions include mediating between actors at different scales and providing capacity building and support for service providers. In addition to playing intermediate level roles, the Gandhigram Trust in the sanitation sector also play a more direct role in service provision and engaging directly with end users at the field level.

The various roles played by Gandhigram Trust in the study villages the sanitation sector can be broadly grouped into six categories:

Service Delivery
The NGO undertakes the function of facilitation of service delivery including direct service provision or playing an intermediary role between communities and service providers. The services include Community education, awareness-raising, sanitation and hygiene promotion and marketing including stimulating demand, through gender sensitive approaches, supply chain-strengthening and implementing behaviour change programs. To meet the material cost of poor households, Revolving fund to the extent of Rs 53 lakhs (received from the donor agency) has been provided to the 20 members of Self Help Groups for construction of individual toilets. It is an interest free loan.

Convergence Programmes – Children focus
The Trust is engaged in convergence programmes with various departments – Education, Social Welfare and schemes such as ICDS. Special awareness programmes are organized for Anganwadi workers and schools on personal hygiene, environmental cleanliness, Solid waste and Liquid water management. Health Committees are formed by the NGOs in Primary schools, Middle and Secondary schools to disseminate the sanitation practices. Children are the main focus of NGO as they can serve as the messengers of the sanitation practices in the village households. The sanitary repair works in schools Anganwadis and community toilets are attended to by the Trust field staff by intimating such location specific needs to Block Development office and Panchayat.

Networking and Collaboration
The Trust Builds partnerships and promotes networking between different sector actors representing community views to governments and service providers and translating and communicating national policies and regulations to the local level. Training programmes in the villages are planned and carried out in collaboration with Village Panchayat, Self Help Group Federation, PVRC (Pudhu Vazhvu Resource Centre), Swach Bharath Government officials, UNICEF, Union office, Block Coordinators, District Coordinators.
Capacity building for local governments, service providers, civil society groups and end users (households and communities).
The NGO identifies the needs of all the stakeholders engaged in the sanitation sector and organizes the following training programmes:
- Sanitary workers training
- Supervisor training
- Motivators training
- Soak pit training to masons and the households

The NGO arranged several exposure visits for the President and the ward members of Alamarathupatti Panchayat.

Innovation
To supplement the efforts of the households, Rs.750 has been given to the households who have installed soak pits. The Trust conducts Pre Orientation Training before the construction of toilets and post orientation training regarding the usage and maintenance. Awareness training is conducted for demand creation. Innovations including demonstration and piloting of innovative and locally adapted approaches and technologies are carried out.

Policy dialogue
Engaging in policy dialogue including promoting proven approaches and technologies, communicating lessons learnt, communicating community needs, advocating gender equity and monitoring the effectiveness of programs and government initiatives.

NGOs approach sanitation service delivery in a variety of ways, developing the capacity of local service providers, stimulating local demand and market development and providing subsidies to support households to install latrines. Building partnerships and promoting networking, Gandhigram Trust plays a strong coordination role, particularly at the Panchayat level. They tend to see their role as ‘facilitator’ and ‘enabler’, acting as the interface between government and community-level service delivery.

Given the very low government capacity at the district and local level, NGO tries to ‘fill the gap’ by creating linkages and opportunities for district staff to engage, for example through the selection of priority villages, and participation in village-level trainings.

NGOs are well placed to contribute grounded perspectives to policy dialogues and share experiences about lessons learnt including successful approaches. There are opportunities for government agencies to draw on NGO functions as ‘interface’ actors in the sanitation sector to facilitate inter-agency information sharing and link local experiences with national level policies and strategies. There is potential for government agencies to engage NGOs to provide ‘value-add’ services to national strategies including capacity building, behaviour change programs, monitoring and evaluation and other ‘software’ aspects of sanitation initiatives. There are opportunities for government agencies to build relationships with NGOs to work closely with communities, particularly where government resources and outreach are not sufficient, for example in remote rural areas.

Conclusion
NGOs can and do make a unique contribution to the sanitation sector. Emphasis should be placed on building better links between NGO activities and the activities of other actors including government agencies and service providers at local, provincial and national level. This paper has characterised significant roles that NGOs can play in the sanitation sector and illustrated how these roles change the practices in Alamarathupatti Panchayat of Dindigul district. While the practical experiences of NGO engagement will vary in different contexts the lessons are broadly applicable, and considerations of NGO roles and strengths is a useful framework through which different actors can consider strategies to maximise the benefits of NGO engagement in the sanitation sector.

Building on foundations of successful approaches, there is potential for the range of actors in the sanitation sector to engage more closely with NGO sdrawing on their strengths and collaborating to achieve more successful and sustainable sanitation outcomes.

The NGO acts as catalyst of social change in bringing about a harmonious interaction between technology and social engineering. Adopting innovative approach, Gandhigram Trust encourages people realize their responsibilities in relation to sanitation and made them capable of taking action on their own. The promotional work in the sanitation sector is done by NGO which carry greater conviction with the people than official agencies.

The study reveals that Athur block has implemented the sanitation programmes more effectively compared to Thoppampatty block. Inspite of the water scarcity Athur block has performed better under the effective guidance of NGO through rational usage. Inspite of the water facilities Thoppampatty block failed to implement the sanitation programmes the main reason being, lack of NGO in the area to create awareness for the people.

Findings also reveal that providing infrastructure does not ensure use when there are significant and culturally engrained behavioural barriers to using latrines. Future sanitation programmes in rural India need to focus on understanding and addressing these behavioural barriers. The Government and NGOs have to work in mutually inclusive ways to achieve the results. This is specially true in sanitation sector because sanitation is a socio cultural matter.

Role of NGO in Sanitation Sector
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