

SANITATION FOR ALL – STILL A LONG WAY TO GO





SANITATION FOR ALL – STILL A LONG WAY TO GO

Learnings & Approaches

**Compilation for the Second South Asian
Conference on Sanitation, Pakistan, September 2006**

WaterAid India
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Abbreviations

AKRSP (I)	The Aga Khan Rural Support Programme (India)
APL	Above Poverty Line
BPL	Below Poverty Line
CBO	Community Based Organisation
CLTS	Community Led Total Sanitation
CMT	Community Managed Toilet
CRSP	Central Rural Sanitation Programme
DDWS	Department of Drinking Water and Sanitation
Gol	Government of India
GV	Gram Vikas
GVM	Gram Vikas Mandal
IEC	Information, Education and Communication
JFM	Joint Forest Management
MDG	Millennium Development Goals
MED	Micro Enterprise Development
MPLADS	Member of Parliament Local Area Development Scheme
MVV	Mahila Vikas Mandal
NFHS	National Family Health Survey
NGO	Non Governmental Organisation
NGP	Nirmal Gram Puraskar
NRM	National Resource Management
NURM	Jawaharlal Nehru Urban Renewal Mission
O&M	Operation and Maintenance
PIM	Participatory Irrigation Management
PRA	Participatory Rural Appraisal
PRI	Panchayati Raj Institutions
PTS	Public Toilets
RHEP	Rural Health and Environment Programme
RSM	Rural Sanitary Marts
SA	Shelter Associates
SCALE	Sustainable Community Based Approach for Livelihood Enhancement
SCOPE	Society for Community Organisation and People's Education

SHG	Self-Help Group
SHE	Sanitation, Hygiene & Education
SPARC	Society for Promotion of Area Resource Centre
SSHE	School Sanitation and Hygiene Education
TSC	Total Sanitation Campaign
ULB	Urban Local Bodies
VEC	Village Executive Committee
WAVE	Women's Action for Village Empowerment
ZP	Zila Parishad

Foreword

Despite massive outlays for drinking water and sanitation in India, access to safe drinking water remains a challenge. Institutional challenges in rural and urban drinking water and sanitation remain a major hurdle. These include addressing leakages in official spending, monitoring of progress and creating linkages between different agencies.

The failure of increased coverage and access may be a combined result of ineffective programmes and policies as well as worsening livelihoods of the poorest communities on the one hand and the elite capturing resources and capital on the other. Failure in addressing resource sustainability and in achieving the desired behavioural change goals, needs to be reassessed from this point of view instead of relying upon a one-sided target driven approach.

Sanitation programmes in India have traditionally relied heavily on high levels of subsidies for latrine construction. This approach has been criticised for failing to motivate and sustain higher levels of sanitation coverage which also grew very slowly between 1990-2000. The high subsidy approach has now changed with the introduction of the Total Sanitation Campaign (TSC) in 1999. The TSC reform principles are demand-driven and community-led. The concept of sanitation, which was previously limited to the disposal of human excreta by cess pools, open ditches, pit latrines, bucket system, has now been expanded to include liquid and solid waste disposal, food hygiene, personal, domestic as well as environmental hygiene. The GoI has reported rapid growth in coverage levels in the last five years as a result of the TSC, which has now been implemented in all but 12 districts of India. When launched, the TSC advocated a shift from a high to low-subsidy regime, greater community involvement, demand responsiveness, and the promotion of a range of simple and cost effective latrine options. Involvement of PRIs, NGOs, or Self Help Groups (SHGs) and a subsidy sharing arrangement between centre & state govts and beneficiary.

Field studies have pointed to low levels of latrine usage because of lack of awareness of the importance of sanitation, water scarcity, poor construction

standards and the past government emphasis on expensive standardised latrine designs.

The challenge of poor rural sanitation coverage arises for a variety of social and economic factors and not simply from individual behavioural resistance, which has been the dominant discourse for explaining poor coverage. The way rural livelihoods are structured in India, the increasing migration from their rural areas to unsanitary urban areas, has a negative impact on attitudes and behavioural change. Social taboos of caste and class in handling human faecal excreta have weakened but still hold sway in many rural and urban areas. A lack of gender sensitivity in villages, with sanitation not being considered a priority by men, also hinders latrine take-up although the enhanced social status associated with having a latrine often has the opposite effect. Congested villages with little room for latrine construction and where the risk of contamination of ground water is high, needs to be taken into account when propagating pit based latrines. Besides the above reasons, geographical and terrain factors, such as hilly areas where level ground is limited, flood plains and coastal belts with high water tables, make the creation of sanitation infrastructure more complicated. There is little evidence, either from research or field studies, that draws out meaningful correlations on how each one of the above factors (individually or collectively) impact on low coverage levels in rural areas but these issues are very real and are reflected in the low national coverage situation.

There are many categories/classifications of urban poor settlements in India including authorised and unauthorised slums, resettled slums and Jhuggi Jhopdi clusters. Urban poor living in slum like conditions could constitute at least 50 per cent of the Indian urban population. It is fair to assume that only 50 per cent of the urban slum population have adequate access to safe water. The issue of effective coverage for slum populations in urban areas of India is particularly difficult as it is often linked to the tenure status of settlements (authorised vs. unauthorised, legal vs. illegal) and large floating populations. This makes investments in sanitation infrastructure problematic. The poor coverage

situation in poorer areas is also often a reflection of poor and disadvantaged people being excluded from participation in water and sanitation decision-making.

This compilation of experiences, case studies and reports of organisations engaged in sanitation provision in India, is perhaps the first such compilation in India. Originally done as an input to

the Second South Asia Conference on Sanitation in Pakistan, this publication will live beyond this event. We thank all the contributors and WaterAid partners for their inputs in the Lead paper and other articles.

We hope that this will provide directions and insights to practitioners and policy makers and all those who are interested in knowing what works why in rural and urban sanitation in India.

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September 2006

SANITATION Firmly on the Map: But Still a Long Way to Go

Position Paper for the Second South Asia Conference on Sanitation, Pakistan, September 2006

Prepared by WaterAid India and Partner NGOs

WaterAid India

This Paper by WaterAid India highlights the progress, key issues and challenges and recommendations for improving sanitation coverage with special focus on the poor. It is based on the experience of WaterAid India, other major sector agencies and NGOs and also takes into consideration the programme of state and national governments of India for sanitation promotion. The paper has also drawn from a major workshop on Women & Sanitation that was held in Delhi recently¹.

WaterAid India had initiated review and documentation of a set of case studies and best practices for informing the promulgation of recommendations for this Position Paper. All the eight case studies have been compiled and printed along with this Paper for SACOSAN 2.

This Paper is divided into four sections – rural sanitation, urban sanitation, school sanitation and gender and social exclusion. **Lessons learnt and recommendations are given at the end of each of the 4 sub sections of this Paper.**

The overall Policy recommendations for consideration of Government of India are:

1. There is an urgent need to prioritise institutional and policy reforms undertaken by Government of India. While sector reviews and vision and plan of operations are being undertaken by state governments, the national government may initiate the following:
 - i. Promulgate a national sanitation policy with explicit commitment to the poor and vulnerable delineating appropriate institutional arrangement for its delivery and management. The current guidelines could feed the policy framework. The policy should get away with the “performance by target” syndrome and should focus on sustainability of benefits and investments.
 - ii. Integrate implementation of Swajaldhara and Total Sanitation Campaign through financing of joint proposals where need for water and sanitation are unmet. Financing

- comprehensive proposals of sanitation including waste water management, compost pit, etc for improved environmental sanitation.
- iii. Establish appropriate institutional arrangements at state and local level which ensure participation of communities and civil society and ensures community procurement and management.
- iv. Expand the scope of current online monitoring system to capture beyond numbers.
- v. Vest State Water and Sanitation Mission with greater funds for capacity building of communities, PRIs and civil society organisations which can understand the local socio-cultural milieu, poverty levels and could respond accordingly.
- vi. Increase allocation for sanitation and monitor its utilisation. Though huge amounts have been approved there is a huge gap in release and utilisation. Special support missions be constituted where utilisation so far has been less than 25 per cent of the approved amount for sanitation.
- vii. Promote public private partnership for managing the supply requirements. The logistics and supply for the possible demand for sanitary wares and production materials is highly unmet.
- viii. TSC could have separate budget allocation for aided and private schools post 2007. **It is expected that most of the government schools shall be covered by end of financial year 2007.**
- ix. Enhanced role and opportunity for NGOs involvement in community-led water and sanitation programmes, through financial support for NGOs and a commitment to devote at least 75 per cent of the budget of the central grants under TSC and Swajaldhara for water and sanitation to credible NGOs.

2. **Slum sanitation commitment as a national priority and a pro-poor commitment. GoI to support access to sanitation for slum dwellers as a priority through:**
 - i. Prioritising Community-Managed Toilets in urban slums of India as non profit community-managed intervention with separate funding

¹ Women and Sanitation Workshop in memory of Kamala Choudhry; 20-21 March 2006

support of GoI. Financial allocation for this could be made under JNURM launched nationally. First priority is assigned to CMTs even across cities and municipalities.

- ii. Assess institutional strengthening needs for pro-poor service delivery. Make municipalities answerable to consumers. They would need to establish consumer service centres which may include consumer help desk, problem-solving, consumer participation or consumer awareness programmes.
- iii. Make targeted interventions and increase the purview of sanitation-related works at municipal level. Allocate “urban sanitation fund” to municipalities which could be let out to customers for use on revolving basis. Linking all slums to city-wide water supply and sewerage infrastructure.
- iv. Present communities with options appropriate to their situation and economic levels ensuring appropriate tariffs and incentives. Also expand the choice of service providers for slum dwellers.
- v. Leverage funds for sanitation in slums from other urban development initiatives, IFCs, etc.
- vi. Expand the scope of Citizens’ Associations: Charters be developed for service delivery and citizens groups are involved in deciding locations and service levels.

Introduction

India saw a major fillip to its sanitation programme during implementation of the Sixth Five-Year Plan and start of internal decade for drinking water and sanitation. Responsibility of sanitation was shifted from Central Public Health and Environmental Engineering Organisation (CPHEEO) to the rural development department. In 1986 Department of Rural Development initiated the Central Rural Sanitation Programme (CRSP) for providing rural sanitation services. The programme was revised in 1999 to include demand-driven principles. In the light of the Ninth Plan strategy Government of India introduced a comprehensive sanitation programme in name of Total Sanitation Campaign with objectives of improving the sanitation coverage on demand-driven principles. This highlights the way the sector has moved and the commitment of Government of India to provide sanitation facilities to all.

Government of India is committed to halve the fraction of its population without access to basic sanitation by 2015. The nationwide Total Sanitation Campaign has set ambitious targets of attaining the MDG targets by the end of Tenth Five-Year Plan itself (at least for schools) ie in the year 2009-10. This commitment was made in recognition of the high costs of inadequate sanitation including: the death of approximately a

million people a year, most of them children, from sanitation-related diseases; the environmental damage from uncontrolled discharge of untreated wastes in and around urban areas; and the shame, indignity, and nuisance caused to millions of its people by inadequate sanitation.

Despite significant investments over the last 20 years, India still faces the most daunting sanitation challenge in any region in the world. Still around 65 per cent of the total rural population remains without access to adequate sanitation. The vast majority of this unserved population is poor rural inhabitants. By a simple estimate India need to ensure additional 106 million people with household toilets by 2017 to meet the MDG target.

Special attention needs to be given to providing sanitation facilities at schools and other public buildings. Though huge progress has been registered in terms of creating water and sanitation facilities in schools, still in large number of schools the sanitary and hygienic conditions are appalling, characterised by the absence of properly functioning water supply, sanitation, and hand washing facilities. Hygiene, sanitation, and water in schools can create an enabling learning environment that contributes to children’s improved health, welfare, and learning performance.

Meeting the sanitation goal calls for a wide range of measures, including consolidating the recently introduced policy reforms, hygiene promotion, capacity building, use of participatory processes, and adherence to demand-responsive approaches. It also calls for a massive scaling up of investments and sustainable service delivery.

The real challenges in sanitation are to find ways to stimulate and sustain demand (and thus resources) for sanitation at all levels, from the private household to the national budget. Supply-driven approaches to building more toilets with household subsidies have often been ineffective, as they can waste resources building sanitation facilities that are unwanted, inappropriate, and unused. When community members have committed their own time, effort, and resources to establishing improved water and sanitation systems, they are more committed to maintaining and sustaining their investments. For basic sanitation, Government of India will have to ensure that public funds are allocated principally to the promotion and stimulation of demand for sanitation. Public financing for sewage, drainage, and waste water treatment is warranted, as they produce benefits for society as a whole, as well as better services to households.

Department of Rural Development, Government of India has launched major water and sanitation initiatives in the last two decades to improve

sanitation coverage (latrine construction) status. A significant level of progress has been achieved from the abysmally low rate of one per cent rural and 50 per cent urban population of India having access to sanitation in 1981 to the current official figure of 38 per cent (rural) and 93 per cent (urban) sanitation coverage. State wise, the most significant progress in rural sanitation against the flagship Gol scheme called Total Sanitation Campaign (TSC) targets has been for six states – Andhra Pradesh (52%), Kerala (54%), Sikkim (117%), Tripura (93%), Tamil Nadu (52%) and West Bengal (54%) as per DDWS.² For 17 out of the 30 states of India, progress has been 10 per cent or less. And for the remaining seven states it ranges from 10 per cent to 30 per cent.

While there is criticism that some of the highest performing states (in terms of latrine coverage also have the largest non used toilets)³, one thing is clear (from the TSC coverage estimates) that progress in rural sanitation has been most pronounced where;

- Strong incentives and promotion of sanitation by the state governments. Nearly twice the numbers of toilets are constructed for BPL households than APL.
- Enabling cultural, social, economic and political factors encourage change at individual level. This alone explains why sanitation progress is not dependent on only one of the factors and why some states perform better than others.

Sanitation improvement cannot be implemented as a top down infrastructure-led programme or project. While rural sanitation improvement faces a challenge for demand creation and people's initiative to construct and use toilets, urban sanitation improvement is dependent to a great extent on government intervention and investments in city-wide infrastructure and inclusion of the slum dwellers in large infrastructure projects.

Sector professionals, NGOs and government programmes tend to look at individual factors like technology, finance and behaviour change – as targets for intervention to improve sanitation coverage. There is also a need to consider poverty, nature of rural livelihoods (migratory or farm based) and livelihoods insecurity as sufficient reasons⁴ inhibiting sanitation

² DDWS website for progress of TSC objectives and performance state wise as on 31 March 2006

³ NC Saxena's Report to UNICEF dated 2003, quoted in Maggie Black & Rupert Talbot's: Water A Matter of Life and Death; 2005

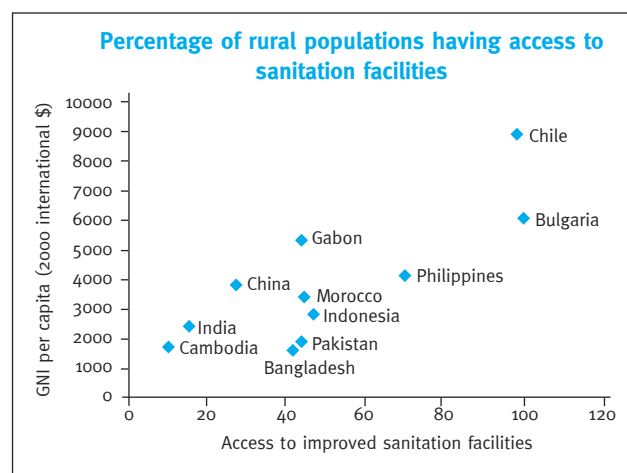
⁴ While official poverty statistics of India shows a spectacular decline in poverty in year 2000 (by 10% over the last enumeration), this decline is an outcome of changed methodology of poverty estimation and therefore not comparable with the 1993-94 estimates of Gol. The recent National Sample Survey report on status of India's farmers shows a worsening livelihoods crisis in rural India where the net farming income in majority of the Indian states has fallen to as low as Rs.4000 per annum in all states except Punjab, J&K and Assam. Other independent reports (Naveen Kumar, EPW, Dec 2003) mention high incidence of urban poverty (as high as 57% of the Delhi slum dwellers living in poverty).

improvement in rural areas of India. Lack of water availability is also a major problem in certain parts of India. It is possible that a combination of all the above-mentioned factors are operating that inhibit construction and usage of household toilets in rural areas of India, and hence need to be comprehensively addressed to provide sustainable health and hygiene benefits to the rural especially poor populace of India.

SECTION 1 Rural Sanitation

Increasing coverage

Government of India, over a span of two decades, has firmly put sanitation on the development agenda. Increased allocations, delivery guidelines, support to States have all been ensured over this period to ensure that sanitation facilities are provided to increased numbers. While around 80 per cent of the rural population remained without access to a sanitary latrine the coverage has increased from one per cent in 1981 to an estimated 35 per cent of population having access to sanitary latrines in 2005. But this achievement is undermined when compared to progress made by other neighbouring countries with low per capita incomes like Bangladesh and Pakistan who have nearly double the access to latrines.



Source: WDF and GDI central (August 2004)

It is also pertinent to note here that while the coverage has increased there is evidence of gap between “accesses” and “service” as these toilets are not being used. According to a survey of UNICEF (2004) toilet use is much lower than toilet construction especially amongst the BPL families. While only 40 per cent of the BPL households use the constructed toilets around 80 per cent of the constructed toilets are used by those above poverty line. Lack of awareness amongst communities on health and hygiene aspects, lack of participation in planning and implementation and poor demand generation has put in question the sustainability of investments as well as benefits expected to accrue out of this ambitious programme.

Increase Investment to Bridge Gap on Account of Increase in Incentive

Government of India has increased the per unit allocation for toilets from Rs. 625/household toilet to Rs. 1500 and from Rs. 1000 to Rs. 2000 – for the two types of toilet models in March 2006. As on 31 March 2006, TSC Projects have been sanctioned in 559 districts with a total outlay of Rs. 6240 crore. While per unit cost has been increased more than twice there has been only a marginal increase in the total TSC budget. It could therefore lead to a situation of a slow down in rural latrine coverage rate.

Though the GDP growth is five per cent and above a year, the deficit is high (costs to meet universal coverage). By a simple estimate around Rs. 50 billion is required in 2007, Rs. 45 billion each in 2012 and 2017 to meet the MDG of halving the percentage of population with access to household toilets. The threat to achieve MDG is compounded by the fact that the spending efficiency is dismally low. While substantial funds have been approved for states the rate of absorption and utilisation is abysmal.

Good Mix of Incentive along with Investment

The Total Sanitation Campaign of Government of India is a good initiative to eradicate the degrading practice of open defecation. To give a fillip to this initiative it has started a prize money scheme Nirmal Gram Puraskar for Gram Panchayats, Blocks and Districts for attaining open defecation free situation. There has been a tremendous increase in the number of Gram Panchayats declaring they are open defecation free. There is a need to continue this programme and revisit some of the awarded Gram Panchayats to learn the triggers and mechanisms employed to sustain the change.

Initiatives by communities, charismatic individuals, religious bodies and informal clubs – have also been rightly acknowledged and rewarded. This needs to be continued.

Need to Expand the Scope of NGO Involvement

Government of India has provisioned scope for involvement of NGOs in the TSC. However it has not defined the mechanism and terms of reference for their involvement. This has led to different interpretations by state governments with NGOs being involved minimally in the programme. In lack of a term of reference and description of activities to be performed by NGOs the opportunity to get best community mobilisations and creation of awareness on health and hygiene benefits of this programme is being undermined.

Prominent NGO initiatives and successes in rural sanitation by Ramakrishna Mission, Gram Vikas, MYRADA, PRAVAH network and AKRSP in Gujarat, Gramalaya, REEDS, SCOPE, IYD, Sambhav, SULABH, etc have proven the difference NGO involvement can make in a sanitation promotion programme.

NGOs in India have demonstrated successful combination of enabling factors that facilitate improved sanitation change. These include:

- Community awareness building
- Demonstration of low cost toilet options
- Community financing from SHGs and creating separate Sanitation Revolving Funds
- Material supply sources.

NGOs can also successfully supplement the efforts and contribute through the following:

- Demystifying and spreading awareness intensively about the TSC and Swajaldhara, along with the accessibility procedures
- Public hearings on the actual implementation of TSC to identify gaps, hurdles and the reasons thereof
- Community monitoring (for TSC, Swajaldhara and water quality).

This has led to communities getting involved not only in understanding these schemes but understanding them as part of their entitlements and demanding answers for the non-delivery of their entitlements.

Lessons Learnt

- Limitations of government schemes like TSC are manifest in the delivery of the scheme remaining as an infrastructure/latrine construction oriented. Exclusion of households from BPL list if they make a pucca latrine works against sanitation coverage goal. In some states community participation in TSC suffers on account of contracting out of toilet construction by the Panchayats⁵, delay in release of grants to the last quarter, routing of grants (Centre-nodal state departments-PRIs) causes delays and finally lack of capacity of the block and district level government staff.
- Low-cost sanitation option (single pit unlined) has worked in Medinipur. Here wage rates are lower and the low subsidy remains attractive. Absence of other conflicting schemes for sanitation, support from RKM, formation of registered cluster level bodies, a large cadre of youth groups and party affiliated cadres – provide the context to its success. For this to replicate in other districts of India will require an enabling environment (some of which like conflicting sanitation subsidies are

⁵ Feedback from a WaterAid India NGO partner in Bundelkhand, UP.

beyond control of NGOs) that is NGO led and is high cost. Few international donors and the government are interested in this.

- Public hearings are an effective form of reviewing progress of rural sanitation and water projects and programmes.
- Given a combination of economic, social and behaviour change factors affect sanitation behaviour change, working on any one of them alone does not work.
- Water availability constraint can add more burden on women for toilet water use and hence the rationale for integrated water and sanitation infrastructure even if it is high cost.⁶
- The community led total sanitation (CLTS) approach considers health and hygiene improvements outcome of increased sanitation coverage – as the core factor influencing/motivating/sustaining change at individual and community levels. Individual preferences of privacy, security and convenience for women, old and infirm are considered essential but not the deciding factors for sustained change in behaviour leading to open defecation-free villages. A rational understanding of health impacts of open defecation is thus a core requirement for community-led total sanitation (CLTS) behaviour change. But to what extent this can be pushed in caste and class divided Indian villages is not yet clear.
- Lack of convergence of various schemes on water and sanitation. High subsidy IHHL models in states like AP, Gujarat and TN do not help.
- Self-Help Groups (SHGs) are being supported by various government projects and schemes in many states in India. The role and engagement of SHGs in promoting sanitation will depend a lot on cheaper credit terms and their pro-poor approach to sanitation. Viability of rural livelihoods and ability to repay loans will also be critical given the state of farm incomes and farmer suicides, temporary wage employment in agriculture and migration for wage labour.

Recommendations

- 1) **Pro-poor approach:** Improve and expand poverty mapping and household demand assessment. Determine community preferences and tailor service delivery accordingly. Introduce appropriate standards for sanitation, in accordance with the economic capacity and social needs of each targeted community. Promote options and strengthen supply chain so that none are excluded or impeded from realising the benefits.
- 2) **Foster Accountability:** Social audit and transparency through community monitoring systems for large programmes like TSC. This

should be promoted and supported by Gol on an annual basis at block level.⁷

- 3) **Converge:** Convergence in sanitation component (approach, subsidy, community and NGO involvement) of government schemes and programmes. Government so far is responsible for only 67 per cent of what is attained. (TSC mid term evaluation). Recognise others' contribution and successful approaches.
- 4) **Expand the Monitoring System:** Deploy measurement tools to track outcomes, support regulation, and inform policymakers and consumers. Creating and disseminating knowledge on what works in local circumstances; improve communication and advocacy to set realistic expectations, address stakeholder concerns, promote awareness of beneficial impacts, and build broader, more enduring support.
- 5) **Institutional arrangement:** Panchayats are increasingly gaining responsibilities, but the transfer of financial and administrative authority is slow. Government officials rarely have the experience, capacity, inclination or patience to undertake the lengthy and participatory processes involved in most rural sanitation programmes. Building and strengthening local institutions to permit improvements in service quality and increased access. Engaging NGOs in sanitation campaign and projects of Gol as partners;
 - a. Create a window for a Small Grants Scheme of Central Government – for NGOs to access hardware and software funding support from Gol.
 - b. Commit to at least a 25 per cent share for NGOs out of all centrally and state sponsored sanitation schemes.
- 6) **Increase Investment:** Increase outlay for sanitation to at least 30 per cent for the total annual investment in drinking water and sanitation composite budget. Possible options for doing this could be to reduce allocation for ARWSP in a phased manner and shift the entire amount to TSC.
- 7) **Cheaper credit:** Reduced interest rates for loans from banks for SHGs focusing on water and sanitation.

SECTION 2 Urban Sanitation

The 2001 Census of India put the urban sanitation coverage at 61 per cent of the population having

⁷ SATHEE anchored social audits that culminated in public hearings. Jama & Boarijore blocks in Dumka & Godda districts respectively in Jharkhand brought to focus the gaps in implementation of TSC & Swajaldhara and generated discussions amongst the media and communities. Bowing to the public pressure the DWSMs admitted massive shortage in staff & inadequate communication flow as the prime reason for the gaps and wants to work with the communities to address the problems. But this needs to be institutionalised and communities' role in monitoring, along with NGOs mainstreamed

⁶ Gram Vikas model

access to individual or public toilets either connected to sewer or septic tanks or pit latrines and serviced latrines. This poses a huge danger of water contamination as the septic tanks are poorly maintained and pits are too close to water sources. Service latrines too pose serious risks as it is done manually and mainly by people from disadvantageous sections.

Unlike rural sanitation, urban sanitation does not suffer from lack of demand. Low coverage of urban sanitation has to do entirely with the inability of planned urban development to provide for sanitation access to the urban poor. Challenges in providing sustainable, affordable and improved sanitation services in urban areas are:

- Multiplicity of government departments and agencies involved in urban services, the non-implementation of the 74th Amendment on urban local bodies given the large and heterogeneous unit of urban self governance provision.⁸
- The unaccounted for urban slum population. Lack of sewerage connectivity affects as high as 72 per cent of the Indian urban population.⁹ This has translated in large infrastructure projects for sanitation and water for urban areas primarily financed by loans from bilateral agencies and problems of lack of community participation and sustainability.¹⁰
- Manual scavenging, despite a significant reduction in scale, continues to exist in many cities. Deaths, alcoholism and low wages – are rampant for the caste based division of labour.

Urban sanitation coverage depends on municipal funding and revenues. However for cities like Mumbai that are rich in terms of revenue but 54 per cent of its urban population is slum dwelling and suffers from inadequate water supply and sewerage facilities – **finances alone cannot achieve improved sanitation access**. However having said this estimates for urban water and sanitation are a staggering Rs. 53,719 crore or \$13 billion for only covering only 300 Class 1 cities with 100 per cent water and only 75 per cent sewage and sanitation facilities as per 1991 estimates.¹¹

Land is precious in large commercial metros and slum dwellers are being displaced in large numbers in Mumbai and Delhi under the rhetoric of clean city and Commonwealth Games. Displacement of slum dwellers is taking place at an accelerated rate without adequate facilities in the new sites (for more than a 1000 families shifted from Pritampura to Bawana

resettlement colony in April 2006, there is only one handpump and a tanker that comes once a week, open defecation as there are no toilets, no schools, no employment for the rickshaw pullers, maid servants, vendors, etc.)¹²

The Ministry of Urban Development, GoI, in Dec 2005, announced the **Jawaharlal Nehru National Urban Renewal Mission (NURM)** with an aim to create “economically productive, efficient, equitable and responsive cities” and one of the four focus points of NURM is ensuring “basic services to the urban poor including security of tenure at affordable prices”.

The Ministry has also constituted a national “Taskforce on Universal Sanitation in Urban Areas”. Two sub-committees under the Task Force have been set up under the Chairmanship of the Joint Secretary, Urban Development, one on a National Urban Sanitation Policy and another to formulate a campaign for open defecation free slums.

Toilet complexes in urban slums offer hope for improvement in living conditions for slum dwellers. There are two types of urban toilet complexes.

- **Public Toilets (PTs) in commercial areas** like markets, train and bus stations, etc are located in areas characterised by high economic activity. Work done by SULABH all over India and by Infosys in Bangalore in pay and use toilets in urban areas – falls in this category of private and NGO operations in PTs operation.
- **Community-Managed Toilets (CMTs)** are usually in low density slum locations, sometimes there is a commercial market yard close by but the distinctive feature is that there exists a slum dwelling community that uses and manages such toilets.

While both PTs and CMTs provide a vital service, there is a clear distinction in ownership and management. PTs can be run as commercial ventures by the government or sub contracted to private sector, while the CMTs should not be run as commercial ventures or contracted out.

There have been examples of **successful CMTs** in Trichy, Mumbai and Pune¹³ on a significant scale and on a smaller scale in many towns and cities of India. With the collaboration of the municipalities and local NGOs working in these cities, the poor quality public toilets were transformed into model CMTs that are managed by local women groups and not by the

⁸ Profiling the Informal City of Delhi; WaterAid India study 2005

⁹ Mid term review of Ninth Plan, 1997

¹⁰ India takes non concessional loans from the Asian Development Bank, among other loans, for urban water and sanitation infrastructure development

¹¹ Reply of the Minister of State for Urban Development Sh. Ajay Maken to the Lok Sabha Unstarred question # 2676; dated 17 March 2006

¹² Fact-finding team report of a three-member team of Kislay, Delhi Shramik Sangathan and Ashok Aggarwal, 26 April 2006

¹³ The Pune Municipality along with NGOs, SPARC and Shelter Associates has comprehensively dealt with the city-wide sanitation through CMTs: Actualisation of an idea of city-wide sanitation with people's participation

NGOs. NGOs like SPARC and Gramalaya have led this initiative.

Lessons learnt

- Even though slum sanitation improvement is a sure vote-catcher for politicians, it is not being implemented in the spirit of Community-Managed Toilets because opportunity for corruption and money laundering is minimal.¹⁴ Hence contracted public toilets are a preferred option.
- The government alone can play a leading role in urban water and sanitation infrastructure development. New programmes like JNNURM will hopefully engage with NGOs and civil society to ensure that infrastructure development helps the urban poor. However the criticism that JNNURM offers a blank cheque for urban infrastructure development that could lead to raising of dubious taxes, loans and grants from the central government and hence a misutilisation of government revenues, is worrying.
- Sanitation facilities in public areas need improvement in maintenance and strict compliance.
- There is no clear-cut policy and commitment to providing improved public sanitation services in congested commercial and office locations in India. Public toilets are being built as contracted out (these are further sub-contracted) profit making units with little consideration of norms on location, distance and access for the working urban population. Used as billboards, these are increasingly being used for purposes other than providing sanitation services to those who need them.
- Drainage, waste water run off and solid waste management are also appearing as major hygiene and health issues affecting the poorest slum dwellers.
- Estimates of urban slum populations are also under-estimated for most cities. Slum populations mostly reside on public or private encroached lands and are not counted among the city population. While the slum populations prominently figure on the electoral lists of most political party MLAs and MPs (and from here the extent of slum population can be deciphered for a city), large slum populations in Indian cities do not figure on the city maps and are denied an official address.
- Affordability is also emerging as a concern in the large metros (even though most small and medium towns in India still do not charge for water and sanitation services). The concept of lower lifeline tariffs for water and sanitation for

slum dwellers (lower than the standard tariffs for the rest of the colonies), does not exist for most metros except for Bangalore Utility (BWSSB).

- For Community-Managed Toilets to succeed, a supportive environment will have to be provided by the municipalities. Levying of commercial rates for electricity and water charges is an anti-poor measure when applied to CMTs that serve the poor slum community. Recent hikes in electricity charges are making some of the best CMTs unviable.¹⁵
- While the Government of India initiatives in urban sanitation are focused on infrastructure investments, major lacunae identified in mega urban infrastructure projects are:¹⁶
 - ♦ Mapping of all slums is not done for these projects, leading to exclusion of the poorest slum dwellers from large public investments (often taken as loans).
 - ♦ Over design and high-cost options in place of low-cost options. This adds to the loan burden and then higher tariffs for users. Engagement of community in decision making on investments is limited.
 - ♦ Drainage improvement is not done in tandem with sewerage connectivity.
 - ♦ Engagement of NGOs is not done in a transparent and effective manner (contracting of NGOs and local NGOs being ignored). It leads to lower community participation.
 - ♦ Limited capacity of Urban Local Bodies.

Recommendations

1. Mapping of all slums in a city whenever a large infrastructure project on water and sanitation is launched with government or donor or International and National Development Bank funding support. Already recommended under NURM to start with where major investments under water and sanitation are envisaged.
2. Amendments to the 74th Amendment to make smaller and viable units for local governance in urban centres. The current urban municipal wards are too large as units for local self governance.
3. Provision for lower connectivity charges and a lower minimum water charge for the slum dwellers, lower than the rates for the regularise colonies.
4. Promotion and prioritisation of Community-Managed Toilets (CMTs) under guidelines from the Government of India to the states and municipalities, as pro-poor policy directions. Developing clear guidelines and norms for support from central government where CMTs under a

¹⁴ Mentioned by Mr. Ratnakar Gaikwad, ex Commissioner of Pune Municipality in response to a question during the Water Day 2005 Meet in Delhi organised by WaterAid India

¹⁵ Community-led Urban Sanitation in Trichy – Case Study by WAI

¹⁶ Based on the ADB Water Policy Implementation Review, 2006. Conducted by WaterAid India. Examples of high cost and ill designed infrastructure, low participation of urban communities in design – were evident in projects in Karnataka

Programme as part of the TSC. These norms should include:

- Investment in new or upgraded physical infrastructure of CMTs to be borne by the central and state government.
 - Women Self-Help Groups to manage the CMTs.
 - O&M cost recovery options to consider reduced or deferred rates of recovery from SHG-managed Community Toilets. Electricity and water charges should be borne by the municipality for the first five years and thereafter at a reasonable charge where there is a surplus. A central government grants scheme to be instituted to support this scheme.
 - The design of assets to take into account the projected population than actual population.
 - Child-friendly and old and disabled-friendly toilets to be promoted.
5. Individual household toilets and not public or community toilets when slums are relocated. Provision be made in alternative housing for slum dwellers for individual toilets when considering the size of a plot or a flat when there is a forcible relocation of slums. Only when there is an in situ upgradation of slums and/or when there is a constraint of space – community toilets be considered.
6. Creating a window for NGO support to Community-Managed Toilets under an NGO support project of Gol Small Grants Scheme for credible NGOs working on a non-profit basis for urban water and sanitation. With the understanding that management of CMTs will be with the SHGs and Women Federations and not with the NGOs. The role of NGOs will be for the following:
- Support for capacity building, training, community/slum mapping and urban appraisals and awareness raising in slums or unauthorised colonies where Community-Managed Toilets potential exists.
 - Research and advocacy, campaigns and documentation.
 - For creating a water and sanitation fund identical or a sanitation fund to be created for slums as a revolving loan fund to support community and individual household latrine construction and for accessing connections/ improved service levels.
 - Training of SHGs and their federations on operation and maintenance, accounting and others.
 - Experimentation on technologies – Ecosan models and solid waste management using DEWATS.
 - Support city-wide forums and networks of slum dwellers for monitoring of the status of basic amenities in their areas¹⁷. In place of a pro-poor people's urban forum representing slum dwellers, we have powerful (but legally unrepresentative as per the 74th Constitutional Amendment) Resident Welfare Associations representing the middle and upper classes that are currently exercising more power.
7. Sanitation facilities in public places need clear norms to provide services to the cities and stricter compliance.
8. A government recognition and award scheme for 100 per cent open defecation-free slums on the line of Nirmal Gram Puraskar Yojana. To reward well performing community groups, NGOs and federations involved in city wide sanitation work in slums.
9. Manual scavenging
- There should be a time-bound strategy to bring this to an end and to train the workers, so displaced, on machines to be used for sewer cleaning.
 - Use of equipment and machines that makes this work safe for the workers.
 - A reformulation of low cost urban sanitation scheme for abolishing manual scavenging with subsidy and loan components for smaller towns and cities.

SECTION 3 School Sanitation

School sanitation has assumed rightful priority as every 30 seconds in India, a child dies of diarrhoea, according to WHO and about 0.6 – 0.7 million children die of diarrhoea annually (Min. of Health and Family Welfare). Children suffer most from water-borne diseases, as demonstrated by the high under-five child mortality in the country of 95 per 1000, as reported by NFHS-II (National Family Health Survey) (Gol 1998). There has been a serious response to this national priority through state governments drawing ambitious plans for universal coverage of schools in their state. Schools need to be specially targeted, as children have proven to be effective change agents for generational change on hygiene behaviour. Out of the approx. 1.2 million government schools in India, coverage for sanitation as on 31 March 2006 exceeds 50 per cent schools with sanitation facilities. Funds ranging from five per cent up to 15 per cent of the Total Sanitation Campaign budget are earmarked for hygiene promotion and education.

Provision of sanitation facilities in schools and other public spaces requires special attention. Though huge progress has been registered in terms of creating water and sanitation facilities in schools, in large numbers of schools, sanitary and hygienic conditions are appalling,

¹⁷ The WaterAid Study: Profiling Informal City of Delhi, 2005 has highlighted the absence of a people's forum or a citizen's forum, as a major gap in improving the micro-environment of slum dwellers

In Rohtas district of Bihar State in India, only 59 per cent of schools have drinking water facilities and 11 per cent have toilets. A study undertaken in this district suggests that to enhance the enrolment of girls, it is necessary that the parents and the girls themselves are motivated. Key motivating factors include providing mid-day meals, free teaching learning materials and aids, and constructing drinking water and toilet facilities.

Adapted from: IRC International Water and Sanitation Centre (1997), Gender in Education and Training for Water Supply and Sanitation: A Literature Review, unpublished.

characterised by the absence of properly functioning water supply, sanitation, and hand washing facilities. Special provision to ensure separate toilets for girl children is crucial. Adequate attention needs to be paid in terms of construction quality, design elements, student to facility ratio apart from ensuring that it has facilities for physically challenged children. Hygiene, sanitation, and water in schools can create an enabling learning environment that contributes to children's improved health, welfare, better attendance of girl children and learning performance.

An important effort to bring about behaviour change in children was experimented through promotion of child-friendly toilets by SPARC and WaterAid in urban toilet complexes.

Lessons Learnt

- Investment in children as change agents and health ambassadors has shown remarkable results in persuading the family and community to build toilets and adopt appropriate sanitation behaviour.¹⁸
- The absence/inadequacy of toilets in schools, particularly for girl children is a major challenge to educating the girl child and in using the school as a catalyst for hygiene and sanitation.
- School sanitation is located in the Department of Rural Development, not with Education or Health, with their greater experience/emphasis in understanding of social processes. The nodal agencies for watsan are thus engineer-driven PHEDs and agriculture-oriented Departments of Rural Development.
- Many private and aided schools in India that are catering to a large number of children, do not get the benefit of subsidy. This exclusion should end.
- School teachers' perspectives, their constraints and difficulties need to be taken into account when considering improved sanitation. Monitoring should be done where teachers do not work or attend school or lock the toilets meant for children.

- Target schools (both urban and rural) as catalysts for change toward hygiene and sanitation. This demands convergence among authorities (including those concerned with Health and Education) rather than the reliance on one authority (as today on India's Departments of Rural Development). Technologies and financial mechanisms must respect the special needs of girl children, and the importance of functioning toilets (with water supply) if hygiene education is to be credible.
- Establish local institutions/systems for monitoring O&M of school toilets and participating in this responsibility in a manner that does not discriminate between gender, caste and social class.

Recommendations

1. **Continued priority to school sanitation:** School Sanitation and Hygiene Promotion be accorded utmost priority. India can reach universal school sanitation coverage if the focus and priority is maintained. There is a need to ensure that school sanitation blocks are of good quality, with adequate facilities separately for boys and girls and necessarily supplemented with running water at the toilets and urinals.
2. **Increase the ambit of school sanitation:** Subsidy that is available for school toilets to government schools in rural areas must also be provided to private schools also, both in rural and urban (slum schools/non-formal education centres) areas.¹⁹
3. **Establish norms and guidelines for school sanitation:**
 - i. Provide flexibility in design choices. Ensure that schools have a sound ratio of pupil to facility. Currently most of the toilets have uniform facilities despite variability in number of pupils. Ensure access for disabled children.
 - ii. Ensure gender sensitivity. Appropriate and sufficient toilets for girls with norms that include a higher number of units for girls as compared with boys.
 - iii. Ensure child-friendly, gender-friendly designs with safe and secure access.
 - iv. Ensure water availability through appropriate design and water harvesting/storage options. It is found that toilets with running water facilities are best used. Force and lift pumps have acted as a good source of water in toilets.
 - v. Facilitate access to capacity building for mothers/parents/teachers, using IEC mechanisms.
 - vi. Review existing school curricula to ensure that hygiene education is practical.

¹⁸ Ruchika case study demonstrates children's capacity as change agents for sanitation

¹⁹ Ruchika Slum School case study

SECTION 4 Gender and Social Exclusion

Gender and sanitation

As sanitation policies evolve, the approach to gender remains the same – ‘involving women in pre-determined project activities’. There is a need to see how:

- Unequal social relations affect household decisions about investment in infrastructure
- Cross-cutting social, political and economic hierarchies affect the established exclusion of the more disadvantaged from formal and informal governance structures, both within and beyond urban poor households
- Planning reinforces and is shaped by gender relations.

Gol is signatory to the Beijing Platform for Action to uphold the rights of women and girl children. The rights of the girl child, which have been in focus since the Beijing Conference in 1995,²⁰ should include access to appropriate and adequate sanitation. It is against human dignity and well being that girls in some parts of the world have to face a lifetime of discomfort, lack of privacy, indignity, ill-health and other risks associated with systems where they are forced to urinate and defecate in open sites away from the community and only at specific, limited times. It has also been known for some time that lack of adequate sanitation facilities, in particular from a privacy perspective, have implications for the education of girls. Parents are reluctant to send their girls to school in some parts of the world where school-level sanitation is inadequate. Therefore sanitation should be promoted more widely in the interests of the girl child.

Most water and sanitation project interventions that consider the needs of women, adolescent girls and girl child are seen as gender interventions, which is not appropriate. There are limitations of any sector specific project or programme to handle a complex and challenging task as gender. Initiatives of Tamil Nadu Government on promoting sanitary napkins production by women SHGs and supporting women’s sanitary complexes in rural areas as well as in slums – are good examples of commitment from the state government to address needs of women and need to be appreciated.²¹ Few other state governments have done this.

More conscious effort in differentiating between women focused needs and gender sensitisation is required.

Socially Excluded People’s Rights to Sanitation

Even after more than half a century of Independence, the practice of manual scavenging exists. This is the

most dehumanising labour that a particular section of the Scheduled Castes is forced to perform. India has passed a legislation in 1993 prohibiting manual scavenging, which requires that state governments demolish the dry toilets that exist, so that the manual scavenging occupation can be abolished, and the community is encouraged to look for other occupations. Manual scavenging occupation does not just destroy the dignity of the person, but also poses major health hazards.

In India even today there are a large number of manual scavengers. According to official estimates, the number of manual scavengers in the country according to the Ministry of Social Justice and Empowerment for the year 2002-03 was 676,009. The highest number of manual scavengers is in Uttar Pradesh (149,202) followed by Madhya Pradesh (80,072) and Maharashtra (64,785). Delhi alone has a population of 17,420 manual scavengers. As usual, official estimates in such cases tend to be lower than the actual. The actual figure would be more than 1.300 million. It is likely that the private manual scavengers have not been taken into account in the official estimate. According to an estimate in the year 1989 there were 72,05 lakh dry latrines in the country and by 31 January 2000 this number increased to 96 lakh. They are still being cleaned manually by scavengers belonging to the Scheduled Castes. Under the Ministry of Urban Employment and Poverty Alleviation’s Low Cost Sanitation Project, between 1980 to 31 October 2005, 2.078 million toilets were constructed and only 45,447 manual scavengers liberated.²²

The provision of water and sanitation for other marginal groups including tribal populations in many parts of the central and eastern Indian states suffers from poverty and malnutrition as major factors inhibiting improvements in infant mortality rates and life expectancy. Where food insecurity is high, messages and programme interventions for improved sanitation and hygiene promotion are difficult to communicate.

Disabled, old and infirm are other segments of the population whose needs for convenient and accessible sanitation are never prioritised and who suffer the most on account of immovability. Incentives and suitable seat latrines need to be provided for, in all public and community managed toilets in urban areas. In rural areas, the community will have to take a lead in addressing this challenge.

All programmes and sector agencies (water and sanitation) will need to work harder to ensure that the women and socially weaker sections are not excluded from any interventions.

²⁰ United Nations Beijing Platform for Action 1995

²¹ Leaders in Change: Women and Sanitation

²² Reply to the Lok Sabha Unstarred Question No. 2892, 13.12.2005, DDWS website

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List of WaterAid partners in India whose work, experience and inputs have contributed to enriching this paper

S.No.	Name of the partner	S.No.	Name of the partner
Southern region		Eastern region	
1	APSA	23	SHRMS
2	REEDS	24	SAI
3	MARI	Western region	
4	SVYM	25	Sambhav
5	Gramalaya	26	Dharti
6	AWED	27	Kalpataru Vikas Samiti
7	DSS	28	MGSA
Eastern region		29	PSSS
8	LJK	30	Vanvasi Chetana Ashram
9	OSCARD	31	SEWA
10	NBJK	32	VSS
11	SATHEE	33	SAMARTHAN
12	JJS	34	HARITIKA
13	GSSG	35	AARAMBH
14	RUCHIKA	36	ASA
15	IDF	37	ABHIYAAN
16	ADITHI	38	Gramonnati Sansthan
17	Gram Jyoti	39	HBM Hospital
18	JVS	40	PARMARTH
19	BJUP	41	LSS-Durg
20	VS	42	LSS Raigarh
21	Lok Prerna	43	Sankalp
22	IYD		

1. Sanitation for the Poor Urban Slum Dwellers: Tiruchirappalli City Shows the Way

Gramalaya and WaterAid

The 2001 Census of India put urban sanitation coverage at 61 per cent of the population having access to individual or public toilets. Unlike rural sanitation, urban sanitation does not suffer from lack of demand. Low coverage of urban sanitation is due to the inability of planned urban development to provide for sanitation access to the urban poor.

Challenges in providing sustainable and affordable sanitation services in urban areas are:

- Multiplicity of government departments and agencies involved in urban services
- Non-implementation of the 74th amendment on urban local bodies given the large and heterogeneous unit of urban self governance provision
- The unaccounted for urban slum population and failure to connect slum communities to city-wide infrastructure
- Manual scavenging, despite a significant reduction in scale, continues to exist in many cities.

In recent months a number of national initiatives has been taken to begin to address this crisis. The Ministry of Urban Development in December 2005 announced the Jawaharlal Nehru Urban Renewal Mission (NURM) with an aim to create “economically productive, efficient, equitable and responsive cities”. One of the four focus points of NURM is ensuring “basic services to the urban poor including security of tenure at affordable prices”. The Ministry has also constituted a national Taskforce on Universal Sanitation in Urban Areas. Two sub-committees under the Task Force have been set up – one on a National Urban Sanitation Policy and another to formulate a campaign for Open Defecation-Free Slums.

Tiruchirappalli Shows the Way

In the city of Tiruchirappalli, Tamil Nadu, an experience exists which shows a way out of this crisis. The Tiruchirappalli model of community-managed toilets with bathing and washing facilities is an example of a partnership of sensitive city authorities, communities and NGOs, working together to address these problems. The work undertaken by these partners over the last six years has demonstrated how this can be taken to scale at a city level. Within the next two

years it is expected that all slum communities in the city will be covered.

Tiruchirappalli, located in Tamil Nadu, India, has a population of around 750,000, of which 23 per cent live in 211 approved and 75 unapproved slums. Seventy-eight per cent of residents have access to a Tiruchirappalli City Corporation (TCC) water supply, and rich water resources are available from the Cauvery river and a high water table. Sanitation coverage is reported at 70 per cent with many households using septic tanks, due to low coverage of underground drainage, less than a quarter of households connected.

There are 339 community toilets in the city, around half of which are now managed by communities. Since 2001 most of the community toilets constructed have been Integrated Sanitary Complexes built under the Tamil Nadu Urban Development Programme. Connection charges in the state are high, Rs. 9,000 for water and sewerage, and a barrier to connection by the poor. TCC priorities WSS with over a quarter of its budget allocated to this sector.

This paper is an attempt to take stock of the achievement in Tiruchirappalli over the last six years and draw lessons for building on this success in Tiruchirappalli through the existing partnerships and introducing the model in other cities. The paper is based on primary research undertaken in July 2006 by Gramalaya and WaterAid staff from India, Nepal and Bangladesh, with the support of officials from Tiruchirappalli City Corporation.

Community Toilets in Tiruchirappalli

The first community toilet was built in Tiruchirappalli in the 1970s. In 2006 there are 339 community toilets. In 2000 a group of NGOs supported communities to renovate and take over management of their toilets. Now, over half of the toilets are managed by communities, the rest being managed by TCC. Toilets managed by TCC are free to use, and cleaned by corporation staff. Forty-one of the toilets managed by communities are supported by Gramalaya and the WAVE federation. In these communities Self Help Groups (SHG) join together to form a Sanitation and

Hygiene Education (SHE) team who manage the toilet on a pay & use basis, charging Rs. 0.50 for defecation and Rs. 2-3 for bathing and washing. SHE teams use a token system, book keeping and common bank accounts to maintain transparency. Other community toilets are managed by SHGs, sometimes with support of NGOs. These are also run on a pay & use system but without the tokens and records of accounts.

On an average there are about 20 seats in each toilet and toilets managed by communities have seats for children and facilities for washing and bathing. Hand washing facilities (basins and soap) were not found in toilets managed by TCC whereas in WAVE-supported toilets these are available and soap, shampoo, etc. can be purchased. Most toilets depend on groundwater and have overhead tanks. This provides a sufficient water supply but results in high electricity costs. Most toilets are linked to the underground sewerage network, but many rely on septic tanks. One toilet is successfully piloting a Decentralised Wastewater Treatment System (DEWATS), which is managed by SHGs and where the wastewater is used for livelihoods in a commercial kitchen garden.

The Benefits of Community-managed Toilets

WAVE communities reported many far-reaching benefits resulting from taking over management of their community toilets.

Improved clean environment and access to a toilet– from a situation where women wandered the city looking for an open space to defecate, their communities are now open defecation-free and there is a proud sense of cleanliness and well being in the communities.

Hygiene and health improvement – the disease burden and household expenditure on medication have both reduced dramatically.

Women’s empowerment – women leaders have the confidence and skills to solve community and family problems and manage finances. The women also know how to access the government machinery and lobby for improvements in the communities.

Opportunities for employment – the CMTs provide employment for all SHG members on a rotation basis and a few community members on a permanent basis.

The Role of Stakeholders in Supporting Community-managed Toilets

A number of stakeholders have been involved in supporting the community-managed toilets.

- **TCC staff** monitors the conditions in the toilets, although not always regularly, empty septic tanks and cover the electricity cost in some toilets.

- **WAVE** monitors the financial viability of its member CMTs and provides advice on management and loans where needed. It also runs a store of cleaning materials and lobbies with the city authorities on behalf of the SHE teams.
- **Gramalaya** establishes SHGs and supports them to take over management of their toilets. It also gives hygiene education and promotes open defecation-free zones as well as supporting the development of WAVE.
- **Other NGOs** provide some support to SHGs to manage toilets and some provide hygiene education in communities.
- **Ward councillors** monitor the status of CMTs in their area and request TCC to undertake maintenance when needed.

Current Status of the Community Toilets in Tiruchirappalli

Based on the survey findings, on average around 500 people are using each community toilet per day. This means that throughout the city around 170,000 people, or a fifth of the population, could be using these facilities. All the 61 toilets visited were in use but there were some differences between the toilets managed under different models.

Many of the toilets managed by TCC were found to be dirty and in a poor state of repair, sometimes soon after renovation/construction. Some toilets were reported to be abandoned. According to TCC, lack of manpower, resulting from a ban on hiring more staff, is the cause for poor maintenance. Toilets managed by WAVE SHEs were clean and well managed. Three-quarters of these communities have been declared as open defecation-free zones. Toilets managed by other SHGs and NGOs fall somewhere between these two extremes and these communities have not yet been declared open defecation-free.

Septic tank management is a major problem. Most septic tanks function as holding tanks and many require frequent emptying, which is not possible due to TCC having only two desludging tankers. The result is that many tanks overflow into open drains and because of this some toilets have to be closed.

Financial Viability of Community-managed Toilets

TCC-managed community toilets are a drain on TCC resources; users do not pay yet salaries of cleaning staff must be met. Communities managing their own toilets face a careful balancing act of raising sufficient resources to keep the facilities clean and functional, while keeping fees affordable to poor users. Financial viability is arising as a concern to sustainability, with the WAVE federation supporting some CMTs through loans.

The only income for CMTs is from user fees, hence income is entirely dependent upon the rate of user fees and number of users. The average monthly income in CMTs is Rs. 6,000 but this masks a range of Rs. 510 (CMT in Nanthavan Store, a residential area, with 10 seats and no bathing and washing facilities, and 34 families paying a monthly rate of Rs. 15) to Rs. 20,600 (CMT located in Kalmandhai, a commercial area where the toilet is used by both residents and passers-by, with 37 seats, bathing facilities, and 1,600 users per day). The study did not examine the proportion of income from bathing and washing facilities, however adding these facilities may be one way to increase income.

Average total expenditure in CMTs was found to be Rs. 4,800, ranging from Rs. 500 to 15,700. The main expenditures are on staffing, electricity charges, cleaning materials and repairs. Staff salaries are minimal and cannot be reduced. Electricity charges are high due to use of electric pumps for water supply. When first handed over to community management TCC paid electricity charges. TCC then decided to pass on these charges in some toilets where revenue was perceived to be high. WAVE and ward councillors have secured exemptions in some toilets and currently 65 per cent pay their electricity bills. Cleaning materials are sourced through a store run by WAVE at very cheap rates. Repair bills, often to electric pumps, are irregular and lumpy and communities with smaller toilets are forced to take loans to cover these costs. Recently TCC has required some CMTs to hire sweepers to clean the area around the toilet. This is costing up to Rs. 1,200 per month and is a burden on smaller CMTs.

Analysis of the income/expenditure ratio shows that CMTs with less than 200 users per day (10 per cent of WAVE CMTs) are operating around or below the break even point (ie regular expenditure is greater than income). For these toilets, covering electricity charges is not viable. CMTs with 200 to 500 users per day (30 per cent of WAVE CMTs) are barely above the break even point and are therefore not likely to be able to cover lumpy maintenance costs.

Emerging Challenges to Sustaining the Benefits of CMTs

In addition to these financial challenges, six years into their life, CMTs are facing a number of challenges to their sustainability and to further scaling up of the approach throughout the city. Some of the major challenges are highlighted here.

Political – local politicians pressurising TCC officers not to transfer ‘free to use’ toilets to pay & use community-managed toilets; how to provide sanitation services to people living in unapproved slum communities.

Administrative – delays in TCC decision making and frequent change of officials; lack of processes for TCC

to monitor the growing number of CMTs; getting the balance right between constructing new ISCs (under the TNUDP) and renovating abandoned TCC toilets.

Technological – managing sewage and improving the open drainage system throughout the city to maximise health outcomes of CMTs; introducing innovative and energy-efficient technology in CMTs to save costs; shifting focus of NGOs and TCC from promoting open defecation-free areas to totally sanitised areas.

Social – managing resistance from sweeper communities whose livelihood opportunities with the TCC are being reduced by CMTs; Backward Caste users are refusing to share toilets with users of Scheduled Castes.

Conclusion – community-managed Toilets, Supported by City Authorities, Lead to Health Slum Communities

The review of community-managed toilets in Tiruchirappalli, six years after the work began, has shown that communities can manage their own toilet units, when they do this the toilets are much cleaner than when managed by TCC, and entire communities can be declared open defecation-free. Achieving clean and healthy slums does not require huge financial investment; it requires a city authority sensitive to the problems faced by slum communities and supportive of community action, dedication of communities and their support NGOs. Managing their toilets leads to empowerment of women with many positive impacts in terms of personal and community development.

After initial reluctance, communities do pay for using toilets and services can be provided at affordable costs, even for the poorest. Financial management skills, systems for transparency and a focus on hygiene education are key elements for the success of CMTs and NGOs should build capacity of SHGs in these areas. Financial sustainability of community toilets is dependent upon the number of users and smaller toilets require support to be viable. City authorities should provide this support because community management of toilets saves them money.

Ensuring sufficient and affordable water supply in all CMTs is a concrete step city authorities need to take to maintain hygiene standards and financial viability. Toilets are only part of the sanitation solution. Sewage, waste water and solid waste management must also be tackled and city authorities must play a lead role. Where land is available community-managed solutions such as DEWATS are feasible.

Tiruchirappalli shows the way – community-managed toilets is a model that can work at a city level when supported by city authorities. It offers a model that can be adapted and introduced in many other cities.

Recommendations for Sustaining Benefits and Scaling up

The paper makes a number of recommendations for sustaining the benefits of the CMTs and scaling up this model within Tiruchirappalli and beyond.

Recommendations for reducing costs in CMTs

– given that financial viability is a major challenge to sustaining benefits, actors in Tiruchirappalli need to take actions to reduce running costs in CMTs.

S.N.	Recommendation	Made for
1	Make CMTs energy efficient through energy audits and promoting energy efficient technologies	TCC Gramalaya
2	Manage electricity costs – by training SHE groups on the electricity tariff structure and encourage prudent management to avoid jumping slabs	TCC WAVE
3	Exempt electricity charges in low income toilets	TCC
4	Promote water conservation measures in CMTs – fixing of leaks, awareness on value of water by users and cleaners	TCC WAVE
5	Train SHE teams on technical aspects of CMT maintenance, including septic tank management, to reduce maintenance costs	TCC Gramalaya
6	Undertake major repairs in all CMTs	TCC
7	Conduct thorough analysis of income and expenditure and consult with community and WAVE before requiring SHE teams to employ sweepers for cleaning around CMTs	TCC
8	Train all SHGs on token system and keeping records and accounts	TCC WAVE

Recommendations for increasing income in CMTs–

another way to improve viability is to increase income. The following recommendations are made in this regard.

S.N.	Recommendation	Made for
1	Where monthly card system is used, monthly fee should be at least Rs. 20 to ensure financial sustainability. Where affordable pay & use token system should be introduced	WAVE
2	Introduce income-generating facilities in CMTs eg pay phone, petty shop, photocopy	WAVE
3	WAVE to run a septic tank cleaning business – TCC to support	TCC WAVE

Recommendations for maintaining standards in CMTs– simply handing over responsibly for management of toilets to communities are no guarantee that services will improve. Actors need to play a number of roles with regards to monitoring performance and supporting communities to take on this responsibility so that standards are maintained.

S.N.	Recommendation	Made for
1	Ensure all CMTs have access to sufficient, affordable water to maintain hygiene and offer bathing and washing facilities	TCC
2	Provide financial support for adding bathing and washing facilities to CMTs and provision of adequate and affordable water supply	TCC
3	Review and strengthen hygiene education component of programme intervention	Gramalaya NGOs
4	Introduce disabled-friendly and menstrual hygiene facilities into the design of ISCs	TCC TNUDP
5	Develop Guidelines for Community Management of Toilets and Bathing & Washing Complexes and a system for monitoring performance against the guidelines	TCC WAVE WaterAid
6	Agree criteria to be used in declaring an area open defecation-free and totally sanitised	TCC WAVE NGOs
7	Review and strengthen systems for maintaining the entire family of CMTs. This will include cross-subsidisation measures for low income CMTs	WAVE
8	Establish systems for coordination between NGOs, TCC and elected representatives regarding CMTs	TCC WAVE
9	Immediately address sewage outlets from CMTs into open drains	TCC
10	Improve open drainage in areas where solid waste problem has been addressed by communities.	TCC

For reaching total sanitation in Tiruchirappalli and beyond – Tiruchirappalli City Corporation, the NGOs and the communities in Tiruchirappalli have shown how sanitation problems in slum communities can be improved in a sustainable manner. This model now needs to be scaled up throughout the city and introduced in other cities throughout India.

S.N.	Recommendation	Made for
1	TCC to commit to supporting the WAVE federation and other local NGOs to take on management of community toilets and draw up plans for expansion of CMTs all over the city slums, including in unapproved slums	TCC WAVE NGOs
2	Provide infrastructure, community toilets, household toilets, UGD connections and water supply, to unapproved slum communities	TCC
3	Reduce connection charges to promote household toilets	TCC
4	All City Development Plans under the National Urban Renewal Mission should include CMTs with washing and bathing facilities as a core pro-poor intervention and at least 20 per cent of budgets should be allocated for addressing sanitation and hygiene needs of poor slum communities.	NURM
5	Lobby for government to adopt the Guidelines for Community Management of Toilets and Bathing & Washing Complexes	WaterAid Gramalaya

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2. A Pledge for Achieving Total Sanitation with People's Participation

The Medinipur Experience, West Bengal, India

Anjal Prakash and Manabendra Bhattacharjee

Introduction

East and West Medinipur districts in West Bengal, India are set to achieve the goal of 100 per cent household sanitary toilets in all its blocks by end of 2005. There are many facets that have contributed to this accomplishment but the key factor is the close coordination of district and block panchayats, NGO participation, intensive information, education and communication [IEC] activities, demystification of toilet technology and close facilitation and technical support by UNICEF. Further, it was strongly supported by state-level policies, political commitment and climate for achieving total sanitation, timely fund allocation, close monitoring and coordination by the special purpose vehicle called the State Sanitation Cell. This case study traces the above factors to look into aspects that led to the success of rural sanitation programme in east Medinipur district.

Basic Features of Medinipur

West Bengal ranks fourth among states in India that has highest population after Uttar Pradesh, Maharashtra and Bihar. According to 2001 Census, West Bengal inhabits more than 80 million people with population density of 685 per square kilometre.



Undivided Medinipur district is one of the most densely populated districts of India with 9.6 million people and also comes under top four districts in India with highest number of Scheduled Caste population (1.5 million). In 1990, latrine coverage in rural households of undivided Medinipur was only 4.74 per cent. In March, 2005 it has been increased to 90 per cent. Rural household toilet coverage has increased in East and West Medinipur to 98 and 82 per cent respectively (RKMLP, undated).

Genesis of the Demand-Driven Sanitation Programme in West Bengal

The Ram Krishna Mission Loksiksha Parishad (RKMLP) is an NGO actively involved in sanitation promotion in various locations of West Bengal. In 1981, as part of the Integrated Child Development activities, RKMLP started the sanitised toilet programme in Arapanch area in Sonarpur block in South 24 Parganas district of West Bengal with technical and partial financial support from UNICEF. As part of the agreement, UNICEF supported 60 per cent cost of household two-pit latrine up to plinth level. RKMLP mobilised the beneficiaries to contribute the full cost of superstructure and 40 per cent cost for latrines till plinth level. Through this approach, 250 latrines were installed in one year. The programme developed rooted advocacy approach and community contact drive to create a demand for construction of household latrines in the area. For the second phase of the project UNICEF showed constraint of funds, which prompted RKMLP to discuss this issue with the community. They proposed that if the households

share 60 per cent cost for construction of latrine up to plinth level and full cost of superstructure, then with the available resources of UNICEF all the 350 families could be covered in the village. The village agreed for the same and the programme was implemented. For RKMLP and UNICEF, the learning was that the sanitation facilities can be promoted without subsidy if IEC activities are carried out and low or no subsidy can cover all the families in any specific village independent of their economic or social status.

With this strategy, RKMLP planned a no-subsidy household latrine construction programme in ten villages each of North and South 24 Parganas and Medinipur districts with financial support from UNICEF in 1985. Till 1987, 349 household latrines were installed where beneficiary families shared full cost for latrine installation. During the International Water and Sanitation Decade (1981–90), West Bengal was selected as one amongst the seven Indian states to start Intensive Sanitation Programme. But the mid-term review of the programme in 1985 revealed that the state governments could not make much progress in sanitation coverage. UNICEF being one of the partners, requested RKMLP to take up a district in West Bengal based on its earlier experience. Medinipur district was thus selected for intensive sanitation programme.

The Approach of the Medinipur Model

The Medinipur model changed the way sanitation intervention was conceptualised in West Bengal. Many facets of the model made policy makers and planners rethink the way it was carried out in past. Some of the salient features of the Medinipur model are listed below.

Demand-Driven against Supply Driven

Unlike the usual supply driven, the Medinipur programme was based on demand-driven approach. This demand was generated through intensive, area-specific and time-bound IEC and social mobilisation campaign that generated need for toilets among households. The targets were not only the communities but also the functionaries in local administration, panchayat and NGO/CBO. These personnel were given training in different aspects of sanitation for capacity building.

Self-Financed Sanitation without Subsidy against High Subsidy

The programme was designed without any provision of subsidy for the construction of household latrines. The beneficiaries contributed the entire cost for their latrines including the profit margin of the motivator. Low subsidy for household latrine was introduced for the families living below poverty line (BPL) only from 1995.

Low-Cost against Cost-Intensive Technology

The no subsidy programme was based on the demystification of sanitary toilet technology (leach pit) with low-cost affordable models suiting the socio-economic conditions of the families. Prior to this, the sanitary toilet technology in Medinipur meant septic tank which was out of reach for most of the poor. Around 12 latrine models were developed with up-gradation facilities in the range of Rs. 250–3000 out of which six models are presently adopted.

Production and Supply Delivery Chain against none existed before

The programme was strongly supported by an alternative delivery network involving the community based voluntary organisations (CBOs) on no-loss no-profit basis. A network of voluntary workers (sanitation motivator) has been developed involving CBOs and Gram Panchayats. Voluntary organisations were entrusted to act as nodal agency for implementing the rural sanitary mart (RSM) at the block level. These marts are maintained by CBOs and cluster organisations, produce and supply low cost toilet pits that are easy to install, use, reuse and maintain.

Campaign Mode against Programmatic Approach

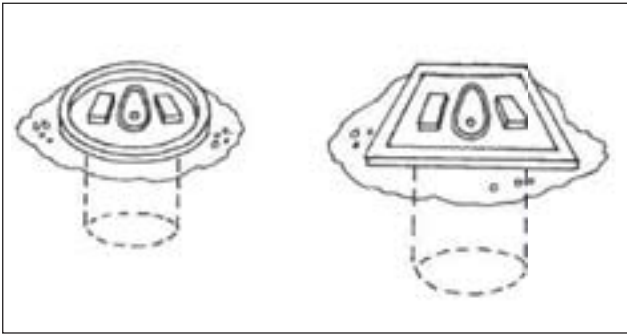
Medinipur became the first project in the country which was started as a movement for promotion of sanitation. For this, the government and panchayat functionaries of different levels were oriented. The Zila Parishad (ZP) and RKMLP jointly played the role of nodal implementing agency and developed the plan of action. Accordingly, the district authority/ZP adopted an area-specific time-bound plan of action for covering all the households with latrines. To achieve the target, intensive social mobilisation activities were taken up through strengthening the Water and Sanitation committees at block, Gram Panchayat and Gram Sansad levels involving all political, social and educational organisations of the area. Targets were given to authorities to cover all families with latrine at least in two Gram Panchayats within one financial year.

The Technology

An important aspect of Medinipur Model is the demystification of sanitary toilet technology. Earlier, it was a popular perception that the sanitary toilet means using septic tank technology which was cost intensive. Poor people have kept away from having a latrine of their own due to this accepted belief. The revolution came through innovation of pit latrines which were cost effective and affordable for the poor. A pit latrine essentially has a pit for accumulation and decomposition of excreta from which liquid infiltrates into the surrounding soil. In the pit latrine, a hole is

dug using a trowel and the pan is fixed on the top (see Figure 1).

Figure 1: Leach Pit Toilet Design



Large bacterial population in the topsoil helps decomposition in the shallow pit that lasts for several weeks. Simple pit latrine has a squatting slab placed over a pit in the diameter of around 700 mm. The depth of the pit is limited to one metre to safeguard against groundwater pollution. The pits are unlined. The earthen mound facilitates raising the platform level and hence protects the run-off from going inside the pit. The latrine with lined pit is same as simple pit but in the case of the former, the pit is lined with twinges, split bamboo matting, old drums, bricks, stone masonry work, etc (Gol, Undated: 2-4).

In Medinipur, around 90 per cent of the latrines constructed are simple pit latrines placed over unlined leach pit of 4 feet depth and 2½ feet diameter. According to the officials, a pit of this capacity gets filled up in six years time for an average family of five. The users are informed to make another pit once the first one gets filled and place the same pan on the top of it. This makes the cost of the direct pit latrine much cheaper and affordable for poor people. The total cost of a direct pit latrine is Rs. 415 that includes the cost of materials, transportation, motivators and Rural Sanitary Marts (RSMs) incentive of (Rs. 20 each). The fabrication cost of RCC basement slab fitted with the mosaic pan and trap including delivery is Rs. 375.

So what are the components that make the technology sustainable? The affordability of the leach pit latrine and the fact that part of the structure can be re-used and modified has made it a successful model. In fact when the first pit fills up, households plant fruit tree after taking off the super structure which gives them revenue as it utilises the rich manure.

The Institutional Innovation

The Medinipur model is based on institutional innovation that is based on a strong partnership of state, district and block administrations, 3-tier panchayats, NGOs (RKMLP) and its associated cluster

and village level organisations (See Figure 2). These organisations at each level coordinate to decide on important policy matters. The actual implementation plan is done at the block level which is jointly prepared by the block authorities in association with the NGO/cluster organisation and Panchayat representatives. The target is usually to cover all families with household latrines at least in 2/3 Gram Panchayats in the first year. The plan also includes detailed social mobilisation and contact activities for the entire block with time-bound deliverables. Emphasis is given on group meetings and home contact drive.

This partnership takes a leap in involving political and social groups, educational institutions, other development departments and key individuals at the village level to implement their plan. An example of the level of coordination is reflected in obtaining birth\death\caste certificate by the Panchayat or for any other schemes or loan from the government. The interested person has to produce a *toilet certificate* in order to obtain any of the benefits or certificates from the government department. The members of village level organisations carry out a *open defecation patrol* to catch anyone defecating in open. There are incentives for individuals to catch someone in the act.

Apart from this, weekly monitoring is conducted on specific day at Gram Sansad, Gram Panchayat, block, sub-division and district level. District-level coordination workshops involving all the district, sub-division and block level officers, Zila Parishad and block Panchayat functionaries and RKMLP's Block NGOs are held regularly to plan and implement the programmes.

Why Medinipur Model?

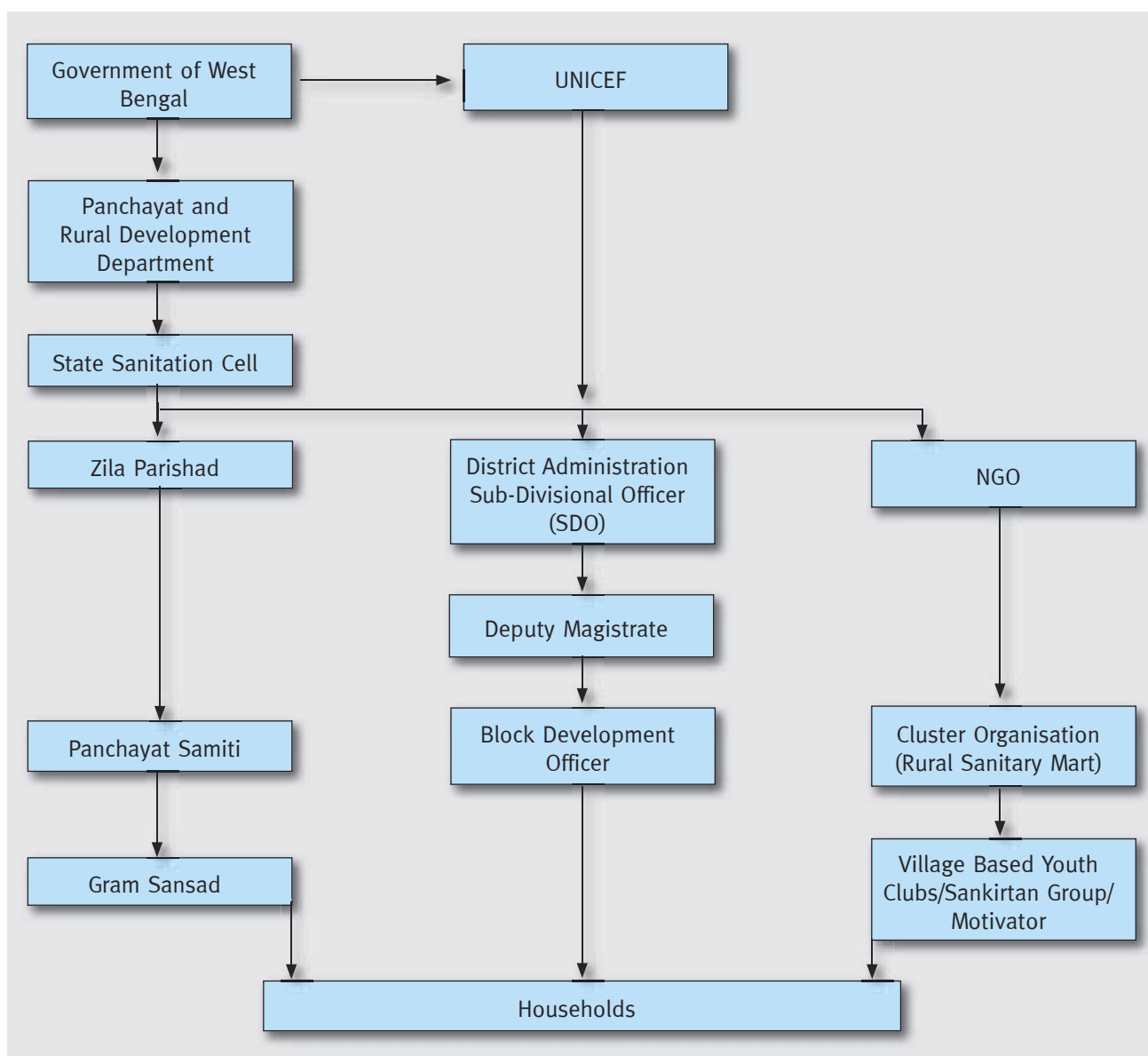
The Medinipur experience is a living example of long-term partnership of government, NGO, Panchayati Raj Institutions and UN agencies like UNICEF in achieving total sanitation. In 1990 when the intensive sanitation programme was started, the sanitation coverage in West Bengal was only 12 per cent. Today the coverage has reached up to 65 per cent in 2005 with Medinipur East district having 99 per cent coverage while Medinipur West has crossed 90 per cent coverage. Other districts that are closely following Medinipur in achieving total sanitation are Howrah, North and South 24 Parganas, Nadia and Bardhaman¹.

A pertinent question is: what contributed to making Medinipur model a success? Answers are as follows:

- Stable policy, political, administrative environment.

¹ Interview with officials at SPIRD and RKMLP (see Appendix 1). Sanitation is second development priority of the Government of West Bengal after Universal Primary Education

Figure 2: Institutional set-up for Sanitation in West Bengal



- Demystification of sanitary toilet technology and making it affordable for poor and middle-class families in rural areas.
- Use of local strengths such as NGOs/CBOs/ Panchayats, local leaders, school teachers and youth club networks, etc.
- Institutional innovation and taking sanitation in a campaign mode with committed leadership at all levels.
- The history of Medinipur district also played a role in preparing background. It was the hub of freedom movement activities in West Bengal, total literacy campaign was successful that created ground for people to respond to sanitation programme.
- Medinipur is one of the densely populated districts of India (inhabits one per cent of India's population), therefore privacy for women while defecating was a major issue.
- The intensive information, education and communication strategy coupled with social marketing model with incentives for motivators to increase the coverage.
- Infrastructure to cater to demand was established in the form of Rural Sanitary Mart (322 RSMs to cater to 341 blocks).

Summary

Erstwhile Medinipur district of West Bengal was the biggest and most populated district of India before it was split into two districts – East & West Medinipur in early 2002. Sanitation programme was started in the district in the year 1990 by RKMLP with active participation and support from UNICEF, SPIRD and district administration. The initiative has led to Medinipur east and west districts setting to achieve total sanitation. Apart from conducive factors such

as highly literate people and dense population with limited space for open defecation, strong political commitment towards sanitation also paved the way for overcoming obstacles. But the key behind this success had been the promotion of community participation and establishment of Rural Sanitary Marts (RSMs) at the block level to produce and supply the necessary low-cost sanitary materials. With the help of youth clubs and motivators, the concept of hygiene and sanitation was successfully promoted in and adopted by families. The affordable toilet technology was another spoke in the wheel. UNICEF supported the programme financially and provided technical inputs that are now spread all over the 18 districts of West Bengal.

While appreciating the success of the Medinipur Model, the issue of groundwater pollution spreading from the unprotected leach pit to the adjacent pond seems to be unresolved. Medinipur area has a tradition of every household (or group of households) having a pond. These ponds are used for domestic purpose other than drinking. It was reported that some families use the pond water for boiling rice and pulses. Apart from the socio-cultural value of the pond, it also has economic value as most of the ponds are used for aquaculture. During our field visit, we found that the toilets are close (sometimes less than one metre) to the village ponds. Now the question is of the possible contamination of the pond water due to its closeness to toilets. A study by the Department of Sanitary Engineering of Kolkata (Majumdar, 2003) reveals that in clay soil condition pollution travels from leach pit to water bodies at 4.58 m and 2.22 m during saturated pit and unsaturated pit respectively. Our observation is that this distance is not kept in most of the cases. Another view which forms a part of this discussion is that ponds are traditionally used for aquaculture that captures the grey water. This socio-ecological practice in high rainfall eastern regions of India and other similar agro-climatic areas in south Asia is environment friendly as it supports livelihood and also uses wastewater in best economic way.

Learnings and Recommendations

The Medinipur Model is an ideal example of how concepts of total sanitation can be scaled up through a unique mixture of felt need of the community, technology, institutions and marketing features such as demand generation, pricing of product and supply chain through rural sanitary mart. Some of these features are very specific to Medinipur but some like marketing chain, technology and institutional innovations can be used as a model for other areas where scaling up is intended.

Attempts should be made to carry out bacteriological test of the pond water which is close to leach pit

latrines. This is because the pond water is used for all domestic purposes including mouth wash, bathing and sometimes even cooking. Since most of the ponds are perennial source and the permanent saturation level at pond sides are high due to the effect of hydraulic gradient, even though the leach pit located little far off from the edges of ponds, there could be possibility of bacteriological contamination from the leach pit to the pond through the wet passage. A proper scientific study is recommended for the same.

For the Medinipur Model to be continuing to serve as a model, sanitation plus activities needs to be undertaken that includes all aspects of integration such as solid/ animal waste and liquid waste disposal management.

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Annexure I

The present report is prepared after the desk review of information available on the Medinipur Model through various sources. A field visit was made during September 4-9, 2005 to meet stakeholders

at Kolkata followed by field work conducted at Babupur Sansad of Kukarahati Gram Panchayat in Sutahata Block of Haldia Sub-division in East Medinipur. Discussions were held with the following officials:

1. Mr. M.N. Roy, Secretary, Panchayat & Rural Development, Government of West Bengal, Kolkata
2. Mr. Chandan Sengupta, Project Officer, UNICEF Kolkata.
3. Mr. S.K Chattopadhyaya, State Sanitation Coordinator, Mr. Gyanankur Nag, Technical Officer and Mr. Souren Basu, Faculty Member, State Institute of Panchayat and Rural Development, Kalyani, District Nadia, West Bengal
4. Mr. Chandi C Dey, Programme Coordinator, Ramakrishna Mission Loksiksha Parishad, Nerendrapur, Kolkata.
5. Mr. Kajol Dey, Technical Coordinator, Ramakrishna Mission Loksiksha Parishad, Nerendrapur, Kolkata (He also accompanied us to the district).
6. Mr. Anubrata Jana, Secretary and Bibhuti Sahu, Member, ABHYUDAYA (Cluster Organisation). Chaitanyapur, East Medinipur District, West Bengal.
7. Mr. Pankaj Maity and Ms. Chabi Rani Maity, Babupur Gram Sansad, Sutahata Block, Haldia, East Medinipur, West Bengal.
8. Mr. Arun Kumar Maity, Pradhan, Kukarahati Gram Panchayat, Sutahata Block, East Medinipur District, West Bengal.
9. Ms. Susmita Bagchi, Deputy Magistrate, Haldia Sub-Division, East Medinipur District, West Bengal.
10. Mr. Deb Kumar Nanda, Deputy Magistrate, Haldia Sub-Division, East Medinipur District, West Bengal.

The author profoundly acknowledges the interaction with all the people who shared their knowledge and experience. Special thanks to Mr. Kajol Dey who accompanied us to the villages and shared his experience (both personal and professional) that has formed major part of this work.

3. Challenging Exclusion through Water & Sanitation: Journey of Gram Vikas

Biraj Swain

The Context

Orissa, a natural resource-rich state in the Eastern Coast of India has a population close to 37 million of which 86 per cent live in rural areas and 40 per cent live Below Poverty Line¹. Poverty is significantly worse in the western and southern districts of Orissa with Dalits (Scheduled Caste) and Adivasis (Scheduled Tribes) constituting the majority of the population.

Gram Vikas (GV), a rural development organisation, has been working in Orissa since 1979 in isolated and impoverished areas and directly reaches out to more than 16,000 families through its water and sanitation intervention. Talking about water and sanitation intervention without talking about the Rural Health & Environment Programme (RHEP) is impossible. RHEP is the culmination of two decades of experience of Gram Vikas. This was initiated in the early nineties as an integrated intervention aimed to improve the rural communities' physical living conditions and economic opportunities.

The southern district of Ganjam, south-western district of Gajapati (with poverty indicators worse than Kalahandi, Bolangir, Koraput) and the western district of Kalahandi are areas where Gram Vikas initiated its water sanitation intervention. Water and sanitation is a very unlikely intervention in areas with such high poverty rates and annual starvation and distress migration features. What triggered this off?



¹ Census 2001

Why Water Sanitation?

To quote Gram Vikas Executive Director, Joe Madiath, “In 1989 we were undertaking an analysis of the reasons behind poverty and obviously found the answer in high morbidity and high mortality. Further analysis led to some very simple answers: Over 80 per cent of common diseases could be traced to lack of proper sanitation and unprotected water sources. We realised people used the same source of water ie the village pond for all their household needs.” Few villages have access to any safe source of drinking water. These water bodies are invariably near open defecation sites, contributing to the spiralling growth of water-borne diseases. Women are the primary sufferers in the absence of proper sanitation facilities since lack of privacy forces them to adopt a range of unhygienic practices.

So a protected source of water was the primary felt need, but with continuation of unhygienic sanitation practices, any protected source ran the risk of being contaminated. Hence water and sanitation intervention became the obvious remedy. “We didn’t choose these interventions, they chose themselves”, explains Joe.

Gram Vikas decided that any meaningful development intervention in the village was possible only if there was provision for safe drinking water, safe disposal of human and animal wastes and effective drainage systems. But water and sanitation was not just the end, it was the beginning.

The Process

While Gram Vikas was sure about the need for water sanitation intervention, it was also sure that it didn’t want to provide any low-cost alternatives, which

	% of villages	Orissa	India
Major sources of drinking water in rural areas	Piped water	0	16.6
	Handpump	5.9	18.4
	Other protected water	0	13
	Unprotected source of water	94	52

India Figures: Human Development Report 2000, NCAER

resulted in good coverage figures but spelt bad environmental impact because sustainable usage of such a rudimentary facility was a serious concern.

Social inclusion is the crux of this approach. RHEP could not be implemented unless each and every family in a village agreed to be part of the programme. This is because sanitation issues can be addressed only if everybody adopts safe sanitation practices. All men and women must subscribe to the programme and participate in it. For marginalised communities/families/households to be convinced that they had the capacity to generate the necessary resources was a long and arduous task. Since RHEP envisaged total change in behaviour pattern, it meant convincing people that better sanitation practices would actually improve the lives of the people and needless to say the stakes were equally high.

Gram Vikas insists that every village where they would make RHEP intervention with water and sanitation as the entry points, the following has to be complied with:

1. 100 per cent inclusion
2. Rs. 1000 contribution per household for the village corpus
3. Complete toilet construction before water supply starts
4. Bathing room
5. Kitchen tap.

This is what took most of Gram Vikas' field workers' time. Convincing all the families of the village, (upper caste, general caste, lower caste) to sign up for the project where water would run into their kitchen and toilets, was, anything but easy. The idea was not just alien but against the prevalent social norms. These villages, deeply entrenched in the ethos of caste, where the lower caste person is not even allowed to access the same water source as the upper caste person, accessing water from the same source as the lower caste was unheard of. Besides the prevalent conflicts in the village were the sure-shot death-knell of any water and sanitation intervention. Looking at the benefits, clean running water in the kitchen, bathing and defecation facility in privacy were too much for the women to turn down just because of caste values and conflicts. Hence women became the village peace-makers, the **"inclusion ambassadors"**.

In extremely poor villages with extremely poor households the challenge was garnering the Rs. 1000/household contribution for the corpus. So after continuous meetings and persuasion the villages came out with an innovative solution: **Cross-subsidy!**

The catalyst in successful implementation of RHEP is the "village corpus fund". The corpus fund is created with contributions of cash and kind from all families

in the village. As a norm RHEP insists that each family contribute, on an average, Rs. 1000 to the corpus fund, with the better-off paying more and the poorer families paying less. Creation of the corpus is the pre-requisite of Gram Vikas to start contributing to the activities under RHEP. The corpus is invested, and the Village Executive Committee (constituting of one staff of Gram Vikas and equal representation of men and women from all castes/communities) can utilise the income from the interest ONLY to extend the water sanitation facilities to new family units in the village thereby ensuring 100 per cent coverage for all times to come in the village. Creation of the corpus fund with the involvement of each family in the village is the "acid test" of the cohesion in the village, the eagerness and motivation of the village to undertake the programme.

Another uniqueness of the approach is the contractual nature embedded in it wherein norms of the intervention are defined through negotiations between Gram Vikas and the villagers. Gram Vikas and the Village Committee are equal partners, bringing their ideas and resources to the table. But the non-negotiable remains the water and sanitation component in each village. This flexibility within the broad framework is witnessed in every aspect of RHEP and, is the key to its success.

Matrix of the Components & who Contributes What to this Intervention

The water and sanitation programme provides an opportunity for the community to manage resources. The communities bear about 30 per cent of the capital costs, leverage about 50 per cent from the government and Gram Vikas contributes the remaining. The government contribution through the Swajaldhara drinking water supply programme is for establishment of rural piped water supply in the villages. The community also makes efforts to tap the local area development funds from local elected representatives. Gram Vikas provides on an average Rs. 4,000 per family for construction of toilets and bathing rooms, which is considered as 'social cost'. This support meets the cost of externally sourced materials including cement, steel, toilet pan, etc. All families are

Status of corpus fund as on March 2003: (in Rupees Millions)

Villages ²	Households	Original Corpus Amount	Present Corpus Value	Value at Maturity
105	8121	8.24	11.8	13.2
106	8003	3.9	4.1	8.0

² Not revenue villages but hamlets

Gram Vikas	People
Construction of toilets & bathing rooms:	
Cement, bricks, aggregate, sand, steel, materials for roof, ceramic pan, water seal, foot rests, door for the toilet, skilled labour amounting to Rs. 2500.	Stone up to the plinth level, mud for joining the bricks, centring materials and all the unskilled labour, door for the bathroom, construction of two soak pits.
Construction of water tank and piped water supply:	
Cement, brick, aggregate, steel for the overhead tank. Pipe for the main pipeline and motor pump. Part cost of digging well. Skilled labour for laying main pipeline and all construction.	Stone for the foundation. Unskilled labour for the foundation, construction of overhead tank, laying of water distribution system and cost of pipes to take water from main pipeline to individual houses, toilets & bathrooms.
Drainage systems:	
Brick & cement. Skilled labour.	Stone, aggregate, sand. All unskilled labour.

provided 3 taps – one each in the toilet, bathing room and kitchen.

With a model which constitutes of the following:

1. Water tank
2. Piped water
3. Three taps for running water in each household (one in kitchen, bathroom, toilet)
4. A bathroom and a toilet each of 3' X 4' (minimum) dimension
5. Twin soak pits of 4' each.

Once the “village corpus fund” is garnered³, construction work starts with the supervision of the Village Executive Committee. There have been cases of the village getting into conflict during the process of construction and when such things have happened, it is the womenfolk who have taken the lead in resolving the disputes and taking lead in construction. As Mangulu Swain of Banthapalli reminisces, “Our womenfolk went on a kitchen strike when the construction work stopped for a week. They would not cook till we resolved our fights and resumed work.”

The total cost of this intervention comes to Rs. 7500 per household as of 2005 calculation. Out of this, Gram Vikas contributes Rs. 3500 (in Ganjam with its specific context of density)/ Rs. 2500-3000 (in other districts). The rest they leverage from the government’s rural water scheme Swajaldhara & for the Below Poverty Line families, they also access the Rs. 500 from Total Sanitation Campaign. The skilled labour is primarily the battery of masons trained by Gram Vikas and the unskilled labour comes from the village people (men and women). Masonry training has been imparted to women too.

³ From mobilising villagers, explaining the health impacts of open defecation and unprotected water consumption to conscientising the village to generate the corpus fund and setting up village institution for sustainability takes 2 years. Construction work ranges between 9 to 14 months

Costly?

Gram Vikas intervention has come in for a lot of flak, termed as high cost intervention which is difficult to replicate. The replicability critique could be countered by the fact that Gram Vikas started its intervention in some of the poorest areas of Orissa. Now they are intervening in 15 districts (Bargarh, Bolangir, Boudh, Deogarh, Gajapati, Ganjam, Kalahandi, Keonjhar, Koraput, Mayurbhanj, Nawarangpur, Nayagarh, Rayagada, Sambalpur, Subarnapur), and it is noteworthy that they are not intervening in the most prosperous districts of Cuttack, Puri and Khurda.

As for the high-cost accusation, when confronted with this charge, Mr Mishra, Programme Manager, RHEP responded, “Sustainability comes with its own price. For any intervention to be sustainable, there is a threshold limit of investment and technology required. Without that, planting three rings and squatting pads all over Orissa might show coverage on paper but if you evaluate usage, it will be as bad as before. Besides, it is not as if our interventions are expensive for the people, we ensure that we access all that they are eligible for from the government schemes too.”

It is important to mention that our field team visited six villages (Samiapalli, Tamana, Banthapalli, Kishorechandrapalli, Vikaspuri and Charmaria) and we witnessed 100 per cent usage, needless to say 100 per cent coverage too.

In villages where the people are too poor, efforts are made to access funds from the local MP (Member of Parliament) and MLA (Member of Legislative Assembly) LAD (Local Area Development)⁴ allocation too. The

⁴ An MP has an allocation of Rs. 20 million per annum and an MLA has Rs. 5 million per annum

entire balance sheet is painted on the wall of the overhead tank complex in the spirit of transparency. It is pertinent to explain the overhead tank design. The overhead tank is generally located near the source of water. It is a three-storey structure which has the residence of the pump operator⁵ on the ground floor, community hall on the first floor and the overhead tank above it.

Concerns of Working with the Government

In 2003, Gram Vikas chose to leverage government grants for rural water supply when the Swajaldhara scheme was introduced, rather than depend on funds for village water supply. This was also in line with Gram Vikas' philosophy of wise use of resources.

The shift, however, comes with its challenges. Being on the State Drinking Water and Sanitation Mission and relevant District Drinking Water and Sanitation Missions, Gram Vikas is able to influence the programme in some positive ways. The biggest challenge however, is that government is the sanctioning authority and at the same time the implementing agency, hence their needs always come first. This complicates the process of sanction of proposals and release of funds which also gets mired in bureaucratic delays. Change of fund source has also meant shift in Gram Vikas' relation vis-à-vis communities. While Gram Vikas always followed the principle "100 per cent completion of toilets before water supply begins", this is very hard to enforce with government's deadlines of work completion on water supply.

Mr Madiath was even more critical of the claims of the central government regarding progress made in rural sanitation. Moreover, he expressed dissatisfaction at the 'success' story of West Bengal, insisting that standards for measuring progress in rural areas were unacceptably low.

"I challenge anyone to use these toilets and be happy with them. Why do we advocate something which we wouldn't use ourselves? And should we subsidise sanitation in cities for ever and ever?" he questioned. While sanitation is funded by the state in urban areas, the poor have to bear the cost in villages (as is the example cited by the Bengal minister), which amounted to a double standard. He also pointed out that the West Bengal Government had not revealed that the federal authorities provide a Rs. 500 subsidy for each rural toilet to cover the cost of a commode and three concrete rings. "These rings are usually used for something else," he claimed.

⁵ The salary of the pump operator is met by the villagers through their community fund. This ranges from Rs. 800 to 1200 and this operator is also trained to do some water system and electric repair work

Sustainability Concerns

While Village Corpus Fund has been a very thought-out concerted approach to address sustainability, over-use of water due to its easy accessibility has the inherent danger of over-extraction of ground water, hence falling ground water table and wastage. When confronted with this query, Joe explained, "The more water villagers used, the more they will have to use electricity to lift water and then they have to pay for the electricity by themselves and that will be a deterrent on water wastage." Gram Vikas insists on open dugwells as the water source for the community water systems. Their mantra: protected open dugwells contribute to water re-charging and rainwater harvesting in these water scarce areas. "In summer months we decide in the Village Executive Committee to use the wells and use the pipe water for cooking and drinking purposes only. We exercise self-discipline", informed Jhunu Behera, Executive Committee Member of Kishorechandrapalli.

But lack of perennial water sources and falling water table have been concerns of the villagers. Samiapalli village water source dried up in the severe summer of 2005. They had to drill thrice but none of the sources could survive the summer. Finally they resorted to the well of the nearby village. Water had to be pumped from the neighbouring village to Samiapalli's overhead tank.

However the electricity charges for pumping water from (well) per se have been a matter of concern. Community water supply systems are being charged at the rate of public utility while individual households pumping water are being charged per the domestic rate. The differential is Rs. two per unit of consumption. Many villagers consider this as regressive tariff penalising collective action and furthering mindless mining of groundwater at household level.

Impact

If serendipity is a cause celebre' then Gram Vikas has much to celebrate. But surprise impacts notwithstanding, RHEP has enough to celebrate otherwise too. The first phase of villages where Gram Vikas undertook RHEP were villages where it had a long history of association with prior engagement through its biogas programme. But that definitely didn't mean that RHEP was accepted without any resistance. Hence, the obvious outcome of lower morbidity due to safe drinking water was there for all to see. Fixed point defecation was of course the other fall-out. The other fall-outs are:

1. Women empowerment: With women taking a lead in the village mobilisation, construction and actively participating in the Village Executive Committee there has been a visible transformation

of diminutive, shy women becoming active citizens of the village republic. Women are also playing an important role in management of the common assets which have ensured better co-ordination.

2. Village cohesion: There has been enhanced village unity, heightened expression and practice of democracy in the village, significant alleviation of drudgery amongst women has enabled them to indulge in group activities like SHGs, income generation programmes through SHGs.
3. Financial asset: In many villages the corpus amount has already doubled. The villagers don't need Gram Vikas' support for extension of toilet-bathroom facilities for "new families"⁶. Most credit needs of the villagers, for production and consumption are met within the village through the savings and credit groups. "What is more important is, we don't depend on the exploitative moneylenders any more", says Natabar Mallick, Village Water and Sanitation Committee President of Vikipuri⁷ village. This village got Agrani Parimal Village Award of Rs. 20,000 from the Government of Orissa.
4. Health impact: Kitchen garden is the constant fixture of every Gram Vikas village with water from the bathroom watering the plants. Better nutritional intake is also an output other than the falling rates of water borne diseases⁸.

Gram Vikas' water sanitation intervention truly exemplifies the school of thought "Sanitation is beyond latrines". Many low-cost government interventions are falling on the wayside because of the rudimentary infrastructure and some models of high-cost interventions are falling to disuse because of unsustainable water supply. Gram Vikas seems to have found the answer in integrating water and sanitation and providing water in the house. By keeping the model a sturdy sustainable pucca structure, they have de-linked the technology and affordability argument and demonstrated that the poorest need not necessarily be left with the cheapest technology/model.

Scaling up Concerns

Gram Vikas certainly shows the way forward to achieve 'sanitation beyond latrines', while recognising that it has been successful in provision of water and sanitation facilities to villages in which they operate but it is a costly intervention. Therefore being a cost

intensive experiment, its chances of replication are dim. It may be heartening that at least there are these few islands of success, yet a very large population in those very districts where GV works continue to be without sanitation.

But an important feature of GV is that it does not treat water and sanitation as two separate components. The use of waste water for kitchen gardens makes the entire initiative integrated, which is an ideal situation, if programmed this way. Therefore, some suggestions that emerge from this case are:

Gram Vikas envisions 100,000 families bound in clusters to be covered by this intervention by 2010, spearheaded by community-based organisations, like-minded Non Government Organisations and Gram Vikas' direct outreach programmes. These families and communities bound in clusters will be 'critical masses' with the power to influence government policies, negotiate market relations and truly become functional as 'village republics'. However for this model to be upscaled and replicable there are multi-faceted policies at different levels which need to be addressed first. Some major recommendations emerging from this approach are:

1. The process requires intensive handholding and guidance especially in the initial stages over three to five years to bring about genuine participation. In this handholding process villagers are expected to learn the ropes from maintaining public accounts, organising the general body meetings and elections.
2. APL (Above Poverty Line) and BPL (Below Poverty Line) distinction is not useful for subsidy for toilet construction. Subsidy should be given irrespectively and both for water and sanitation in rural areas.
3. Water availability will be a great determinant for sustainable usage of these toilets, especially since in the case of water stress the collection burden is on the women to facilitate the usage of the toilets by the menfolk and other family members. Hence every sanitation intervention has to address the water availability issue to make the same sustainable.
4. The commercial rate of tariffs applied by the Government of Orissa on the rural community water projects is also a cause for concern as Gram Vikas models have the water tank connected to the electric motor and these supply water for both consumption and other domestic purposes. Commercial electric tariffs make the cost of water lifting expensive, severely hampering the usage.
5. Since these models are high cost models, Gram Vikas feels the financial devolution of expenditure should be complete ie the decision making should be with Gram Panchayats (as in case of Kerala). Currently accessing the funds from District Water Sanitation Mission is making the process lengthy and cumbersome mired in bureaucratic delays.

⁶ New families are formed usually when sons get married and move out of their parents' house. There are a few cases of people from outside coming to settle in the villages as well

⁷ This is a 22 year-old hamlet of Kondh tribals of 120 households who had come from Kerandimaal Hills and settled on the plains at the foothills

⁸ While health and morbidity analysis was what triggered Gram Vikas into water sanitation intervention, tracking the fall in incidence of water borne diseases and morbidity rates is yet to be systematically done to quantify the impact of RHEP on health

6. While Gram Vikas has been accessing funds from MPLADS and strongly recommends water sanitation works to be mandatorily funded by MPLADS and MLAs' discretionary fund, with the latest Parliamentary Sub-Committee injunction post MPLADS scam, the usage of MPLADS funds via NGOs will become increasingly difficult.
7. These models make a strong case for state/ government responsibility for the rural poor for provisioning water and sanitation as part of the social contract and natural obligation of the state to its people. Hence the way forward that these models show is: Cross-subsidisation for the rural poor and this could go in tandem with people's contribution.
8. A single window to access water and sanitation schemes (drinking water, water conservation schemes).
9. GV to encourage its women SHGs to be leaders of change in neighbouring villages:
 - to promote formation of SHGs in the village and the concept of corpus fund
 - to enable bank linkages and with relevant government departments
 - to create and build awareness on sanitation and hygiene practices.

Finally, through this process, even if GV is not able to directly invest in all villages, they could facilitate the creation of an environment to seek sanitation services by encouraging their village SHGs to promote this and provide women with incentives for such a sanitation drive.

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4. Urban Sanitation for the Poor

Ruchika Social Service Organisation

Berna Mary Victor

Change Slums by beginning with School Children for Sanitation and Rainwater Harvesting Models

Introduction

RSSO (Ruchika Social Service Organisation) was partnered by WAI for doing the integrated project of water sanitation. They, having long experience in education and working with slum children, decided to integrate water sanitation activities for the alternate schools. Though the needs of the slums are many, the one-year experience has been to reach out to the communities through the school and basti committees. The attempts of the project highlights the acute needs of slum dwellers for water sanitation services and how schools sanitation is one step ahead and models like Ruchika can be made to help Government and others to address the issues for urban slums.

The Context

Bhubaneswar City formed in 1951 and designed for a population of 40000, now has the highest population in the state together with needs for better urban planning and management of water and sanitation. Bhubaneswar (pronounced “BOO-buh-NESH-wuhr”; *Sanskrit*: The Lord of the Universe), was once the capital of ancient Kalinga. Orissa State which has more than 40 per cent living below the poverty line causes widespread migration to cities within and outside the state in search of employment. This has also led to daily increase in the slum population, and there are about 200 slums. Some may not have been listed yet.

The government listed about 190 slums with 59 authorised and 131 unauthorised slums. The difference between the two is that in the case of authorised slums they have a piece of land given by the

government, while all of them have a voter ID card, ration card, and BPL card. As part of the government’s city cleaning programme a number of slums were relocated from the middle of the city. Each of these families was provided with a small plot of land at a place some of which are at a distance of 20 kilometres from the city. The people of the slums work as daily labourers, rickshaw pullers or trolley pullers, or work as petty vendors and domestic maids. All people have been living there for a period of at least 15 years. However these slums are without water sanitation facilities, and without electricity too in some slums. But the slum population has been on the increase rapidly from day to day. For example, Saliya Sai has more than two lakh population. Sanitation for the urban, and the urban poor in slums is yet to be given priority as these are not included in the TSC.

The urban poor sanitation and health problems can be acute and severe than the conditions in villages.

Ruchika

Ruchika Social Service Organisation (RSSO) was started in 1985. Their education for the deprived initially comprised of a single platform school. Now RSSO reaches more than 4000 underprivileged children and families. RSSO dedicates itself to the ideal that “**if the child cannot come to the school then the school must come to the child.**” Even the most basic education instills confidence, purpose and insight that is necessary for successful and productive participation in any society.

For the purpose of Census of India, 2001, the slum areas broadly constitute

1. All specified areas notified as ‘Slum’ by State/Local Government and UT Administration under any Act;
2. All areas recognised as ‘Slum’ by State/Local Government and UT Administration which may have not been formally notified as slum under any Act;

A compact area of at least 300 population or about 60–70 households of poorly-built congested tenements, in unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities. *Office of the Registrar General, India, Created on 6th November 2001.*

The Population in Bhubaneswar slums as per government list

Slums	Households	Population in slums
Authorised	11697	58485
Unauthorised	26445	132225
Total	38142	190710

The complex demands of survival prevent a child's ability to attend regular school. RSSO offers non-formal schooling right in the slums, making education meaningful for the most deprived child. RSSO has experience in running various types of schools and educational programmes like:

1. Non-formal education centres, four-hour classes in slums.
2. Platform schools for children on railway platforms.
3. Open schools that have whole-day classes for children in platform of BBSR.
4. Innovative schools for child labourers.
5. Vocational training centres to equip the child with work skills and job placement.
6. Street Children Projects giving a six full-day school in heavily populated city corners.
7. Running shelters for street children who are abandoned.

Childline, creches, balwadies, sponsorship programmes, publishing innovative text books, medical programmes, community participation and disaster relief are some of their other activities.

The Background

RSSO has established its alternative schools spread in about 60 slums and rehabilitation settlements of Bhubaneswar. They have been successful in getting the school buildings a few years ago. It cost about Rs. 40000 with the support of CONCERN and ICICI Bank and community contribution while the Government supported the teacher salaries. Thus RSSO was able take education to these children. However these schools were without sanitation facilities, for which the present support of WAI helped them realise their long-standing wish for sanitation facilities at least for the slum schools, while the sanitation for the slums still remains unfulfilled.

Why one Needs to Work more for Slums and Urban Projects

Some of the observations in the slums before the project initiated are as follows:

Unlike in villages the people in urban slums suffer acute water scarcity thereby resorting to use of unsafe water sources like collecting from spillage or overflow from pipes, and junction boxes. The handpumps and open wells are located near dirty canals and open drains. They lack awareness and hence use these sources for drinking and domestic use leading to seasonal and chronic diseases related to water. Common among these are jaundice, diarrhoea and skin and worm infections in children.

They live with these risks, together with death and morbidity as an accepted part of their lives.

Their dwelling place is surrounding overhead water tanks, behind industrial areas, behind housing apartments, near railway tracks, and other ugly, dirty and neglected parts of the city.

Water and sanitation facilities are grossly inadequate, and seem to be very far from their agenda for slum dwellers, as some may also include non-authorized slums. So far the attention is on TSC and the policies for the urban and then slums are yet to get priority with the government for these people as everyday existence is in question. There is no time for hygiene and sanitation facilities. As if they have a broken and damaged facility it is also used as it gives some privacy behind walls despite the stench that may emanate from all around.

Project Approach

The project was launched in February 2004 for the alternative schools in 60 slums located in various corners and areas of Bhubaneswar City. The child to child, child to family and child to community approaches were the communication on hygiene and sanitation was expected to reach. In this the number of households reached through children would equal the number of children while the hygiene messages will reach an average of five members in the households.

The plan was to create sanitation assets in these 60 schools besides hygiene promotion in the schools through teachers. In turn the children and the basti committees influence parents to adopt hygiene practices like construction and use of toilets.

The Process

Some of the activities taken up by RSSO were:

- A baseline survey to identify status of water sanitation at start of project.
- Raising community awareness by human puppet shows for delivery of hygiene messages.
- Daily interaction with children on hygiene for at least 30 minutes.
- Teachers in balwadies help children use toilets.
- Hygiene messages promoted by pictorial wall paintings.
- Adopting hygiene in the school curriculum. Children (about 30 per cent mostly older children) are aware of key hygiene messages.

Population	Males	Females	Total
In schools	1028	1003	2031
In balwadies	251	235	486
Teachers	24	67	91
Total	1303	1305	2608

- All children practices hand wash during meal times and use the toilet in the schools of 53 slums.
- Using the concept of joyful learning by using play way methodology in teaching hygiene to children.
- Teachers were influenced to be a model by construction and use of toilets.
- Basti committee and children committees were made active participants in promoting good practices in school and the community.
- Installation of a few borewells where drinking water was acute.
- All school sanitary blocks were constructed with community contribution.

Children Empowerment and Influence

At Dumduma Sukovihar school the children's parliament wrote a letter to the Corporator to help in solving the problem. They had a 12-feet low-lying area in front of the school which became a pool during the rainy season and children were unable to enter the classroom. The Corporator responded by taking up the land levelling work for the school.

In Kolthia Patna slum, about 40 families have constructed their own latrines without any monetary support, but with the influence of children and the meetings with the organisation, when they showed eagerness to have their own latrines.

The achievements in the project after a year of intervention are as given below:

Nayapalli Slum decides to declare itself open defecation free with the entry of the school toilet.

There were 45 families staying here for the last 20 years. The total population is 116 (78 adults and 38 children). The non formal education centre has been functioning for ten years. As children grow older they are encouraged to join regular school. The basti education committee held its meeting on 22 June 2004 when they requested WAI while they were about to construct two latrines for the children. They asked that two toilets be constructed for the adults so that the whole community was interested to make their

slum free of open defecation. In three days the written application was given to RSSO.

They also committed to provide the mason and labour besides Rs. 1000 as cash and also three cement rings. The projected cost was Rs. 17000 with an addition of Rs. 4000 towards mason and labour charges. Later the community contributed Rs. 7420 in terms of cash and labour.

The toilets were completed in August and the whole community has been using them. After a few months the leach pit, which was only four feet got filled. Soon another deeper pit was made and all are using the facility. However there is need for a few more seats so that the whole community can use the facility.

Rainwater Harvesting for Ensuring Water for Toilet Use

As school is the platform of learning not only for children but also for the community, it was decided to have a RWH structure that would serve the water needs besides being a model to the community. A 1500 litre tank was built at a total cost of Rs. 6000 with community contribution. This tank could support water needs for a few months. RSSO has been successful in always engaging many stakeholders' support to meet the needs of the children. The Rotarians who came forward to support 50 per cent of the cost for a few more tanks saw the model. As majority of the slums face acute water problems this facility at least ensures that children are able to use the toilets without having to fetch water or use electricity for pumping from any source. Many rainwater tanks are thus to be constructed in the coming phase of the project, with the support of Rotary, WAI and the community.

Recommendations for Government and other agencies for urban sanitation

- Slums need basic sanitation facilities. They should be given priority. It should feature in government plans for all types of slums.
- Comprehensive plan and community toilets where there is acute problem of space with guarantee on community ownership and management of assets.

Project Outputs for a year	Planned	Achieved	Remarks
Tubewells	10	7	Depth of bore more than planned hence cost increased.
One community toilet	1	0	Community was not able to get government sanction for the site inspite of many visits and efforts.
School sanitary block toilet, urinal cum bathing room separate for boys and girls with wall paintings and is child friendly.	10	10	These also have soak pits with cement rings for the urinal.
Sanitary blocks with bath cum urinal and small storage tanks.	49	43	Lack of space forced to make smaller urinal space in these.

- Children to get top priority by having planning for better sanitation as they are a great resource for mobilising parents and communities towards hygiene behaviour.
- Teachers should be given a key role in promoting sanitation and hygiene, as they can be the role models in the community.
- Introducing of eco-management of human wastes, converting to biogas, etc.
- Garbage management by introducing door-to-door segregation and collection and recycling.
- Vermi-composting of bio-degradable wastes thereby creating employment to poor.
- Close community-government ties are essential for the programme's sustainability.
- Greater role of NGOs for management of urban environment.
- Clear roles and responsibilities to bodies like NGOs and communities for management of urban environment.
- Adopting of best practices in sanitation around the country.
- Plan for more resources and use for urban slums to get access to safe water and sanitation, as these are a high-risk population.

- Include hygiene and sanitation in educational curriculum as part of life education.
- Sensitivity to gender and the needs of children and adults with special needs while designing toilets and technological options of water and sanitation.

Conclusion

Urban water and sanitation needs more priority and planning with involvement of NGOs, donors, communities and other agencies, as the urban problems are more complex in its composition of social and physical environment. A policy in place, or action plans for each city for addressing these issues can pave the way, as after the TSC implementation the urban group will be far behind.

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5. Incentive-led Sanitation Initiative in Orissa, Eastern India: WaterAid

Shipra Saxena

Incentive-led Sanitation Initiative

“We are very proud of our village and the prize money given by WaterAid. Our village has become much better as every family has their own toilet and access to water supply as well, without exception. The village committee has imposed a fine of Rs. 25 on anyone who defecates in the open. Bobby of Terahal Patana village in Puri district excitedly shared this, when asked what changes they see in their lives in the recent years.

There have been no cases of diarrhoea or skin diseases in the previous eight months marked by the ANM.



The Context

All the prize money villages of WaterAid Project in Orissa today echo similar sentiments. The significance of such initiative through incentive (than investment) motivates people more to undertake actions towards improving their situation, especially in Orissa. Statistics show that Orissa is one of the poorest states in India with more than 80 per cent of its 38 million population living in rural areas; over 60 per cent of the people live below the poverty line defined as Rs. 18,000 (US\$ 400) per family per annum.

With an objective of promoting community collective action and creating an incentive for villages and schools to improve their sanitation situation, WAI agreed to recognise exemplary work done in the field of sanitation in its project villages. The criteria of selection were based on three aspects:

1. Villages attaining zero open defecation situation or emphatically moving towards it
2. Having a functional and reliable water supply system
3. People adopting safe and hygienic practices.

WAI decided to give cash prizes and certificate of appreciation to the villages fulfilling these criteria. Schools were also encouraged to participate in this. It was decided that any school reporting no open defecation, having a functional and reliable water supply system with children adapting to safe and hygienic practices would also qualify for a cash prize

and a certificate of appreciation. It was agreed to award three villages and three schools during a financial year. The expectation was that this incentive scheme would provide the required impetus to lead to greater and speedier sanitation coverage, with communities resorting to better toilet usage, therefore enabling to check the degrading practice of defecating in the open. In addition, this programmatic initiative was to facilitate and stimulate discussions amongst communities on other important programmatic dimensions such as inclusiveness and representation of the VWSC, book keeping and accountancy. It was also to promote institutional preparedness for future operation and maintenance, adoption and continued practice of hygienic behaviours for future sustainability.

The Award

It was agreed that cash prizes of Rs. 25,000, Rs. 20,000 and Rs. 15,000 respectively would be given to the three best villages that show exemplary improvement in sanitation and hygiene issues, judged on the basis of a set of criteria that had been developed in consultation with the community. The award of Rs. 15,000, Rs. 10,000 and Rs. 5,000 respectively for better-off schools based on the criteria¹ used for judging villages, which included evaluation of objectively verifiable indicators, subjective appreciation of the situation and institutional arrangement and preparedness which was

¹ The scoring pattern is attached as Annexure 1

developed and shared with NGO partners percolated the sharing to the communities.

Evaluation

The villages were expected to report their attainment by 12 March 2004 and the prizes were announced on the eve of World Water Day 2004 celebrations that were held on 5 April 2004. A review committee comprising government, NGO, community representative, project manager, PRI representative and manager programme operations was constituted to undertake an assessment of the situation, award quality points based on the criteria and recommend names of villages for the prize money.

The Objectively Verifiable Indicator which accounted for 60 points looked at coverage, usage, and water from safe sources for drinking and cooking, incidence of diarrhoea in last 15 days and hand washing before eating and after defecation. Under subjective appreciation which accounted for 20 points, to investigate functioning of assets, reliability of services, water quality, access to water points, environmental sanitation, school sanitation and lastly institutional arrangement looked into VWSC, records and transparency.

The Intervention

The thrust is on working with poor and marginalised communities; WaterAid's efforts are geared towards achieving full sanitation facilities and access to water, with adequate focus on hygiene. WaterAid realises and lays emphasis on improved sanitation as a dire necessity that cannot be postponed till communities have reached better economic status. And this is acutely necessary in those regions that are least developed, such as the eastern region, where this intervention was pioneered.

Since the mid 1980s, WaterAid India has been working in providing safe water, effective sanitation and good hygiene which has a lasting impact on people's health and life. The initial years of the intervention were characterised by the 'push' factor. One of its most successful efforts in 2004 was the introduction of Prize Money Scheme in Orissa. The introduction of this prize money scheme has yielded favourable results. It has built an environment of healthy competition among the villagers and this is bearing fruit, showing results which WaterAid India has not seen in last 13 years of its interventions in India. The demonstration impact is clear and it is also hoped that it will have a ripple affect in its surrounding areas. Other WAI operating states have begun to replicate this like in the western region where it has been initiated.

The highlight of this initiative is that it supports and in fact is a stepping stone for those WAI prize winning villages to enable their panchayats to qualify for the government award for 'Nirmal Gram Puruskar' which begins at the PRI level. To add vigour to the TSC, in June 2003, Gol initiated an incentive scheme for fully sanitised and open defecation free Gram Panchayats, Blocks, and Districts called the 'Nirmal Gram Puraskar'. The incentive pattern is based on population criteria:

- (i) Gram Panchayats, Blocks and Districts, which achieve 100 per cent sanitation coverage in terms of;
 - (a) 100 per cent sanitation coverage of individual households
 - (b) 100 per cent school sanitation coverage
 - (c) free from open defecation and
 - (d) clean environment maintenance.
- (ii) Individuals and organisations, who have been the driving force for effecting full sanitation coverage in the respective geographical area.

The incentive amount ranged from Rs. two lakh at the village panchayat level to Rs. 50 lakh at the district level. The incentive for Panchayat Raj Institutions can be used for improving and maintaining sanitation facilities in their respective areas. The focus should be on solid and liquid waste disposal and maintenance of the sanitation standard.

Therefore, WAI's initiative supports and cooperates in strengthening the government initiative through its own 'Prize Money Scheme' though indirectly it is working with the government to achieve the larger objective to ensure access of safe drinking water, effective sanitation, promotion of hygiene practices, which are sustainable.

What is different in the WAI initiative is its methodology of group monitoring, which is a participatory process. The indicators developed to evaluate and select a village for the award are more rigorous, than what the Gol scheme lays down. WAI looks at different parameters, including those of hygiene practice at the household and individual level, to monitor behaviour change patterns.

In addition, the Prize money has focused not just on coverage but also on skill development, training men and women in masonry, motor repair and maintenance, etc and is integrated with the process of infrastructure development in all villages, through planned training programmes. Use of toilets is 100 per cent in all villages. There is also greater attention to cleanliness in the villages. All these have resulted in achieving a positive impact on health status of all participating villages, through reduction of water-borne diseases and an overall improvement in the nutrition levels.

Success in Teralpatna village of Puri district

100 per cent coverage and involvement of all families in the village habitation in using the WATSAN facilities with only Rs. 6,000 each for toilets in Teralpatna having 61 households with a population of 410 in Puri district of Orissa is really a commendable approach of WaterAid and specially because it has sustained itself even after a year's time of receiving the award.

The people in the village are marked to have a positive attitude towards the installation of low-cost latrine by getting the interest-free loan out of the revolving funds of SSUD. Besides, the SHG members around (36 in two groups) have raised their fund up to Rs. 1 lakh. They had also shown their interest and anxiety to invest money for the purpose designed by the WaterAid India. Those women who obtained loans from the revolving fund were repaying them at the rate of Rs. 50 per month. The various cultural groups like *sankirttan mandals*, *ghanta patua*, *odissi* dance and the modern dance which played the village role over there.

Group-Monitoring

In order to make systematic progress and get better results, a group monitoring approach was adopted with an innovative component of 'group approach' rather than individualistic approach for monitoring.

The implementing agency (SSUD) developed a self-monitoring format. This was administered on a daily basis by the Village Water and Sanitation members (VWSC), by the animator or sometimes by the village health educator. This agency also gave guidance and monitoring training to VWSC and SHG members. At times the representatives of member organisation of WSHP Orissa visited the village and imparted necessary advice and suggestions. The technical support was solely from WAI, whose technical officers made occasional visits to help both SSUD and VWSC.

Sustainability

Sanitation is an extremely challenging area to work in, and especially in a state like Orissa, it is even more difficult. Despite all this, a visit to the prize money villages after a year, showed convincing results in two villages with limited failure in Laxmipalli village. However, keeping in mind the remoteness of and poverty in the village, it is remarkable that they competed for the prize money. A little fallback in a few villages was that the toilets had remained unused due to scarcity of water, which is not actually a breakdown of the community systems or processes but in fact, more of a service delivery limitation of the Government, where they have not been able to provide enough sustainable water sources for the villagers. However, this is a good beginning made and WAI programme will gear itself to face many more such challenges.

Outcomes of the Prize Money Scheme

- Three villages have been declared as open defecation-free villages, one in the tribal belt of Ganjam District, which is considered number one among the open defecation-free district of the State and other two villages in Puri district. All are in the rural areas.
- Given the multiplied effect among other villages, neighbour villages have started visiting the prize-winning villages and are motivated to compete for the prize next year.
- Similarly the partner NGOs who piloted for the prize money and could not make the grade earlier have now reached the required level and want to participate in the competition. 14 villages are in the pipeline to participate in the contest.
- The award-giving ceremony in WWD-2004 has created wide awareness about this scheme through nearly 5000 people in different parts of Orissa.
- There is a notable reduction in incidence of water-borne diseases.

Laxmipalli village undertaken by IYD is one of the remotest villages in the Kalinga block of Ganjam district of Orissa. A vast majority of the people are agricultural or daily wage labourers. People have to travel on foot for about 2-3 km of uneven road to reach the village. The villagers are so poor that they have decided to go in for savings and have been able to save about Rs. 15,000. Due to an abysmally low level of income and life style, the use of sanitary latrine has been negligible. It was in this background that WaterAid decided to launch a people's movement for total sanitation and access to water for all in the firm belief that the limitation and financial constraints can be overcome by genuine participation of the people and with sanitation fund. Adult men and women were motivated to form a water and sanitation committee having a few women members. They got Rs. 10,000 as sanitation fund and they revolved the fund so that every household has toilet facilities of about Rs. 3000. Many women now have easy access to green vegetables grown in their own small kitchen gardens that use the wastewater diverted. However, during summer the scarce water condition deters them from using toilets and they are forced to go out in the open even if they don't want to. The villagers feel that the Government should give an OHT scheme in their village. In spite of all this they are very happy to be the prize winner and the community appeared to be more empowered. The prize money has been added to their community saving, a part of which they plan to utilise for construction of new toilets in the future.

- Behaviour change is visible.
- NGO/NGO partnership has become a path-finder for GO/NGO partnership.
- This is a clear example which displays the strength with evidence of software activity work, over hardware work.
- Prize-winning villages have become showcases for other NGOs to visit and emulate in their areas of work.

Issues & Recommendations

Village is taken as the unit for the incentive scheme and this is important as the parameters for achieving eligibility for the award are closely monitored to capture the impact.

The intervention does not limit itself largely to infrastructure development, but more importantly to ensure that there is behaviour change both at the household and individual level. Additionally, the intervention also provides for skill training and this is important value addition for enabling O&M, which is a step in the direction of sustainability.

The uniqueness of this initiative is that it compliments the government as ‘Nirmal Gram Puruskar’ scheme. More importantly, this intervention motivated communities to invest in the intervention as it imbibed ownership through participatory processes such as group monitoring, inclusion in evaluation making the entire process community responsive with responsibility and pride to achieve the objective of a fully sanitised village.

Annexure 1

Evaluation Criteria and Scoring Pattern: OVI (60 Qpts)			
Criteria	Status	Achievable Marks	Maximum Marks
% of households having HSL	> 25%	50%	10
	50%	75%	
	>75%	100%	
% of households using sanitary latrines	50%	50%	10
	75%	75%	
	100%	100%	
% of households indulging in safe disposal of infant excreta	50%	50%	10
	75%	75%	
	100%	100%	
% of households using water from safe sources for drinking and cooking purposes	50%	50%	10
	75%	75%	
	100%	100%	
% of children who suffered from diarrhoea in last fifteen days	> 15%	50%	10
	> 10%	75%	
	> 5%	100%	
% people who wash their hands before eating and after defecation	50%	50%	10
	75%	75%	
	100%	100%	

Subjective Appreciation of the WS situation (20 QPTs)

Field of Assessment	Areas of assessment	Observed situation	Achievable Marks	Maximum Marks
Drinking Water Supply Situation	- Functionality of assets - Coverage - Reliability of service - Water Quality - Access to water points	> 80% > 80% > 60% people satisfied 100% source 80% people	100% 100% 100% 100% 100%	5
Environmental Sanitation Situation	- Wastewater management - Solid waste management - Garbage disposal - Drainage - General environment	Soak pits Compost pit Garbage pits Flowing Drains General cleanliness	100% 100% 100% 100% 100%	5
School Sanitation	- Coverage - Functionality of assets - Provision of toilets for Girls	Based on general appreciation of situation		5
Awareness on Hygiene aspects	-Diarrhoea -Hand washing	50% people having knowledge of causes and prevention 75% people aware of the critical times	100% 100%	5

Institutional Arrangement: 20 Qpts

Field of assessment	Areas of assessment	Observed situation	Achievable marks	Marks
Representative nature of VWSC	Are all clusters represented?	> 90% clusters represented 75% 50%	100% 80% 60%	5
Inclusiveness VWSC	Are all sections and women included?	30% women and 20% SC/ST 20% Women and 10% SC/ST 10% women and 10% SC/ST	100% 80% 60%	5
Record Keeping	Is it update? Minutes of last meeting recorded	Last three meetings 2 meetings 1 meeting	100% 75% 50%	5
Transparency	Are people aware of the financial details? (Out of 10 people to be interviewed)	80% 60% 50%	100% 75% 50%	5

Multidisciplinary evaluation team

- Manager Programme Operations: Chairperson
- Representative ROW: Member
- Representative Government (SWSM): Member
- Representative NGO: Member
- Community Representative: Member
- Representative PRI: Member
- Project Manager: Member Secretary

6. Linking Bio-gas and Toilets in Rural South Gujarat, India

A case of AKRSP(I)'s Initiative

Ajay Mishra



Introduction to the Organisation

The Aga Khan Rural Support Programme (India), AKRSP(I), is a non-denominational, non-government development organisation established in the year 1984. AKRSP(I) works as a catalyst for the betterment of rural communities by providing direct support to local communities to promote activities and develop models for sustainable natural resource use and development of human resources.

AKRSP(I) is active in over 476 villages in three environmentally challenged and economically vulnerable regions of Gujarat: Bharuch/Surat/Narmada, Junagadh and Surendranagar districts. In the year 2004, it expanded its programme area to the state of Madhya Pradesh with its programme office in Khandwa district. The choice of these areas was governed by the philosophy that NGOs could not replace the state, but could provide models of participatory, bottom-up development and hoped to evolve models and approaches for replication. The major issues/themes addressed by AKRSP(I) in these regions include:

- Coastal Salinity Ingress Prevention
- Drought Proofing/Coping
- Gir Periphery Management
- Micro Enterprise Development
- Participatory Irrigation Management
- Promotion of Decentralised Drinking Water Systems
- River Basin Management
- Watershed Plus

Programme Background

In South Gujarat, since 1985, AKRSP(I) is working along with the tribal communities. During the course of PRA, drudgery of women for collection of fuel wood was one of the topmost priorities of the womenfolk of the village. To address the energy requirement of the tribals who were dependent on the forests for their livelihood as well as fuel wood requirement and to reduce the drudgery of the women, who were responsible for the collection of the fuel wood, AKRSP(I) started its bio-gas programme in the year 1992 to provide the tribals an alternative source of energy. AKRSP(I) implemented its bio-gas programme through village institutions and extension volunteers and master extension volunteers, especially the women. Till date around 2000 bio-gas plants are giving it benefits to these households.

Over a period of time AKRSP(I) realised that since women are part and parcel of this particular programme, they ought to be in a group to be mainstreamed to gain visibility. Thus in the year 2001, the first bio-gas SHG of women was formed in Mandvi block comprising ten women from five villages which spread to other clusters to address the repairs and maintenance as well as a mechanism for demand collection.

During the course of PRA in 2001, in many villages a particular demand arose from the women ie lack of toilet facility or private space for her. This was peculiar, as the toilets constructed by government were defunct even though the programme had begun with much fanfare. This was reinstated by the bio-gas SHG members who were also suffering from this particular problem. So AKRSP(I) conducted a survey in all the eight administrative blocks to gauge the extent of this problem. What came out was an eye-opener for the organisation. In one of the villages, Sarkui from Mandvi taluka (administrative block) of Surat district, the women said that, even though AKRSP(I) is providing the bio-gas plant leading to drudgery reduction of the women, it had never thought of addressing the issue of proper sanitation by providing the support in a sustainable model of toilet. The team brainstormed about it and thus was born the idea of a bio-gas plant with toilet in the year 2002. With a

modest beginning of 62 toilets in the year 2002, the programme has provided a private space to about 500 households. The numbers are increasing day by day with almost all the demands coming for bio-gas plants with toilet.

The Programme Approach

This programme is not a stand alone project but part of a larger programmatic vision, Sustainable Community-Based Approach for Livelihood Enhancement (SCALE) since 2002 targeting the resource poor, especially the marginalised and women. SCALE tries to address the livelihood issues of around 1,00,000 households in the state of Gujarat and Madhya Pradesh.

This particular programme integrates two objectives to reduce the drudgery of women by giving her the option of alternative energy and provides solution to issues related to dignity, hygiene and health.

It has been achieved by AKRSP(I) by mobilising the community through rigorous mass movements like Gram Safai Abhiyan in consultation with the self-help groups of women and other village organisations like Mahila Vikas Mandal (MVM) and Gram Vikas Mandal (GVM) and with continuous capacity building of these village organisations. Other processes involved in the spread of the programme were word of mouth through which the community propagates these programmes in other villages through their friends and relatives.

Context of the Area

AKRSP(I) is working in eight talukas (administrative blocks) of Bharuch, Surat and Narmada districts. Even though two of the districts Surat and Bharuch are one of the most developed in the state some of their administrative blocks where AKRSP(I) works are one of the poorest and most backward in the state¹. The villages selected have the classic characteristics of remote region; rain-fed farming resulting in low agriculture productivity, large-scale migration, high indebtedness, no savings base, and low access to institutional credit and extension services. Even the existing village level organisations and panchayats were almost non-functional. The forest resources are also fast depleting leaving behind the degraded patches of land. The source of energy in shape of fuel wood from forests has become non-existent near the villages with no place for the women for defecating. Situated very near the industrially prosperous golden corridor, the programme area villages portray a different picture, where no major economic opportunities are available for the rural masses.

¹ Report of Dr. I.G.Patel

Social

Tribal community comprises a significant proportion of the population in the programme area with 90 per cent share of the total population. The tribals were originally scattered over all the districts, practising hunting and shifting cultivation. Gradually, by the 1950s they got settled, largely in the hill areas, through allocations of land by government. The tribes mostly belong to the Bhil group, and the major sub-groups of these are the Vasavas in Bharuch and Narmada, and Chaudharys, Dhodias and Gamits in Surat. Other minority tribal groups are the Tadvis and Kotwalias.

Geographical

Geographically, the districts slope from the Satpura hills in the east, to the coastal plains. Until recent times, much of the area was well-forested with one bear sanctuary in Narmada district, abundant with wild life. Now most of the wildlife has disappeared and the forests have degraded. The average rainfall of the area is around 1200 mm per year. Rainfall increases as one goes from the west to the east in Bharuch. Thus, the programme area is characterised by hilly terrain, deforestation and high rainfall resulting in heavy loss of rich topsoil with the surface water.

Livelihood

Agriculture is the main activity for most of the population. In AKRSP(I)'s programme area a large population is landless tribals engaged in cattle rearing and wage and agriculture labour. Apart from this, one of the most disadvantaged tribal communities comprising the landless Kotwalia subsists on making bamboo articles. However, many of the small farmers from tribal regions are only seasonal farmers and are forced to migrate for labour work for several months of the year. The coastal and plains belt forms part of the so-called "Golden Corridor" of Gujarat, and although agriculture still dominates, there is heavy industrial activity related to chemicals, textiles, and diamond polishing. This large-scale distress migration is again linked to the natural resources available at the village level.

Other Issues/Barriers

Due to degraded forest cover in the programme area, the people, mainly the women suffer a lot for collecting the fuel wood. They use the inferior quality fuels like crop residue and plant roots, dung cakes and shrubs which expose the women to the smoky kitchen due to poor quality fuels. In the Netrang² programme area there is a problem of insufficient

² AKRSP(I) focuses its activity in the most backward tribal talukas (administrative blocks) of the Bharuch-Surat-Narmada region through its Spear Head Team (SHT) located at Netrang and five clusters (field offices) located in Netrang, Dediapada, Sagbara, Mandvi and Naswadi.

supply of drinking water. The problem related to safe and sufficient supply of drinking water is the lack of any systematic modus operandi for repair and maintenance of existing handpumps in the village. Another factor that contributed towards disrepair of handpumps is that in many villages facility of standpost was provided by the government but most of the standposts were in a state of disuse. So, in the programme area the availability of drinking water is not a problem but the poor management of the system is the main concern.

How the Problems were Addressed

Every NRM programme has the potential to link with the others in its stream. Therefore, all NRM programmes of AKRSP(I) have been designed to coordinate with Human Resource Development programmes in order to ensure sustainability of programme interventions. From 2002, AKRSP(I) is implementing SCALE, which is an integration of three regional issues, ie Watershed Plus, Participatory Irrigation Management (PIM) and Micro Enterprise Development (MED) through promoting off-farm activities. AKRSP(I) have refined and scaled up its Watershed Plus model so that rain-fed farmers in tribal regions can at least have food and fodder security and increased incomes through agriculture intensification. The Netrang Spearhead Team has also been a pioneer in promoting the concept of Joint Forest Management in the state. Initiated by AKRSP(I) JFM aims to conserve forests in the area and has led to two village institutions in Pingot and Babda becoming proud owners of the Indira Priyadarshini Vriksha Mitra National award for best forestry programme. Another area of focus for irrigation has been the government constructed Canal Irrigation Projects where AKRSP(I) has been working closely with the government and farmers' groups in Participatory Irrigation Management (PIM). Under this, non-functioning canal systems are being rehabilitated and their management is gradually handed over to the farmers' organisations. These projects have led to major policy changes favouring farmers.

The tribal population, by and large, is new to agriculture, having turned to settled agriculture in the last couple of generations. With limited experience, few opportunities for irrigation, and very small land holdings, most tribal farmers are unable to support their families completely from agriculture and have to migrate in search of wage labour. To address these issues AKRSP(I) programmes have focused on agricultural extension services to help farmers adopt sustainable agricultural methods with improved seeds making them realise the economic benefits.

All of the AKRSP(I)'s interventions are carried out through village organisations. The relatively

homogenous nature of tribal society has been conducive to the formation of strong village institutions of many kinds, for both men and women. Federations of such village groups are now also beginning to emerge. Increasingly, village institutions with dual membership, wherein both men and women participate on a common forum, are also found. There are villages where the landless/marginal farmers do not gain substantially from AKRSP(I) interventions. By forming small groups with micro-credit activities and initiating intervention of non-farm income-generating opportunities for the women and landless, AKRSP(I) has attempted to increase their incomes in a sustainable manner. AKRSP(I) covers these sections through the Micro Enterprise Development (MED) theme.

Technology

The technology of the bio-gas plant (Deenabandhu model) with toilet was constructed on a pilot basis in village Sarkui of Mandvi taluka of Surat district in the year 2002. It was developed by constructing the toilet on a higher level than the bio-gas plant and linking it with plastic pipe of five feet, so another pit for its disposal would not be required. The 2M³ biogas model uses 25 kg of dung and 25 litres of water coming from the water used in the toilet. The wastage in shape of slurry is collected and kept in a compost pit, which after 3–4 months is used as manure in their fields. The bad odour of the toilet had been reduced by installing the modern toilet tub. After the success of this model it was scaled up gradually as more and more women demanded this model. This model is constructed on the traditionally available homestead land in this tribal area known as wada land. The bio-gas plant with toilet provides two-way relief to the women, ie fulfilling her fuel need and giving her a private space for relieving herself at her convenience.

Costs Involved

The cost of a bio-gas plant with toilet at the present rate comes to around Rs. 11500. The price fluctuates with the fluctuation of price of bricks and cement. The cost of the material and labour comes to around Rs. 9000 and Rs. 2500 respectively. The government provides a subsidy of Rs. 5100, which is claimed under different heads of alternate energy, including from Total Sanitation Campaign (TSC) providing Rs. 500 per toilet.

The process of participation adopted by AKRSP(I) through women SHG groups and other village institutions ensures the understanding of the community's need and contribution. The community contributes by digging the pit for the bio-gas plant and the foundation of the toilet. They also provide the payment to the mason and material such as

asbestos roof and iron door for the toilet. The rest of the amount is provided by the European Commission funding the project.

Perceptions of Community and other Stakeholders

The community is united on one stand: that sanitation is one of the major problems in the rural areas even though the government has chipped in many a time. The need is basically one of the major problems faced by the ladies in the village especially during the monsoons. They say that a secure and private place have become non-existent with the erosion of forest covers. Those who don't have access to toilet facility have to be accompanied by a male person, the old facing the same problem. Now with the construction of these toilets they feel the safety, personal hygiene, privacy attached to one of the most basic needs of human never felt before. For some it is like a status symbol as many of their friends and relatives don't have it. The technology has also become easier as women SHGs are also actively involved in the dissemination and implementation of this programme as well as repairing and maintaining it. It has become accessible for the community even though they

perceive the cost as a bit on the higher side but they accept that now they are fully utilising it. According to Saralaben and Sharadaben from village Sarkui and Ramilaben of Kavachia, it is the basic need which has made this programme a success in their respective villages.

They say that they had never thought that a model can be used for dual purpose as single pit/double pit model have failed in the past. The community has a need which is felt as well as real, and they feel that although it is an individual need, the government should be flexible in providing the sanitation benefits, not a rigid one which is usually followed.

Future Planning

- To build the capacities of more and more SHGs so that they can propagate these programmes further.
- To facilitate the linkages of these groups with banks, markets and government, so that they can access information as well as credit for their respective enterprises.
- Create awareness in the masses through mass movements.

7. Sanitation Campaign: PRIA's Experience

Nilanjan Ghose

Introduction to the Problem

Solid waste management is a problem in India. With a burgeoning urban population along with the rapid progress of urbanisation, urban India is likely to face a massive waste disposal problem in the coming years. India produces about 42 million tonnes of urban solid waste annually. The per capita waste generation varies between 0.2 kg and 0.6 kg per day, and the current municipal waste collection is estimated to be approximately 0.4 kg per capita per day.¹ The Census 2001 lists 299 cities with a population of over one lakh as urban agglomerates. As per the census, an area can be called “urban” when at least 75 per cent of its people are engaged in non-agriculture (and non-livestock) work and when its population density crosses 400 per square km. Since most of the small and medium towns have a population of less than one lakh, these are recorded in the District Census Handbook.

Waste management system in these small towns is in a state of shambles. Solid waste management is a part of public health and sanitation and according to the Indian Constitution, falls within the purview of the State List. The activity, being local in nature, is entrusted to the urban local bodies. The urban local body undertakes the task of solid waste service delivery, with its own staff, equipment and funds. Poor financial situation coupled with a crumbling infrastructure characterises waste management system in more or less all the small and medium towns.

Introduction to the Organisation

PRIA is a civil society organisation that undertakes development initiatives to positively impact the lives of the poor, marginalised and excluded sections of the society, by encouraging and enabling their participation in the processes on ‘citizens, their participation and inclusion, awareness and empowerment and their democratic rights’.

Operating under two broad themes “Reforming Governing Institutions and Civil Society Building”,

¹ Source: Tenth Five-Year Plan 2002-2007
Nilanjan Ghose is working as a programme officer for the urban governance programme at PRIA, New Delhi

PRIA's people-centred interventions aim at promoting active participation of the poor and marginalised in the effective utilisation of resources through local governance. It engages itself in strengthening of Panchayati Raj Institutions and municipalities, promoting environment and occupational health, facilitating a strong network of civil society organisations, promoting citizen leadership, monitoring policies and programmes of bilateral, multilateral and government agencies, to achieve an agenda of “Governance where people matter”.

PRIA's Perspective

PRIA's perspective on strengthening citizen's participation and democratic governance takes into account the new political space created by the 74th Constitutional Amendment Act, 1992. Based on this perspective, the strategy of the urban governance programme is primarily two-fold:

1. To enhance the capacity of the urban poor and marginalised sections of the society to understand, organise, act upon their needs, prioritise and to make demands upon the system for better service delivery.
2. To enable elected representatives and municipal officials to develop a clear understanding of their roles and responsibilities within a framework of accountability and transparency to respond to the demands of their constituencies.

PRIA has started intervention in the small and medium towns from the year 2000. Sanitation and solid waste management was identified as an important issue affecting the poor, vis-a-vis their entitlement and access to basic minimum services within the framework of more transparent and accountable system of local governance. PRIA and its partners undertook campaigns in selected states on this issue whereby both the demand and the supply aspects of the issue were addressed for understanding and acting towards achieving more inclusive and effective governance in these locations. As of now, PRIA has started intervention in 48 Urban Local Bodies (ULB) across 12 States. Further, PRIA has initiated the intervention on sanitation and solid waste management in 27 Urban Local Bodies in the year 2004-05.



A street play in progress to generate awareness

The campaign on sanitation and solid waste management is undertaken by PRIA and its partner organisations in the following states:

- Himachal Pradesh
- Andhra Pradesh
- Uttaranchal
- Bihar
- Haryana
- Jharkhand
- Kerala
- Madhya Pradesh
- Uttar Pradesh
- Rajasthan
- Chhattisgarh
- Gujarat

Intervention Strategies

The field strategies are broadly divided into two groups: The first looks at the problem from the demand side (ie developing the knowledge base for the existing status and waste management system, generating awareness for ensuring proper waste disposal and environmental hygiene, developing of Information, Education and Communication (IEC) materials which includes both static and dynamic tools including short films on waste management, mobilising community to develop collectivisation to participate, ensure proper waste collection etc). The second set of strategies looks at the problem from the supply side (ie sharing and facilitating the data base with the concerned government department and officials, organising joint meeting, spot registration camps, etc).

Community Mobilisation: Strategies to Support Demand Side

Majority of the poor and marginalised sections of the urban population are forced to stay in areas with poor service delivery mechanism. PRIA's experience in working with these communities highlights that poor sanitary conditions and lack of awareness are

the most pressing concerns. Apart from developing a proper waste management system, there is also a need to make the community aware of it to ensure their active participation.

Generating Awareness

PRIA and its partners have been involved in developing awareness among citizens for ensuring proper municipal waste management systems. Several forms of awareness programmes like street rallies, wall writings on prominent locations, door-to-door campaigns, small community meetings and even nukkar natak are being organised in different intervention sites. IEC materials like posters and pamphlets are also prepared and disseminated in the meetings, rallies and through the information centres in various locations.

People's Collective

PRIA and its partners, through its intervention at micro (municipal) level formed citizen's groups in municipal ward basis, especially in areas with poor unsanitary conditions. These collectives provide a platform for periodic discussion, dialogue amongst its members and with other key stakeholders (municipal officials, elected representatives), initiating sanitation campaign and on ensuring community monitoring of services. The Urban Resource Centres² facilitate the entire process of collectivisation, prioritisation of the issues through community participation, sharing these issues with suitable forums and developing action plans. The citizen leaders who are the major facilitators in the Urban Resource Centres (URC) develop the collectivisation process through regular sharing with the informal groups. These groups are collectively known as *Mohalla Swachata Samitis* which have been formed in intensive wards under Madhubani Municipality (in Bihar) under Pithoragarh municipality (in Uttaranchal) and in Khairabad Municipality (in Uttar Pradesh).

Strategies for Supporting the Supply Side

Sharing of the data with the government and municipal officials

The data and feedback collected in the course of different field surveys and informal meetings regarding the status of waste management and on people's perspective is regularly shared with the respective government officials. The reports thus prepared are also shared with the District Magistrates, Sub-divisional Magistrates, and Executive officers of different locations. The sharing of the reports was very effective as it allowed the officials to understand the

² Urban Resource Centres are offices opened at the municipal level to facilitate mobilisation activities at specific locations relating to particular issues

A closer look at the Madhubani experience

Madhubani is a medium-sized town with a burgeoning population of 70,000. Lack of adequate infrastructure and resources caused a serious challenge for the municipality to provide basic services. Poor waste management was the most visible example. During the monsoons, the situation was worse. With blocked drains, the stagnant water made an entry into the households causing further problems. Deep concerns raised by citizens in the course of a ward level meeting became the starting point for initiating public opinion. To this effect, a dialogue amongst various stakeholders was organised to galvanise public action on garbage disposal and cleanliness of drains. A follow-up action plan and several preliminary meetings with informal leaders in the community led to the initiation of a citizen-led campaign. The campaign, facilitated in one ward, helped the citizens to map the ward, generate personal material resources, forming core groups to undertake key responsibilities. Each morning the campaign focused on creating awareness at the household and market level for disposing of garbage in the bins, collecting the garbage, cleaning the streets and drains and disposing reclaimed land. The Daily Review Exercise in the evenings helped citizens to analyse and set directions for the Campaign. To sustain intervention with the community's initiative, a Ward Cleaning Committee was formally organised consisting of active volunteers. This Committee was oriented and supported to hold regular meetings, collect user fees from ward residents on a monthly basis and make decisions with regard to expenditure of the funds collected. In addition, they were enabled to contact businessmen for donations towards procurement of garbage bins. Posters and pamphlets were distributed along with local dailies to emphasise the need for cleanliness on a periodical basis. Liaison with government officials brought in legitimacy and much needed extra resources to support the campaign. Media, in turn facilitated the campaign with regular highlights. Repeated intervention over the last couple of months in one ward, has elicited responses from the Ward Commissioners multiplying the intervention in their respective wards for varying periods, devolving greater funds for purchase of hardware cleaning equipment and most importantly evoking a public commitment. One spin-off of this movement has also resulted in change of leadership at the Municipal Council level, as the concerned official was found unresponsive in utilising the state funds, earmarked for Sanitation and Cleanliness.

ground reality and also have an understanding of the citizen's feedback about the services provided.

Sensitising the elected representatives

Efforts are also made to sensitise and to provide regular updates to the elected representatives about the different aspects of municipal solid waste management and also on the different aspects of Supreme Court guidelines regarding the same. For example, in Gujarat, Unnati³ undertook a role in educating the elected representatives and other municipal functionaries in ensuring the basic minimum services from the municipality. A similar training programme on sanitation and solid waste management was also organised for the women elected members by PRIA in Himachal Pradesh. The objective was to chalk out strategies for involving women counsellors in the implementation of proper waste management system. As a follow-up, the women elected representatives started spreading house-to-house awareness to address these issues with the active involvement of the community. In short, the supply side interventions look at the reforms that need to be undertaken by the municipal officials to include adequate provision for better sanitation practices in the development plan of the town.

Lack of adequate financial resources including poor management of the existing infrastructure is one of

the most important challenges presently faced by the urban local bodies in the small and medium towns. Some of the municipalities have not been in a position to pay the salary of the sanitary staff for the last 6–10 months. In most cases, the vacancy created through the retirement of a staff remains unfilled leading to shortage of manpower. It is currently becoming extremely difficult to provide services to the rising population with the dwindling manpower resources.

Keeping this situation in perspective, PRIA is trying to create citizens' groups that can monitor and even contribute to and cooperate with the municipality to ensure proper cleaning of their respective locations. Efforts are also on to make the elected representatives understand their roles and responsibilities vis-a-vis the 74th Constitutional Amendment Act.

To conclude, it can be said that efforts are on to sensitise the community, elected representatives and the municipal officials about the different aspects of waste management. In fact, in order to have a successful system in place, it is very important to have proper co-ordination between different stakeholders involved in the process and PRIA and its partner organisations are trying to develop a system of co-ordination within the system.

³ Unnati is the partner organisation of PRIA in Gujarat

8. Actualisation of an Idea for Urban Sanitation with People's Participation

A Case of Pune Municipal Corporation

Asha Ramesh and Anjal Prakash

Introduction

Urban sanitation is a challenge and continues to be for governments to meet the needs of the growing urban population, particularly of the urban poor. Pune city in western India has been no exception in facing this challenge, with more than three million population; this industrialised town has become the destination for pulling unskilled workers in search of employment from far and near areas. The increased influx of people has created more numbers of squatter settlements. Rough estimates suggest that half of Pune's population live in around 500 odd slums. This obviously has resulted in major concern for sanitation. Though there were around 2500 toilet blocks in these slum areas, most had been built over 25-30 years ago and were in a dilapidated condition, due to lack of and improper maintenance. Therefore, most of the toilets were in an unusable condition. New slum locations were also emerging due to migration for employment. This added to the sanitation crisis as open defecation became rampant.

While this was an issue of concern, no concerted action was initiated until the intervention made by a committed and sensitised Municipal Commissioner, who felt that if the sanitation needs of the poor are not met, what kind of civilisation and development is one talking about?

Therefore, this case study is an attempt to capture the efforts of the municipality in partnership with NGOs to address this problem by providing an overview of the intervention, its approach, technology and implications on the lives of the poor in accessing sanitation. In specific, it looks at the initiative of the Pune Municipal Corporation and its collaborative work and experience with two partner NGOs — Society for Promotion of Area Resource Centre (SPARC) and Shelter Associates (SA). It is divided into three sections — Section I gives a brief account of the project initiation by Pune Municipal Corporation and its achievements. Section II documents the case study of two NGOs — SPARC and SA and their experience in the process. Section III discusses the Pune model and draws important lessons for replication.



SECTION I The Initiation

In November 1999, the Pune Municipal Corporation in partnership¹ with NGOs and community-based organisations started an initiative to build new community toilet blocks and revive old defunct community toilets. The magnitude of the problem made it clear to the corporation that reaching out to people was a huge task and this would require partnership of NGOs. Therefore they invited NGOs to join hands to work on provision of sanitation facilities in the slum settlements. A revealing fact was that between 1992 and 1999, only 22 toilet blocks had been constructed by the municipal corporation, most of which were poorly maintained and in awful unhygienic conditions. Hence, the new programme planned to build 220 blocks during 1999-2000 and another 220 during 2000-2001. The contracts were not limited only to building toilets but also included maintenance. In awarding contracts, priority was given to settlements with more than 500 inhabitants without toilet facilities and, after these, to areas where facilities were so dilapidated that they needed replacement. Bids from eight NGOs were accepted, after a review of their track record.

¹ The project was initiated by Mr. Ratnakar Gaikwad, the then Municipal Commissioner of Pune. In a short stint of 18 months, he could mobilise resources, motivate municipal corporation staff and resist political opposition to initiate the process which was carried over by others after he left

SPARC-Nirman was awarded a contract to build 114 toilet blocks (with a total of more than 2000 toilet seats and 500 children's toilet seats). The Alliance designed and budgeted the project, the city provided the capital costs and the communities developed the capacity for management and maintenance.

The design of the toilet blocks introduced several innovations. Unlike the previous models, they were bright and well-ventilated, with better quality construction (which also made cleaning and maintenance easier). They had large storage tanks to ensure there was enough water for users to wash after defecation and to keep the toilets clean. Each toilet block had separate entrances and facilities for men and women. A block of children's toilets was included, in part because children always lose out to adults when there are queues for a toilet. Since many young children are frightened to use conventional latrines, the children's toilets were specially designed keeping this in mind. It included smaller squat plates, handles (to prevent overbalancing when squatting) and did not have large pit openings. In many toilet blocks, there were also toilets designed for easier use by the elderly and the disabled. Toilet blocks also included a room where the caretaker and their family could live, which meant lower wages could be paid for maintenance, thus reducing the running costs. In some toilet blocks where there was sufficient space, a community hall was built; small fees charged for its use could also help cover maintenance costs. The idea of having a community hall on top of the toilets was a way of pressuring the caretaker to ensure cleanliness of the complex. An important point to be noted is that despite these innovations, the cost of the toilet block was still five per cent less than estimates developed by the public works department of the government. The efforts put in building the toilet blocks was recognised and celebrated at a public event through a toilet festival. Here the contribution of all those who had helped in the programme was duly acknowledged – including people from government agencies and from communities.

An important aspect of the programme was that it brought about a reconfiguration of the relationship of the city government, NGOs and communities². The city government recognised the capacity of community organisations to develop their own solutions, supported by local NGOs. The city authorities changed their role from being toilet providers to setting standards, funding the capital cost of construction and providing water and electricity.

² The efforts in addressing urban sanitation by Pune Municipality's initiative encouraged visits from officials and community representatives from other cities. In fact, the Mumbai Slum Sanitation Project that was started later is based on the Pune example

The Change

There were around 2500 toilet blocks in the Pune slum areas before the project began in 1999. These community toilet blocks were built around 25–30 years ago and were in a dilapidated condition, leading slum dwellers to defecate in the open. After the project started, a survey of all slums in the city was done. The survey categorised slums into three categories: A, B and C. Slums under 'A' category referred to those areas where there were no toilet blocks while slum 'B' means slums having unused or mis-managed toilet blocks. Slum 'C' was the category where toilet blocks were functioning but they were inadequate in serving the people. To start with, 67 slums were identified as 'A' category slums that require priority while 452 slums were identified as 'B' category slums being second in priority.

After setting up the priority, the question was to pool in resources. For financial resources, the annual budget of the approved Municipal Corporation budget was used and commitment of individuals involved in the programme made it as a mission. Under this, technical and human resources were pooled in by declaring it as high priority work. The NGOs were invited in partnership to the project as knowledge partnership that supported the design, construction and maintenance of toilet blocks. The capital costs of construction and the provision of water and electricity were supported by the Municipal Corporation while the NGOs facilitated the social processes and also provided inputs into designing and maintenance of the toilet blocks through the collection of user fees from households. They also took up responsibility of building CBOs to ensure sustainability and maintenance of the toilet blocks.

This initiative brought about a change in the role of the Corporation in relation to service delivery where instead of being a provider, it became a facilitator. Earlier communities had never been involved and now, NGOs and CBOs came to the fore and took on a proactive role in design, construction and maintenance.

The results achieved were impressive. 418 toilet blocks with 6958 toilet seats were constructed in Pune slums through people's participation as a result of which people did not have to suffer the indignity of open defecation, as they used toilets now. Children's toilets were also provided at many locations. Health and hygiene improved due to better environment as sound ways of waste disposal were adopted. The building of toilets benefited the poor as it is they who reside in slums. The provision of a caretaker's room is an incentive to any family to ensure cleanliness in the toilet complex.

SECTION II

Case study of SPARC and SA³

SPARC supported slums

In *Karve Road, Galli no.9*, the toilet was located on the main road outside the slum. This helped to bring in additional income from people using this route. Non-residents had to pay a user fee of Re. 1.00 per usage. The slum had approximately 700–800 households. On an average the estimated ratio is one toilet to 50 households. The toilet block, besides having separate toilets for women and men, had provision for a separate bathing space, specially for women as women do not have that privacy and are often forced to sit under the public tap in the open or under very constricted situations in their homes. This is often done in a manner that is not hygienic as they are unable to have a proper, clean wash. There was also separate toilet space for children and urinal for the men. It was observed that the toilet was kept quite clean. The income generated from the slum residents was Rs. 20 per household and the additional that came in from non-residents usage. Talking to the slum residents, they expressed that with the construction of the toilet blocks, it certainly has made a difference in their lives. Earlier women had to go far in search of some isolated corner to defecate. Children sitting in the open made the environment unhygienic and caused not only filthy environment but led to outbreak of diseases. These have come under control and the slum is a lot better place to live in and it has helped them lead a clean and healthy life.

SPARC-supported Toilet Block

In *Kashiwadi in Bhawanipeth*, the toilet block was newly constructed and therefore spic and span. What was different from the earlier slum here is that the caretaker Meena is a member of the Mahila Milan and resident of this slum. Therefore, she is also part of the SHG formed here and is employed by the caretaker agency for the maintenance and cleanliness of the toilet. Meeting with Mahila Milan SHG members showed that the change is appreciated but they did not feel completely responsible to maintain the toilet as Meena was specifically employed for this. Meena shared that often individuals use the toilet and do not pour water as they feel that it is her task. She also expressed frustration when women refused to maintain hygiene and recently it led to her being physically assaulted, but none of the SHG members came to her rescue. She felt that the members must also take responsibility and persuade the other residents about maintaining toilet cleanliness.

In *both the slums*, Mahila Milan should ideally be in charge of supervision, check whether toilets are well maintained, drainage systems in the slum are in order and so on. However, the discussions with slum dwellers show that the caretaker agency is responsible for the monthly collections from the slums. The caretaker agency has appointed outsiders as caretakers in both the slums. The slum dwellers conveyed that they do not have control over these toilet blocks. Every month, the caretaker would reportedly stand outside the toilet and whoever did not pay was not allowed to enter the block. The salary for the caretakers is on the basis on the toilet seats, for example the least being a 10-seater for which the caretaker is paid a salary of Rs. 1200 and the maximum 60-seater toilet for which the caretaker is paid a salary of Rs. 3000. A monthly maintenance for each toilet block is Rs. 500, which the caretaker agency provides in kind through supplies of cleaning agents and other cleaning materials. Wherever the toilet block is unable to generate adequate income due to size of population or improper usage, then the salary and maintenance cost is cross subsidised from those slums where profits are being earned.

Shelter Associates, Intervention

Ambedkar Nagar in Dhayari fringe village is a small settlement of around 80 houses situated along a canal at the base of a slope in Garmal area of Pune city. Shelter Associates have been working in the slum through women's collective (Bandhani) organising them for accessing basic services. For long, the settlement did not have any basic amenities – no toilets, no water supply. As a part of PMC-NGO toilet drive in 2000, the women's collective became actively involved in construction of community toilet block. The women took charge of the site, kept tabs on the material deliveries and checked on mixes to ensure a well-built toilet block. The material for the toilet was supplied by the PMC while community contributed towards the labour and management of the process for building the toilet. The six-seater toilet block was built but there was no water supply to use the pour-flush latrines. The women used this opportunity to negotiate with the PMC for the connection of a water standpost. Today all the families are using the community toilet, paying Rs. 20 per month per family. Rs. 1260 is collected per month out of which Rs. 100 is spent on cleaning materials and Rs. 250 towards electricity charges. The caretaker-cum-cleaner who is from the slum itself charges Rs. 900 per month for cleaning the toilets and maintaining them. The first floor of the toilet is used for area resource centre and meeting place for the women's collective, says Svarna Parwade, one of the member of Bandhani, the women's collective. She explained how the issue of community toilet led to many other things such as getting electricity for the slum while negotiations are

³ This section is based on visits to the project locations of SPARC and SA during September 26–29, 2006 by the authors and their interaction with key project functionaries, community leaders and staff of the two NGOs

on for getting permission to build drainage channels as the slum is located in a low lying area and flood water enters their houses during monsoon. Ask how different this slum is from other slums of Pune and an instant reply is that the management of the toilet is in the hands of the people living here. If we have any problem, we do not have to search for the person to rectify it. We can manage it on our own as we have power and strength to do so. Svarna Parwade may not know the lessons she is teaching to policy makers sitting in the office of municipal commissioner.

Another aspect of SA's intervention is to give pride of place to slum women in the implementation of the programme. SA supported women leaders are in a position to take up other construction programmes, visit government offices to negotiate their entitlements and are now treated with greater respect in the family and community.

Issues and Recommendations

The SPARC-Mahila Milan built a total of 137 toilet complexes in approximately 50 slums between the period 1999 and 2003. This is remarkable, since the importance of toilet usage was instilled which checked open defecation, especially among the adults, who due to lack of space, earlier, squatted in the open. This has improved the slum environment and impacted the health condition of the slum residents. But for the support, cooperation and vision of the Municipal Commissioner Mr. Gaikwad and the partnership of NGOs, CBOs and Municipality, this could not have been achieved.

While this initiative has helped in the empowerment of Mahila Milan women members, built their confidence to interact with government officials, engineers and others, it has unfortunately largely resulted in there turning into contractors. Though this is commendable as they have found a place for themselves in a male-dominated sphere, it has dealt a blow to the women's perspective, which believes in looking at issues in a holistic manner. Therefore the women are now well informed about the cost and design, hence are busy contracting construction of toilets and sub-contracting its maintenance to the Caretaker agency, who appoints agents to take responsibility of collections. This in a way has made the Mahila Milan women distant from the actual problems in the slums. Health and hygiene did not figure in their priorities. Ironically, in our interactions with a couple of the Mahila Milan key members, what was shocking was that while they went around building toilets in other slums, one of them came from a slum that till date did not have a toilet. This is the Jai Bhawani basti which has a population of nearly 7000 and is located on top of a hill. The space that was identified for the toilet was close to the drinking water tank and hence inappropriate. At

the foothill two toilet blocks have been built, but still households living on top tend to defecate in the open, instead of using the facility at the base of the hillock. Savita, who is an active member of the Mahila Milan shared this reality with us. "It is not easy to convince people even if it is your own basti", was her reply to us. This therefore, reinforces the belief that preparing the people to change behaviour is critical and with that realisation will come the support to accept toilets, communities suggestions to overcome problems as prevailing in Savita's basti. Therefore solution will come from people themselves when they own the process of change. Also it is a test for Savita, who builds awareness among communities in other slums but has not been able to do the same in her own slum. Therefore, it is important for examples to begin with self.

The Shelter Associates' approach is different, as it is very clear that from the inception of the intervention, it is the Bandhani members, who as residents of the concerned slum where the toilet is to be built, take control of its management and maintenance. Here the community participation is present, though the extent of participation may require further strengthening, so that complete ownership happens, and that it does not limit itself to mere toilet construction.

Another important issue is that it is important to prepare the community. This involves behaviour change and hygiene practices. When there is a pre-toilet construction phase with awareness building, it makes a difference to community response. Since this was not the pattern followed, it was evident that there was lack of community ownership and in that sense community participation seemed very minimal.

The important lesson that emerges from Pune Sanitation Initiative is the importance of partnership between state actors, NGOs and CBOs. The fact that administrative machinery of the state cannot by itself reach the poor, the initiative recognised the need of partnership. Pune model had to teach a lesson to Mumbai and Bangalore where similar initiatives were undertaken.

Therefore it is suggested for the sustainability of the initiative:

- There should be space for social processes to take place before construction actually begins. This phase is needed for preparing the community to take responsibility and ownership which adds to the sustainability aspect of the project.
- The contract for maintenance of toilets which is given to contracting agency goes against the ethos of the project which recognises the potential of the community to build, manage and operate community toilets. It also means that the profit from toilet blocks go outside the

community. There are examples of community-managed toilets (Gramalaya case in Trichy in South India) where the profit generated from the toilet is used in increasing infrastructure in the slum.

- The Mahila Milan SHGs are vibrant organisations and hence they should be present in all the slums where a similar programme has been initiated. In fact, the trained SHG members can take over the management of toilet blocks and the caretaker can be selected from local SHG members for coordinating the activities.
- The next step could be to link SHGs to bank loans and as part of entrepreneurship enabling them to set up enterprises either collectively or in the slums to supply materials required for toilet block maintenance.
- Training youth and Mahila Milan members in plumbing, masonry and other repairs so their services can be used in construction and repair/maintenance work.

Acknowledgement

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of Pune, now associated with Yashda (Yashwantrao Chavan Academy of Development Administration) and his associate Mr. Vidyadhar Deshpande. Independent discussions with Mr. Vinay Mahajan, an architect closely associated with SPARC in the sanitation programme were useful. Interaction with Ms. Pratima Joshi of Shelter Associates was very informative in understanding the dynamics and approaches of the Pune model.

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9. Vedireswaram – Abode of Development

A success story of Byrraju Foundation-adopted ‘Nirmal Gram Puraskar’ village

VSN Raju

Vedireswaram, a typical Indian rural village – a picturesque one with lacy coconut trees and lush green fields, where villagers pluck rice by hand, is located 70 kilometres away from district headquarters – Kakinada and 1 kilometre away from Mandal head quarters – Ravulapalem. The village is inhabited by a population of 6,394, with poor infrastructural, sanitation and educational facilities. There are 1256 households, spread over six hamlets, in the village. The main occupation of the villagers is agriculture, the principal crops being paddy and banana. People are very committed and trustworthy.

On request from Sri Kosuri Gurraju, a philanthropic personality, and other like-minded people of the village, Byrraju Foundation adopted this village on 15 August 2001 and set up a health centre to cater to the needy people (small, marginal farmers and labourers). In the absence of such a facility, people had to travel to a nearby town to consult a doctor, thereby foregoing at least a day’s wages besides facing other inconveniences.

It is a common scene in villages that people are accustomed to defecative in open. Vedireswaram was no exception to practice, a malicious factor creating unhygienic conditions and polluting water sources in the village. Illiteracy was another malady amongst a sizeable number of villagers.

With the active support and involvement of **Byrraju Foundation**, Vedireswaram has come up from that ugly past, eradicating open defecation and illiteracy. The open defecation has not stopped overnight and village has not been transformed just in a day. Despite joint efforts of the Foundation, Panchayat and community, it took three years from the time the village was adopted. This effort lead to awarding a prestigious Nirmal Gram Puraskar, presented by His Excellency the President of India, Dr. A.P.J. Abdul Kalam on 23 March 2006 at a ceremony in New Delhi. Sri S. Ramakrishnam Raju received this prestigious Nirmal Gram Pursakar.

Till the year 2002, the people of Vedireswaram, especially those in the lower strata (under the Below Poverty Line) lacking toilet facilities, were defecating in open. The serene and well-laid banks of canal

carrying water from Godavari River, a major source drinking water as well as irrigation, the places used for this purpose. This pollutes the water used for drinking of people and animals.



Byrraju Foundation – Health Centre

This is the place from where the entire movement to prevent such pollution to irrigation canals has been geared up. The Foundation has laid the first step in making the village free from open defecation. Nobody knew that the first step would result in Vedireswaram Panchayat getting the NGP.

To eradicate defecation in open, the Foundation organised awareness campaigns, distributed leaflets highlighting the ill-effects of open defecation and motivated villagers in bringing about behavioural changes. The Foundation also conducted workshops, seminars and focused group discussions amongst villagers of all the adopted villages. Concerned officials and educationists were invited to share their ideas, constructive thinking and offer suggestions.

In continuation to the efforts, the Foundation teamed up with Sri Kosuri Gurraju, Sri S. Ramakrishnam Raju, Sarpanch of the village, Sri N. Anjaneya Raju (Convener - GVS), other volunteers and youth in the village to stop open defecation. The mammoth effort has become even stronger with the support from government officials. Towards this, the Foundation with the support of local people has initiated and constructed 116 toilets for the BPL families, who were otherwise defecating in open.

Even after construction of toilets, there was a rebuff or resistance from the community, who showed their disapproval to utilise ISLs. Having been used to defecating in the open, it was a strange and uncomfortable feeling to use the toilet seat. As a first step, a series of meetings with the community, pasting of posters and painting of the walls depicting the ill-effects of open defecation, were carried out. These steps resulted positively in making 50 per cent of the households utilising the ISLs constructed.

Under Total Sanitation Campaign, the Foundation, Grama Vikasa Samithi¹ (GVS – a nine-member voluntary body [consisting of change agents in the village] constituted by Byrraju Foundation) and Panchayat staff surveyed the village, listed people under BPL category and approached government officials. Wherever required land was not available with the household, government land was provided and construction of single pit ISL, as per the design of UNICEF was followed. Central and State Governments together provided an amount of Rs. 2700 from TSC funds, whereas the Foundation contributed Rs. 500 and beneficiary sharing Rs. 300 per toilet.

The Foundation met higher officials in the government, including Chief Engineer of Panchayat Raj, District Collector and Mandal Development Officer to complete the task in the above initiative. Support from the government in issuing necessary sanction orders and timely release of funds in completing the construction of toilets is highly appreciable. Masons who reside in the village itself, were encouraged to take up the work of construction of toilets. The Foundation, GVS and Panchayat laid emphasis on the design and quality of work. Members of GVS played a vital role in associating with construction team in reviewing the progress and also quality of work. The Foundation has contributed in facilitating construction of 545 toilets in Vedireswaram.

Even after the construction of toilets, about 50 per cent of the households did not respond positively in using the ISLs and preferred to defecate in the open. The Foundation played an advocacy role in influencing the Panchayat and community to lodge complaints against the defaulters thereby creating fear among those who were resisting use of ISLs. Villagers, despite affiliating with different political parties, joined hands and supported the wise decision of the Foundation and toured the entire village to create awareness about use of ISLs.

Even after this, a small percentage of people who not using ISLs, were made to temporarily forego their ration cards. This measure resulted in the beneficiaries' switching over to use of ISLs thus reaching complete eradication of open defecation. The entire process, from construction stage till 100 per cent utilisation of toilets, took two years.

The Foundation has received meritorious awards from the district collectors of East Godavari and West Godavari for the active participation facilitating construction of toilets.

¹ The Grama Vikasa Samithi (GVS) is a voluntary body, formed and institutionalised in each of the Foundation's adopted villages to properly utilise and monitor the initiatives of the Foundation at village level. <http://www.byrrajufoundation.org/communityformation.htm>

The Foundation has not only restricted its services to ISL activity, but also initiated services in the fields of education, livelihoods, drinking water, health and other related activities. In education, the government school in Vedireswaram was adopted and equipped with furniture, computers, audio-visual equipment, teaching-learning material and laboratory equipment (High School) for the benefit of students. This helped the school in achieving the status of a model school. This has gained momentum and people started trusting the Foundation and its activities. An adult literacy programme has also been geared up resulting in the village attaining 100 per cent literacy.

In order to keep the village clean and green, the Foundation has given two garbage collection rickshaws. The panchayat has supplemented these with dust bins to all the households for segregating waste at source itself. Organic waste was composted and used in paddy and plantation fields thus reducing dosage of chemical fertilisers. Infrastructural facilities have been developed with all main roads in the village cement concreted. The Foundation has also supplied tree guards and motivated the villagers to grow trees on the road-side, so as to build a green cover in the village.

G.M.C. Balayogi Park — The open land was levelled, fenced and subsequently converted into a beautiful park. Statue of Late G.M.C Balayogi, former Speaker of Lok Sabha, who rendered assistance towards development of the village, has been installed in the park. Sri S. Ramakrishnam Raju, sarpanch of the village contributed in creating this park.

Protected water facility: The panchayat constructed water tank of 2.5 lakh litres capacity to provide drinking water to the villagers.

Reflections

Sri S. Ramakrishnam Raju – Sarpanch of Vedireswaram village: “I felt very happy that our village has been selected for NGP award. Byrraju Foundation is instrumental in making our village achieve this distinction. Late Sri G.M.C. Balayogi has also helped our village to prosper. On this occasion, I am rendering my heartfelt thanks to one and all who have helped us reach this distinction.”

Sri N. Anjaneya Raju – Convenor, Grama Vikasa Samithi: “The collective effort of Byrraju Foundation, Sarpanch and villagers has rendered us to receive this prestigious award. I am happy that our village has received this award.”

Sri S. Kasi Viswanatham – Villager: “After adoption of our village by Byrraju Foundation, the team spirit has developed. The courageous decisions taken by our village sarpanch is highly commendable. The distinction received is the result of collective effort of Byrraju Foundation, village community and government officials.”

10. Beyond Sanitation

A case study of Jalna district of Maharashtra, India

Nipun Vinayak

Prologue

'Beyond Sanitation' is the story of Open Defecation Free (ODF) campaign in Jalna district of Maharashtra. Working for this campaign during the last one year has been an immense learning experience in realising the needs/priorities of the people, analysing the delivery mechanisms to the grass-roots, and finding ways of achieving the single most important change required for development-positive attitude. In Jalna district, 156 Gram Panchayats and 288 villages have become open defecation free till March 2006. Besides the *bhumi putras* of this district, we have been supported immensely by Shri Dapke, Sarpanch, Bahirgaon, Aurangabad and Shri Madhav Patil, Sarpanch, Selgaon, Nanded. As we all worked for this campaign and saw the results, it was only natural to give priority to this work. Perhaps no other Government programme necessitates people's participation as elaborately as this programme, and hence perhaps the sustainability of this programme is most assured. The first section describes the manpower – within and outside Government – who have worked for this campaign with passion, bordering on to *velpana* [madness]. The second and third sections describe the learning experiences in triggering change. The special role of people's representatives and trigger persons is explained in the next two sections. And the last section tries to explain why we call this campaign, '*beyond* sanitation'.

The Manpower

*"Akele hi chale the raah par,
dost milte gaye aur karvaan banta gaya.."*

Who shall do this work? Whose responsibility is this? In Jalna district, one good thing that happened was central pooling of some of our employees for this work. It was essential that some people work for this campaign *exclusively* so that they could give enough time that this work demands. This TSC team was, from the beginning, made to work quite differently than the hierarchical bureaucratic set-up. It works like a family. There is trust, first of all. All know that the campaign is a difficult one, involves dedication and hard work, and therefore participants are not doing it out of compulsion. These men/women have determination of steel. When they approach a village, they are not sure as to how many times or for how many months they may have to interact with that village. But they are positive. They are equipped with the technical skills and the interpersonal communication required. They know of the trigger/potential trigger persons in the village. They know that *someone from the village* must imbibe the passion to continue the work in between their visits to the village.

We designated this case team as TSC coordinators. However, we realised that scaling up would require much more manpower and all available human

potential, both within and outside the Government, has to be involved to attain sustainable and best results. We then chose our employees, working in those villages [240 in 2005-06], which we had aimed to be ODF by March 2006. This staff was then, motivated by projecting this campaign as a sole opportunity for us all to improve our image in the society; to break the belief [or at least shake it to some extent], that Government machinery is incapable of delivery of results, and to let us breathe in the air of self-esteem and self-confidence. We spent the initial two to three months in motivating this task force and training them and showing confidence in them.

Once the goal was clear, and there was motivation, then, as we all realised, there were many ways to achieve it. The campaign has been a learning experience in experimenting with different modes of communication to bring about a positive behavioural change. We realised that rapport must be struck with the village at the first and at each step. When we started this campaign, the first principle that we followed was that *our mindset had to change first before we stepped out to change the mindset of the people*. We constantly remind ourselves that if we go to the village to do 'margdarshan' sitting on inevitably unequal platforms, not much would be achieved. Hence a very deliberate attempt made was to enter the village leaving our 'government clothes' out. The village employees, in the course of their work, do not get to meet [rather the people do not get to see them!]

all in the village. By all, we necessarily mean including the economically and socially backward. The crux of this campaign is that because it is a village goal, *all* in the village must be involved. A Gram Sevak/Anganwadi karyakarti/teacher may not have *reached out* to *all* in the village. Usually, there has not been a forum in the village to discuss the common issues of the village. There are Gram Sabhas, but usually to select few individual beneficiaries, and hence involvement of all people of the village is rarely achieved. In this campaign, therefore, we spent about fifteen days to one month developing a rapport with the people. This was a time not to preach, but to listen. PRA exercises were conducted in the villages, and corner meetings, one-to-one dialogues were held to have a better idea of the village in general, and to pick up from there as to what would trigger change in that particular village.

Rapport-building continues through the process. It only gets strengthened with time. This happens through small gestures like addressing villagers as *kaka, mavshi, and aaji*; by resisting efforts to find fault with the village, and appreciating their good work immediately. For example, in Shevga, the villagers had contributed to provide school uniforms to children in the village, Palaskheda, village was appreciated because a boy of that village had stood first in the district-level Gram Sevak entrance examination and also because the village had successfully implemented the *vyasan-mukti* [ban on alcoholism] programme. Such gestures are necessary, because in the first place, *they make villages think about themselves as one unit, and secondly, they shrug off the dust of dependence and infuse in them a confidence in their own abilities.* Both results are pious and worth striving for. Rapport is also built by being sensitive to their problems.

Once that was achieved, our manpower was adequately trained to approach the village with complete solutions. A 'Technical Manual' and an 'Inter-personal Communication Manual' were prepared for the district. Training was more in the form of sharing experiences with each other on a regular basis, because the hurdles faced in the programme were more or less similar. Most people may in general agree that toilets are to be built but would have many misconceptions about the space it requires, whether it smells, how much money it requires, and how much water it requires. Having perfect answers to these questions is a must before the village is approached, as also the knowledge about when to reveal this information for best results.

We also ensured that these villages got to see an ideal ODF village and see the change for themselves. Seeing is believing. No amount of lectures and discussions can clear doubts or change minds as well as a visit to a good village. This was also not easy to achieve. We would lure villagers to get to see some nearby religious places or Ellora caves and also show

an ideal village on route. Most often the visit had a tremendous effect and villagers would often take pledges/begin to plan even on their way back.

With repeated follow-ups from our side, and continuous visits to villages, our team began to achieve positive results. They would sometimes be pleasantly surprised at realising their potential. The love and affection that they got on achieving the result was enough not just to keep them moving, but also inspire others. The team of our employees began to get strengthened, as our roots in the community began to spread. The trigger persons from the ODF villages became our best friends and companions. *Your team and strength increases as you go ahead on the path.* There are people like Dr. Daulatrao Gade of Warud Khurd a writer, who are waiting for genuine, good efforts for development. They join the bandwagon and spread the flame. We happily realised that employees from other departments also began to get involved and the reason was clear. Each one of us has roots in the village and realises the need for sanitation and cleanliness, as also the complexities involved in triggering a positive behavioural change in the village as a whole. That this one campaign achieves much beyond a sanitised community began to get clearer by the day. And hence, our employees began to join the movement in the hope that they would experiment it back home in the their own villages as well.

Support began to come from all sections of society. We were reluctant to involve bankers in this programme because of the mistaken belief that bankers necessarily would mean loans to people for construction of toilets, and this would lead to similar demands from elsewhere. Until we met Shri Kulkarni, Branch Manager, Badnapur, AJGB who has a good philosophy. One, he spends time with people to build a rapport with them, and know the reasons for non-payment of loans. He believes that non-payment is due to unwanted expenditure and if that can be controlled, repayments happen. So why not construct a latrine and avoid expenditure on health! He convinces the community and they listen. His reward at the end of the day is not just repayments of his bank loans, but also the love of the people where he works. He nurtures, and empowers SHGs, and they in turn take up the issues of the village.

The people's representatives also joined and led the campaign. One of a non-official's family actually complained to me that their family business has begun to suffer because he is working 24 hours a day 7 days a week for ODF campaign! Hats off to such people whom this world shall remember for their positive contribution to the society!

*The goal-inspired manpower's potential is
indescribable...*

The Triggers

“Kapurs, Gauris and Shens exist in each village”

Shri Madhav Patil talks of way an interesting fact of how to proceed in a village. He believes that three categories of persons exist in each village. One–two per cent are of the nature of ‘*kapur*’, ie they get ignited very soon and adopt a good idea immediately. About 95–97 per cent are of the nature of ‘*gauri*’, whose characteristic is that it gets ignited only when aired repeatedly. One–two per cent are of ‘*shen budhi*’, ie not only they do not get ignited themselves, rather they would put off any flame of good idea/project. He says that the way to motivate a village is that first the *kapurs* should be targeted and ignited; the *kapurs* should then be motivated and facilitated to ignite the *gauris* after repeatedly speaking of the idea; and the *shens* should not be confronted but best be ignored. The experience is that even the ‘*shen budhi*’ [negative mentality] people join the wave once they realise that the entire village is heading in one direction. Thus the crux lies in identification of ‘natural leaders’, ie *kapurs* first.

Once these ‘*kapurs*’ are identified, it is essential to lay responsibility on them to set the ball rolling. That is very important. For this, a strategy we find particularly useful is to get *aashwasans* [promises] from individuals. It motivates them and showing trust in them makes them feel good. It is useful both in villages with no/weak leadership, where, such individuals take up the leadership role; as well as in villages with good leadership/triggers, where such appeals to individuals facilitates the work of the leader/trigger. The underlying principle is again the same – we move villages from *dependence to independence to interdependence*. For some decades now, the principle of supply driven, individual-beneficiary-oriented schemes, has driven villages into tremendous slackness and dependence. ODF campaign hits at the root of this and tries to awaken villages from this slumber in the first place. It contradicts the first impression of the people that ODF campaign is a Government programme forced upon them. It only places options before the villagers, and lets them choose their path. From dependence, they move to interdependence, in the sense that for the village to be ODF, each one has to contribute. It is a question of the *village*, not an individual or a few individuals, and hence all doubts, apprehensions, mistrusts and jealousies within the village first necessarily have to be suppressed and only then the campaign achieves its end. One person in the village commits to give bricks/cement on credit to anyone in the villages, while the mason of the village does the construction for minimal or even no price. Planning is done to stock the material required for construction together so that there is saving of individuals due to bulk

purchase. This is the interdependence we seek, and probably this goes in the direction of self-sufficiency as envisaged by the Mahatma.

‘Triggers’ is an interesting subject. What shall trigger behavioural change in which village is at best guessed during the initial rapport-building exercises with the village. No one strategy is common. However, a few things have been found to work definitely. The ‘shame of women’ is one issue that is very readily realised by the women specifically and the community in general. It appeals much more to the community than lectures on the harmful effects of open defecation on the health of the people. Also, tactful approach helps. For example, we have a team of Mirkle and Manish where Mirkle first tries to insult the village by speaking in a harsh language as to how they don’t have respect, don’t care for shame of women and many such things followed by Manish who would seemingly take the side of the village and extract from them that they are not so shameless and would make their village ODF! Prestige of the village is another important issue, and Nirmal Gram Puraskar at the hands of the President of India lures many a *sarpanch*. Sometimes, small gestures by our team such as not accepting *satkars*/ food, etc in non-ODF villages hurts a village and makes them sit and give this issue a serious thought.

The ‘stories’ form an important component of our dialogues/lectures to the people. Attention is not easy to capture, especially if those addressing are demanding an action from you! To drive home the fact that villagers shall have to work *themselves* if they want to improve their village, my team compares their situation to stray dogs, who would run after a car on seeing it, try to catch it and then return empty-handed! [Not to be tried before a rapport is developed with the village and the village believes your genuine intentions].

Bhashans [lectures] have their limitation. They are, at best useful in initial IEC and environment building. To actually trigger change however, one-to-one discussions on a logical plane are required. In a village, when the women were provoked about open defecation, they said they did not like to defecate in open. ‘Why do you do so then?’ ‘Habit!’... ‘And if somebody sees?’... ‘We would fight!’... ‘Is there an alternative?’ ‘Eh...yes...but money?’ ‘How much does it cost to stop open defecation?’ ‘You guide us’... Thus proceeds the discussion. Mentality change proceeds from absurd to reasoning to wisdom.

Tact is the word. Many a time, repeated Gram Sabhas, touring, PRAs and all workable appeals, etc have no visible effect on a village. There exists then a danger of getting angry with the village and pushing the campaign on a downslide. Shri Madhav Patil speaks to the villagers in a manner that is both tactful, full

of jokes and events villagers can relate to, and subtly moves on to the subject. He says, 'Why are you being dealt with as if you have committed a crime by defecating in the open! Are you the first ones to do it? It has continued since generations and you are only following your forefathers...' and then goes on slowly to explain the disadvantages of defecating in the open, while trying to counter various misconceptions/ excuses forwarded by people not to build one.

There still remains a possibility that all our efforts at triggering behavioural change do not succeed. In such exceptional villages some veiled threats/or even gestures like not accepting '*satkar*'/walking out, etc work. These are not practised very frequently by our team. But there may be villages which are unable to cross that critical line between intention and action. In one village of Jalna, the work of ODF was started with much enthusiasm. The village has a drawback of social conflicts, but the 'character' of the village we never doubted. In fact, too many schemes – PMGSY, Watershed Project, Jalswarajya – went to this village. The village was very convinced of construction of toilets, but probably the agency working for watershed confused/lured/offered that toilets may be constructed out of the people's contribution money raised for the watershed project. But the village stopped working in this expectation, had an emotional talk with them, telling them that a good village like theirs, which we wanted to help out of the way through positive incentivisation, had cheated on us and we were very hurt! We also issued a veiled threat that because they had failed in following the principles of 'Jalswarajya' – we might consider withdrawal of the same. I reiterate that this strategy is to be used very selectively, otherwise sustainable results are unlikely.

Mindset cannot be changed forcefully! But yes, a shock is sometimes required for people to give serious thought to an issue. We used this strategy only in villages where we were sure that the village had already been convinced of the change required but was lacking in execution for one reason or the other, and after we had worked long enough on all other triggers possible. This strategy was also used selectively in 'difficult' 'rich' villages. These are the villages that are rich, and have seen Government schemes coming to their villages over the years. Even if once in a while, this campaign has given an occasion to back-question the community on their responsibilities, participation and receptiveness. This is important to shake the village from its slumber.

Behind these veiled threats/harsh /insulting language remained our love for the people. Our team used to visit the village frequently, even stay overnight for many times and had built rapport and a mutual affection with the village. This is what gave them strength to speak to the village in harsh language.

How else would a village allow my teacher/health worker to give them '*gaaliyan*' [abuses] such openly? I wonder if there has been an attempt this seriously in any other campaign/Government programme to involve people at this big a scale. But naturally, it is a new experience for us as well as people. And after reaching out sometimes it needs loud voice for people to hear! Ends justify the means!

Lastly, on the point of sustainability of the programme, Shri Dapke, Sarpanch Bahirgaon gives three principles of success in village development. First, the 'leaders/key persons' of village should leave their differences apart and come together for the development of the village as a whole. Second, any good work/project must start from 'self'. Third, he says that some sacrifice on the part of each person in the village-monetary, time, skill etc is required. There are examples of villages that, have done good work temporarily but because the above three principles were not followed, the good work did not sustain. We have begun to make a conscious effort that our ODF villages not only remain ODF [especially by helping us spread the flame elsewhere and thereby constantly reminding them of their stature]; but also march further. Information and knowledge is shared with them about various Government programmes and schemes and social programmes and their views solicited. We march together.

The Wave Spreads...

"Gundewadi ne pandran din mein kiya to hum chaudan din mein kar ke batayeinge..."

Khadgaon committed to make their village ODF in 14 days to break the record of 15 days of Gundewadi, and they achieved it. The spirit of competition is important. In Maharashtra, the success of using this strategy of competition has already been proved in Sant Gadge Baba Abhiyaan, a programme where villages compete with each other in a variety of parameters, including water supply and management, solid waste management, individual and village cleanliness, people's participation, clean school and anganwadi, health parameters amongst others. The hallmark is zero subsidy and people's participation. Shri Dapke of Bahirgaon recalls that when this programme was announced in Panchayat Samiti, there was a huge skepticism amongst all, whether such a programme, which seemingly was entirely opposite to existing programmes [in that there was no subsidy in this programme and success had to be achieved by *shramdaan*], would succeed. However, competitive spirit proved to be a major factor for villages to come together and work for self. This same competitive spirit helps in scaling up the ODF campaign as well. Villages and Blocks compete with each other. The pride that residents

of ODF villages feel makes neighbouring villages envy them, and join the wave eventually. This competitive spirit also works at a very micro level, ie within the village, when those who still defecate in the open begin to feel bad/insulted about this fact when others in the village adopt this practice. And our team uses such situations. In Bahirgaon, when his neighbour refused to stop the practice of open defecation, Shri Dapke mentions that they used the opportunity when the neighbour's son was married and daughter-in-law entered the house. Shri Dapke's wife then began to put this question to the newly wedded daughter-in-law, 'when the entire village has one's own toilet, why on earth do you have to suffer the inconvenience of going outside?'...And the trick worked. There were heated discussions in the neighbour's house and they too had to stop this practice!

Which brings us to discuss another important tool in scaling up 'social restriction'. No law is as effective as social restriction. Rural areas still form very compact societies where everyone is linked with each other and the village intimately. In such a set-up, it is very difficult for a few to oppose the village as a whole. This positive social pressure is inevitable for any positive *change* that is to be effected. In Bahirgaon, to ensure that the usage of toilets is 100 per cent after construction, the Gram Panchayat rigorously implemented this – anyone found defecating in the open would be called in front of the Gram Sabha and made to pay a fine of Rs. 100, while one who reports this would be paid Rs. 50! In Kadwanchi, there is a social ban on grazing. In Kadegaon, the village announced a social fine on anyone who does not turn up for *shramdaan*. In Ravna village in Ghansawangi, the sarpanch declared in Gram Sabha that he would lodge a police complaint against anyone found defecating in the open! In Khodapuri village, a *pahalwan* [wrestler] came forward for the work and said that if the villagers still do not listen, I would close the motor on the drinking water well! In Bhendala, the ex-sarpanch, whose field was the common place for open defecation remarked that he would prohibit everyone from using the same for this purpose from that moment. These social bans surpass any law in implementation. The social institutions of Gram Panchayat, and Gram Sabhas can be very effective in implementing such bans. This does not mean that goal is achieved by coercion. This only signifies, that for the good of the village as a whole, if a few people for their habit or convenience are willing to take the village to ransom, there must be positive checks. Responsibilities must be adhered to.

Dudha is a small village in Mantha Block, which has the prestige of being first in the district in Sant Gadge Baba Abhiyaan. When we visited the village, we found a tremendous zeal in Murli, the Sarpanch, to make

his village a developed one. There was also a very positive environment in the village—no factions, no false complaints. The village was in a dire need of a well. We realised that most schemes go to villages which are not necessarily the ones needing them the most; and certainly not the ones that would implement them in the most efficient and transparent way. Dudha made us realise that there was a need for 'positive incentivisation' for such villages. Our Zilla Parishad passed a resolution to consider ODF villages on a priority while selection for various developmental programmes. It works like this. In ODF villages, the positive energies of people are unleashed and they are capable of implementing all other development programmes in a more transparent and efficient way. The best thing is that everyone in the village begins to think about the village as their own, and hence the best chance for success arises. The interdependence thus begins, to be developed not only within the village but also between the villages on one side and Government on the other. It is not 'You do this [for us!], we shall give you...' philosophy but 'Because you have done this, you need to be appreciated' philosophy. There is a thin yet definite difference between the two. It is a win-win situation.

Good efforts multiply. We are finding it much easier in Shri Vijayanna Borade's KVK [Krishi Vigyan Kendra] adopted villages to change the mentality where '*amhi sudhru aamcha gaon*' ['we shall improve our village'] project has been implemented; an exercise not much different from microplanning exercise of UNICEF. People there are more receptive to the idea of ODF/no subsidy/unity, etc....a fertile land is created by perhaps months to years of some silent work. Some such villages, for example, Palaskheda Pimple, were found very fertile for new ideas; however, some others could not be moved easily. We realised that persistent follow-up is very important in any such good endeavour, without which the motivation levels may go down and plans may not be converted into action.

The effect of follow-up also becomes obvious once we analyse the impact of religion [as practised by people!] on the people. Any village spends about Rs. 5 lakh [Rs. 1000/couple—an amount enough to construct a toilet!] for hosting a *saptah* [religious week]. Shri Madhav Patil believes that people have not seen *moksha/swargas*, but they are spending money on such religious functions in expectation of the same, because for centuries '*maharajs*' have spoken of it. This brings us to the question: does constant hammering of an idea make people actually believe in it? Probably yes. Besides making a point about the uselessness of such rituals, to the extent possible, we use this point to counter the excuse of are rich institutions lack of money to construct toilets. The great impact of religion however, may be

positively used for this campaign. In villages, regular contributions are made to temples, which, in some villages. In Pokhri in Bhokardan, the temple took up the cause of ODF, and gave Rs. 50, 000 to the villagers. Work, therefore was done at great speed.

Reaching out to people psychologically necessarily requires reaching out to them physically. We have, during this campaign, been with the people from the times when they would not be interested [and even avoid our teams!]; to winning over a few of them and working with them; to be with them till the entire village is ODF; to facilitate their development beyond ODF. Touring and night halts have been a regular feature of our efforts. The night halts especially prove revolutionary, because that is the time when all distances between ‘us’ and ‘them’ dissolve and meaningful discussions are held. Touring gives us, firstly, a first-hand knowledge of villages. Villages may carry different images– developed either by representatives, media or staff– but going to each village gives first-hand information about the ‘character’ and everything about the village. Villages in that sense are generally similar outwardly but strikingly different in detail; there is Kukkadgaon, a rehabilitated village where each house has flowers, and there is Warud Khurd in Jafrabad, a ‘religious’ village, there are villages which are ‘kapur’ and extremely positive and motivated, villages where one or few persons take the lead and the entire village follows...and some rich villages where everybody is fairly independent and unwilling to contribute positively for the village.

Rapport-building with people’s representatives is the second advantage, as also knowledge about their strengths, standing and intentions. Working with the representations improves friendship with the ‘good’ ones, as also resolves unnecessary suspicions between them and us. They also realise we are working with good intentions in areas of their political interest and this creates a kind of moral burden/responsibility on them to join this wave.

The best impact is on motivation of own staff. Those who are already working get a refreshing surge of enthusiasm and even those not yet fully involved tend to get involved.

We have a policy of halting in ODF villages with the entire team. This helps in first appreciating the work the village has done, and also helps us experience the positive outcomes–in the form of comforts like ‘no mosquitoes’–which is not available even in urban areas; positive environment in the village with no false complaints/quarrels and other developmental works undertaken by the village with transparency and efficiency-things which are not possible by just pumping funds! This brings us further closer to

people as well as sensitise us all further to all their needs and problems. Our faith in the capacities of people is strengthened and the love and affection that people give us rejuvenates us for work elsewhere.

The surprising difference between villages [their responsiveness to campaigns like this] is a matter for detailed research. For lack of a scientific research we only make some speculations based on experience and common sense. One observation is that villages who have experienced sufferings in any form–death in epidemic [eg Ghonsi in Ghansavangi became very receptive to the idea!], rehabilitated villages [Kukkadgaon in Ambad, Khadki in Bhokardan]–take up a positive change more readily than never-suffered villages. Villages, which have ‘natural leaders’, perform much readily than others. Also, we have realised that poor villages [as also poor amongst the villages] adopt this programme much faster than rich villages. The poor amongst the villages, even if they have no representation/voice, are amongst the first to realise the need for sanitation and work for it. Rather, we have realised that an affirmative action by them towards their own sanitation and health brings to them advantages beyond the obvious in the form of other developmental schemes flowing to them. In Talegaon in Ghansavangi, it was a *Bhil* who stood up first and owned responsibility of eliminating open defecation by 10 families of his community. Similarly, small hamlets, tandas, which have little/no voice, respond to this programme much faster. Too much religion [as practised] saptahs, etc however, in some way reduces ability of people to think/work for themselves by increasing dependence on the unknown.

As the team increases in number and strength, however, the work becomes easier. Satish Waghmare in Kukkadgaon said, ‘Sir, *ab hamari race aap se nahin hai, Govindpur [1st ODF GP in Ambad] se hai..*’ The wave spreads...

People’s Representatives

‘The class of society that has been ever able to change it is...not business class; not maharajs; not bureaucracy... but leaders’

Shri. Madhav Patil mentions in his speech that history bears testimony to the fact that leaders is the only class that has ever brought a positive change in the history... whether it was Mahatma Gandhi or Dr. Ambedkar or Mahatma Jyotiba Phule or Savitri Bai Phule. He asks: what other class can be relied on? The traders/businessmen have never and would never do that; the religious class also would never take up/work for these issues; the service class has its limitations. The leaders alone therefore carry hope.

The involvement of people's representatives is also interesting. There are no generalisations but some observations can be made. First, the sane ones cannot afford to stay away from any programme that is beginning to become a mass wave. Returns in the form of political gains, recognition in the form of highest awards, a desire of more developmental schemes flowing to the village indirectly or a pure desire to make their village sanitised attracts people's representatives to this campaign. Also, the very visible difference, the campaign brings in the village [in the form of outward appearance of the village – appeals to one and all. Also, politics being based on party structure, conviction of the top-level leaders percolates down. One paradox is too obvious not to take note of. While on one hand, politics in a village is the biggest hindrance to the successful implementation of this programme, on the other, if this one hurdle is overcome by them; the sustainability of the programme is inevitable. I shall explain how. In most villages, there exist political factions. These are days of many 'leaders' in a village, instead of olden days where there used to be one or a few elderly people to whom everyone in the village would listen. Also, politics/Gram Panchayat elections are very closely fought. The opportunity to obtain space of people's representation is very constricted. Issues exist, but for all the ills that have corrupted the system, the abilities to occupy this space have also narrowed. Now, any attempt by any one faction to take a lead in the programme is naturally looked upon by the others as a further constriction of their space and hence the problem.

On the other hand, Shri Dapke, Sarpanch, Bahirgaon, gives the principle of '*manachi swachta*' – cleanliness of minds. He submits that many other villages, even though successful temporarily in this programme, have fallen out because they did not attain cleanliness of minds first. '*Gram udhar chha ekach mantra, sajjan ni yave ekatra*' – for the development of village, all positive people should come together. He says that in his village there are four *shahnas* [intelligent people], and he is one of them. They all represent different political parties, and before the start of the programme, they were also in the business of only trying to undo whatever good the other was doing. When he committed to participate in the programme, he was also very unsure whether the other three *shahnas* would let him achieve the goal. But he said *he approached them instead of calling them and therefore they all agreed to start for the welfare of the village*. Because all leaders of the village work together for the development of village, therefore, the village Bahirgaon has succeeded to continue to develop year after year. The foundation has been made very strong and deep.

Shri Nana Parihaar, Sabhapati Jafrabad, also mentions that this programme, like no other programme, has

given an opportunity to people's representatives to reach out to the people. This is one platform providing people's representatives an immense opportunity of mass contact.

We have found this programme a tremendous opportunity to look at public representatives from a close angle. The development of rapport is most essential to work in a democratic set-up effectively and this campaign is providing a unique opportunity for that. Firstly we have realised that an unnecessary mistrust exists between the officers and people's representatives and probably any demand from people's representatives is looked at with skepticism by the officers; and any 'no' from the latter is considered by the former as an example of red-tapism, insensitivity, inability to understand, and an overall negative attitude. It is only through joint touring, etc with them that one understands one has to appreciate their concerns on merit and sensitivity. One reason is that the actual standing of the politician amongst the people he represents becomes clear; and this helps in better understanding of his demands raised on behalf of the people. We would never have known Shri Nana Parihaar, Sabhapati enough, because there is no platform, but three days of touring in Jafrabad made me realise that he is positively oriented towards developmental work. This mistrust must be getting cleared from the opposite side. The fact that at least we find time to listen and see for ourselves the problems of the people as articulated by them, is itself a big relief to them and make them have belief in us.

We have realised, that but for the involvement of lowest level [village] representatives, results are hard to achieve. This programme has begun with the involvement of sarpanches first who have turned their villages into an oasis of cleanliness. Khedekar of Shivni, Deshmukh of Nasadgaon, Gajar of Gundewadi, Jadhav of Malshendra, Sarpanches of Mevha, Ambadgaon, Kolegaon, Malkheda, Tandulwadi, Argadegavhan, Dudha, to name a few are persons with zeal to participate in a positive programme and take their village to a higher level of development. Good leadership qualities at the village level thus are much more helpful. At most places, it is the sarpanch, at other places it may be ex-sarpanch, up-sarpanch, an active member of the Gram Panchayat, youth groups or other triggers within the village. But it is very essential that, after initial motivation, there may be a few natural leaders from *within* the village, who have the spark and imbibe the programme and not let the spirit go down. We find that in some villages, all find the idea of ODF very good and all agree, but for lack of a key person in the village who can take an initiative, the work proceeds very slowly. Fortunately, at the next higher tier, ie Panchayat Samiti (PS), we have found at least one person per who has begun to take interest in the programme. A very good competitive spirit has arisen between the blocks. The

next higher level, ie Zilla Parishad (ZP), involvement, though less is increasing by the day. There are members who are working towards making their entire circle ODF. As more and more villages begin to get ODF, it also creates a kind of moral pressure on them to make their own village ODF at least. The Agriculture Sabhapati has begun to take a keen interest in making his village Dhanora ODF. The still higher level, ie MLAs and MPs are also supporting the programme.

We realise that the potential of public representatives in convincing the people is much more than government servants. It is almost impossible to believe in the success of the programme but for the political support to it from the highest levels. They live amongst the people and once they start a job, are more apt in solving numerous hurdles that can best be solved only at the lower levels.

The Community Leaders

“Not me but us”

These are words of one Kamalkar of Meskheda village in Mantha Block, a man who has formed a youth group and worked to make his village probably the most beautiful in Jalna district. Such people realise that but for an active participation of community, no amount of funds pumped into a village shall bring about *development*. They seek no credit and only share the vision of a village with basic civic amenities, work for it, motivate community, and the positive results that follow is their motivating force.

We have realised that educated youth can be excellent community leaders. The educated youth understand the importance of the programme and can be good triggers if responsibility is laid upon them. If confidence is shown in them, they are very likely to deliver. At most places, because of over-involvement in their professions, they may feel little need of make real genuine effort towards capacity building of villagers/ making villagers understand the need to come together and make efforts for the development of village as a whole. In some villages, however, we have found such people taking lead and giving direction to the villages. Such persons have the ability to prioritise the needs of the village, a task very important. In fact, in Meskheda, the ongoing work-roof water harvesting on each house, *Gandul khat* [earthworm-manure] projects, soak pits, *vyayamshala* [gymnasium], one colour to entire village, underground drainage, gappi fishes for mosquito control, solar lights, ideal house/ideal *gotha* competitions, kitchen gardens, smarak for Hyderabad mukti samgram, farmers' library...are plans thought of by such community leaders and implemented by the village collectively.

It is important for a *villager* to take up responsibility and leadership because he stays in the village and

can continue to influence people, plan and execute. In villages like Khodepuri, on our appeal, one such person about whom villagers complain, does not stay in the village, committed to stay back in the village till the village is ODF, actually did so, and got the work finished.

Then there is Dawle of Tandulwadi, who is physically disabled. The village however made him secretary of Jalswarajya committee and he leads the village on to the road of participative development. His words... *‘I cannot walk but I like to run ahead of people’* shows the confidence and pride this man takes in working for the village. In Kathada Budruk, a group of youth pondered over the fact as to ‘why women have to go for defecation twice to thrice, whereas once is sufficient for men...!’ and realised the inconvenience for women. This made them take the lead and work for this campaign. Wankhede of Khadki village in Bhokardan, a journalist by profession has not limited his work to reporting on this issue, but besides making his own village ODF, he accompanies the team across the Block, and participates in Gram Sabhas and motivates people. The Police Patil of Kumbhari has the build and enthusiasm of Bhima of Mahabharata. He is a man who is the trigger and has got the work done in his village. He belongs to the class of men who have genuine love for people in their hearts and therefore they take the first step forward. The community responds...always!

We refer to such people as community leaders

Women Involvement, Nay, Empowerment

‘Why advocate this campaign for the protection of shame of women...men have no shame that needs to be protected?’

This question by one of our teachers set us all thinking. The question is so reflective of the male dominance in the society. Shri Madhav Patil had an opinion on the above question. He says that women have to repeatedly get up and sit down during open defecation even at the sound of someone approaching. Men don't! Does this mean men have no shame while defecating in the open and are unaffected by passers-by? No, says he. Rather they have found a short-cut of bending their heads down and ignore the people passing-by!!

The need for a toilet is thus felt more by women than men, mainly because of the need for privacy. The physical and mental torture that a lady has to face when she has to sit in open cannot be described. The condition of young girls and pregnant females is especially deplorable. The women also realise more readily the connection between their sanitation practices and health, not only their own health, but

of their entire family, because it is the woman who cooks, and manages the kitchen.

Having realised this necessity for a toilet, and the urgency for it, the process of women empowerment starts. It proceeds from a very basic, nay abhorrent level. Imagine in a village in Badnapur, a female, when we appealed to women in a Gram Sabha to do 'chul band' [no food], till their husbands constructed toilets for them, said, "they will say, if u stop food, I'll get another one!" while another woman replied, '*Pathi pe danda khana hai kya*'— [do we have to get beaten by a stick on our back!]. Shri Vijay Anna Borade speaks of man and woman in this society as two tyres of a bicycle, rather than of a chariot. The carrier [all burdens] and brake is on the hind tyre, ie the woman, while the front tyre, which leads has no burden!

The first step obviously is to make women realise that they must speak up for this very very basic necessity denied to them. The self help groups are a very important medium of bringing together women and giving them strength to raise such issues. In most villages, SHGs take up this issue in the village. In Kathala Budruk, Mantha, The SHGs extended internal loans out of their savings to make their village ODF. In Brahmwadgaon, Partur, when the last 20 per cent of the village was reluctant to make toilets for themselves, the SHGs of that village owned the responsibility and finished the task. Women are beginning to take pride in this accomplishment. Boards of 'ODF village through SHGs' are appearing outside villages. Even on individual toilets, women are writing their names, and the name of the SHG to which they belong. The work is much beyond the solution of a major inconvenience of women. Symbolically, and otherwise, the status of women in such villages is improving. Ganeshpur in Jafrabad has got the name of women written above the name of men on each house! There are some villages where the women pleaded in open Gram Sabha that while they desperately needed a toilet, their menfolk were involved in liquor and did not care for their needs. This put the village to much shame and proved to be a turning point for the village. The unity of women is giving them strength, and this is turning out to be a compelling factor for transformation of villages. Toilet is only a reason...an opportunity.

Of Outcomes

*Ise Aap Abhiyaan na samjho,
Ye Abhimaan ban jaayega hamara,
Apni Dharti ko itna sundar banayen
Swargalok bhi gaye gungaan hamara*

These are words of a proud young poet of village Meskheda, Taluka Mantha. If we were to point out a single most important outcome of this campaign, we would mention the unleashing of positive energies of the people. The villagers tell with pride that the

'*pandi*', ie the place for open defecation for people, understandably, a blot on the village has now by *shramdaan* been converted into a ring-road. Other 'dirty' places in the village, which no one in the village ever visited, have also begun to get changed to gardens, nurseries, oxygen-parks, etc. The village small roads, where stagnant water gave rise to many illnesses, are now clean because of soak-pits. They even have a 'parna-kuti' in one of the villages built for small meetings. Young and old, men and women, rich and poor, *all* feel proud of the way they have transformed their village. It is *their* achievement.

The campaign proves helpful to provide an opportunity to people in the village to develop leadership abilities in them. We first look for these triggers amongst sarpanch/upsarpanch/member of GP, etc. But in some villages, the sarpanch would confide in us that when he told people about this campaign, people believed he had a vested interest in the same! The standing of each people's representative in the society thus becomes clear in this campaign as do the abilities of the representative. In such villages therefore, we have to appeal to all present and motivate them that some of them should take the lead in showing the right direction to the village. The process is thus participative, and hence likely to be sustainable. Besides the core team formed in the village of trigger persons, every one contributes in making the village clean. From a painter who would do paint on the subject to masons of the village who would work at minimal or even no cost from a young poet of the village who would motivate the village with his poems to a handicapped boy who would assist our team with review on progress of work in his village or to a gram panchayat peon who would own the responsibility for effecting social restriction against open defecation once the village has been declared ODF, they all form a part of this campaign and hence feel elated. The village which does genuinely good work is satisfied, happy and excited beyond expectations.. Ganeshpur in Jafrabad celebrated *Gudipadwa* [Marathi New Year] the day we celebrated the declaration of that village as ODF.

An indirect advantage, and a very major one, of this campaign is that our staff begins to visit, and even stay in the villages where they are posted. No amount of coercion could have made this possible, as best as this campaign. One, they have a reason now because they have a goal the achievement of which necessarily involves people's participation. Second, we feel that this kind of bonhomie between people and the government is going to go a very long way in better and more transparent delivery of all other services. Whether it is education, health or rural water supply, the effective and sustainable delivery of most services requires people's participation. This is perhaps a big lacuna currently in delivery of government services.

The outcome of this campaign—in the form of a positive spirit in the village of having overcome all obstacles and achieved something, overall advantage in terms of aesthetics and health improvement, advantages of developmental schemes flowing to the village in the form of incentives/rewards—results in a positive impression in the minds of the people about those working in this campaign, which in turn allows them to deliver their core work in a much better fashion.

As community awakens to its responsibilities towards monitoring and participation in various Government programmes, our work becomes much easier, joyful and accountable. The programme, because it necessarily involves reaching out to the people and grass roots, helps to see the implementation of other programmes/schemes from close angles. Invariably in Gram Sabha for these programmes, we take review of parents' involvement in education and try to sensitise people towards social issues such as malnutrition. In Kachrewadi, we noticed happily the small schoolgirls wearing ties and socks and shoes, purchased by the VEC under NPEGEL. And in Shevga, the community continued the good work by providing the same to boys as well! The use of SSA grants in the form of student benches, student blackboards [done out of maintenance grants] and outdoor sports items [from school grant] such as a seesaw was seen in many places. Similarly, review of the use of *Swadhyay* books, involvement of community in education by

conducting evaluation of students in Gram Sabha, etc. are advantages this campaign has provided.

In Thengewadgaon, Mantha, work of ODF was triggered by youth of village. After accomplishing the task, the village celebrated its ODF declaration in style; calling it a day when they have actually got independence. They had 34 candles around a bigger candle in between. The central candle, representing their village was lit first, and they pledged to light other candles representing other villages in Mantha that had yet to become ODF. On that occasion they even presented a new dress to a villager who had left liquor after being motivated during this campaign. It was in this village only that Bhima, a poor man sold the Mangal Sutra of his wife to build a toilet at home...

Walsa-Wadala in Bhokardan provided us an example that is so very heartening and speaks volumes of an underlying unity still prevalent in our villages, especially if it comes to an issue involving the village. This village is known for 'Dakshin-mukhi Hanuman'. The village has a sizeable Muslim population. When we addressed the village, and made them take pledge to make their village ODF, we were surprised to *find a Muslim man taking pledge of Hanuman to work for the campaign*. If this sort of respect towards each other's religion is developed through this campaign, we are very happy and proud to be involved with the same.

Epilogue

Beyond Sanitation describes the work accomplished in 20 per cent of Jalna district. Further scaling-up is required for remaining 80 per cent. There are other things we can try-involve NSS students, religious leaders, or trigger persons from ODF villages. The strategy may also have to be revised; experimenting with Shri Kamal Kar's concept of triggering behavioural change banking upon elements of shame and disgust. It shall be new learning, new experiences, new hopes and new achievements...

11. NGOs' Involvement in Promotion of Sanitation in Gujarat State

Ishwarbhai Patel

Sanitation did not hold any significant place in the National Plan till the 1970s because its importance was not realised. Projects directly affecting the economic growth of the country were given importance over sanitation programmes. However, in the mid 1980s planners and development workers started giving it importance. Taking stock of the state of sanitation of the country, it was found that the target of provision of sanitation facilities to 25 per cent of the population by the end of the Seventh Five Year Plan was not fulfilled – it was a meagre three per cent even as on 31 March 1992.

Basically sanitation programmes were taken up as part of the employment-generation programmes under various projects like NREP, RLEGP, etc. The programmes were implemented with a top-down approach, without assessing the motivation of the beneficiaries. As a result, even where sanitation facilities were provided, their utilisation was only about 20 per cent. No effort was made to involve the grass roots organisations and the bulk of the programmes was subsidised. There was neither any monitoring and follow-up, nor any strong political will to support the programmes. Against this background the planners realised the need for an alternative model for promoting sanitation. In this context, the involvement of NGOs was considered as one of the possible approaches. There is growing realisation throughout the developing world that the government and non governmental agencies should work together and supplement each other's efforts to improve the quality of life of the people. Governments in developing countries are becoming more aware of what NGOs can contribute to national development. The Government of India too has laid more emphasis on involving voluntary agencies in various development programmes, particularly in the planning and implementation of programmes of rural development. Over the last generation there has been significant world wide growth of NGOs and their capacity to contribute to the development process has increased considerably. Several non governmental organisations have started working upon developing a suitable and appropriate low-cost sanitation system. The most prominent among them are the Gandhi Gram Institute, Tamil Nadu; Gandhi Smarak Nidhi, Harijan Sevak Sangh & Safai Vidyalaya, Ahmedabad; Sulabh International & Ram Krishna Mission Lok Shiksha Parishad, Narendrapur, etc.

Need for NGOs

Methodologies and time schedules imposed by outside facilitators, incompatible with local attitudes, habits and beliefs make the people passive and sometimes make the programmes initiated unacceptable to the community. Much of the demand for latrines in rural areas comes from women as they are the worst sufferers due to non-availability of latrines in their houses. Women have by far the most important influence in determining household hygiene practices and in forming habits of the children. So, the facilities should be planned with full awareness of their perception and needs.

Government personnel tend to be viewed with suspicion by the rural community. They do not have the necessary rapport with the community. Moreover, the government alone cannot face the challenge of carrying out community-centred social development programmes. NGOs are an important agency for adoption of innovative approaches and provision of services to support sustainability and effective use. NGOs with trained workers work as activators and good communicators. The workers of NGOs have a sense of accomplishment and pride in their ability to do something significant to improve the lot of the community they work for. Thus, the NGOs are better equipped to ensure community participation, for providing sustainable benefits to the people than any other set-up. The NGOs are ideally suited to work as a link between the felt needs of the people and the planning process. They can act as catalytic agents of social change in bringing about a harmonious interaction between technology and social engineering.

Role of NGOs

1. The NGOs work to make the government-supported programmes more responsive to the needs of the people, as well as making the government aware of the felt needs of the community.
2. They help in organising communities in order to influence government programmes that affect them. Since they are in closer proximity to the target beneficiaries, they play a positive role in

fostering trust between the government and the people.

3. They have greater commitment to improve the quality of life of the people and greater flexibility and responsiveness in operations.
4. Field workers of NGOs live and work with the people to gain their confidence to identify issues and areas where support is needed.
5. They also encourage the people to consider their responsibilities in relation to their development.
6. The NGOs work as a link between the people and the government. They motivate, persuade and popularise programmes and projects by bringing about attitudinal changes and involving people in community projects. Thus, the active participation of the people ensures greater chances of success and cost effectiveness than total dependence on the government, when people tend to become passive.
7. The government machinery has larger resources than NGOs, but it is bound by rules, regulations and procedures which sometimes restrict their decision-making process. On the other hand, NGOs have greater flexibility in respect of taking quick decisions in all matters. They have greater scope to choose areas of work and can take spot decisions. Their methods of mobilisation, monitoring and supervision are more effective than those of the official agencies. Motivation, awareness, implementation and follow-up action in case of NGOs are faster than in case of official agencies. As a result, NGOs have been able to show results much more quickly than official agencies.

Concepts & Approaches of Environmental Sanitation Institution — An NGO of Gujarat

- Motivation and demonstration of appropriate action-aimed sanitation technology for developing countries.
- Eradication of the inhuman practice of nightsoil transport as headload by specific communities (Bhangi Kashta Mukti Programme).
- Development of human resources for popularisation, acceptance and implementation of low cost sanitation programmes in a holistic health care fabric.
- Creating and encouraging voluntary agencies for integrated preventive health practices.
- Catalysing associations, agencies and agents connected with concepts, concerns and convictions on low cost sanitation technologies.
- Publishing literature on low-cost sanitation practices in local language(s).
- Producing audio/audiovisual cassettes and telefilms on low-cost sanitation and related topics for mass communication.
- Networking with national and international

agencies for effective implementation of sanitation programmes.

- Generating socio-cultural revolution in sanitation service, leading to better quality of life with upgraded gross natural product of developing countries.

The Gujarat Approach

During the Seventh Five-Year Plan period, the government realised that for various development works at the grass root level, the role of NGOs or voluntary agencies is required. Therefore, the government pushed forward the policy for involving Voluntary Agencies (VAs) in certain sectors of development, particularly in drinking water resources development and creating sanitation facilities.

Even though this policy was laid down some years ago, there was very little headway in terms of its execution. In Gujarat there is a very good network of VAs and most of them have good relations with the department dealing with rural development. However, there was no exact formula for the way in which such development works could be executed with the help of NGOs.

The World Bank had given a scheme of rural sanitation to the Government of Gujarat where two-third of the assistance to the beneficiaries was being provided by the government, with a loan component from the World Bank. The scheme was executed by the Gujarat Water Supply & Sewerage Board (GWSSB), an agency of the Government of Gujarat, but the role of VAs was not specified.

The GWSSB appointed the author (Director, Environmental Sanitation Institute, Ahmedabad) in an advisory capacity for imparting training to engineers at the levels of Village Panchayat, Taluka Panchayat and District Panchayat, who, in turn, would implement the programme at the village level. Hundreds of VA workers were subsequently trained, who, in turn, could take this scheme to the village level, but the progress was slow.

In 1989, the author presented a proposal to the Government of Gujarat to select the ESI as a nodal agency to co-ordinate all the efforts at the grass root level through voluntary agencies. The government accepted this idea, and on behalf of ESI in the same year, the author called a meeting of hundreds of voluntary agencies spread over different parts of Gujarat, which were involved in rural development work over the past several years. Around 80 voluntary agencies (presently 145) responded and were explained the government scheme and the strategy for implementation.

The first step was identification of beneficiaries in the respective villages by voluntary agencies and creating awareness about the government scheme. Once the beneficiaries were identified, the second step was to get their consent. The third step was to depute a minimum of one mason from each voluntary agency to receive training about the method and technology of construction required. The voluntary agencies were to get Rs. 100/- per latrine as their share of management cost, and therefore, most voluntary agencies fixed their quota of constructing 100 to 1000 latrines as per their own capacity. All the while, the author was very confident that the work could be faster with involvement of people and the technology of creating clean sanitation would spread over hundreds of villages through the involvement of NGOs.

The programme started on schedule and hundreds of masons were trained; the supervisors from many voluntary agencies came for training and became acquainted with the work to be carried out. The nodal agency planned dispatch of materials to respective voluntary agencies for construction of latrines, which include pan and trap and doors. These were standardised items, and the part of voluntary agencies was to locally source/ mobilise construction materials such as sand, cement, bricks, etc. Sometimes these materials were to be collected by voluntary agencies from their own sources and hardly any of the VAs found it difficult to create such resources in the initial stage. The plan started, and within a span of a few months the nodal agency got feedback from several sources that the work of construction of individual latrines in several villages had started. Within six months the nodal agency got a clear picture that as against the target of constructing 500 latrines per month, the figure had reached up to 1500 per month as the scheme picked up speed. The nodal agency sent the reports to Gujarat Water Supply & Sewerage Board, who was surprised with the progress of the work. Later on, the report reached to the World Bank. Throughout the two and a half year work span, the response was very good from all NGOs and the target was achieved before date. The World Bank commended the fact that 30,000 latrines were constructed in two and a half years with the direct

involvement of the community and NGOs. I think this experiment would serve as a model for other state governments to emulate for effective implementation of sanitation programmes in their states.

Looking at the success of this experiment, the GWSSB decided to use voluntary agencies in the implementation of sanitation programmes on a mass scale as Gujarat has a rich heritage of voluntary action-cum-motivating institutions. They are working in various areas such as health, village industries, khadi, agriculture, cattle development, disabled persons' development, education and training, handicrafts, etc.

The State Government and GWSSB initiated voluntary action in sanitation schemes and invited NGOs to join and assist this programme in terms of implementation. The ESI was appointed as the nodal agency in the year 1989 for the programme of construction of low cost sanitary latrines in rural areas. The ESI trained master masons and the representatives of NGOs for construction of latrines in a scientific manner, ensuring good workmanship. The NGOs got panchayats to pass resolutions about constructing sanitary latrines in their villages and trained the local people towards effective and efficient implementation of the programme of low cost sanitation. The nodal agency took the help of a total of 184 NGOs to cover 3011 villages in 153 blocks of 19 districts of Gujarat, to construct 1,56,158 latrines up to December 1998.

As a nodal agency, the ESI has implemented the programme of low-cost sanitation successfully in Gujarat. Seeing this success, the Department of Rural Development, Government of India, appointed the ESI as a key institution to train various categories of personnel of Western India under the Indian Training Network of the Rajiv Gandhi National Drinking Water Mission, so that the Gujarat model can be used in other states for effective implementation of the programme of low-cost sanitation in their state. The Government of India has recognised this Institution as one of four resource centres identified in the country to impart training to various categories of personnel involved in the implementation of TSC.

12. Ensuring Water and Sanitation: The SHG Way

A case study of Keerapalayam Experience

Manu Prakash

Background

If water is life, sanitation, surely, is a 'way of life' and access to proper sanitation facilities definitely has an impact on the quality of human life and health, as well as the incidence and the spread of diseases; not to mention the broader human development programme. The Programme of Water and Sanitation has definitely evolved and moved beyond the 'top-down' to the 'bottom-up' approach, focusing on community participation, both in planning and in implementation. There have been numerous efforts that have strengthened this programme over the years. Some of them have quite aptly been highlighted during the Nirmal Gram Puraskar Ceremony held in February 2005¹, by His Excellency Dr. A.P.J Abdul Kalam, President of India, who shared his experiences related to sanitation in various places in India, including Keerapalayam in Cuddalore district, and Gandhi Nagar Town Panchayat in Vellore district of Tamil Nadu. He called for such cases to be examined in the perspective of possibilities of replication in other parts of the country.

The Department of Drinking Water Supply, Ministry of Rural Development, Government of India, vide letter No. W-11037/8/2005-CRSP-PT dated January 2005, constituted a two-member study team, comprising Mr. K. Mazumdar, Deputy Advisor and Mr. Manu Prakash, Consultant, School Sanitation, to study the cases of Gandhi Nagar Town Panchayat in Vellore district and Keerapalayam case in Cuddalore district respectively in Tamil Nadu. The said districts were visited from 25 April 2005 to 27 April 2005, along with Mr. N. Gopalkrishna, DRDA, Cuddalore.

Methodology

The backdrop of the Keerapalayam case unfolds in a unique experiment where women were mobilised in groups, that helped them in acquiring masonry and plumbing skills for constructing household toilets and repairing watsan facilities on an entrepreneurial basis,

which not only provided employment opportunities to the involved women but also enabled to keep the Panchayat area clean, tidy and free from diseases arising out of poor sanitary conditions. Such cases in the water and sanitation sector are rare, therefore, needed a detailed study for better replication. The case study methodology was adopted for evaluation, using tools of interaction, secondary data review, field visit, etc. The study focused on the following points:

- Keerapalayam's social environment in terms of its institution, structure, social status, and other indicators.
- Major achievements in view of watsan interventions in Keerapalayam.
- Factors that played an important role in the evolution of Keerapalayam as a model case in watsan sector and in what form.
- Is the Keerapalayam model successful? If yes, is it sustainable?
- Can the model be replicated, how?

The team directly reached Cuddalore district and visited two Panchayat Villages, namely, Keerapalayam Panchayat in Keerapalayam Block and Kanisapakkam in Annagramam Block. The former was the obvious place to visit while the latter was visited to study replication in form and content. The team adopted the strategy of discussions with the District Magistrate and Project Officer DRDA, NGOs, health and education officers, self-help groups (SHGs), Panchayati Raj Institutions (PRIs), visits to the village, visits to households, school, Community Complexes, Rural Sanitary Mart (RSM) Units, and de-briefing with Project Officials. The list of persons met is enclosed in Annexure 1. Accordingly, the consolidated report has been prepared and presented, focusing on Keerapalayam Panchayat.

Physical and Social Environment

With six talukas, Cuddalore district, which was earlier called South Arcot district, has 15 blocks in which three blocks are located along the north-western coast of Tamil Nadu. The district has a total population of 22,80,530, out of which 14,43,851 are literates. The district has also a rich agricultural and industrial base, providing employment to both rural and urban population. On the rural sanitation

¹ Nirmal Gram Puraskar (NGP), under Total Sanitation Campaign, is an incentive scheme in recognition of the role played by Panchayati Raj Institutions, organisations and individuals in promotion of rural sanitation

front, Cuddalore district has 3,74,361 households, out of which 2,64,885 households do not have toilets. Under the Total Sanitation Campaign (TSC), a total of 97,000 toilets have been constructed out of the sanctioned 1,58,623 household toilets since November 1999. The Keerapalayam Panchayat is an ancient village of Keerapalayam block near the heritage city of Chidambaram of Cuddalore district. Keerapalayam village lies across the bank of Vellar river, which is a seasonal river flowing through the district. Keerapalayam Panchayat has a population of 5,347 (3012 men and 2335 women) and most of them belong to the Scheduled Castes. Almost 90 per cent of them are literate. The Panchayat has 1160 households (132 APL and 993 BPL) and 2 habitations, namely, *Thirupaninatham* and *Chettikulam*. This is a fast-developing village, especially in respect of community infrastructure. The Panchayat has two primary schools and one high school, with a total of 897 students, along with two Anganwadis. There are also features such as a health sub-centre, Panchayat office, post office, agriculture, banks, a Weavers' Cooperative Society, etc.

Keerapalayam Panchayat has witnessed many development interventions – both governmental and non-governmental – as well as individual efforts which need to be underlined, that have made this Panchayat a model, not only for the district, but also for the entire state because of its pioneering efforts in the fields of sanitation, drinking water availability and assets maintenance, self help groups' movement, community participation in development projects, rain water harvesting, greening-up activities and efforts in the field of education and health. But it was the efforts in sanitation that actually distinguished Keerapalayam² from other Panchayats, when it achieved the unique distinction of being declared the 'First Totally Sanitised Village Panchayat' in the whole of Tamil Nadu in September 1998. Since then, Keerapalayam has received many awards. Recently, it was presented the 'Best Clean Village Campaign Award' – 2003–2004 by the Hon'ble Chief Minister of Tamil Nadu. The Panchayat further came into the limelight when **His Excellency, Dr. A.P.J. Kalam, President of India, visited Keerapalayam on 8 August 2004** and appreciated the efforts being made, especially in the area of water and sanitation, through SHGs.

Achievements of Keerapalayam in Watsan Sector

Achievement has no colour, but in the case of Keerapalayam, it is visible in terms of facts. The practice of open defecation has been totally arrested

in the village. All the 1,160 houses have constructed their own household toilets, which are in full use. One community toilet, which was constructed to cater to individual households of the village, is now being used by persons visiting the local market. All the schools and anganwadis have been provided with water and sanitation facilities. Sanitation of a village did not finish with construction of toilets in the individual houses, schools and other government buildings only. For a village to look clean, its streets should be cleaned and there should be a proper disposal of drainage/sewage in order to ensure cleanliness of the village. This has been ensured by dovetailing the funds available in the rural development schemes like PGSY and the Swarnajayanti Grameen Swarozgar Yojana (SGSY) schemes; the village Panchayat has so far laid cement concrete roads across 12 of its village streets. As a result, the village streets look clean and free from garbage and slush.

The Village Panchayat has also introduced the practice of collection of household garbage within the village. Two separate garbage bins³ are available in the households. The collected household garbage is separated as degradable and non-degradable wastes and the villagers themselves collect this by means of tricycles⁴. Big garbage pits have been constructed across various parts of the village to collect the degradable and non-degradable wastes and such pits are placed, both across the National Highway that passes through this village, as well as by the sides of State Highway road, which joins National Highway in this village. The village Panchayat ensured that the highway road sites, which were earlier heaped with piles of garbage, are now free of any such ugliness. The village Panchayat has also started conversion of degradable wastes into compost by using the composting process.

On the water supply front too, the Keerapalayam Panchayat has shown remarkable progress. In 1996, Keerapalayam Panchayat had only two OHTs. The village Panchayat is now the proud possessor of 7 OHTs, 108 public taps and 176 household connections. Safe drinking water is supplied to the villagers regularly twice a day. There are 12 mark-II Hand Pumps and 32 shallow hand pumps. All the water sources work, even during the summers, due to successful installation of rainwater harvesting, which has ensured that ground water is not depleted, even during the summer season. All the government buildings, along with religious structures, are covered by rainwater harvesting schemes. The average water supply to the villagers is 80 lpcd, which is more than the national

² Sanitation movement started during CSRP and DANIDA-assisted sanitation programmes, which were phased out in 2002 and 2003 respectively. Both were high-subsidy programmes. TSC was introduced in 1999 on demand-driven mode and has given a new thrust to the sanitation drive

³ 30 such pits have been placed at a cost of Rs. 12500/- per GP

⁴ These are especially designed tricycles for carrying the garbage, costing of Rs. 12000/- which have been provided to Panchayats engaged in waste management

average. Keerapalayam Panchayat has also utilised the government scheme to ensure that all village ponds are desilted on a regular basis. In Keerapalayam, there are six village ponds, which are the main source of water recharge for bore wells and also the direct source of water for animals. Desilting has been undertaken fully to receive maximum rain water. The Panchayat now operates with the vision that not even a single drop of water should go waste.

Impact of Watsan drive in Keerapalayam

- No death due to communicable diseases in the last three years
- Zero drop out rate in the last three years
- Supply of safe drinking water to all
- Practice of open defecation eliminated
- Clean and green environment

Factors that Played an Important Role in the Evolution of Keerapalayam as a Model

Keerapalayam Panchayat has surely moved ahead in ensuring better water and sanitation services, adhering to the principles of community participation. There has been huge support from the community in the water and sanitation programme, reflected in the form of community cash contribution, participation in programme implementation, monitoring, etc. The participation of women has been commendable: in fact, **the real catalysts have been women**, who have extended full support in this drive under the persuasive leadership of Panchayat President, Mr. K.P. Panneerselvam⁵. He has been engaged in inspiring the villagers to make their village clean and green.

But it is the dynamic base of SHGs in the Keerapalayam Panchayat that distinguishes it from other Panchayats, and which proved to be the backbone in ensuring water and sanitation services. How, when, why and in what form have these groups played such an important role, and is it sustainable? What are the strengths and weaknesses of these groups? Which are the interventions that have supported these groups? Can such a model be replicated? This is our point of study.

In the Keerapalayam Panchayat, **there are 25 self-help groups**, of which 9 are backward class groups, 11 are Scheduled Caste groups, 1 schedule tribe group and 4 are mixed groups. There are a total of 459 members in these groups, ie, 10 per cent of the total population is mobilised in these groups. All the SHGs have their bank accounts in the nearby bank. They are engaged in many activities like coir rope making, doll and puppet making, milk society, pickle making, earthworm manure, herbal medicine production, producing

polythene, etc. Most of the groups have 12 to 20 members. **The focus has been on women – especially on married women, to ensure sustainable membership within the group.**

These groups have been further organised in a federation called **Panchayat-level Federation (PLF)**, which is again a registered body with a maintained bank account, formed in August 2001. There 50 members in this body, with three elected officer bearers amongst them, namely, Secretary, Joint Secretary and Treasurer. From the 25 SHGs, 2 members from each SHG are elected to represent them in the PLF, who further participate in the election of these office-bearers. The PLF works on subscription, charging Rs. 25 per SHG per month to facilitate its day-to-day activities. The main work of the PLF is coordination among SHGs, support in exploring employment opportunities, etc. Sometimes, it also acts as SHG, for example, in case of Keerapalayam Panchayat, it has been engaged by DRDA under the TSC programme as an SHG for manufacturing rural pans. The PLF has received Rs. 75,000/- as a revolving fund, which, in turn, has formed an informal group to manufacture the rural pans in which members are drawn from existing SHGs of the PLF. The PLF works in coordination with the Gram Panchayat⁶ and the NGOs working in the village. Another concept of informal group which is linked to this model will be discussed in the forthcoming section.

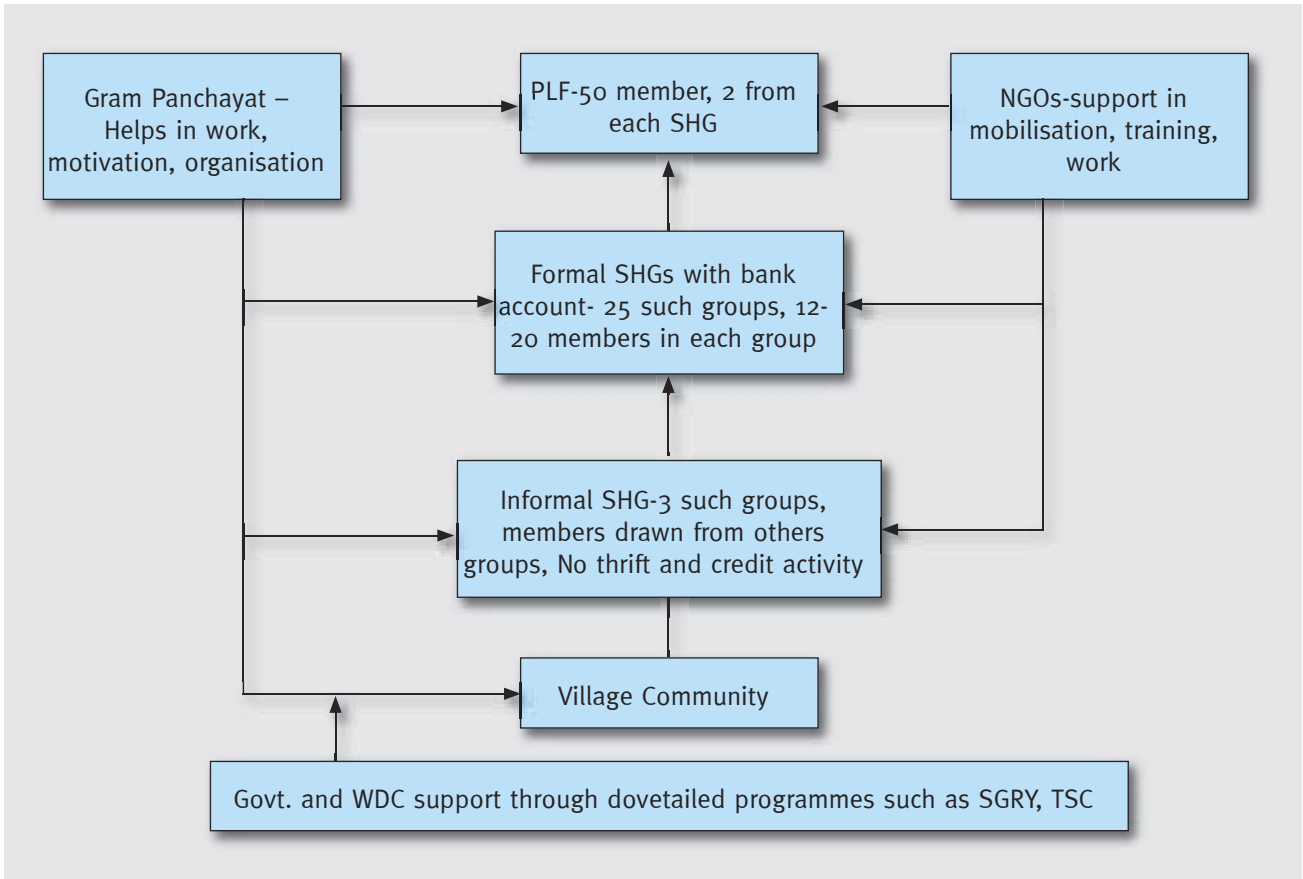
The evolution of such a federation has been supported by many institutions, ranging from the Government of India, State Government of Tamil Nadu, District, Block and Gram Panchayat level functionaries, and international agencies such as DANIDA, to local NGOs, namely Bless Foundation⁷. The role played by the Women's Development Corporation, Tamil Nadu, is really worth mentioning, whose technical and funding support to Bless Foundation helped in mobilising community members into SHGs. At the inception of these activities in 1997–98, there were only 14 SHGs. Later it developed into 25 vibrant groups who now actively participate in many other development programmes as well. These groups are aware of the fact that continuous work is necessary to eradicate social evils. Initiatives such as a Cooperative Bank for women's SHGs, Super Market, Sales Stall, etc are some of the items on their agenda in the near future. A Market Network PRO is their prime aim. The role of state and district administration cannot be underplayed in this regard. The contributions in such cases have been exceptional, not only in planning and extending funding support, but also in implementation

⁵ Since 1996, he played a major role in mobilising funds for Watsan activity under DANIDA assistance, TSC, SGRY and other Govt. funds

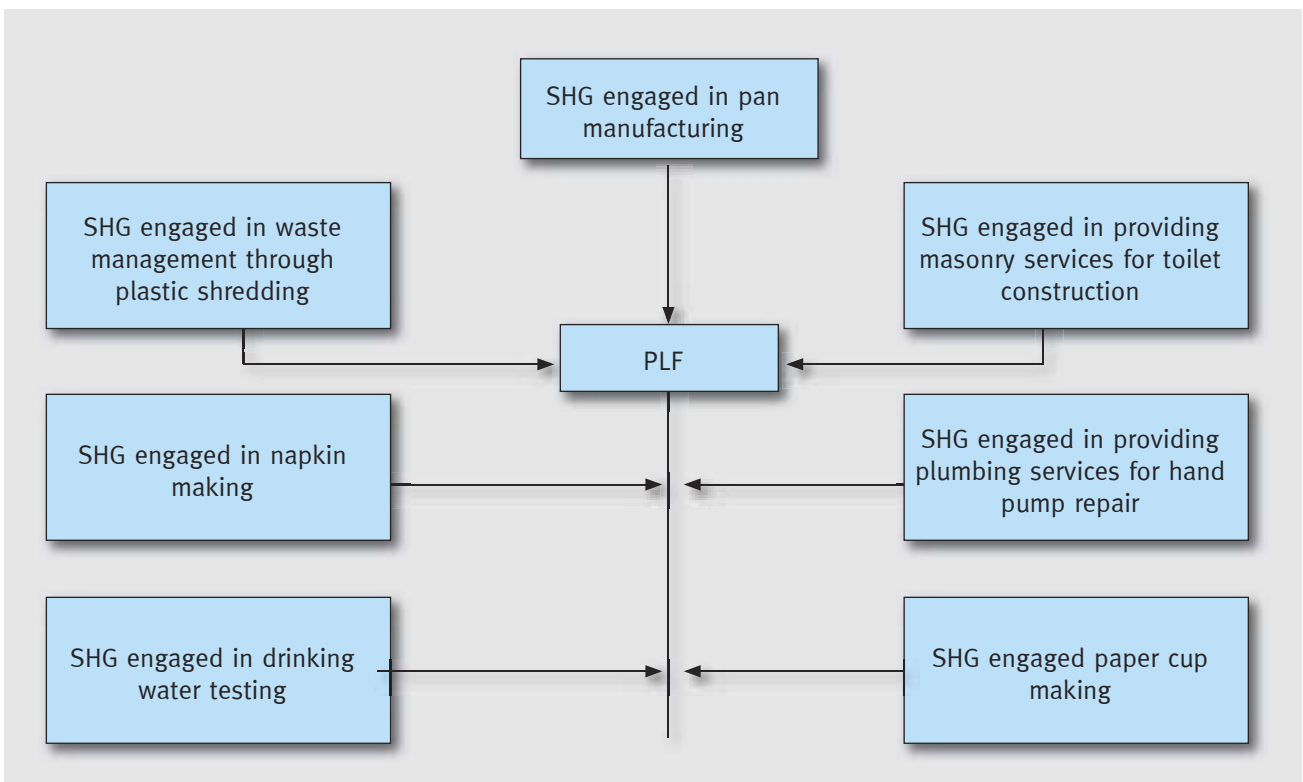
⁶ Keerapalayam Panchayat has 7 committees. Watsan activities are coordinated by Water and Clean Committee headed by Panchayat President

⁷ Bless Foundation has been selected as RSM for two blocks by DRAD under TSC programmes. There are 4 such RSMs in the district that received Rs. 1 lakh as a revolving fund

SHG Model of Keerapalayam



Watsan Services-based SHGs



and monitoring. The role of DRDA has been rewarding, especially in dovetailing the schemes of the SGSY and Total Rural Sanitation, which have strengthened this movement, both in terms of credit and market support. The DRDA under SGSY scheme has also opened a sale outlet by the name of 'Rural Bazar' at Cuddalore, where the products of these SHGs are marketed and sold.

Such a PLF-type structure is operational in all the blocks of Cuddalore district. In fact, a Block-level Federation (BLF) is also proposed to organise all the PLFs in the blocks. Comparing with the other Panchayat village visited – Kanisapakkam in Annagramam Block – which has also shown remarkable progress in water and sanitation, especially in solid waste management, such a structure exists there too. However, it is the presence of 'Watsan-based Groups', especially the masonry and plumbing groups, that separate Keerapalayam Panchayat from others. In Keerapalayam Panchayat, there are many groups, which are engaged in providing Watsan services, not only to Keerapalayam Panchayat but also to other Panchayats.

There are at least seven groups whose activities are water and sanitation related. However, the composition and nature of groupings differ from each other. For instance, the *SHG engaged in providing plumbing services for hand pump repair has five women members and is actually an informal group⁸ whose members are drawn from different formal SHGs of PLF.* Similar is the case of the **SHG engaged in providing masonry services for toilet construction, which has 10 women members.** No credit assistance has been extended to them from any scheme. The support they have been given in the form of training and toolkits by DANIDA (which trained the SHG engaged in providing plumbing services and SHG engaged in providing masonry services through Bless Foundation in 1998, refer Annexure 2). The concept of SHG providing plumbing services has been scaled up and now every Panchayat has such trained five member groups. Either Block or GP functionaries arrange the work contracts. However, the SHG engaged in providing masonry services is the only one in this block and is associated with Bless Foundation, which disseminates information about the potential villages to be covered and also arranges the raw material to be used in toilet construction. Now, the model is replicated in other blocks as well: one SHG per block is trained under the SGSY.

Similarly, the **SHG engaged in rural pan manufacturing** is again an informal group having 17 members drawn

from different SHGs. The training has been provided on experiences of Medinipur under SGSY and support of SIRD and Gandhi Gram Rural Institute, Tamil Nadu has been taken. This group works under the flagship, as informed, of PLF, which receives revolving fund of Rs. 75,000 from TSC to manufacture the pans. These pans are sold at the price of Rs. 80 to Rs. 90. There is huge demand for rural pans, mostly supplied to the TSC programme. The B.D.O of the block has been designated to purchase such pans and further make arrangement for its proper utilisation by RSMs, SHGs, individuals, etc. A group manufactures almost 60 pans per day and a single member earns around Rs. 25,000-30,000 per year. So far, the DRDA, Cuddalore under the TSC programme⁹ has selected 13 SHGs for pan manufacturing, which have, by March 2005, manufactured 16,691 pans. (For proceedings refer to Annexure 3.)

There is one more group engaged in waste management through plastic shredding, but this group is a formal group with a bank account. The group, having 16 women members, has changed its activity from candy crafting to plastic shredding. For this activity, they have received Rs. 2.5 lakh as credit assistance under SGSY scheme in September 2002 for setting up their unit, including the machine and work site. Of this, they have already repaid Rs. 50,000. However, the interesting thing is the increase in their income, which was very low earlier. The group shreds almost 23–30 kg plastic collected from villages, scavengers, households, etc every day, at the rate of Rs. 3 per kg and sells it at the rate of Rs. 12 per kg to the Rural Development Department, which uses them for rural road construction under PGSY. Hence, approximately Rs. 800 is secured for every member of the group per month as an income. In this regard the case of **Kanisapakkam** in Annagramam Block is also worth mentioning, which has given a new dimension to the concept of solid waste management and its optimal use through SHGs. For instance, **vermi-composting** has been introduced in the village with help of a women's SHG (20 members) with credit support of Rs. 2.5 lakh (that includes the subsidy support of Rs. 1.5 lakh) from SGRY. It has been a very rewarding business as animal waste comes free, which, after being converted into compost, is sold at Rs. 3 per 300 gm; of which, almost 10 mega tonnes is sold every day. These are remarkable examples of how wealth can be generated from waste by dovetailing various government schemes.

The above examples also establish the potential of SHGs in the broader development process, provided that an enabling and supportive environment exists. However, it is also necessary to understand the internal and external issues in the functioning of SHGs for any potential application and replication. The two SHG cases, ie, one SHG engaged in providing plumbing services and the other SHG engaged in

⁸ No thrift and credit activity in such groups. Members are still engaged in such activities, but in their parent groups. Active work participation is restricted to informal groups

⁹ In Tamil Nadu, it is called Total Rural Sanitation Programme

providing masonry services for toilet construction, have been studied in detail to create a micro understanding of SHGs, especially in relation to water and sanitation services.

SHG engaged in providing Masonry Services for Toilet Construction

This group is very special as it is the only group in the block that provides masonry services. The group was formed in July 2003, and though an informal group with no regular bank account, has managed to survive with active support from Bless Foundation, PLF and the Panchayat President. There are 10 women members in the group under team leader, Mrs. A. Susila. The average age of group is 33 and average family size is three. Around 40 per cent of the group is illiterate, but the members have an average income of Rs. 600 per month. As stated earlier, Bless Foundation has trained the group at their training centre with support from DANIDA. Earlier, they used to work as unskilled workers¹⁰ and get only Rs. 40 per day, but now they get Rs. 80 per day with independent choice of work. With regard to working days per month, the figure has increased from 10–15 days to 20–25 days per month, constructing 20 toilets per day. When there is no work in the rainy season, they work as farm workers, thus managing to be employed all the year round. The group functions in a unique way. Bless Foundation informs the members about the potential village to be covered. They first go the village and motivate and mobilise the community for toilet construction. A date is then fixed for construction. Bless Foundation (BF), which gets an incentive of Rs. 50 per toilet construction arranges the raw material; the group hires a tractor and reaches the village, and on the tractor itself the materials are mixed. The work is divided among the group on a rotational basis. Two members dig the pit, two mix the raw material, two fix the slab, two fix the pan and two members plaster and clean. The cost of one toilet comes to around Rs. 600–650. The Government of India as well as the State Government gives an incentive of Rs. 500 routed through the same RSM (BF) and the rest is secured from the community through voluntary contribution. So far, this group has constructed 625 toilets and 600 temporary toilets in tsunami-affected areas.

According to Mrs. A. Susila, “the increase in incomes has really increased our savings, even though these are mostly used in purchase of jewellery and children’s education. The best thing is that our standing in the work place and in the family has improved. Even if the Govt. withdraws subsidy support, we will be able to work as there is visible demand from the APL families too.” They feel more training input on know-how related to construction of superstructures would help them a lot. At present, they are only able to work at the base level.

¹⁰ Cittal

Strengths and Weakness as perceived by the Group

Strengths	Weakness
<ol style="list-style-type: none"> 1. Unity due to same village and caste 2. Strong leadership 3. Participatory environment 4. Prompt services 5. Survived without any credit assistance 	<ol style="list-style-type: none"> 1. Not skilled in constructing super-structures 2. Lack of office and communication facilities 3. Informal grouping 4. No long term saving

SHG engaged in providing Plumbing Services

This is a small, informal group of five members, which was formed in 2003. DANIDA facilitated the training process and trained one member, Mrs. N. Sudha, of the group in plumbing, and especially in the repair of hand pumps. She, in turn, trained the other members of the group. The average age of the group is 34, with an average monthly income of Rs. 1000. All members of the group are literate. They are members of different groups of the PLF, but the desire to increase their income brought them together. On an average, they get 10 days of work in a month and earn Rs. 325 per handpump. If there is a minor repair, they get Rs. 150. They repair almost 2 hand pumps in a day. This experiment has been scaled up and now all the Panchayats have such groups with similar composition. The Panchayats and the block get them work. They are also engaged in awareness-generation programmes and get paid around Rs. 100 per day, depending upon the requirement of the job. Mrs. Sudha, the leader of the group, has also been engaged in training women from other blocks. So far, she has trained 80 such women. She says, “I feel proud when the neighbouring Panchayat Presidents come to my house and invite me to repair their hand pumps. Whenever breakdowns occur in the hand pumps in my village, I need not go to block office, I myself can rectify it immediately. This training builds in me the confidence that I can earn some money and provide better education to my children.”

Strengths and Weakness as Perceived by the Group

Strengths	Weakness
<ol style="list-style-type: none"> 1. Sharing same level of income 2. Unity due to same village 3. Availability of tools 4. Prompt services 5. Capable of water testing 	<ol style="list-style-type: none"> 1. No permanent income 2. On-site problem: unclear division of work due to nature of work 3. Increasing competition from same type of SHGs 4. Informal grouping 5. Handpumps are fast replaced by tap water system: more training on this required

Is the SHG Model of Keerapalayam Sustainable?

In the broader sense the concept and model of Self-Help is surely sustainable and replicable. There are prominent examples of such movement across the country (Seva, Anand, etc). However, caution must be exercised in view of the growing base of defunct SHGs in the absence of clear vision and purpose, lack of sustained inputs from institutions and unity in the group, low skill – both in production and management, low market opportunities, misuse or inefficient use of credit assistance, etc. Therefore, the issue is: what makes the model sustainable? For that, we need to understand the meaning of the word “*sustainability*” which is crucial to the development process. It refers to the “*ability*” of something to be “*sustained*” (*carried on*) after outside support is withdrawn. For instance, for a community that builds a water supply system, the repair, cleaning and utilisation of the pump after it is constructed, is the objective. For an external donor, it is the continuation of the project or its outputs after the donor withdraws. For the mobiliser, it is the continuation of the community strengthening social process after you move on. For environmentalists and ecologists, sustainability requires that an activity be sustained (*eg biologically*) by the physical environment such that non-renewable resources are not used up.

In the context of watsan programming and the SHG model, the issue is sustainability of the water and sanitation programme, which is our focus, or is it the sustainability of the SHG?. Is there any difference in the sustainability requirement of these two? If the programme adopts the strategy of SHG to implement some of its programme inputs, the sustainability of SHG will surely sustain the programme if it phases out. Therefore, in relation to water and sanitation programme, we need to count those advantages or best practices and disadvantages, which can have a critical impact in ensuring its sustainability in relation to the SHGs involved in providing masonry and plumbing services as well as pan manufacturing.

Advantages/Best Practices

The SHG model adopted in the Keerapalayam Panchayat has worked well so far largely because of:

1. Strong leadership in the form of the Panchayat President, who has not only provided a vision for development, but has also managed to keep politics out of the development process.
2. Dedicated community participation in the programme which has improved the coverage and awareness.
3. Presence of functional SHGs in diverse activities organised under PLF, which has strengthened their functioning and economic and social outputs.
4. Dovetailing/convergence of different schemes has given a new dimension to the development process.

5. Coordination among DRDA, NGOs, GP, and other government functionaries, thus improving the implementation.
6. Focus on women has ensured parity in participation, which has also improved their status in general.
7. Value addition/ innovations in the programme, especially in the form of waste management or Rural Bazar has taken the programme to a higher level.

Disadvantages

The model adopted has certain weaknesses, which need to be enumerated for better understanding:

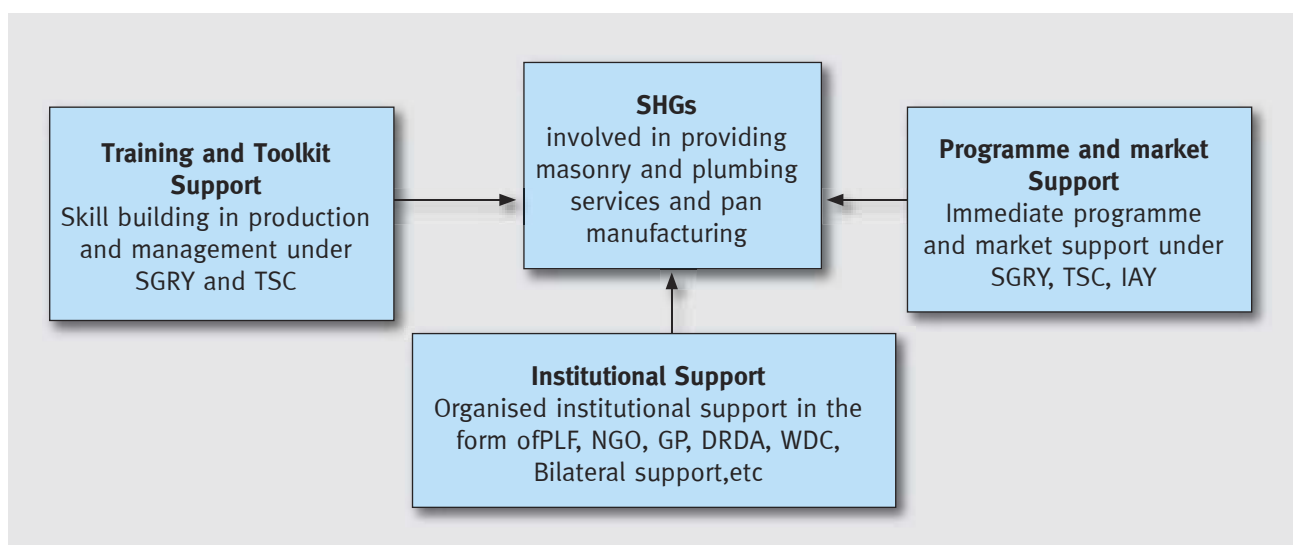
1. Informal grouping and lack of thrift and credit activity and a formal bank account may make the group defunct if there is no work. Members may go back to their parent group from where they have been drawn or take up some other activity.
2. Keeping pace with advancements taking place in watsan technologies would be a challenge. Presently, the skill level is not very high which, if not addressed, may affect them in future.
3. High degree of handholding from government/ NGOs, which may prove detrimental when they take up independent assignments.
4. No social security in term of insurance or long-term saving.
5. Lack of adequate infrastructure such as communication, office, vehicle, modern tools, etc.
6. Low management skills.

In the cases discussed, especially in relation to SHGs involved in providing masonry and plumbing services and pan manufacturing, contents of sustainability are partially applicable. Presently, there is, for example, huge institutional support in the form of government assistance in terms of credit and training. In fact, we need to examine how the support is extended to these groups, and in what forms. This has been depicted below:

As the above suggests, the support¹¹ can be categorised under institutional, programme and market support, and training and toolkit support. For example, in the case of the SHGs engaged in pan manufacturing, the TSC programme itself generates huge demand. There are 2.64 lakh households without toilets and only 97 thousand households have been covered since 1999. It means that there is a perceived demand for pans for another 2–3 years before the construction of toilets gets saturated. Toilets are also constructed under IAY, which creates more demand for such pans. Therefore, for this group, there is an

¹¹ The support has helped in effective implementation of SGRY and TSC programmes. For example, in Keerapalayam Block, which has 63 Panchayats, under SGRY 155 schemes were taken up in 2004-2005 and all are completed. Similarly, in TSC against the target of 4382 household toilets, 2089 toilets have already been completed in year 2004-2005

Support mechanism for SHGs



effective market base to sustain their activities, but after 2–3 years they will surely need to explore a new market base independently. The same trends can be witnessed in the case of SHGs involved in providing masonry services for toilet construction, and which are heavily dependent on NGO and the government to secure their work contracts. Given the informal nature of their grouping with no bank account, and in the absence of improved skill and linkages with the free market, the group may become defunct. The formation of their present groupings itself is the result of mobility from other groups. This might be repeated in their present group. In the case of SHG plumbing services, the facts are somewhat different as institutional support works as the facilitator in securing work contracts here. But the decision to have one group in each Panchayat has created huge competition and may reduce the number of working days, which may impact their monthly income. Needless to say, the vision behind such a model has been to increase incomes and quality of life, which, if affected, will not be able to sustain.

Thus, it means that there are avoidable weaknesses in the model, which, if corrected, can make them not only sustainable but also replicable. As we discussed, there are three-way support mechanisms, which make these SHG a viable model in the current context, and which, if continued in future, can make them sustainable, provided that the weaknesses outlined are taken into account. If this is successfully done, then it can surely be replicated. But the issue is if the three-way support mechanism, as discussed above, are to be continued in the absence of any government programme inputs. Another area of concern is addressing the weaknesses: how and with what solutions? Some of them are summarised below:

Institutional support

- The institution of PLF, that has organised all the SHGs in the Panchayat has performed very well and needs to be scaled up to the level of Block, District or even the State level. It must act as an institution that can safeguard the interests of SHGs. Such an institution must also ensure quality services and products, if exposed to the free market norms. This will help SHGs in facing competition effectively.
- No informal grouping should be allowed. All the groups must be required to initiate thrift and credit activity and open a bank account.
- Norms of participation should be followed, with regular election of team leader and other functionaries, both in SHGs and in the PLF.
- Rules adopted should be accepted and adhered to by the member groups.
- Government support should be continued, but not to the extent of making them dependent.

Programme and Market Support

- Provision for inclusion of SHGs in new programmes, especially those of the government, like construction of hospitals, community centres, etc, needs to be made. All the Watsan maintenance contracts, if suitable, may be given to such groups.
- New markets need to be explored. The government or NGOs can facilitate the process of linking these groups to local hardware shops, factories, etc.
- Local urban markets can also be explored via resident welfare associations, schools, colleges, hospitals, local markets, government offices, etc. for Watsan services and maintenance work.
- Convergence of programmes should be continued but credit assistance should be minimised and

sustainable work opportunity to increase incomes explored. This will strengthen the spirit of independence and ownership.

- (e) Support can also be sought from Watsan-related corporate houses to engage such groups in their activity.

Training and Other Support

- (a) One-time training is not enough; therefore, refresher training should be organised, incorporating upgraded skills and know-how.
- (b) Modern toolkits should be provided.
- (c) Group insurance and long-term saving facilities should be extended.
- (d) NGOs and PLF itself need to be engaged to ensure the above measures.

Replication Potential

The word “replication” means a process of deliberate repeating. Since no two communities are alike and no community is the same at two different points of time, the notion of replicability becomes an ideal rather than something which can be practiced with precision. This is even more true for India, with its diversities and complexities. Therefore, any efforts to replicate any model would necessarily involve some deviation from the original model. In case of the Watsan-based SHG model of Keerapalayam Panchayat, various possibilities on sustainability have been discussed. The model has the potential for sustainability, and if it is sustainable, it is certainly replicable. But keeping the diversity of Indian states in view, a very precise methodology would be inappropriate to be outlined. However, certain steps can be taken to facilitate the replication of this model:

- (a) Convergence of Rural Development Programme may be initiated at GoI level, especially among SGRY, TSC, and ARWSP. On a pilot basis, states may be asked to select districts as the focus

of the project and dovetail the programme and funding resources of SGRY, TSC, and ARWSP. Initially 100 districts may be engaged actively as models, and the process can later be scaled up. Programme guidelines for the same may be developed and circulated to states. A coordination committee can also be set up to oversee its implementation and monitor it.

- (b) In the TSC programme, some of the states have focused on the SHG model but need to work in coordination with SGRY programme.
- (c) Exposure visits may be organised to learn from the Keerapalayam Panchayat Model.
- (d) There is huge base of SHGs across our country, which needs to be activated, energised and involved in these programmes. NGOs, as well as bilateral and international agencies may develop a programme for them along these lines.
- (e) To ensure a supportive platform for SHGs involved in Watsan services, public-private partnership may be activated to ensure regular employment to them.

Conclusion

The SHG model of the case of Keerapalayam definitely has the potential for replication. A well-planned programme trusting in the abilities of SHGs would help in the process. The convergence in the various development programmes has shown that the benefits can be doubled on a sustained basis, if implemented in a planned way. Increased income, better empowerment of women, increased coverage of water and sanitation with improved maintenance, low burden of diseases due to clean and healthy environment and so on, are just a few advantages that have been concretised in the case of Keerapalayam. Such examples are waiting to become facts in other villages, thanks to the efforts of SHGs. Can this also be the case for other states?

Note

In undertaking this field visit, I received wholehearted support from Mr. G. Bedi, Collector, Cuddalore, Mr. D. Jagannathan, Project Officer, DRDA, Mr. T. Murugan, Additional Director, TSC, Panchayat President Mr. K.P. Panneerselvam, Keerapalayam, Officials of the SGRY, Education, Health, ICDS, TWAD, members of the Keerapalayam Panchayat, Officials of Bless Foundation, all the members of SHGs, Teachers, and above all, the communities of the villages visited. I express my thanks and deep gratitude to them all. In particular, I wish to put on record my sincere appreciation for the cooperation and support extended by Mr. N. Gopalkrishna, DRDA, Cuddalore.

13. Model of Cleanliness

A Case Study of Kharoudi village in Punjab

Can this model meet the total sanitation challenge in India?

Shipra Saxena

Introduction

The wastewater generated from various household and other activities in rural areas overflows into open surface drains and is ultimately disposed of into village ponds, thereby contaminating them. Seepage from pit latrines is also likely to affect the underground water. His Excellency, Dr. A.P.J Abdul Kalam, President of India, while distributing the First Nirmal Gram Puraskars on 24 February 2005 in Vigyan Bhawan referred to Kharoudi village in Hoshiarpur district of Punjab as a “model” that understood the necessity of clean drinking water, sanitation, solid and liquid waste management and hygiene as a means to foster public health in the village community. The NRIs of the village have done a lot to bring about dramatic improvement in its sewage disposal system, the maintenance of roads, computers, schools, parks and libraries, thereby attracting the attention of His Excellency, Dr. A.P.J Abdul Kalam, President of India, who inaugurated the project – the first of its kind, not only in Punjab, but also in India, in March 2003.

The Department of Drinking Water Supply, Ministry of Rural Development, vide their letter No.W-11037/8/2005-crsp (part), launched a one-member study team, as desired by His Excellency, Dr. A.P.J Abdul Kalam, President of India, to study the model village and look at its replication potential. Ms. Shipra Saxena, Consultant (CRSP), RGNDWM, Government of India, was appointed to study the Kharoudi model and present the report.

Methodology Adopted during Field Visit

In Kharoudi village, Hoshiarpur district of Punjab, NRIs, with the help of the state government, has laid the underground sewerage system with a stabilisation tank and activated sludge system. With the availability of this underground sewerage system the whole village has been able to have household toilets as well as toilets in schools, hospitals and other public places. Kharoudi village also boasts of concrete paved roads, along with primary schools with computer education. Four new parks have been added to the village – one exclusively for children. Solar street lights, a new cemetery, an Internet kiosk, and an ultra modern Panchayat Ghar with residential facilities

are the other highlights. Kharoudi has changed the face of the archetypal Indian village, largely due to an efficient system of sanitation and wastewater management. It thus required a detailed study of whether this model of progress can be replicated and propagated by the Ministry of Rural Development in other parts of the country. The team visited Kharoudi village and met the villagers¹; Dr. R.S Bassi, NRI and one of the brains behind the project; Mr. M.P Singh, the engineer associated with the project; and officials from the Water Supply and Sanitation Department. A detailed, in-depth discussion took place in the village, along with the on-site visit and feedback from villagers about the functionality of the project. The team later visited Brahmpura village, to analyse the replication potential, since the Kharoudi project has been replicated there on the initiative of the NRIs of that village. Later the team also studied the wastewater management systems in Sangole village in Ludhiana district and Ulana village in Patiala district to understand the variations possible in the Kharoudi project. The visit has helped to come up with different models/options suiting the local conditions, availability of water, funds, land, etc.

Objective of the Study

This study of the Kharoudi model of sanitation of the underground sewerage system and proper treatment of wastewater is set to answer the following points:

- Profile, Background and Factors Involved in the Project
- Details of the Sanitation Scheme
- Cost Economics
- Benefits versus Limitations
- Different Models/Options
- Use and Maintenance
- Government Support
- Factors Contributing towards such Success
- Sustainability and Replicability
- The Way Forward.

Profile and Background – Kharoudi Village

Kharoudi, with a population of 800 persons living in 150 households, has a large NRI population.

¹The list of persons met during the visit has been enclosed as annexure

The leadership and the initial funds for the development of this village came from the chairman (Dr. Bassi) and Vice Chairman (Dr. Gill) who belonged to this village.

Dr Raghbir Singh Bassi and **Dr. Gurdev Singh Gill** of Canada decided to take things in their own hands. On one of their trips back home, they were appalled at the squalor and filth around the village. The village practically floated in sewage. During the monsoons, it was impossible to cross the street. Stagnant water, overflowing drains and waste piling up ankle deep, made the village a health hazard. Back in Canada, they approached all NRIs who hailed from Kharoudi and told them their plan to change the total lifestyle of the village. Within no time, Rs. 50 lakh were collected, out of which nearly Rs. 20 lakh were donated by the families of Dr. Bassi and Dr. Gill. Those contributing Rs. 1 lakh or more were promised an inscription of their names on the pillar of appreciation in the village square. So far, the pillar carries the name of 30 NRIs, including Gill and Bassi.

The **Village Life Improvement Board (VLIB)**² comprising NRIs and representatives from the Panchayat was also constituted to monitor the progress of the project. Dr. R.S Bassi was chosen as the Chairperson and Dr. Gill and Dr. Sukhdev Singh Bassi were elected as Vice Chairman and Treasurer, respectively. Dr. R.S Bassi is Professor of Economic Development Administration at Alaska Pacific University, and Dr. Gill, is the first doctor of Indian origin to start a private practice (where?). The one crore rupee project began in 1999, with sanitation as its focus. Almost immediately, it received a boost when the then Chief Minister, Mr. Parkash Singh Badal, promised a “dollar for dollar” matching grant. On the CM’s instructions, Dr. Bassi and Dr. Gill further met the Deputy Commissioner of Hoshiarpur, Mr. Iqbal Singh Sidhu, who turned out to be another promising and inspiring contact. Impressed by the NRIs’ zeal, the district administration provided the necessary back-up for the implementation of the project. The locals too pitched in with labour and machinery. While the Panchayats was involved in the execution, the leadership and initial funds for development came from the Chairman (Dr. Bassi) and Vice Chairman (Dr. Gill) who belonged to the village.

Project funds were kept out of the Panchayat’s ambit in a bid to prevent corruption. Since VLIB got a lot of work done by itself, the work was completed not only on time, but also at a cost less than envisaged. Dr. Gill and Dr. S. Bassi began working on the project from September 1999, and within 3 years the village has been transformed astonishingly.

The practice of open defecation was totally eliminated and all the schools, households, hospitals and public places have toilets that are being put to use. In addition, all the toilets have a functional water supply as the village has a 27.43 metre Over Head Service Reservoir with 1,50,000 litre capacity on 8 hours of daily pumping. A 30-foot deep pond that overflowed every monsoon has now been converted into an open space. In addition, the marshy land has been converted into beautiful parks; concrete lanes have replaced the muddy and dirty roads with open drains; and solar lights at common places light the entire village. Rooms have been added to primary schools, computers have introduced into the curriculum and 5 computers have been installed, along with a dedicated teacher. The entire village looks clean as well as aware, as though urban facilities have come right into the village.

The Sanitation Scheme in Kharoudi Village

Today, the entire village has concrete streets connecting each house. The sewerage line³ flows through the village with a concrete cover on it. Each house has an outlet into it. The wastewater flows through sewers by gravity, with sewers designed with sufficient gradient to provide for a minimum of 2 to 3 feet/sec flow velocity (scour velocity) to avoid settling of solids. Stoneware pipes⁴ have been used. The sewerage water has been treated till the last point where it can be reused for fish tank or for irrigation.

The entire sewage of the village is made to flow into a large covered septic tank outside the village. Manholes have been provided at a suitable distance, which permit access to sewer lines for inspection, cleaning and repair. The septic tank has been designed keeping in mind the volume of sewage produced. The calculations are done on the assumption that there is a consumption of 100 lpcd, out of which 70 per cent of the water used ends up as sewage. In Kharodi village there are 2 septic tanks. In a septic tank there are partitions, in which anaerobic bacteria are produced spontaneously and thrive on the chemicals in the sewerage. This bacterium does not need oxygen, but feeds only on solids. It thus cleans the water up to 85 per cent. From this tank, the water is made to flow into a smaller tank, which is laid with perforated pipes covered with nylon filters and three feet of rubble. It is further covered with three inches of sand and three inches of mud, and finally taken into a pond for UV treatment, which takes care of pathogens. In the middle of the pond there is a fountain.

The project includes the “**Sewerage Water Treatment Plant**” (SWTP), which will enable the villagers to reuse

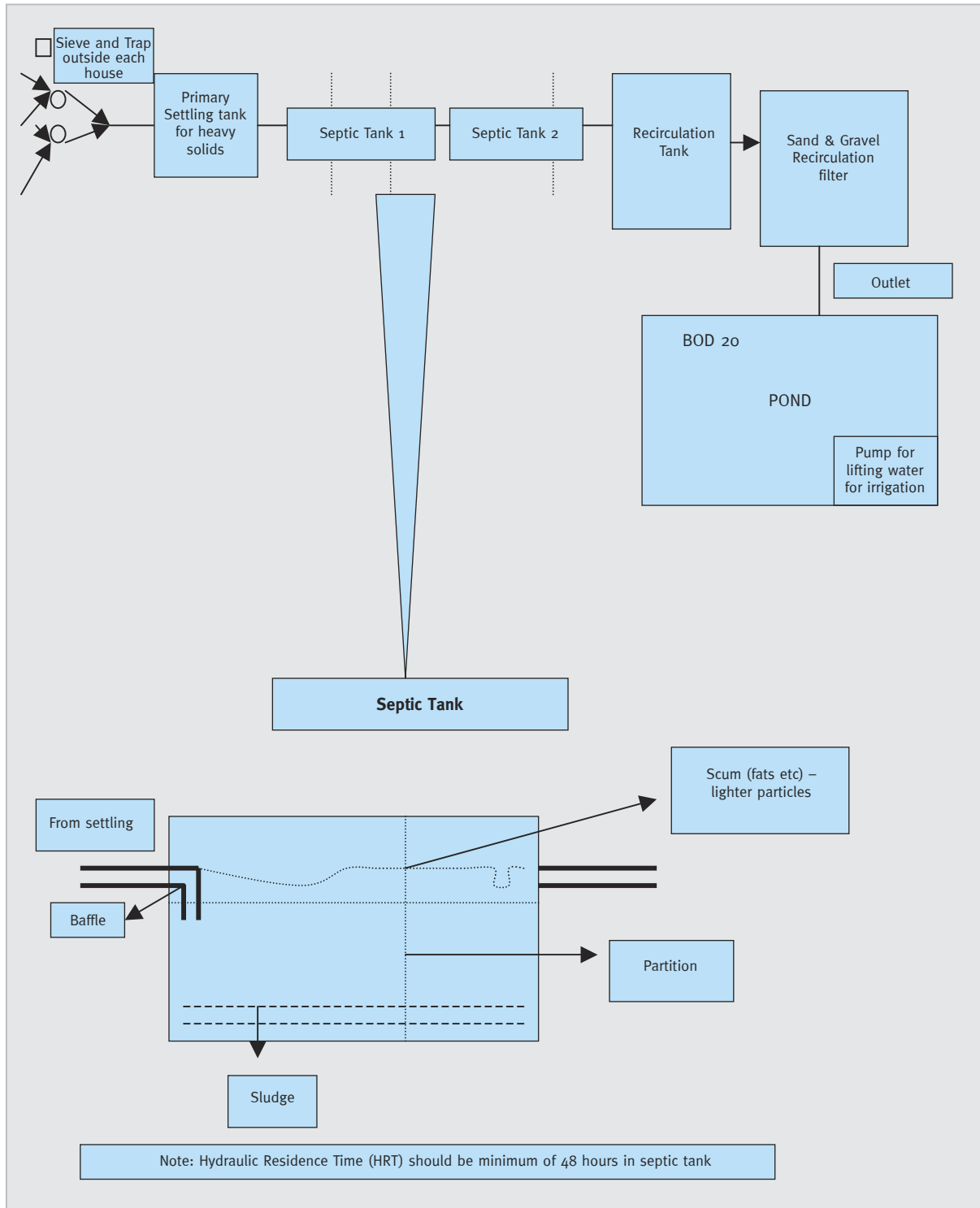
³ Sewer lines are the most expensive part of any sewer system. Great care must thus be taken in their design and construction

⁴ Other pipe materials can be Vitrified clay pipe (for home connections and laterals), Reinforced concrete pipe, Plastic PVC pipe, Asbestos – concrete pipe, Ductile iron pipe

² The brochure is enclosed as annexure

this water for fishery and irrigation of fields. Initial sewage has a BOD⁵ of 100-250 mg/l and removal of at least 80 per cent is required. The income generated

will be given to the Panchayat and the Maintenance Committee. The sanitation system in Khaoudi is diagrammatically presented below:



⁵ BOD is the amount of oxygen required by micro organisms to decompose the organic substance in sewage

Waste Water Treatment

Primary Settling Tank

This removes organic solids by simple gravity, ie settling of solids in still water. There is usually a 2 hour retention time. Settled solids (sludge) are removed from the bottom of the unit and can be pumped to a digester.

Septic Tank

A septic tank provides preliminary waste-water treatment wherein solids separate from the liquid. The tank must be sized to handle the waste water. Some solids such as soap or fat will float to the top of the tank to form a scum layer. The heavier solids such as human and kitchen waste settle to the bottom of the tank as sludge. Self-forming bacteria in the tank help the system digest these solids or sludge. The remaining liquid flows out of the tank. The baffles built into the tank hold back the floating scum from moving past the outlet of the tank. It is generally recommended that septic tanks be pumped out annually. The tank must have two to three partitions. With a two-compartment tank, the first compartment must hold at least one half, but not more than two-third of the total volume. Compartments must have baffles between them to improve settling. There should be a vent pipe to vent gases that rise from the sludge into atmosphere. The effluent from the septic tank still contains about 75 per cent of the polluted matter in the sewage, and hence, there is need for further treatment of the liquid from the tank. The retention time is 48 hours.

Recirculating Sand and Gravel Filters

This is an excellent method for bringing wastewater that varies in volume and strength up to tertiary treatment levels, ie, BOD levels below 20 mg/L and total nitrogen reductions of 40 to 50 per cent. Wastewater first flows into a septic tank for primary treatment. The partially clarified effluent then flows into a recirculation tank, which is equipped with a pump, alarm, a timing mechanism, and float switches. The volume of the recirculation tank should be equivalent to at least one day's design flows. In the recirculation tank, effluent from the septic tank and the sand filter filtrate are mixed and pumped back to the sand filter bed. The dosing frequency is controlled by a programmable timer in the control panel. However, this is very costly.

Aerobic Treatment

This is done through duck weeding, aeration tanks, and reeds to reduce the BOD, thereby reducing the odour.

Ultra Violet Treatment

This is required for treatment of pathogens.

Sanitation cost economics in Kharoudi village

Population	Existing	800
	Perspective	
Sewerage	Starting Depth (m)	0.5
	Final Depth (m)	1.7
	Slopes	1 in 100 to 1 in 250
Material		RCC and Stoneware
Sewer line (m)		3518
Cost (Rs.)		13.77
Manholes		Included
Septic Tank (Rs.)		4 lakh
Other		Included
Total Cost (Rs.)		17.77 lakh

Replication of Kharoudi Model of Sanitation in Brahmpura Village in Ludhiana District of Punjab

Brahmpura Village in Ludhiana district of Punjab has also become a model village and has followed the same pattern as Kharoudi. The village has a population of 3500 persons, including with a few NRIs. Anantpal, an NRI from this village wanted to replicate the good work of Kharoudi in Anantpal. Anantpal donated \$60,000 and the village received a matching grant from the Canadian International Development Agency. Unlike Kharoudi, each household deposited Rs. 300 to get a sewerage connection, which has fostered a sense of participation and ownership in the village. In addition, the Punjab government sanctioned Rs. 40 lakh for Brahmpur. The work has been completed in less than a year's time.

Comparative Cost Structure

Parameters		Kharoudi	Brahmpura
Population	Existing	800	3500
	Perspective	3000	5000
Sewerage	Starting Depth (m)	0.5	0.5
	Final Depth (m)	1.7	2.3
	Slopes	1 in 100 to 1 in 250	1 in 150 to 1 in 250
Material		RCC and Stoneware	SW
Sewer line (m)		3518	5450

Metres		
Cost (Rs.)	13.77 lakh	24.28 lakh
Manholes	Included	Included
Septic Tank (Rs.)	4 lakh	8.96 lakh
Other	Included	Included
Total Cost (Rs.)	17.77 lakh	33 lakh

Cost per head

S.No	Item	Cost in lakh
1	Septic Tank -1	5.3
2	Recirculation Tank	2.75
3	Septic Tank -2	3.00
4	Sand and Gravel Filter	8.65
5	Collection Tank and Control Room	1.25
6	Pumps etc.	1.50
7	Sewer Line with Manholes	24.50
8	Concrete Streets (3")	2.17
9	Concrete Streets (5")	37.28
TOTAL		86.4
Cost/ Per Capita		Rs. 2,468
Cost/ Per Capita without Recirculation Tank, Sand and Gravel Filter Including Pucca Streets		Rs. 2,142
Cost/ Per Capita Without Recirculation Tank, Sand and Gravel Filter and Concrete Streets		Rs. 1,015

Note:

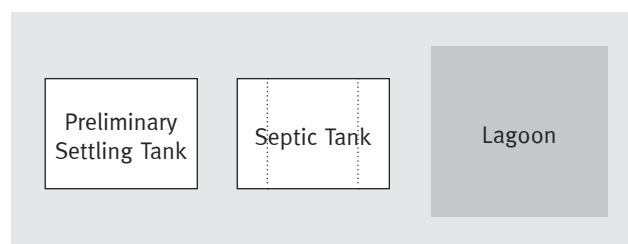
Calculated on the data collected from Brahmpura Village which is in the same patten as Kharoudi but with a population of 2450). The particulars of project are enclosed as annexure.

Benefits versus Limitations

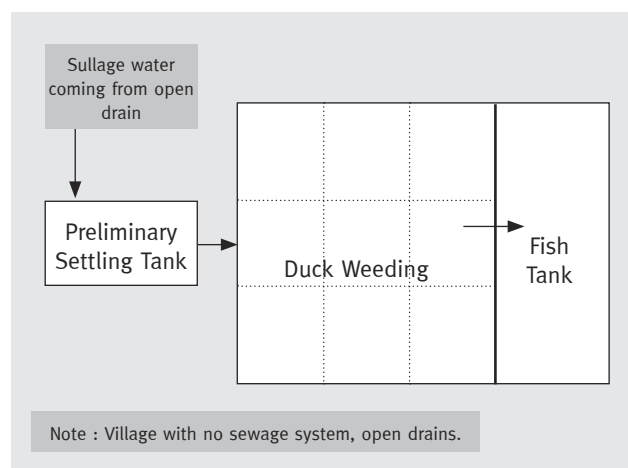
Benefits of the Technology	Limitations of the Technology
<ol style="list-style-type: none"> The open drains have been eliminated and the streets are absolutely dry and clean. Ladies and children are spared the embarrassment of open defecation in fields. Distinct hygienic quality of life visible even in weaker sections. People have become aware about the possible benefits of safe wastewater disposal. General well being and health benefits being realised and reported. 	<ol style="list-style-type: none"> Huge capital investment Consumes lot of water Requirement of land and pond

Replication Potential: Different Models/ Options

- In case of limited funds and land, the recirculation filter can be eliminated and the water taken directly into a lagoon⁶. This was done in part of Brahmpura village. They did away with the recirculation tank and the sand and gravel filter, and the water was directly taken from the preliminary settling tank to the septic tank and the lagoon. The waster was free from any odour.



- The Sangole village of Ludhiana district of Punjab had a lot of common land and large ponds, but limited financial resources. They did away with the recirculation tank, directly collected the wastewater coming from houses in the open drains to the primary settling tank and introduced duckweeding. Here pathogens also get treated due to UV rays. From here the water is fit to be taken into a fish tank. The finally treated water is free from any odour.



- The 'Small Bore Sized Sewerage System' has been used in Ulana, where a separate septic tank has been provided in each house. This tank retains most of the solids and allows the water to overflow. Thus, there is a **saving in the size of the sewer pipe as well as in the cost of laying** due to the lesser slope required to carry the water to the treatment plant. The Ulana village sanitation project only deals in separating solids

⁶ Large open pond where pathogens get treatment by UV rays

from the effluent and collecting the sludge in a well and then giving it the treatment aerobically through lagoons. No existing drains have been covered and no streets have been concreted.

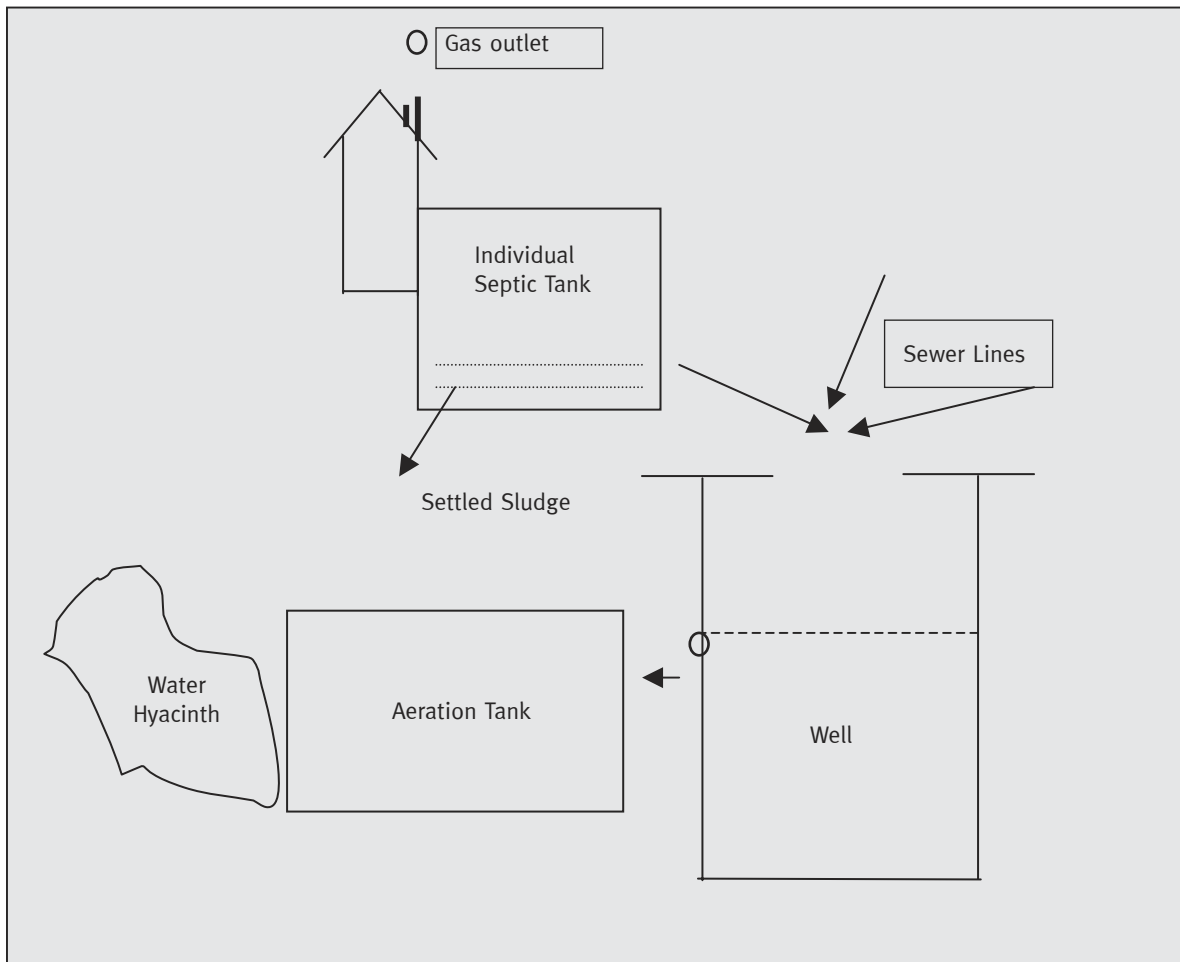
This technology comes out cheaper. This has not been developed by the Village Life Improvement Board.

The small-bore technology is fit for sparsely located houses. In clusters of houses close to each other, some norm of locating a septic tank is bound to be violated. The following table gives the desired distances of septic tanks that need to be maintained:

Item	Distance from Septic Tank
Surface Water	50 ft
Private Drinking Water Well	50 ft

Public Drinking Water Wells	
Non-Community System	50 ft
Community System	500 ft
All Other Water Wells	50 ft
Water Lines	
Pressure Main	10 ft
Pressure Service Connection	10 ft
Property Lines	5 ft
Foundations (Except Neighbours')	
All Foundations	10 ft
Neighbours' Foundations	
All Foundations	20 ft.

It is obvious that in small houses located next to each other it can be tricky job maintaining all these distances.



Ulana village sanitation project only deals in separating solids from the effluent and collecting the sullage in a well and then giving it the treatment aerobically through lagoons. **No existing drains have been covered and no streets have been concreted.**

Therefore, the comparable part of the Brahmpura project⁷ (on the same lines as Kharoudi) can be compared, cost wise, with the Ulana system.

Sr. No.	Description	Ulana Details	Brahmpura Details
1.	Projected Design Population	2478	3500
2.	Waste Generated/ Capita	80 litres	80 litres
3.	Treatment Scheme Provided	Aerobic followed by flocculative lagoon	Anaerobic, followed by recirculation filter and then lagoon
4.	Green House Gases	Let out at 210 different places	Let out at one place and can be harnessed as biogas.
5.	Per Capita Cost of Sewage Collection System Including Manholes, etc	Rs. 1455/- (High due to 210 individual septic tanks)	(24,50,000/3500) Rs. 700/-
6.	Per Capita Cost of Treatment Plant	Rs. 638/-	(21,45000/3500) Rs. 641/-
7.	Total Per Capita Cost Before Pucca Streets	Rs. 2093	Rs. 1341
Thus the per capita cost of Brahmpur/ Kharoudi technology is actually less by nearly 30%			
8.	Total Per Capita Sanitation Cost Including Street Concreting	Not done	Rs. 2468

Usage and Maintenance

All the households, schools, hospitals and public places have toilets that were put to **use** in Kharoudi and Brahmpura village⁸, the reasons being that NRI's are in the habit of using toilet, and people in the villages are literate and are aware of good hygiene practices. The water supply is adequate. However, the entire system is not optimally utilised because most people reside abroad. In Brahmpura village the NRIs

⁷ Data for available for Brahmpura project

⁸ The team has asked them to apply for Nirmal Gram Puraskar

also invested in the water supply scheme because the government water supply was dysfunctional.

The Kharoudi project is more than a year old and people are using it. However, the issue of **repair and maintenance** has still not come up. Dr. Bassi and Dr. Gill have jointly deposited an amount of Rs. 10 lakh for its maintenance. However, the Brahmpura village is better in this regard. There the villagers regularly deposit Rs. 90 as water charges for the maintenance of water and sanitation facilities, including the electricity bill.

Government Support in Implementation of the Scheme

In Punjab there are two ways to implement the programme. The firstly is through the Village Life Improvement Board. The board hires an engineer to prepare the proposal for the village, which is directly submitted to the NRI Commissioner. The NRI Commissioner can send a panel of his own engineers at least three times in a village and the villagers have to pay a maximum of Rs. 5000. The foundation gets five per cent of the project cost. The second is through the District Collector, which goes up to Secretary, Rural Development. In both cases, earlier, the State Government used to provide a matching grant of 50 per cent, which has gone up to 90 per cent. The Village Life Improvement Board has finalised the proposals of 10 more villages and the work is under progress.

Factors Contributing Towards Success of Kharoudi, Brahmpura Villages

Like Kharoudi and Brahmpura villages, many more villages in Punjab have a sizeable NRI population. Seeing the deplorable living conditions in their **pinds** (villages), they wanted to contribute in the development process. The contributions by NRIs and timely financial support by the State Government have helped changed the face of Indian villages like Kharoudi. However, the question arises whether such projects are sustainable and can be scaled up.

Sustainability and Reliability

Overall, though the benefits from Kharoudi and Brahmpura projects are many and look very attractive, high initial capital for the basic infrastructure, high consumption of water for functionality of the system and recurring maintenance costs are areas of concern, especially in view of the conditions of the country's rural areas. Firstly, all villages do not have NRI support and water, which is the essential thing for this project, is a scarce product and operation and maintenance is a difficult thing. **However, the Village Life Improvement Board has come up with**

alternative ways to deal with the problem: (a) there are lot of funding agencies like Canadian CIDA and other bilateral and multilateral organisations, from where funds can be channelised; (b) this project can be promoted in water-abundant states; and (c) in all the sanitation projects, harnessing the emitted gases and using them to produce energy will make these systems self-sustaining. However, this will be possible only in case of community septic tanks, rather than individual septic tanks.

The Way Forward

No technology is good or bad. Modules can be designed looking at the availability of funds, depending on various conditions in the individual villages, availability of water, land space, etc. Keeping in mind the diverse conditions in India, small steps that can be taken have been listed below:

- The NRIs have formed a board and their idea is not to stop at their own village but to spread it to more villages, and then to the whole of Punjab, and even to other parts of India. Individual NRIs have done remarkable work for the welfare of their villages, but the board would like to make

a collective effort to optimise the improvement in village lifestyle. According to the board, the funds are not a problem, but what they require is willingness from the villagers. **The board is willing to facilitate the process.**

- A committee of experts can be formed which can include engineers, sanitation experts and social development experts to decide what module to fit in where. The different options, as discussed above, can be availed and worked out.
- In the villages, which have received the Nirmal Gram Puraskar, can move towards wastewater management with their award money and Gol can provide technical and programmatic support.
- The government can involve other NGOs and private organisations to take up projects on a similar pattern.

The team received wholehearted support and cooperation from Mr. D.K.Bhasin, SE, Department of Water Supply & Sanitation, Patiala, Punjab, officers and field staff of Hoshiarpur, Ludhiana and Patiala districts, Mr. Dr. R.S Bassi, Chairman, VLIB, Kharodi and Mr. M.P. Singh, Earthizenz Systems, Bio-Energy Cycles.

14. Sanitation Technologies and their Scalability

Sulabh International

Dr. Bindeshwar Pathak

Access to safe and adequate water and sanitation are basic human needs and are essential to health and well being, and to the empowerment of people, especially women. Equally essential for human survival and sustenance is food security, particularly of the poor and vulnerable communities. Human and ecosystem health is largely dependent on sustainable water resource management, which includes valuing water in a way that reflects its economic, social, environmental and cultural value for all its uses. Water and sanitation significantly impact progress and achievement of the Millennium Development Goals. The WHO/ UNICEF Joint Monitoring Programme final report, 2006, indicates that more than 40 per cent of the world's population does not have access to basic sanitation and over one billion people rely on unsafe sources of drinking water¹.

In India, as per Census 2001, only 36.4 per cent of the total population of the country had latrines within their households. Open defecation remains the predominant norm, posing a grave threats to the health of the people in India. A faecal load of 200,000 metric tonnes per day finds its way into soil and water bodies, contaminating them with pathogens². This is a key causative factor behind the high prevalence of soil and water-borne diseases in rural India. The World Health Organisation (WHO) ascribes about 80 per cent of all sicknesses and diseases in the country, such as diarrhoea, cholera, malaria, etc to lack of safe water and sanitation. This indicates an annual loss of 180 million man-days and Rs. 12 billion to the economy owing to sanitation-related diseases³. Only seven out of ten children aged six to 14 attend primary school, that too with a high drop-out rate, especially among girls. As a result, only 42 per cent girls and 48 per cent boys reach class eight⁴.

Inadequate access to water supply and sanitation has been a major concern at the international level with the 1980s being declared the United Nations'

International Drinking Water Supply and Sanitation Decade, when the international community set an ambitious target of achieving 100 per cent coverage in water supply and sanitation by 1990; unfortunately, progress over the decade could not keep up with population growth.

In the Millennium Declaration, adopted by 147 Heads of State in September 2000, world leaders pledged to spare no effort in eradicating poverty and ensuring environmentally sustainable human development. The sanitation target (Goal 7, Target 10; *to halve the proportion of people without access to basic sanitation by 2015, with 1990 as the base year*) was defined for the first time at the World Summit on Sustainable Development, Johannesburg in 2002, where access to sanitation was brought to the centre of the '*poverty eradication*' commitments⁵. It set an ambitious target, requiring the extension of coverage to an additional 2.2 billion people by 2015⁶.

Evolution of Sanitation and Scale-up Strategy

Promotion of sanitation was a high priority on Mahatma Gandhi's plank of social reform and health promotion efforts. He famously urged his followers to dispose of their faeces properly by following the principle of "TATTI PAR MATTI", literally meaning cover human excreta with soil. After him, focus was shifted from sanitation to other issues, even though both water supply and sanitation were a part of the national agenda since the very First Five Year Plan (1951-56). Precedence to water supply vis-à-vis sanitation hindered the progress of sanitation provision resulting in such low sanitation coverage.

Education, water and sanitation are, according to the Constitution of India, subjects in which the states have primary responsibility. The Central Government sets general policy and provides part of the financial support for these sectors. In order to accelerate sanitation coverage, the **Central Rural Sanitation Programme (CRSP)**, under the Ministry of Rural Development, was launched by the Government of India in 1986 in a supply-driven mode. The CRSP

¹ Meeting the MDG Drinking Water and Sanitation Target: The Urban and Rural Challenge of the Decade, WHO/ UNICEF (September 2006)

² Rajiv Gandhi National Drinking Water Mission, Government of India, 2002-03 and WSP-SA, India

³ Central Bureau of Health Intelligence, Ministry of Health & Family Welfare, 1998-1999

⁴ Indian Child, Ministry of Human Resource Development, 2002

⁵ Johannesburg Plan of Implementation, 2002, para III.23.a.

⁶ WHO/UNICEF, 2000, Global Water Supply and Sanitation Assessment 2000 Report.

had the objective of improving the quality of life of the rural people and providing privacy and dignity to women. This was intended to supplement the efforts of the states. The programme provided for 100 per cent subsidy for construction of sanitary latrines for Scheduled Castes, Scheduled Tribes and landless labourers and subsidy as per the rate prevailing in the states for the general public. Important lessons drawn from the CRSP were that many people were initially reluctant to use a new latrine because they feared breaking it, thought defecating in the fields away from their village was more hygienic or preferred to use the latrine as a storage facility. In addition, the cost of the facility proved to be well beyond the means of the rural poor, who tended to give little value to the service in the first place.

Sector Reform in Rural Sanitation

In 1999 the Government of India (GoI), its Ministry of Rural Development and the Rajiv Gandhi National Drinking Water Mission, committed themselves to reform of the rural water supply and sanitation sectors. **The Total Sanitation Campaign (TSC)**, a comprehensive programme to ensure sanitation facilities in rural areas with the goal to eradicate the practice of open defecation was initiated in 1999. It follows the principle of “*low to no subsidy*”, where a nominal subsidy in the form of incentive is given to rural poor households for construction of toilets. TSC lays strong emphasis on information, education and communication (IEC), capacity building and hygiene education for effective behaviour change, with the involvement of PRIs, CBOs, and NGOs, etc. The key intervention areas are individual household latrines (IHHL), school sanitation and hygiene education (SSHE), community sanitary complex, Anganwadi toilets supported by rural sanitary marts (RSMs) and production centres (PCs).

The TSC programme was planned as community-led and people-centred, with emphasis on awareness building. A demand-driven approach was adopted with the intention of gradually phasing out subsidies for household latrine units⁷. The efforts are in:

- offering a broader range of technologies and technology improvisations with reference to customer preferences, construction materials and capacities;
- developing back-up services such as sanitation production centre (PCs), rural sanitary marts (RSMs) and trained masons;
- stressing software, including intensive IEC campaigns in the context of ‘total sanitation campaigns’;
- dovetailing the range of funds from the

Government of India and state programmes aimed at rural development; and

- fostering broader participation of PRIs, NGOs, civil society organisations and CBOs.

A very significant lesson learnt through these programmes is that access to latrines does not necessarily ensure usage. Behavioural patterns related to sanitation are particularly difficult to understand and change. The private nature of sanitation undoubtedly accounts for some of this difficulty, as does the fact that sanitary control and disposal of excreta may not be viewed as a problem in villages surrounded by substantial open spaces.

The benefits of sanitation systems and hygienic behaviour accrue to the community at large due to reduced risk of transmission of infectious and parasitic diseases, more than to the individual; in stark contrast are the advantages of safe drinking water supply which benefits individual users. Due to this and the fact that water (in rivers) has always been worshipped as a life-source in India and is an inseparable part of any prayer ceremony, individuals invest in, or demand public investment in, drinking water rather than in sanitation. Reflecting this demand, the Government has also invested heavily in water supply at the cost of sanitation.

Sulabh Initiatives

Sulabh International Social Service Organisation has been a proponent of indigenous technology showing how developing countries will have to find sustainable initiatives to bridge the gap in demand for and supply of sanitation facilities, leading to a cleaner and healthier future. Sulabh is involved in development and implementation of socially and culturally acceptable sustainable technologies in the field of sanitation, public toilets, recycling and reuse of biogas from public toilets, as well as wastewater treatment. The outstanding achievement of Sulabh sanitation technologies has been the emphasis on water conservation and recycling, and reuse of wastewater. Finding that affordable and sustainable technology is available and that institutional capacity can and has been built to train scavengers, the Government of India has passed legislation to ban scavenging in the country. The programme is being replicated in Bhutan, Afghanistan, Ethiopia, Uganda, Mozambique, Burkina Faso and Cameroon.

Sulabh Flush Compost Toilet: Sulabh two-pit compost flush toilet (Sulabh Shauchalaya) is eco-friendly, technically acceptable and economically affordable. It is an indigenous technology and the toilet can be easily constructed by local labour and materials. It provides health benefits by safe onsite disposal of human excreta. Sulabh Shauchalaya consists of a pan

⁷ Department of Drinking Water Supply, Government of India, 2001

on a raised platform; the Sulabh pan has a steep slope of 25°–28° and a trap with 20 mm water seal needing just 1.5 to 2 litres of water for flushing as compared to 10–12 litres required in conventional design. The excreta is carried into leach pits through pipes or covered drains with one pit being used at a time. The liquid infiltrates into the soil through the holes in the pit lining. When one pit is full, excreta is diverted to the second pit. In about 18 months' period, the content of the filled pit gets digested to organic manure that is safe for manual handling. The pit can then be conveniently emptied and is ready to be put back into use, after the second pit is full. Sulabh two pit toilets do not cause any water pollution and fulfil all the conditions of a sanitary latrine as laid down by WHO⁸.

The Sulabh technology was declared as the **“Globally Urban Best Practice”** (from amongst 625 entries from all over the world) by the United Nations Centre for Human Settlements (UNCHS) at its Habitat-II Conference in 1996 in Istanbul (Turkey). It was further declared as one of the **“Cost Effective And Appropriate Sanitation Systems” (Best Practices)** from amongst 1125 entries from all over the world in 2000, and won the Award of Dubai Municipality and UNCHS. The Planning Commission, Government of India, in its 2001 Human Development Report, recommended the use of Sulabh technology while mentioning other successful technologies and methodologies.

It is on the basis of this sanitary best practice that in 2003, UNDP, in its Human Development Report, recommended the use of this technology by other countries⁹.

Salient Features of the Sulabh Twin-pit Technology

In developing countries the standard solutions for sanitary disposal of human waste are water-borne sewerage and the septic tank system. But the sheer cost and infrastructure required render implementation of both these systems a formidable task for a developing country like India. To construct, operate and maintain these systems a strong Institutional framework and specialised skills are required which are hard to come by in developing countries. In this context, the best alternative is the Sulabh twin-pit compost pour-flush toilet, the advantages of which are as follows:

- It is hygienically and technically appropriate and socio-culturally acceptable.
- It is low cost and easy to construct with locally available materials. Semi-skilled workers can also construct the Sulabh Shauchalayas under adequate supervision.
- Design and specifications can be modified to suit the user's needs and affordability. Various models have been developed after decades of rigorous research to suit the pocket as well as aesthetic needs of the user.

Affordable sanitation in India

Much defecation in India still occurs in open spaces. But pioneering work by Sulabh International, a non-governmental organisation (NGO), has shown that human waste can be disposed of affordably and in a socially acceptable way. Sulabh's approach is based on partnerships with local governments, backed by community participation, and has substantially improved environmental quality in rural and urban slums inhabited by poor people.

Sulabh's solution is a low-cost, pour-flush water-seal toilet with leach pits for on-site disposal of human waste. The technology is affordable for poor people because the designs suit different income levels. Flushing requires only 2 litres of water, compared with the 10 used by other toilets. Moreover, the system is never out of commission because there are two pits, so that one can always be used while the other is being cleaned. The latrine can be built with locally available materials and is easy to maintain. It also has high potential for upgrading because it can easily be connected to a sewer system when one is introduced in the area.

Since 1970 more than one million units have been constructed in houses. In addition, 5,500 have been installed in pay-and-use public toilets, staffed by an attendant around the clock who supplies soap for washing hands. The public toilets include facilities for bathing and doing laundry and offer free services to children and disabled and poor people. As a result, more than 10 million people have received improved, low-cost sanitation, and 50,000 jobs have been created.

Sulabh's door-to-door campaigns also provide free health education to millions of people. The organisation trains local people to construct more latrines themselves, and has helped set up and maintain fee-based community toilets in slums and other areas.

⁸ Excreta Disposal for Rural Areas and Small Communities by E.G. Wagner and J.N. Lanoix, WHO, 1958, pp. 39.

⁹ UNDP Human Development Report 2003, pp.110.

- It can be constructed in different physical, geological and hydro-geological conditions; free from health hazards, and does not pollute surface or ground water.
- It needs only 1.5 to 2 litres of water for flushing, compared to 10–12 litres required by conventional flush toilets.
- It does not need scavengers for cleaning pits or disposal of sludge; this can be done by the householder himself or by a labourer, and it makes available a rich fertiliser and soil conditioner.
- It can be easily connected to a sewer; with a low-volume flushing cistern attached to avoid pour flushing.
- It has a high design life if maintained properly without suffering from the inadequacies of either the sewage treatment system or the septic tank system.
- No vent pipe is required as gases disperse into the soil, thereby removing the nuisance of foul smell spreading in the neighbourhood.
- The cost of Sulabh toilets ranges from US\$ 10 to 500 per unit to suit people of all economic strata. It depends upon materials of construction of pits and the seat as well as of the superstructure.
- Cost differs also due to size and capacity of the pits that varies from 2 years to 20 years capacity for each pit.

The latrines can be useful in all the three conditions as mentioned below:

- **Dispersed rural settlements:** Demand for improved sanitation in rural communities is very low due to high rates of poverty, limited institutional support for sanitation facilities, and the ‘traditional’ sanitation practice of open defecation. Therefore, in rural areas Sulabh technologies which are low cost and decentralised are the most practicable.
- **Medium-density towns:** Households in these communities often appreciate the convenience and status conveyed by toilets, nonetheless, the costs of available technologies (other than Sulabh technology) are prohibitive in a country like India.
- **Urban slums with high population density:** Improving sanitation in urban slums and squatter settlements is one of the most complex challenges for meeting the water and sanitation targets. Given the high population densities and limited land availability, conventional sewerage or septic tank-based systems and wastewater treatment facilities are ruled out due to the cost of construction and maintenance. It is here that Sulabh’s twin-pit pour flush latrines can find maximum use in the near future.

Community Toilet Complex: Provision of toilet complexes at public places and in slums on ‘pay-

and-use’ basis is a landmark achievement of Sulabh in the field of community health and hygiene and environmental sanitation. The concept of implementation of public toilets maintained on ‘Pay-and-Use’ basis, started by Sulabh in 1974 achieved success throughout the country. Sulabh complexes are also provided with bath and have shower facility, cloak-rooms, telephone and primary healthcare service at some places. These complexes have been widely welcomed, both by the people and the authorities due to their cleanliness and good management. So far, Sulabh has constructed over 7,500 such toilet complexes in different parts of the country, where maintenance is provided round the clock. These complexes are located at public places like bus stands, hospitals, markets, etc and slums.

Toilet Complex with Biogas Plant: Recycling and reuse of human excreta for biogas generation is an important way to avoid health hazards from human excreta. Sulabh is the pioneer organisation in the field of biogas generation from public toilet complexes, having developed a more efficient design of biogas plant that has been approved by the Ministry of Non-Conventional Energy Sources, Government of India. Human excreta contain a full spectrum of pathogens, which cause over 50 infections when transmitted from a diseased person to a healthy one. During biogas generation, due to anaerobic conditions inside the digester, most of the pathogens are eliminated from the digested effluent, making it suitable for using it as manure. Thus, biogas technology from human wastes has multiple benefits – sanitation, bioenergy and manure. Biogas is an eco-friendly fuel, and also eliminates during the production process disease-causing pathogens from human wastes. Besides, effluents from biogas plants can be used as fertiliser, as they contain a good percentage of nitrogen, potassium and phosphates. Based on the Sulabh design, 160 biogas plants have been constructed by Sulabh all over the country.

Sulabh Effluent Treatment (SET) Technology: The technology is based on filtration of effluent through activated charcoal followed by ultraviolet rays. The effluent of the biogas digester of public toilets is treated using this technology. The supernatant water from the SET technology too can be used as biofertiliser; because it contains phosphorous, nitrogen and potash. This can be used in plants and in the field to raise productivity. The effluent discharged has only 10 biochemical oxygen demand (BOD); therefore, if not used for agri-irrigation, can be discharged without polluting rivers like the Ganga, the Yamuna and other rivers. It can thus save rivers from sewage pollution.

Duckweed Technology for Effluent Treatment: The use of this technology for treatment of wastewater has

been tried out earlier in other countries like China and Bangladesh, but only in rural and peri-urban areas, and not in urban areas. Sulabh took the initiative to introduce duckweed for treatment of wastewater in urban areas. In Delhi, a pilot project was taken up, which has shown that through duckweed, wastewater containing BOD 250 mg/l and COD 600 mg/l can be treated and becomes pure enough for pisciculture. Duckweed-based wastewater treatment units have been installed in the states of Orissa, Punjab and Haryana. It is proved now that small towns having a population of up to one hundred thousand do not need any conventional treatment plant for treatment of wastewater. Rather, through the use of duckweed, the wastewater can be treated and generate revenue through pisciculture. This technology can help the unemployed youths in rural areas to grow fish and earn money.

The Economy of Water: The use of water in both the technologies of Sulabh Shauchalaya in individual houses or public toilets requires only 2 litres of water per use to flush; whereas in the conventional system it requires a minimum of 10 litres of water per use for flushing. Thus, the most precious thing – potable water to the extent of around 6000 MGD – can be saved if calculated for use of these technologies by 700 million people.

Benefits from the Innovation and Improvements in Service Delivery

Thus, through technologies it has innovated and developed, Sulabh has initiated a social revolution where untouchability and social discrimination are being removed. It has brought to the community a number of benefits, which will act as a catalyst of social change. The simple and revolutionary technology of its sanitary toilet system has broken the back of the 2,500 years old practice of manual cleaning and carrying as headload of human excreta. Besides, It has restored dignity and safety to the rural womenfolk, in particular, who were forced to defecate in the open at inconvenient hours. It has also improved the percentage of attendance among school girls with the provision of sanitation facilities in schools. Another important benefit is the decline in the death rate of children who earlier died due to lack of proper sanitation facilities.

With the liberation of a vast number of scavengers and their rehabilitation after training, it has also significantly increased man days of work, thereby helping in the amelioration of poverty. Sulabh has opened an English medium school up to Standard X, where, out of 500 students, 60 per cent are from the scavenger caste and are given both theoretical and vocational education simultaneously. Another beneficial example can be seen in Alwar, Rajasthan, where 28 women who had been carrying human excreta till March 2003, have

been relieved from that filthy job and trained in various vocations like tailoring, embroidery, beauty care and even in preparing eatables like pickles, papadums and noodles, which they now sell locally to people who earlier used even to shun their shadows. The myth and shackles of stigma and oppression have thus been broken down by Sulabh.

Sulabh has developed, not only the technologies, but also methodologies to improve the service delivery mechanisms. Thus, social workers move from house to house, motivate the beneficiaries, and provide them all possible assistance so that they may install facilities of flush toilets in their houses without harassment at the hands of officials. Once the Sulabh volunteers educate and motivate the householders about the technology, they gladly agree to adopt it, as Sulabh also undertakes full responsibility to construct the toilets to the full satisfaction of the householders, involving them fully in the process. A guarantee card for a year is issued to each householder, undertaking free-of-cost rectification of any construction defect. Follow-up service is also provided to assist and guide the householders in latrine use and maintenance. Sulabh has set up a special cell to monitor the quality of construction and maintenance to the satisfaction of the latrine adopters. The Sulabh technologies, coupled with its appropriate methodologies and social initiatives, combined with a scientific approach, can help minimise, if not totally abolish or eliminate, the three problems of defecation in the open, scavenging and untouchability and social discrimination by society.

A popular misconception is that communities in low-income urban settlements are unable or unwilling to adopt water and sanitation services, not realising the fact that in the absence of these services, they spend a lot more on healthcare. There is an increasing realisation, both within the low-income communities and among the policy-makers that even the poor can afford and are willing to pay for services. An active involvement of the user community in the planning and provision of sanitation services also contributes to greater equity and financial viability in these services. The success of any service provision depends on people understanding, accepting and using systems they have chosen for themselves. It must be realised that without the interest and support of the people using the system, no programme can succeed, no matter how well-planned it may be technically. Thus, greater effort has to be made to elicit public participation to improve and make service delivery meaningful, for which the following steps need to be taken and pursued vigorously:

- Motivation through discussion and assessment of environmental sanitation problems like open defecation and water shortage.
- Preparation of action plan for tackling these issues.

- Creation of environmental infrastructure – searching for appropriate options; depending on the available space and economic constraints.
- Activism of community and consensus of individual households to contribute to the provision, operation and maintenance of services provided.
- Service provision based on the ‘Pay and Use’ system and fixation of an optimum user charge.
- Services provided free to women, children and sick people with disabilities.

Other factors to be borne in mind to ensure improvement in service delivery, and the steps Sulabh is taking in this regard, relate to involvement of women, schools, NGOs, and adopting a social marketing approach.

Much of the demand for latrines comes from women as they are the worst sufferers due to non-availability of these facilities. Therefore, it is particularly important that women should be actively involved in the planning, implementation and operation, as their influence is a critical factor in achieving sustainability, because they are by far the most important factor in determining household hygiene practices and forming habits of their children. Besides, it is necessary to motivate and educate engineers and beneficiaries to make them realise that low cost and affordable technologies are the only answer to solve the sanitation problem in the country.

Recognising that water and sanitation facilities in schools are critical to the formation of proper attitudes and habits for hygiene, sanitation and safe water use, and that schools are powerful channels for communicating hygiene messages to households and communities, Sulabh has launched the **Sulabh School Sanitation Clubs** in various schools spread through many states in India as well as in Nepal and Bhutan.

Yet, there is need for more such school clubs to be opened.

In India strong policy initiatives by the government, backed by institutions providing service delivery – PRIs and ULBs – along with an integration of the current efforts of all agencies involved in a strong partnership with a proven-track record, as well as NGOs of this sector would certainly scale-up the sanitation coverage in the country. The current Government programmes – Jawaharlal Nehru National Urban Renewal Mission, Bharat Nirman and National Rural Health Mission – provide substantial weightage to service provision in rural and urban areas. Capacity development of youth in rural areas incorporating skill upgradation so as to earn their livelihood and improve water and sanitation situation using low-cost sanitation materials should be the target. NGOs like Sulabh, with vast experience in the field, have developed partnership with government agencies and bilateral organisations for training, technology transfer and innovative delivery mechanisms so as to widen the coverage and also outreach the unreached people. This is not possible without the involvement of local, regional and national governments world over, in partnership with the civil society and private sector to realise these goals. The WHO/ UNICEF Joint Monitoring Programme final report 2006, also reinforces this view¹.

The sustainable way of improving access to sanitation and its up-scaling is a partnership between the government, NGOs, private sector, and most importantly, the beneficiaries. Applying a marketing approach to sanitation is not just about advertising; it is also about ensuring that people, after proper orientation, demand sanitation, and appropriate sanitation options are made available to them at the right place and time. Sanitation marketing should first create demand and then ensure a balance between demand and supply.

15. Sanitation: Practice, Behaviour or Naked Vulnerability?

A position paper on availability and accessibility of sanitation for women in slums of Ahmedabad

Anjal Prakash and Meena Jagtap

Introduction

Ahmedabad, the most populated city of Gujarat, has an estimated 40 per cent of the people living in slums and chawls. With slums proliferating at an alarming rate, providing basic amenities such as water and sanitation has become a challenge for the government, planners and development workers. The consequences of inadequate sanitation are borne especially by women and girls. They pay a high price in terms of loss of dignity where there are no latrines, compelling them to wait until dark to defecate and exposing them to hazards and at times sexual harassment and assaults. Women are also exposed to higher infectious diseases associated with the lack of water and sanitation. Some initiatives have been taken up to bring basic services through slum networking projects. However, these experiments have not been up-scaled to a larger level and have been rather limited to model slums. Looking at the scale of the problem, reaching out to people without adequate sanitation facilities has been a difficult task for government and non-government organisations (NGOs). The number of slums is rising every year, making the task even more difficult.

In some areas, public – private partnership has been promoted by the government for investing in basic services. In the area of sanitation, pay and use toilets have been promoted by the government at select locations. These toilets are built with municipal budget and situated on land provided by them. The operation and maintenance cost of these ‘pay and use’ toilets are in the hands of private entrepreneurs, with the norm specified by the government. The present study looks at the access to sanitation facilities by women and men living in slums in Ahmedabad. Specifically, it looks at the use pattern of the ‘pay and use’ toilets built by the government and why they are not very accessible for women. The study has been initiated by PRAVAH, a network of NGOs working on the issue of water supply and sanitation in Gujarat.

Purpose and Methodology

The study aims at understanding the problems faced by women in accessing sanitation facilities in the

slums of Ahmedabad. To understand this, a rapid study was carried out in 8 slums in and around the municipal limits of Ahmedabad. Participatory methodology tools such as focus and non-focus group discussions and participant observations were used for understanding the situation in the slums with focus on women’s access to sanitation services. The slums were categorised into four types in order to understand the problem and to make comparisons so that problem areas could be identified. These categories were:

1. Slums that are considered ‘model’ where sanitation is addressed through individual or group toilets
2. Slums where individual toilets do not have large coverage and people go to ‘pay and use’ toilets
3. Slums where people use common toilets built by municipal corporation, which are used without any contribution
4. Slums where none of the above exist.

This document is divided into three sections. The next section provides the context of slums in Ahmedabad featuring the government’s efforts to provide basic amenities in these locations. The section following that presents the case studies of slums in Ahmedabad outlining concerns of access to sanitation for women. The last section discusses the main concerns of the study.

Proliferation of Slums in Ahmedabad

Ahmedabad, with an expected population of 4.5 million, lies in the western semi-arid region in the state of Gujarat. Gujarat is the tenth most populated and fourth most urbanised state of India, with an estimated population of 50 million in 2001. Gujarat’s population growth tripled during 1951–2001 with a rate of 22.48 per cent during the decade of 1991–2001. This is much higher than the growth rate of the previous decade, 1981–1991. Among all the districts of Gujarat, Ahmedabad experienced one of the largest population growth rates, including Surat, Vadodara, Rajkot and Jamnagar districts. The density of population of Gujarat was 258 persons per square km in 2001, with the highest density observed in the district of Ahmedabad, at 718 persons per square km.

Gujarat has always been one of the most urbanised states of India with 37.67 per cent of its people living in urban areas in 2001. Ahmedabad district, where 80.09 per cent people stay in urban areas, is the most urbanised district of the state. In 1991, 21 cities were categorised as class I cities with a population of more than 1 lakh. In 2001, this figure rose to 27 (Census of India, 2001).¹

The percentage of Ahmedabad housing categorised as slums increased from 17.2 per cent in 1961 to 22.8 per cent in 1971 and 25.6 per cent in 1991. It is estimated that 17.1 per cent of Ahmedabad's population lived in slums in 1971. This rose to an estimated 21.4 per cent in 1982. In year 1991, an estimated 40 per cent of households in Ahmedabad lived in slums and chawls (semi-slums) (UN-Habitat 2003). According to the 1991 census, these hutments were situated at 1029 locations, whereas chawls are situated at 1383 locations in Ahmedabad (Asnani 2003). A survey conducted by the Ahmedabad Municipal Corporation (AMC) in 2001 reveals that there are 710 pockets of slums in the jurisdiction of AMC, while 958 pockets have chawls. The total number of hutments in slums and chawls are 176754 and 149022 respectively (AMC, undated). It was found that in 2001, 230 slums have been moved away from their original locations while 244 new slums have been formed in last decade. This brings the net figure of slums at 1099, with an estimated population of 1.5 million (Asnani 2003). These figures only indicate the slums in the AMC's jurisdiction while in two decades, Ahmedabad has expanded and the greater Ahmedabad is administered by the Ahmedabad Urban Development Authority (AUDA). The AMC survey does not indicate the slums located in the AUDA regions and it is believed that many more new slums have come up in peripheral locations in recent times than in AMC's jurisdiction.² This is largely because the city is getting congested while the peripheral areas had space where slums could come up. The new slums have come up much more in these areas than in that of AMC.

The issue of urban poverty is directly related to that of slum proliferations. 'Gujarat has experienced considerable reduction in the incidence of poverty, from 46.35 per cent in 1972-73 to 22.18 per cent in 1993-94, by about 53 per cent in rural areas and from 47.21 per cent in 1972-73 to 27.89 per cent in 1993-94, by 45 per cent in urban areas. In terms of absolute numbers, however, the decline in poverty has been a mere 23 per cent in the last two decades (1973-74 to

1993-94)' (Hirway et al, 2002: 34). In 1993-94, a total of 10.52 million people were below the poverty line in Gujarat, out of which 27.89 per cent stayed in urban areas (Table 2.1).

Table 2.1: Number and percentage of population below poverty line (1993-94) in Gujarat

Locations	Number (in Million)	Percentage
Rural	6.22	22.18
Urban	4.30	27.89
Combined	10.52	24.21

Source: Planning Commission, 1997

Compared with the national figure of 1993-94, Gujarat comes 21st in rural poverty while in the incidence of urban poverty, it ranks at 8 among all states (Planning Commission, 1997). The high incidence of urban poverty in Gujarat declined only marginally during the eighties. The reasons are many, including the decline in textile industries, quality of employment and in-migration of people from rural areas (Hirway et al, 2002:35). The city of Ahmedabad went through a crisis due to collapse of textile industry, affecting the workforce participation in the formal economy. The employment fell by 2.5 per cent in Ahmedabad in the period 1982-83 to 1992-93. This decline was further aggravated due to high-rate of inter-state migration, mainly due to severe drought in rural areas. All these had a role in increasing urban poverty while there was a decline in rural poverty (Kundu, 2002). The rural poverty of Gujarat spilled over into urban areas of Ahmedabad, Surat, Vadodara and Rajkot.

Where does one find the urban poor? In Ahmedabad, they are largely located in various slums and chawls. A slum as defined by the Gujarat State Urban (draft) Slum Policy is "a high-density settlement, having a cluster of a minimum 50 dwelling units in Class I cities or a minimum of 25 dwelling units for a town below 1 lakh population and where at least 50 per cent dwelling units have semi-permanent structures of less than 25 sq. metre area, principally made of materials such as mud, bricks, wooden planks, polyethylene sheets, tin-sheets or combination of such materials and where such settlements are lacking in basic infrastructure and amenities such as water supply, sanitation, toilets, regular pathways, etc, and they are mainly inhabited by lower income group residents not having legal land title of the land".

In Ahmedabad, Muslims, SCs (Scheduled Casts) and OBCs (other backward cast's) constitute 91 per cent of the slum households (UN-Habitat 2003). A survey of Sanjay Nagar slum in Ahmedabad in 1995 for the

¹ This paper is an abridged version of the paper published by PRAVAH, Ahmedabad under the same title. The authors acknowledge the inputs given by PRAVAH's research team of Dr. Sara Ahmed, Mr. Premesh Balan and Mr. Shalabh Mittal. The study was conducted in year 2004

² Personal communication with Ms.Chinmayi Desai, SAATH on February 4, 2004

pilot project under the slum networking programme revealed that the settlement started developing in early 1970s with 17 households that expanded up to 181 households with a total population of 1,200. Of these, about 84 per cent of the population belongs to the *Vaghari* caste, 12 per cent *Chamars* and 4 per cent other smaller caste groups. All of these castes are classified as 'backward-castes' by the Gujarat Government. "According to the survey, more than 50 per cent of residents were illiterate and the rest had only basic literacy skills. The incidence of sickness and death in the slum was abnormally high, with infants accounting for about 70 per cent of deaths. About 50 per cent of the population also had no fixed occupation, while most of the remaining 50 per cent were self-employed as vegetable vendors, were unskilled workers, or undertook miscellaneous tasks requiring low skill levels. The average income per household, according to the survey, was roughly Rs. 2,800 per month. With no sewerage system, no water supply, no power connection, no roads or paved pathways, and inadequate or unusable toilet facilities, Sanjay Nagar allowed its residents only the most basic of living conditions before it was selected for the slum networking experiment" (Tripathi, 1999:5). Another study done in two slums of Ahmedabad revealed that the access to water per capita per person (PCPP) was barely 7.5 litres, compared to the minimum accepted requirement of 20-30 litres PCPP. Further, it showed high incidence of disease among women and children such as scabies, severe boils, diarrhoea and worm infections, mainly due to lack of water supply and sanitation infrastructure (Moench and Matzger, undated). Apart from the quantity, the quality of water supply is another issue that has serious health ramifications for the poor staying in urban slums. Victimised by the police, municipal authorities and the upper classes alike, the slum population represents a particularly vulnerable section of society.

What has been the response of the government and municipal corporations in improving the conditions in Ahmedabad? Mihir Bhatt reveals that a series of shifts to improve the conditions in low-income settlements has occurred since the 1950s. From the initial attitude of slum clearance by the government, the focus now is more on slum upgradation and networking. The AMC functioned, until the early 1990, as a small welfare state, deliberately making life easier for the poor. This was through non-enforcement of anti-poor regulations and avoiding forced evictions. The AMC even constructed a small number of low-income houses. The amendment to the Municipal Corporation Act during the 1970s obliged the AMC to spend 10 per cent of its revenue on improving basic services in slums and chawls. Based on a soft international loan, the AMC extended urban services to slums in its eastern suburbs (Bhatt, 2003).

The most recent experience of AMC is its involvement in the Slum Networking Projects (SNP) with an aim to improve basic services through participation of the slum dwellers and NGOs. The model experiment of Sanjay Nagar-Gupta Nagar slums have been well documented (Tripathi, 1999; Chauhan and Lal, 1999; Yutaka, 2000; Asnani, 2003). 'The SNP is also termed as *'Parivartan Project'* or *'Pandit Dindayal Upadhyay Yojna'* of AMC, which was initiated in April 1996. It was unique as it was carried out in collaboration with local NGOs and private corporations, as well as with the government and international agencies. The major aim of the project was to achieve the physical upgrading of living environment and community development in slum areas through inter-organisational networks' (Yutaka, 2000:3). The project planned to cover 3300 households in the four slums and chawls of Ahmedabad but due to some problems, the work was initiated only in Sanjay Nagar in August 1995. The project evolved mixed responses from government, NGOs and the people. Though the project succeeded in providing basic infrastructure to the people of Sanjay Nagar through their participation, it took much more time than expected. Out of the total target of 3300 houses, the SNP could cover only 181 in 1999. Apart from this, very little achievement was experienced in terms of social development of the community. The AMC could not seek industry participation in the other slum networking projects, mainly due to the pitfalls in managing alliances between quasi-government organisations, NGOs and private corporations whose working styles and ideologies were different. Apart from the roles and responsibilities of AMC functionaries not being defined, there was lack of coordination between its different units. The ideological differences between corporate functionaries and participating NGO led to dissatisfaction from both sides (Chauhan and Lal, 1999). In a nutshell, the good intentions of the participating organisations in the slum upgradation project did not yield good results that could be replicated in other areas.

The SNP experiment also shows how model projects fail to be repeated in other areas, as they depend on an extraordinary pool of financial and human resources, which does not match with everyday realities. Apart from this, the SNP involved a detailed planning and implementation that takes years to be implemented. In the meantime, the people in squatter settlements continue to live in abysmal conditions waiting for assistance from the government to provide basic services such as water and sanitation. In order to facilitate this, the AMC has facilitated 'pay and use' toilets in many slum locations. The pay and use toilets come at a time when public toilets run by municipal corporations have been found to be extremely ineffective in providing sanitation facility to the slum dwellers. The 'pay and use' toilets work on the principle of public-private partnership where the

public organisation provides land and construction cost of the toilets; private entrepreneur and NGOs are supposed to be engaged in running them on day-to-day basis, with operation and maintenance costs to be derived through the payments of the slum dwellers against the use of the services. In the next section we examine the effectiveness of all the types of services provided by the government and critique its effectiveness through field study.

‘People Living in Buildings throw Stones at us when we Defecate in Open’: Status of Sanitation in the Slums of Ahmedabad

This experience is of Sushila Adivasi, 30, living in Ramgadh slum near Godasar in Ahmedabad. Sushila belongs to the Adivasi community who migrated from Maharashtra around 40 years ago and settled in these slums. Recalling the life of their parents in Maharashtra, she says that they were forced to migrate as the traditional occupation of herb collection increasingly came under threat and there were no other options available for them. Sushila’s house is made up of mud and due to lack of waste-water and garbage disposal systems, the area is dirty. As she puts it, “We don’t get enough water for daily requirement...how do you expect us to be clean? My children are often sick and we also fall ill. There are lots of mosquitoes and due to filth and stagnant water, malaria, jaundice, cholera and skin diseases are common here.” There is neither sewerage nor soak pit in this settlement, because of which no toilets could be built. There is no public toilet in Ramgadh, so they use open space around the settlement for defecation. As Sushila reveals, “We have to go in the open for defecation. We generally go in the night when it is dark or very early in the morning before dusk. Earlier, there were not many buildings here and so it was not very difficult for us to use the space. However, many buildings are coming up in this area now, and hence even if we go early in the morning, people throw stones at us while we defecate.” For Sushila, it is a humiliating experience that she has to endure every day, and from which she does not see a way out. According to her, “Many politicians and NGO workers came to our settlement and gave us assurance for providing basic amenities but nothing has happened. Politicians come here when there is election. They also fool us with their promises. Last time they promised us to provide basic amenities but till now, nothing has happened” (see section 3.4.1).

Sushila’s case illustrates what she and many of her fellow women living in slums without basic amenities are facing. With an ever-expanding Ahmedabad city, the poor, especially women, living in slums without the facility of toilets are having a problem in answering nature’s call. This document focuses on these women and their conditions with an objective

to bring changes in their lives. It is true that there have been many efforts by government and NGOs in this area but it has not been enough. In this section, we look at the conditions of sanitation in eight slum localities of Ahmedabad. These slums are classified into four categories. First, two slums were covered that have come under the Slum Networking Project (SNP) of the Ahmedabad Municipal Corporation (AMC) in participation with NGOs. In these slums, sanitation has been addressed through building individual toilets. In slums other than SNP, AMC runs ‘free of cost’ public toilets to provide access to sanitation for the people and hence two such slums were visited to find out if the people were satisfied. Third, the AMC has come up with a scheme of public – private partnership to build ‘pay and use’ toilets. These toilets are built near slums with support from the AMC while the implementing NGO takes care of the operation and maintenance cost. Fourth, there are slums where none of these facilities exist and hence two cases of such slums were studied to understand the problem. In the next section, we present these cases followed by a discussion on the concerns.

Slums under SNP

Kailash Nagar Na Chhapra, near Isanpur

Kailash Nagar is inhabited by Harijans and Marvaris who hail from Rajasthan. There are around 116 families living in the area with an approximate population of 900. The land was purchased by individuals living in the community 40 years ago. At present each and every family has plots of 100 yards each. There are 60 such plots in the community. During the time of its first settlement, there were very few families staying here but slowly, people from different areas of the city came and settled here. The plot on which this slum is located belongs to a private owner. Later, it was divided into 60 plots and purchased by the people living here. The plot is surrounded by an open ground.

This settlement has been a part of the Slum Networking Project (SNP) of AMC. Prior to the implementation of the project, there used to be only four private handpumps from where people used to fetch water for drinking and domestic use. When there was a shortage of water, they collected it in the nearby ice factory that had a tubewell. The settlement is below road level, because of which it used to be flooded during the monsoon. There were no toilets, sewerage lines, and storm water disposal system in the community.

Out of the 116 houses, only 35 houses are *pucca*, out of which five are double-storeyed. The rest of the houses are semi-*pucca*. Most of the men in this settlement are self-employed. They are engaged in selling cloth or work as daily wage labourers in nearby factories.

Lilaben Bhatti, 65, lives in Kailashnagar slum at Isanpur in Ahmedabad. She has two sons and two daughters, all of whom are married. Lilaben lost her husband 7 years ago. She was born and brought up in Ahmedabad and hails from Sargara Marwari community. In her community, women are largely uneducated but since she was brought up in Ahmedabad, she studied up to the 7th standard. She was married at the age of 20 and her husband worked at Calico textile mill. She also worked as a casual labourer and assisted caterers during marriage seasons. Earlier, her family used to live in another location but now they have purchased land at Kailashnagar and have started living here. During those days, there were no basic facilities available in the area. The land was also below road level and every monsoon it used to be flooded. Her house was *kuccha*, made of tin sheet and jute. There was no school and medical facility nearby. Because of this, even though she was literate, her children did not get proper education. Some six years ago, she came to know about SEWA, the voluntary organisation working with poor women. She joined SEWA and got trained as a Balwadi teacher. She started a Balwadi in her community with the help of SEWA workers. It was during her days with SEWA that she learned about SNP and requested the leaders of SEWA to implement this scheme in her area. Since there were no facilities in her community, SEWA agreed to implement the scheme. However, AMC refused to implement SNP in the area on the ground of it being located on private land. Lilaben and SEWA leaders convinced AMC to implement the scheme as all the people living there were poor and without basic amenities. They finally succeeded in convincing the AMC. Initially, the community did not believe that would get all the basic amenities by contributing only Rs. 2000. Slowly and gradually, Lilaben convinced them and they opened accounts in the Sewa bank and deposited Rs. 2000 in instalments. SNP started in 1997 and was completed in the year 2000. Now the living standards are better for Lilaben and people in her locality. After the SNP, the people have also invested money to upgrade their houses. They consider Lilaben's work commendable.

Women work as helpers in catering services while some have small confectionary shops in their house. There is no public school near the area. Some children study in a nearby private school. There is a Balvadi run by SEWA, which is not functioning at present.

The SNP was introduced here in 1997. SEWA used to run a Balwadi in the area and a community leader, Lilaben, was associated with them. Lilaben mobilised residents of the area and also convinced SEWA to implement SNP in their location. There is a rule that SNP will not be implemented in slums located in private land but due to pressure from the community and SEWA, AMC agreed to implement it there. However, the settlement also experienced roadblocks in implementing the scheme, as many people were not convinced about the fact that services would come to them through SNP. Some families did not have money to contribute. SEWA helped these families through self-help groups. They were advised to open an account in the SEWA bank and save money regularly. After one and a half years, the scheme was completed in the settlement in the year 2000.

At present all the houses have legal electricity connections. They were provided with individual water connections also. There is some problem of water pressure in the pipe but it does come during 6 to 8 in the morning. All the families were connected through sewerage connection. Streetlights were set up and garbage disposal system was developed. The lanes were paved with stones. Most of the families have ration cards as well as election cards. However, none of the families have BPL card. SEWA is working in this settlement with women and children.

Ashapuranagar Na Chhapra, Amraiwadi

Ashapura Na Chhapra has 150 families with an

approximate population of 1200. All families living here come under the category of Scheduled Castes such as Parmar, Makwana, Chawada, Solanki and Harijan. The settlement is situated on private land, which was purchased by the families of the community. It was established around 35 to 40 years ago. Some people bought houses for Rs. 7000 to 8000 from private builders. However, they do not have any legal proof of the same. Previously the houses were *kuccha* but now they have been converted into *pucca* or *semi-pucca* houses. Most of the people in the settlement worked in the textile mills. When these textile mills closed, they got some money as compensation. Along with provident fund and other benefits, this amounted to a considerable amount and part of it was invested in building their houses. However, the money was spent slowly without any constant source of income and hence people are poor in the area though they lived a comfortable life in past. The men in the community now work in private factories and power looms as daily wage labourers while women collect iron scrap from industrial areas such as Vatva, Odhav, Naroda, Nagarvel Hanuman, etc. Some women are also engaged in rag-picking. They sell the scrap to the shop for recycling.

The SNP was introduced in this settlement in 1997 through SEWA. Prior to that, there were no basic services in this settlement. Some people had soak-pits in their houses and very few had private toilets. There was a stand post, which had three taps. Women of this settlement had to wait in queue in the night or early morning to get water. If they could not get water from the public tap, they had to go very far to fetch it. The SNP was completed in the year 2000. When SEWA approached the community, people refused to work with them. After much groundwork, the people formed a residential committee with 14 executive committee

members. The committee was constituted taking into account the representation from all localities. Thus each lane was represented with two individuals. People contributed Rs. 2000 in four instalments towards their contribution. The total contribution was around Rs. 265,000. The residential committee deposited Rs. 192,000. However, the office bearers got changed in the process and some individuals withdrew Rs. 35,000 from the bank without the consent of other members. Now, there is no balance in their bank account and the committee has to pay around Rs. 75,000 to the AMC. None of the members want to contribute money now and there is no fund for the maintenance of the services. The committee has also been dissolved.

As compared to other slums, this community is in a comfortable position as far as basic services are concerned. Out of 150 houses, only seven are *kuccha* and around 20 houses are double-storeyed. All the houses have legal electricity connections. Individual water connection is given in this settlement under SNP but the force of water is not adequate. People connect handpumps in the pipeline to fetch the water. Water comes in the morning during 6 to 8. All the houses are connected with sewerage line but the line gets choked every month. It overflows as the main sewerage pipe is very small as compared to the number of users. Prior to the implementation of SNP this settlement had illegal sewerage connection, which was bigger than the present connection and therefore people complained about this problem. The lanes are paved with stones. All the bylanes have streetlights. However, there is no system of house-to-house garbage collection and people themselves throw it in the nearby container put up by AMC. All the families have individual toilets under SNP.

There is a public school run by the AMC near the location. Most of the children of this settlement go to this school. Some children also study at a nearby private school. There is no Balvadi in this settlement. Most of the families have ration and election cards. Five families do not have election cards. Vikas is working in this settlement with y^omen to form SHGs.

Slums with AMC's 'Free to Use' Toilets

Dahya Mali No Bageecho Chali no 2, Saraspur

The area is located in the eastern part of Ahmedabad close to some of the textile mills. The slum has 60 households with a total population of 500. Most of the families belong to Scheduled Castes of *Solanki* and *Parmars*. Men work as casual labourers and women collect iron from garbage. They also pick coal dust from the railway yard and make cake mixed with cow dung and sawdust, which is used as fuel. Most of the families living in this slum have their men working in the textile mills. Out of the several textile mills

– Nutan, Arvind, Ashok and Arun – only Arvind Mills is now running. However, none of the family members of this locality works in Arvind Mills. Earlier, due to the mills, the family had regular income, which was reflected in their standard of living, which was better compared to other slums. All houses are semi-*pucca* while the wall and floors are made of cement and the roof is made up of tin and asbestos sheets.

The slum is situated on private land. Previously, the families living here paid Rs. 5-10 as rent to the local *Jamadar*, who assured them non-eviction. However, for the last 10 years, they have not been paying this rent. They have been paying house and service tax to the AMC for the last 15 years, which varies from house to house. Each and every family has an individual water connection but they have to dig two to three feet ditch to access water. This is because the pressure in the pipes is low and they get water for 2 hours in a day during 6 to 8 a.m. All the families living here have gutter connection and there are streetlights in the lanes. All the houses have legal electric connection. There is no specific system for garbage collection and everyone dumps it into nearby garbage container.

Except 6-7 families, no one has individual toilet facilities in this locality. The owners of individual toilets built it on their own. The rest of them use public toilet facility run by the AMC. These toilets are always overflowing and filthy. There is a total six toilets, three each for men and women. The AMC has appointed *Safai Kamdar* (sanitation workers) who are supposed to clean them. However, the people complain that cleaning is rarely done and that too after much complaining. Even the people who use the toilet throw garbage or cloth inside the toilet pits causing it to be clogged. The nearby areas are congested with no open space. Therefore people are compelled to use the public toilets. Womenfolk from the locality complain that they are exposed to disease because of unhygienic sanitation facility available to them. In the monsoon, the toilets overflow and water from these toilets even enter the homes. Though the living condition is better in this slum as compared to others, the major problem people have is with public toilets. They cannot build individual toilets due to lack of space and resources.

Asha Bhil Vas, Bhairavnath

Asha Bhil Vas has around 100 families with an approximate population of 700. The area is dominated by Bhil Adivasis, who occupy more than half of the settlement. The rest are Vagharis, Vankars and migrants from UP and MP. The land belongs to AMC, for which some families pay rent of Rs. 15 per month. This area is a resettlement site of different settlements demolished by AMC nine to ten years ago. People from different slum settlements such as Shah-e-Alam, Baherampura and Mira cinema, which

Bhusabhai Datania, 53, stays at Balia Kaka Na Chappara. A father of six (three daughters and three sons), Bhusabhai was brought up in this settlement. Bhusabhai is illiterate and his children have studied up to 7th standard. Bhusabhai sells old clothes that he and his wife collect from house to house in exchange of utensils. They wash and repair the clothes and re-sell them in the second-hand cloth market. They earn around Rs. 3000. Now his son and son-in-law are also engaged in the same business. Previously, their settlement did not have any facilities. Within the 250 houses, there were only two stand posts and 12 toilet blocks. Due to the large population using the toilets, they were always overflowing and filthy. The cleaners rarely came to clean the toilets. Since they had no other option, Bhusabhai and his family had to use them. "Around eight years ago, AMC introduced the 'pay and use' toilets in our community with the help of an NGO. The AMC built the toilet complex on the land where the public toilet block existed. As the 'pay and use' toilet block is bigger than the public toilet block, we also contributed our land for the block. During the construction of 'pay and use' toilets, we used it free of cost. But after it was fully constructed, we had to pay money to use this facility. My family has to pay about Rs. 150 per month to use it. We are poor and we do not have enough income to eat three times in a day. However, we are made to pay more than the actual use charge. It makes us more vulnerable." Others in the community question the amount charged by the NGO that maintains the facility. Bhusabhai argues that the land on which the toilet blocks are situated is theirs and hence a chance should be given to them to manage it. As he puts it, "If we manage the toilet, we will charge according to the paying capacity of the individual." He complains that the so-called NGO is running it on pure commercial basis while the AMC has provided construction free of cost. For Bhusabhai and others, there is no alternative available as the surrounding areas are becoming congested and there is no open space for them.

were demolished, were relocated here by the AMC. The previous name of the settlement was Ramtekro but is now known as Asha Bhil Vas. Out of 100 houses, only 52 houses have been given legal land rights. Due to this, only 52 houses are pucca while the rest are *kuccha* due to the fear of eviction. Around 10 families live here on rent. Most of the men living here are engaged as construction labourers, rickshaw pullers, operating small petty tea shops and vegetable vending. Women work as domestic servants, rag-pickers and vegetable vendors.

There is a school run by the AMC close to the settlement and the children used to go to that school. The school is very close to Millatnagar, a Muslim-dominated settlement and therefore the majority of the students in the school are Muslims. During riots, the school was closed and therefore the residents of Asha Bhil Vas are still afraid to send their children to the school. They now go to another school, which is a little far from their settlement. Some children are also studying in the hostel. There are three Anganwadis in this settlement.

There is no legal electric connection in this settlement. People use to pay Rs. 100 per connection per month as a rent for illegal connections. Recently, 20 families have applied for legal connection under a special scheme of the AEC. Out of 100 houses, only 46 have individual water connection. Rest of the families fetch water from six public taps where water comes once a day in the morning for two hours.

There is no sewerage facility available in the settlement. However, storm water sewerage system is installed in 52 Bhil houses that are covered by legal sewerage connection. Rest of the families have made small ditches in front of their houses where they put waste-water for natural seepage. However, all the

water is not absorbed by these ditches and hence water flows down the lane. The settlement is below the road level and therefore storm water enters the houses during monsoon.

For streetlighting, there are poles in the settlement without bulbs. The garbage is thrown in near the pond. The sewerage connections are choked during the rainy season. None of the families living here has individual toilet facilities. There are 10 public toilets, five each for men and women constructed and maintained by AMC. The number of toilets is small compared to the population of the settlement and hence they are always overflowing. The toilets are also clogged as women throw cloths used during menstruation. A sweeper has been appointed by the AMC to clean the toilet every two days. There is no open space near this settlement and therefore people have no choice but use these dirty toilets. SEWA and VIKAS are working here on the issue of credit and savings.

Slums that have 'Pay and Use' Toilets

Pathanni Chali, Yogeshwarnagar Na Chappara, Vasna

Pathanni Chali is part of the larger slum locality of Yogeshwarnagar Na Chappara in the western region of Ahmedabad, close to the Baroda- Ahmedabad highway and Sabarmati River. Pathan Ni Chali has around 200 households and an estimated population of 1300. The settlement was established about 20 years ago. The people of this slum are mostly Valmiki (Bhangi), Vankar, Solanki and Marvaris. They are engaged as daily wage labourers. While the male population is largely engaged in construction labour, womenfolk take up rag-picking and domestic help in nearby societies for their livelihood. During marriage season, women also work as helpers in catering.

Among all the households, Valmikis are the dominant community; they hail from Surendranagar district in Saurashtra. The houses are semi-*pucca* while the walls and floors are made up of cement and bricks. Only a few houses have concrete roof (around 4-5 houses) while others have tin sheds and asbestos roofing.

The slum is located on the private land and the households claim that they have purchased it from a Pathan. The slum derives its name from him. Though some residents have land title, they claim it is not legal. This is because the land was first encroached upon by a group of individuals and was then sold to others. Around 75 per cent of the family own the houses while the rest stay in rented houses. A 10x10 feet house was being rented for Rs. 300-400 per month in March 2004. Though the slum is 20 years old, individuals do not own legal water source from AMC. There is one stand post, which has four taps. Water comes for two hours a day between 6 –and 8 am. Around 50 families have handpumps, out of which only 10 are in running condition as the water level has gone down. The handpumps that are running fetch water from the contaminated Sabarmati River. Thus, the water from handpumps reflects the quality of water in Sabarmati. Most of the families fetch water for their daily need from the nearby slum, Gupta Nagar which is around 2 km from the community. Because of the scarcity of the water, women of this community have constant arguments among them for water. With only four taps shared by around 200 households there are numerous fights between families over the issue. Many neighbours do not talk to each other due to the constant fights over accessing water. In Gupta Nagar, from where they fetch water, there is a tap that runs for 24 hours. However, the water from the tap is sometimes contaminated as a sewerage line gets mixed up with the fresh water line. When people do not get water from other sources, they are compelled to use this water for domestic needs.

There is no gutter connection in the area. Some houses have soak-pit toilets. They do not have any system for disposal of waste water and hence throw it into the lanes. Because of this, the lanes are always filled with dirty water, which causes mosquitoes to breed. Due to this, the inhabitants always have health problems such as fever, skin diseases, etc. There is no garbage disposal system in the community. The people had hired a sweeper to collect garbage from house to house with nominal contribution from the families. However, the garbage collection is not done regularly and hence one can see piles of garbage in the localities.

Very few families own individual toilets and the rest use open space for defecation. A 'pay and use' toilet exists in the locality which charges Re 1 per use. Most of the families cannot afford to pay and hence opt for open defecation on the nearby highway at night or early in the morning. They use the 'pay and use' toilet only in case of emergency such as illness or during monsoon. There is no legal electricity connection in the community. Only 20-25 families have legal connection under the recent scheme of AEC. Rest of the households have rental electricity for which they to pay Rs. 150 per month. Even though these families pay regularly, they do not get constant electricity supply. The slum is located in the lower side of the road near the River Sabarmati. Whenever the river is flooded, the area gets flooded with contaminated water. The water enters the houses, and reaches up to 3-4 feet in the house. The incidence of disease increases manifold during monsoon. The women from the area are mainly engaged in rag-picking and most of the houses are run by women's income. The men hardly work 10-15 days in a month while some women work as domestic help in nearby areas and hence they are able to provide constant income. There are two anganwadis that are run by Saath, an NGO. The municipal school is around 2- 3 km away from the settlement and hence most of the children of

Parulben Marwari, 35, lives in Pathan Ki Chali in Ahmedabad. Her community migrated from Rajasthan around four decades ago and has settled in different slum locations of Ahmedabad. She stays with her husband and two sons and daughter. Her husband works in the cotton mills in Narol on daily wage basis. Parulben works with caterers during marriage season, washing utensils. The marriage season is generally in winter for four months and therefore her husband's salary is the prime source of their income. He earns Rs 50 per day but due to constant illness, he does not work every day. The family survives with a monthly income of Rs 1000. There is no sewerage and drainage facility in the settlement. The area is below the road level and is situated in a large ditch. Due to this, Parulben's house gets flooded in the monsoon. Parulben shows the three-foot mark in her house where water gets stagnant. During monsoon, the family faces lots of problems. They have an individual soak-pit toilet but they use it sparingly, only in case of emergency, otherwise, it overflows, so they go out to defecate. There is a 'pay and use' toilet available in the area but Parulben does not use it very often. Everyone has to pay Re 1 per use, which she says is unaffordable for women. Even though AMC rules speak about not charging women, the NGO who runs the toilet charges money from them. As Parulben puts it, "Many a time we do not have money and we wait for our husbands to get their daily wage. How can we pay them? Most of the women in our locality do not use the toilet and instead walk for 2-3 kilometres on the highway side to defecate in the open." She says that even though a facility exists, women are less likely to use it due to these problems.

the community study in a private school near the slum. VISAK, another NGO, works for creating self-help groups while World Vision works with school children.

Baliya Kaka Na Chhapra, Mira Cinema Road

Baliya Kak Na Chhapra is inhabited by around 300 families with a total approximate population of 2500. The majority of the houses (225) are occupied by Devi Pujak Vaghris while other caste includes Thakores and migrants from UP. The land on which the settlement is situated belongs to private owners. The families fought a court case for the purchase of land from the owners and won the case around 30 years ago. The owner reportedly did not sell the land and ran away. The families have paid taxes to AMC for the last 2-3 years. Around 50 to 60 houses in the area are *pucca* while the rest are made up of tin or wooden sheets and with mud and cow dung. Men and women of this settlement are engaged in the business of old clothes (*Chindi* workers). Some are engaged in collecting waste iron, plastic and papers from nearby areas and selling it in the market. A few people work in dye factories. Some women also work as domestic servants and vegetable vendors.

There is a municipal school near the settlement where most children are enrolled. Some children are studying in a private school nearby. During the riots in 2002, many children left school and have not enrolled back since then. There is no electric connection in this settlement but recently 70 families got legal connection under the special scheme of AEC. Individual water connection is given in this settlement but since it is situated on the higher slope, water does not come with force. In order to access water, people dig 4-5 feet deep ditches. There are two stand posts in this settlement, each having two taps. Water comes in the morning during 6 to 8.

There is storm water sewerage line connection in the settlement. For garbage disposal, a big container is kept outside the settlement. There are no sweepers appointed to clean the streets. There were public toilets situated just outside the settlement. Around five to six years back, the toilets were in good condition. Recently, the AMC put forward an option of 'pay and use' toilets which the community accepted. The 'pay and use' toilet has been built and maintained by Nasa Foundation, for which the community provided land. The toilet charges Re one per use from men. Women and children are not charged. However, the rate was only 50 paisa around six months ago but it was increased to Re one without consultations from the community. However, the toilets are in good condition and are maintained well. Men in the localities complain that the charges are high as compared to their income. Since they do not have any other option, they are compelled to pay.

Slums without any Sanitation Facilities

Ramgadh, Ghodasar

Ramgadh is situated on the roadside in Ghodasar and was first settled around 30 to 35 years back. During those days, the area had open space all around and the land was under Ghodasar Gram Panchayat. There were farms around this settlement. Slowly, when Ahmedabad city started expanding, the area also came to be a part of Ahmedabad. All families of the settlement are Adivasis migrated from different districts of Maharashtra such as Nasik, Pune, Satara, Mumbai and Dhulia. There are around 80 families living in this area with a population of 1500. All the houses are *kuccha* and made up of tin, trampoline and asbestos sheets.

The people in this settlement are engaged in seasonal employment as well as wage labour. Earlier, they used to migrate to their native places for three to four months in a year for collecting different medicinal herbs from their respective forests. Back in Ahmedabad, they used to sell these herbs to buyers in the city. What started with seasonal work and stay turned into permanent stay. This was mainly for two reasons. First, the forests started diminishing and therefore the herb collection became less and less. Second, wage work was available for these people, which helped them to diversify from their traditional occupation. Now women and men from this locality are engaged as domestic servant, vegetable vendors and petty business such as tea and confectionary vending.

There is no electric connection in this settlement. Previously there were two stand posts in Ghodasar village, which were the source for water collection. There was sufficient water at that time. But now this area has come under AMC and most of the houses have got individual water connections. Ramgadh was not provided water connection and after long paperwork and representation, this settlement has been provided with one stand post and six taps outside the settlement. They get water twice a day, ie two hours in the morning and half an hour in the evening. The residents complain that water supply is not sufficient, as it does not meet the basic domestic water requirements of the people.

There is no toilet facility in this settlement. There were public toilets built by Ghodasar Gram Panchayat, but these were demolished by AMC two years ago without providing any alternative. At present, people of this settlement do not have any access to toilets. They used to go to the nearby pond which is very close to this settlement. However, for the past three years, the area is growing and construction work is rapidly taking place. Many societies and multi-storeyed buildings have come up in the area making it difficult for women

to answer nature's calls. Women complain that people in the surrounding buildings throw stones when they defecate in open. There is no sewerage facility available in the settlement. There are two public bathrooms meant for this settlement but they are not in useable condition. The doors of the bathrooms are broken and therefore not in use. The people, including women, living here do not have separate bathrooms and they used to take bath in open space taking water from public taps. However, they face problems now with the taps not working.

This settlement is below the road level and therefore during monsoon the storm water enters the houses. Water reaches up to 4 to 5 feet and therefore, the families have to shift. There is no system of waste-water disposal and the residents throw it in front of their houses. Garbage is disposed in the nearby pond. There is no streetlight in this settlement. The AMC's school near the settlement had collapsed during the earthquake. After the earthquake, no one goes to the school. There is no Anganvadi or Balvadi in this settlement.

Chand Shadid Ni Dargah Na Chhapra, Sanoshnagar, Ram Rahim Na Tekro

The settlement is inhabited by 72 families, with an approximate population of 400. The area is dominated by Muslims and there are only six Hindu families in this settlement. It is developed on the land of Calico Mill and Qureshi Jamat, a Muslim Public Trust. People living here do not pay any rent for the land or any tax to the AMC. The settlement was established around 30 to 35 years ago and is situated on the bank of the Sabarmati River. The area is surrounded by many factories. The dead animal dumping ground is also close to this settlement. Most of the surrounding factories dispose their waste water into the river. Since the settlement is close to Sabarmati, it is also affected by the stagnant polluted water in the river. Due to this there are lots of mosquitoes in the area and people frequently fall ill. During riots in 2002, most of the houses in this settlement were burnt and robbed. After the riots, the Muslim Relief Committee rebuilt the settlement and hence most of the houses are now *pucca*. Most of the men living here are engaged as construction labour, pedal rickshaw-pulling, or work in dye factories. Women are engaged in kite-making, segregation of plastic and paper and are also employed in dye factories.

There are two municipal schools, which are a little far from the settlement. Because of this, most children do not go to school. During monsoon the area is flooded as it is near the river. Nearly 20 children from this settlement work as child labourers in tea stalls and dye factories. There is an Anganvadi in this settlement and no private school. There is no legal electric connection in this settlement. People use to

pay Rs. 150 per month as rent. Recently 50 families obtained legal connection under a special scheme of the AEC. None of the families living here has individual water connection. There are two stand posts in this settlement with two taps each. Water is supplied in the morning from 6 to 8 o'clock. There is no sewerage facility available in the settlement. The families have made small ditches in front of their houses for collecting waste-water that seeps naturally. Since the water is not soaked properly by these ditches, it is thrown in the open ground close to the settlement along with garbage. There are streetlight poles but they do not have bulbs. During rainy season, the area is flooded with water and garbage stinks as there is no system of garbage collection.

None of the family living here has individual toilets, as there is no sewerage connection in this settlement. People have to go for open defecation in the ground beside the settlement. During monsoon the ground is flooded as it is low-lying, making it even more difficult for people to answer nature's call. People suffer from various diseases such as jaundice, dehydration, skin diseases, malaria and tuberculosis. The prevalence of disease is higher in summer and monsoon. There are two NGOs working in this settlement. Saath is working with women and children to run a Balvadi, health programmes and sewing classes. Aman Pathik worked during riots to provide relief and is now working to get legal electricity connections to the people.

Discussions and Concerns

The case studies of slums in Ahmedabad highlight one of the major problems faced by the urban poor living in squatter settlements. The issue of sanitation is important, as it is related to the overall quality of life in the slums. Slums mainly proliferate due to the influx of people into urban areas in search of livelihood and employment. These people start staying in public or private land and slowly it becomes a settlement. However, basic services are always inadequate or absent in these settlements. Many studies have shown that the poor pay a large percentage of their income for availing some of these services such as water, electricity and toilets. Access to toilets is one of the most important issues for women and men. From the case studies, it is observed that in the process of development, few slums have got the opportunity to have individual toilets through slum networking project. The SNP is an important programme for the overall development of slums. Many slums are in unauthorised locations and hence the SNP addresses the issue so as to provide assurance for communities against forced eviction. It has been observed that after the implementation of SNP, the quality of life of slum dwellers improves considerably and the people themselves invest in their houses. Earlier they could not do this due to the fear of eviction. However, given

the slow pace of the project, it is unlikely to cover all the slums in record time. For example, Shiv Shakti Nagar and Yogeshwar Nagar are two slums that are close to Pravinnagar where SNP has been successfully implemented by AMC and Saath. However, these slums lack basic facilities as they have not been part of the SNP project. Inhabited by around 700 families, these areas lack sanitation and water supply facilities. The access to slum is through a kuccha road that gets flooded during the monsoon. Due to lack of sanitation facility, the womenfolk face difficulties in attending to nature's call. At present, they use the open space behind their settlement and visit them very early in the morning or late in the evenings. There is also a pay and use toilet facility but it is charged at the rate of Re 1 per use, which women find too costly.³

In the absence of reaching out to the larger population, the government has provided two options for safe sanitation. First, public toilets are built in the jurisdiction of AMC, which is managed and run by the corporation. These 'free to use' toilets are highly inefficient in providing quality service to the community. As the cases suggest, AMC toilets are dirty, filthy and unhygienic to use. People are using them in areas that are congested and hence they do not have any other options. The second option that is largely taken up by the government is to promote public-private partnership in providing access to sanitation in the form of 'pay and use' toilets. These toilets are built with the support of AMC on the land provided by them. The operation and maintenance of the toilets are done by NGOs working on the issue. In the case studies presented above, we found that the service provided by the 'pay and use' toilets are good and people hardly had complaints about it. The only grievance that they had was about the charges. AMC rules suggest that women, children and the disabled are not charged for the use while men are charged at the rate of Re one per use. In most of the toilets that were visited, apart from the one run by the Nasa Foundation, it was found that every one was being charged money, including women, children and the disabled. The toilet blocks were also being used less by the women – most of the women who were interviewed expressed inability to pay for the services. These ratios of use of toilets by men and women are 75:25 respectively.⁴

The question is: why is there less use of toilets by women as compared to men? The answer lies in the prevalent gender relations. It was experienced that most of the time women and men work equally to earn their livings. Women's contribution to the household economy is significant if not equal to their male counterparts. Even then, when it comes to paying

for sanitation, the needs of women are marginalised. Many a times, they are asked to defecate in the open as the family can afford to pay only for men. This is more in the areas where sanitation facilities are not available individually and the only option to safe sanitation is the use of 'pay and use' toilets. Similar observations were noted by the Ahmedabad Study Action Group (ASAG), an Ahmedabad-based NGO which carried out a study in the year 1996-97 on sanitation in rural districts of Ahmedabad. It revealed that the demand for sanitation facility (toilet and bathroom) was more from women than men due to the need for privacy for the latter in defecation and bathing. ASAG's experience in working with the community shows that in urban areas women face more problems than men due to their need for privacy.⁵

It is this understanding of gender relations that must have influenced AMC's decision not to charge women, children and the disabled. However, during the survey, apart from the toilets managed by the Nasa Foundation, all charge money for the use from everyone. This is largely because there are very few NGOs that work with perspective. Many organisations that are called 'NGOs' by the AMC are actually profit-making enterprises of individuals or collectives. However, AMC officials believe that the scale of the problem is large and hence whoever comes up with the proposal is granted permission. There is hardly any check by the authorities to see if the organisations managing public toilets are adhering to the rules⁶. There is no doubt that the scale of the problem is very large. A recent study suggested that in Ahmedabad, only 23 per cent of households have individual piped water connections while only 26 per cent have individual sanitation. Official figures show that 550,000 people use public toilets but there is widespread dissatisfaction with their cleanliness and quality. An estimated half a million people defecate in the open. A 1998 survey of 7512 slum households on the Sabarmati river banks in Ahmedabad found that 80 per cent had no water connection and 93 per cent had no toilet facility of their own (Hewett and Montgomery, 2002). These are the figures of slums within the AMC limit. Apart from this, many new slums are coming up every year where these issues would need to be addressed too.

The question is whether there is any alternative to the problem that people are facing. The SNP project is a step in the right direction, but it is also a slow and long process and the problem of safe sanitation cannot wait. The immediate measures in terms of public – private partnership in building and managing toilets lack transparency and accountability. There is no system in 'pay and use' toilets, where

³ Discussions with Chinmayi Desai, SAATH on February 4, 2004

⁴ Personal communications with several employees of NGO-run pay and use toilets, March – April, 2004

⁵ Personal communication with Mr. Rajesh Bhat, ASAG on February 5, 2004

⁶ The discussion took place with two AMC officials on condition of anonymity in March 2004

the local people can participate and question the amount charged to them for the use of the services. As one woman puts it, "Who has fixed this amount and with whose consultation?" Instead, a major recommendation of this study is to set up community-managed toilets where local people participate and they have a say in the management and decisions. In the present situation, the costs of construction are already borne by the AMC and hence it is only the maintenance and operational costs that are to be covered from the payment from the community. In a community-managed system, this could be taken up by the residents and could be flexible to the needs of the community. As one of the residents says, "If it is up to us we will charge those who have the ability and not charge if they don't have... this covers even some poor men. If we manage, we can think of the need of individuals, as we know them better than any one else does." However, in the absence of such a system, many pay and use toilets will be functioning without any accountability to the community whom they serve. Women will continue to defecate in the open due to lack of paying capacity.

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16. Leaders in Change: Women and Sanitation

A paper presented at Women and Sanitation Conference

Chandra Ganapathy and Shipra Saxena

Background

Sanitation is fundamental to all development. Lack of sanitation is a public health disaster. It consigns nearly 3 billion people — nearly two-third of them women and children whose needs for sanitation are critical and acute — to life in primeval conditions, without access to latrines.

Enhanced sanitation services represent a fundamental step towards improved living standards for poor people with special focus on women. When nations commit to ambitious MDG targets, it is important to recognise the importance of women's role and the need for a paradigm shift to effectively incorporate the women's perspective in designing and decision making. Equipping and empowering women to play their part should be an integrated part of plans and measures regarding sanitation. It is imperative to include women at all levels of the programme to make investments in sanitation effective, equitable and sustainable and so in the long term, also more efficient. The national sanitation programmes in India address the needs of women, children, disabled and old-age people.

Access to sanitation is a fundamental human right that safeguards health and human dignity. Lack of sanitation is a social and health problem and women suffer an additional dimension of cruel handicaps that do not apply to the men — that of attending to nature's calls and bodily functions. Women in rural India, as in most parts of the world, often suffer from lack of privacy, sexual harassment and need to walk large distances to find a suitable place for defecation in the absence of household/community toilet facilities. In several cases, they are known to rise early morning or wait till night before venturing out in the open causing health problems such as urinary tract infections. Many women avoid drinking water even in the peak of summer — increasing health risks manifold — just to reduce the number of visits to the open. In addition, when girls and women have to walk to a place distant from their home to defecate, particularly at night, they are vulnerable to sexual harassment and assault. These also have significant implications for attendance and enrolment of girls in schools. Exposing

oneself in the open, especially during menstruation, affects women's dignity, and sense of self-worth. These issues are particularly important for adolescent girls: studies show that not having access to proper, safe and private sanitation, substantially increases absenteeism among girl learners, and contributes to their dropping out of schools altogether. Table 1 below shows the rate of dropouts of girls in classes one to ten. Sanitation is crucial in the light of HIV/AIDS. Poor water and sanitation undermines immune functioning, and can accelerate the progression from HIV-positive to full-blown AIDS. Poor sanitation increases the vulnerability of HIV-positive people and those with AIDS to opportunistic infection, and has huge qualitative life impacts for people with AIDS and their caregivers. In most cases, women are the primary caregivers to those who are sick.

Any women empowerment programmes without adequate attention to sanitation, or 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. A strengthened role for women is imperative to promoting sustainable sanitation. In practical terms, women are strategic change-makers. Without empowering or involving women, we will not be able

Table 1: Dropout rates of girls in classes I-V, I-VIII and I-X (2000–2001)

Class I-V	Classes I-VIII	Classes I-X
41.90	57.95	71.51

Source: Planning, monitoring & statistics division, Department of Secondary & Higher Education, Ministry of Human Resource Development, Govt. of India — 2000-01)

“Sharam” (shame) is what being a woman, is all about, even if it means attending to perfectly natural and normal functions. And that continues to be so, even today, in spite of all the advances that the female half of the population has chalked up in various fields.

Sanitation: The hidden gender problem
Absence of proper sanitation is affecting women's lives.
Sakuntala Narasimhan in www.indiatogether.org
July 2002

to reach the desired goals of 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.

Lack of access to sanitation reinforces the cycle of poverty and powerlessness that keeps people trapped, as well as slows the ability of societies to develop. Solutions for sanitation problems exist that can make a significant impact in combating vulnerability especially that of women and children, disease and poverty. We need the political will and sincerity to apply them. More difficult however, is finding the will to do so. While we gear up to meet our goals, we must ensure that the vulnerable, especially women, children and the physically challenged are reached equitably and appropriately.

‘Why women?’ is probably the most obvious question. There are many reasons, beyond the health repercussions of inadequate sanitation, why it is a priority issue for women and girls. In both rural and urban India, women are responsible for all sanitation related activities at home. For women, access to sanitation is essential for family health and well being. However, for a large section of women, sanitation is still a distant dream, a luxury that they cannot afford and lacks adequate attention. Girls and women pay the heaviest price for poor sanitation. Women already bear the full burden of water collection at home. Water is critical for effective use of sanitation. Sanitation programmes should ensure water availability close to the point of sanitation facility, to avoid increasing burden on the women for water collection. Women’s needs of sanitation are unique, and therefore it is essential that a responsive and sensitive policy is in place to address these and a mechanism for effective implementation.

This paper analyses the current role played by women in sanitation in India and the policy-level interventions, looks at the best practices that have been established and explores the way forward of maximising women’s role without adding to their burden.

National Sanitation Policy and Programme in India

The Central Rural Sanitation Programme (CRSP) sets the broader guidelines for Rural Sanitation in India. Under the Total Sanitation Campaign of CRSP, women have been given focus as it has recognised sanitation as a critical need of women. The Total Sanitation Campaign is changing the sanitation scenario across the country. The programme is currently being

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Programme 2004: Ask anyone what it will take to make women’s equality a reality and ‘toilets’ will probably not be the response. Yet, it is difficult to exaggerate the impact that access to private, safe and sanitary toilets would have on the daily lives and long-term prospects of the 1.3 billion women and girls that are currently doing without. The burdens of water-hauling are widely understood, less discussed are the blows to health, productivity and dignity that result from poor sanitation. Sick, pregnant and postpartum women particularly suffer from lack of sanitation. How can the future be better if today’s girls must drop out of school for want of something as basic as a toilet?

implemented in 594 districts of the country. The main areas where women have been given a place in TSC guidelines and implementation are:

Women Sanitary Complex

Women sanitary complexes are an important component of the TSC. These complexes can be set up in a place in the village acceptable to women and accessible to them. They were initially designed only for women but due to increased demand of such complexes, these facilities have been extended for men and landless families. The CRSP guidelines states, “Village Sanitary Complex for women can be provided under the Programme. The maintenance of such complexes is very essential and for this purpose Panchayat should own the responsibility or make alternative arrangements at the village level. Up to 6 per cent of the total Project Cost can be used for construction of Sanitary Complex for Women. The beneficiary contribution can be given by the Panchayat.”

Under TSC as on mid March 2006, 6,466 women complexes have been completed against the planned 36,098—18 per cent achievement. The reported progress is mainly from few states. In majority states, this is yet to take off. The probable reasons could be – lack of commitment, the concerned officials and local government representatives would not have been adequately sensitised, and information of the programme would not have reached the women, the intended beneficiaries. While there is encouraging (feedback) from few states on the successful implementation of women complexes there have been instances where women complexes are completed without adequate water supply and power for lighting and have been located at sites far away from habitations. These factors still make these facilities inaccessible to women. There is need for sensitising the officials, PRI members and women through exposure to areas where women complexes are working efficiently under women management.

School toilets

Under TSC, separate toilets for girls and boys in all types of government school have been provided. TSC covers only those schools under government management, and the schools under private management are not supported for sanitation. Many such schools cater to the poor rural population and do not have resources of their own to meet the sanitation requirements. The government should extend support to such schools too.



Girls toilets

Information, Education and Communication (IEC)

The IEC strategy under TSC is very organised and linked with output. It has focused on both mass and individual campaign. Almost all the villages have motivators and it has been found that women are the main influencers. There are many themes related to women's dignity, comfort, status, O&M, cost effectiveness, technological options, etc which are being used. Gender Water Alliance states as gaps in India's sanitation Programme that IEC is not gender sensitive, women are less mobile and literate than men and use different information & communication channels. Women thus require different information and communication strategies. In sanitation/hygiene education, emphasis is often mainly or only on women. Women (mothers) can influence the practices of young girl and boy children. Influencing the practices of adolescent and adult male relatives is much harder for them and increases the work of women and girls. Education ought also to pay attention to a more equitable division of work and financial cost sharing between the sexes.

Current Status of Women and Sanitation in India

This section captures the general scenario of women and sanitation in India. Both the issues and a few of the innovative initiatives in sanitation are highlighted. Some of the experiences are very important lessons which need to be incorporated in wider interventions if we are to move towards an effective and sustainable sanitation. These as mentioned earlier, are few, and will have gaps but merit up-scaling.

In sanitation as in many development programmes, women have gained recognition as key stakeholders but unfortunately their role is perceived only at the domestic level – as consumers/beneficiaries at households and communities. Understanding women's participation has often been limited to analysis of women's contributions relative to men's, and the impact on women in terms of anticipated benefits, and often the participation encouraged has been determined by the perception of women as only

having “domestic” roles. There is an assumption that women's incentive for sanitation is related only to their own and families need for privacy and dignity, this is certainly true, but also simplistic. Women's participation has to be seen more broadly, allowing them the space for higher level decision-making and economic and social benefits. The management roles of women in sanitation have been ignored, as well as the possibilities and need for bringing women into more political discussions of sanitation.

The absence of women in decision-making positions results in the creation of policies that fail to address women's needs and concerns. Women's equal participation at all levels of decision-making is critical to achieve a more equitable and effective access to sanitation. Though there is an increasing involvement of women in sanitation programmes, there is insufficient attention to women's power sharing, capacity building and access to information.

At the implementation level, thanks to the emerging strong women's collectives, there is active participation from women in sanitation at households and communities. Women have shown a strong initiative and commitment and innovative best practices have been established. Particularly in the past seven years the women's participation and leadership has given great impetus to the sanitation programme. But unfortunately, these are few and in isolated pockets, and there has not been a mechanism in place to capture such emerging best practices and disseminate them for replication. It has also been presumed that participation in sanitation programmes is automatically positive for women. The possible socio-economic costs involved, given the multitude of other responsibilities women have, are normally not considered.

The following are few areas where there is need for urgent action and which if addressed appropriately and in time may act as catalysts for sanitation promotion.

(Wo) Manual scavenging

Manual scavenging involves removing human and animal excreta using brooms, small tin plates, and baskets that are carried on the head. We often hear of night soil carriers. Manual scavenging still continues despite the enactment of legislation in 1993, prohibiting manual scavenging and making the construction of dry latrines a punishable offence. Estimates suggest that there are about one million manual scavengers in India, 95 per cent of whom are women. Traditionally, women have been forced to follow this inhuman and undignified occupation. Where families have departed from traditional scavenging jobs to more dignified labour, they have been denied the Government's privileges offered to their community as manual scavenging is a specific

caste occupation and moving out of it is an indication that they are no longer in the vulnerable category. Accelerated action is needed to convert dry latrines to sanitary latrines and enable the under privileged women to gain alternative livelihood opportunities or be managers of the improved facilities. Their rights as under privileged community should be secured. There is need for caution in women-managed sanitation facilities that cleaning should not be restricted to women of a particular caste, as there is a danger then in perpetuating caste associated occupation, which has been going on since times immemorial and continues to remain that way. This cycle needs to be broken and perhaps women can show the way.

Urban, slum women and their sanitation

In terms of simple numbers, the need for sanitation is greatest in rural areas; however, lack of sanitation is far more alarming in urban areas than in rural regions, mainly because of population density and neglect of data on squatter settlements. The proper disposal of human waste is a huge problem in the slums because of a great shortage of latrines and suitable sewage systems. The incredible sanitation in the slums exacerbates the problems of women. In the slums of Mumbai, for instance, the ratio of people to toilets is shockingly inadequate. While men get around this by squatting alongside the railway tracks and other open spaces, women have to wait for the cover of darkness. In a city like Mumbai, the lights remain on all night and the city literally never sleeps. The price for this is played out in the lives of millions of women.

In the larger urban planning, slums get neglected which leads to neglect of the needs of a large number of women and young girls. There is no systematic plan or commitment from the government for provision of sanitation facilities in urban slum areas especially for women. In few cities and small towns, women complexes have come up with the local government or NGO initiative. SPARC in Pune and GRAMALAYA in Tiruchirapalli are two NGOs who have demonstrated that women can successfully manage sanitation complexes in the urban slums. The women management has led to wider usage and the entire slums becoming open defecation-free. The support from Corporations' officials are also a vital factor for the success in these cities. Despite demonstration of such success there is no comprehensive plan for slum sanitation and the unrecognised slums are totally neglected from any plans. There is an urgent need for the government to come up with adequate public sanitation facilities for women and girls in urban slums. On-site treatment of sludge through bio-gas and reed beds has been experimented in few sites of community sanitation blocks. These are appropriate technology and needs encouragement and support for wider replication.

The solid waste management and environmental sanitation have succeeded in many instances, but largely in urban middle class or upper class residential areas. Organisation which have been involved in such successful initiative are reluctant to experiment these in slums for lack of space and it may not be financially viable as the slum community will not be willing to pay. It may be appropriate to make it mandatory to include slums while contracting out the urban solid waste management – this would enable cross subsidisation and reaching the slums areas too.

Community sanitary complex and sanitary napkin incinerators

Women-managed community latrines are an immense success in terms of proper maintenance, usage and above all community ownership in some parts of the country. In Tamil Nadu, Integrated Women Sanitary Complexes with sanitary napkin incinerators are widely seen in all panchayats and are very popular among women. The complexes usually consist of latrines, bathrooms and washing platforms with piped water supply facilities. At many places, they have sanitary napkin incinerators. AN incinerator is a simple, easy-to-operate, low-cost method developed and installed in many Women Sanitary Complexes (WSCs) and girls' school toilets for safe and hygienic disposal of sanitary napkins. This also helps solve the problems of clogging of toilet traps and other components. These complexes also have latrines for the disabled, old age and latrines for children. They are run by local women's SHGs. There is usually a woman caretaker appointed/selected by the SHG, who takes care of the daily maintenance of the complex. The lady is paid around Rs. 300 to Rs. 500 a month. Funds towards this and other materials like phenyl, bleaching powder, etc for day-to-day maintenance is raised from the users on a monthly basis ranging between Rs. 5 to Rs. 10 per household per month.

Sanitary Napkins

Awareness has been created among the rural women to a large extent on use of sanitary napkins for improvement of menstrual hygiene in women. SHGs in Tamil Nadu are being trained for production of low/affordable cost sanitary napkins for the purpose. These SHGs have started selling their products to other SHGs, girl students in schools, local maternity hospitals, etc.

Women's Management and Entrepreneurships

In recent years, sanitation has thrown open many opportunities for entrepreneurships especially for women. Management in providing public sanitation services is a profitable engagement for women's collectives. Besides this, there are other successful experiences of women's involvement of the poor, as well as, managing entrepreneurial activities like owning and operating sanitation production

centres, soap making and marketing, sanitary napkin production etc. But these still are islands of success yet to be captured in the main stream. Some challenges are emerging as these successful initiatives advance in years of existence, like cost of maintenance, rights of poor people in access to infrastructure etc. These could well be tips of icebergs and by only projecting the success side of these stories we may not take timely corrective steps and run the risk of losing the potential movement leading to women empowerment and sanitation coverage.

Sharing power or mere shifting of workload

Woman in lead roles has proved effective in terms of management, innovation and community based behaviour change. There is need for caution while planning for women's participation especially in sharing responsibilities and costs. There are subtle shifts in transferring the financial burden to the women groups. Under the premise of community management, these groups are denied the benefits of subsidies and concessions, and other privileges which they deserve. The local government has the responsibility for the maintenance of community latrines both in urban and rural areas. All responsibilities of maintenance costs have been transferred to the groups, and in some instances they are responsible to cover the costs of environmental sanitation too. The nominal user charge which is collected is sufficient to meet the entire maintenance costs. The commitment and hard work of the women is being silently exploited. There is need for wide dissemination of this information on their rights and entitlements as part of capacity building. This substantiates the demand that women should gain representation in higher level of policy and decision making bodies.

Self-help groups and rooted advocacy

Women Self-Help Group in many areas has served as the platform for launching and upscaling the sanitation programme. The thrift and credit programmes managed by these groups have supported the household contribution of sanitation. They have places. They are acting as a channel of communication at the village level through the following activities:

- (a) Becoming behaviour change leaders through education and motivation to other women and by living within community and setting an example.
- (b) The SHGs along with local governments have stimulated a community-led total sanitation.
- (c) Generating demands for sanitation facilities through communication and peer pressure.
- (d) Organising discussions on sanitation related issues within their groups. Many SHGs have negotiated with banks and other financial institutional to extend credit for sanitation. Many of the rooted advocacy initiatives has started at SHG like micro-

credit and sanitation, banks involvement in total sanitation, contracting sanitation works, and Gram Sabha resolutions on total sanitation. In many states, SHG members through their awareness on development and empowerment have been elected for local Governments and have influenced the local level decisions. Women who are educated only upto primary school and have not come out of their houses five years before, are now leaders instrumental for a Panchayat level sanitation coverage.

Women masons and the mobile production centre

The Rural Sanitary Marts (RSM) and production centres supported under TSC are normally located at the Block Headquarters. This often makes it inaccessible to remote villages and adds to the cost with transportation, hence, not as effective as intended. In Cuddalore district Tamilnadu, has the WaterAid initiative successfully attempted decentralisation of the RSM through trained women masons. The women masons with support of credit from the women groups hired a tractor and procured materials for 25-50 latrines and reached out to villages which came up with a demand for considerable number of latrines. This was a profitable engagement as the overhead cost of transportation was spread across more numbers of households. This was achieved through effective coordination among the NGOs, women groups and the women masons. This experiment has proved to address many related issues, like effective use of trained masons, opportunity for their regular employment, cost-effective management of work at a faster pace as many masons were involved with all necessary materials, and RSM reached to the unreachable. Such initiatives if systematically upscaled, would improve and accelerate the sanitation coverage.

Way Forward – What Can We Do?

An important starting point must be the understanding that women's more equitable involvement in sanitation initiatives should not be restricted to the perception of women as vulnerable, marginal and victims, but also recognition of women as major stakeholders, actors and change-agents in households, communities and Governments. There are lessons on the effective role women have played in advocacy and management, these should be mainstreamed through policies and programming.

Policy framework

In the arena of policy, sanitation still tends to be clubbed with water supply. The scale and scope of the TSC has demonstrated the need for a separate national policy related to sanitation and hygiene. This would create more enabling conditions and framework to help fulfill the sanitation targets.

Government of India commits on developing the National sanitation policy in its paper presented at the first SACOSAN at Bangladesh. Women should lead in evolving the policy which should assert women's equal access to and full participation in decision-making at all levels, mainstreaming their perspectives in all policies and strategies. Sanitation policy must ensure that women have representation in higher level in sanitation planning and management, and not place an extra burden on women's time, nor should it reinforce gender inequalities by subtly extorting their labour, time and resources without commensurate economic or social benefits.

Capacity building

The best way to do capacity building is in an environment that allows and encourages people to change and improve. This means laying the foundation for change simultaneously both at the upper reaches of policy makers and senior government officials and among the local institutions, community organisations and women. Capacity building would start with top level commitment to bring in effective changes; without this understanding and commitment at the top level there is the risk of introducing new approaches and having them fail because of restrictions from above. Develop gender-sensitive tools at the national sanitation programmes, including gender-disaggregated data, gender analysis, gender-sensitive indicators, gender budget initiatives, and training. Provide training and awareness raising materials on the linkages between gender, sanitation and poverty for senior managers, officials, decision makers and technical staff in government, local institutions and civil societies.

Invest in training all stakeholders, particularly those who are involved in policy framing, officials who are responsible for sanitation programmes, local government leaders, civil societies' leaders and women leaders sensitised in gender-sensitive approaches. States and governments which are not

Women's recommendations to the Second Ministerial Conference on Water in the Netherlands in 2000 (These are reproduced here as all these recommendations are applicable to sanitation too)

- Women should be drawn into consultations at all levels when policy is created; systems developed; and mechanisms designed;
- Women's rights to water and to participate in water-related organisations and institutions should be ensured;
- Women's knowledge and experience in this field should be acknowledged, developed and better employed;
- Women should be encouraged to enter the water management industry at all levels;
- Gender training should be offered to all those involved in water supply and management;
- Annual water audits, based on gender disaggregated data, should be published each year, etc.

able to meet their targets in school and women sanitation have to be given special attention in terms of enhanced IEC support, special drives targeting women. There is need for dissemination of successful approaches and models through exposure visits to best practices and experience sharing workshops. Women leaders and other stakeholders need training in areas of technology, management, lobbying and leveraging. Encourage and build capacity of women-led organisations to engage effectively with public sector programmes, in policy making, implementation, monitoring and evaluation.

Documenting and disseminating best practices

There is need for a structured approach to identify best practices from across the country, document the process involved and disseminate them. Women-managed community facilities, the role of banks, micro-credit and sanitation, appropriate technologies, sanitation related business opportunities, are few of the approaches which merit replication. The sanitation sector is in need of such interventions, and unfortunately there is no serious effort to upscale these initiatives. The best practices along with all success factors and gaps have to be documented and disseminated and consciously encouraged for upscaling.

Short studies can be carried out in the areas of sanitation on what has worked and what has not in connection with gender perspective. Academic and training institutions, including those which focus on women issues can be encouraged to review and research on the needs and perceptions of women, the current status and the areas of change needed. They can also monitor and evaluate gender roles in decision making at various levels of policy to implementation.

Encouraging women leaders

The sanitation programme in India recognises women's representation and leadership at a local level. This is demonstrated through – women-led NGOs to be given a greater representation in sanitation programmes and to reflect the women's perspective in programming; encourage women leaders at all levels, communities, civil societies, local governments, states and central governments and their representation in decision making bodies of sanitation; women CBO leaders, women members in local, state and central elected bodies, women NGO leaders, teachers, health workers and others – constitute a potential force that if adequately trained and guided could cause revolutionary changes in the sanitation sector.

Convergence

There is a need for convergence of programmes which work through women. Most of the development programmes work through women institutions and

organisations and trained women volunteers. If these at an appropriate manner and level could be converged, efforts and resources will not be wasted and the impact could be greater. For accelerating sanitation with gender perspective, there should be greater coordination among departments which manage education, health, women development, rural and urban development to mention a few. The coordinated approach from such functional units would help avoid duplication, greater value for investments made and enhance the overall development.

Entrepreneurship opportunities contracting to women groups

Engage and train women groups and their federations to provide sanitation products services. Women groups are growing in strength—not in just numbers but in systems of management and accountability. There are many business opportunities coming up in sanitation programmes like vermin-composting and solid waste management, construction of public and school latrines, management of public latrines, production of sanitary napkins, soap manufacturing, designing sanitation plans, etc. Women groups can be allotted the sanitation-related production, supply chains and the schemes like rural sanitary marts and production units. Women groups should be given the recognition and priority allotment of such contracts. Ensure that women and men have equitable influence in benefits or incentives and that they are not overburdened with the responsibility or management.

Credit and subsidy targeted at groups

The women groups have established their credit worthiness and financial management skills. They have managed cross subsidies and pro-poor approach not only among their group members, but among non-member households too. The experiences demonstrate that there is participation of all and high level of transparency in the selection and subsidy. Currently the groups receive and disburse credit from banks at commercial interests as high as 12 per cent for sanitation. As more and more women groups opt for sanitation credit, there is more demand for sanitation loans which have very short repayment periods; financial institutions should subsidise the interest rates especially with the impressive repayment record by the women groups.

Women and technology

Appropriate technologies are important in sanitation programmes especially to address the needs of women. Involve women in developing and determining technology options and service levels for sanitation. Women's knowledge and perspectives must be central, while drawing on local knowledge in choosing technologies that are suitable from both an environmental and cultural perspective. It is important that women must be included by governments and local authorities in the process of selecting suitable technologies. In the near future, technologies like Ecosan and DEWATS, to mention a few, will have to be promoted on a wide scale. It is important to train and involve women in improving these technologies to ensure that women perspective is addressed while upscaling these technologies.

Gender-sensitive toilets at all work places and schools

It is important that necessary regulations that all work places and schools have adequate, safe gender-sensitive toilet facilities should be placed. Millions of women – from urban office-goers to a village vegetable vendor – have stepped outside their homes. One problem they all face is the absence of facilities for women in the places they visit. Surveys in Mumbai have revealed that of the public conveniences that exist, the facilities for women are less than a third of what is available for men.

Conclusion

Empowerment of women would vary from less dependence on the men to political autonomy, and being able to have their voices heard, but it has a common goal – control of women over their own lives as individuals. Sanitation is something critical for a woman's control on her own life. As we discuss women and sanitation it is important to understand that many sanitation programmes have missed the men's perspective too, as with many other development programmes. Sanitation programmes have been built around assumptions on some sort of "gender-neutral" person who does not exist in reality. Having said this, it may be exasperating to read the repeated emphasis on women and the need for women perspective. But the emphasis has its strong justification, as the world celebrates Women's Day in 2006, we hear of a city woman molested while using a toilet in the remote corner of her workplace.

The energy and the will of women is out there, but in regard to water and sanitation, it has to be harnessed by strong, sturdy partnerships to lay down the necessary foundations. Mrs. Nane Annan - Women and WASH Johannesburg

Summary of role of women in sanitation at different states of the project

Project state	Activity/Method	Role of women
Planning	Data Collection	<ul style="list-style-type: none"> • Help in identifying problems, assessing and analysing problems, related to sanitation and initiating action • Fixing priority for women • Deciding how women can best be involved in the water supply and sanitation programmes • Deciding which model and site for construction • Contributing labour • Making WATSAN committees
	Decision PLA, Mapping	
	Matrix Analysis, FGD	
Implementation	Promotion, IEC, Sharing Information	<ul style="list-style-type: none"> • General promotion of sanitation improvements at community-level – eg sanitary complexes, school sanitation • Household promotion of Water and Sanitation – Individual household toilet, soak pit, hygiene practices through children of family members
	Construction	<ul style="list-style-type: none"> • Labour • Income generation
	Use	<ul style="list-style-type: none"> • Personal use • Facilitating family hygiene and promoting healthy habits among children
Evaluation, Monitoring, Sustaining	Education	<ul style="list-style-type: none"> • Teaching children • Teaching new family members and women's groups (SHGs)
	Operation	<ul style="list-style-type: none"> • Regular use
	Maintenance	<ul style="list-style-type: none"> • Flushing it regularly • Cleaning regularly with cleaning agent
	Financing/Cost sharing	<ul style="list-style-type: none"> • Taking decision to spend some money for repair/maintenance of women sanitary complexes
	Income generation	<ul style="list-style-type: none"> • Manufacturing toilet brushes, soap, paper, etc
	Evaluation	<ul style="list-style-type: none"> • Use of latrine before and after the implementation, sustaining facilities, capacity development in managing water and sanitation scheme, change of behaviour, time saving

17. Sanitation Campaign... Sets Us Free

The Tamil Nadu Experience

Santa Sheela Nair and Amudha Periasamy

Introduction

The Government of Tamil Nadu (GoTN) has always accorded highest priority to the investments in social-infrastructure for improving well being and quality of life. The overall sanitation coverage in the State was 15 per cent (2001) and the usage is only 37 per cent. In 1999-2000, the Government of India launched the sector reforms with a focus on demand driven community-managed water and sanitation programme (TSC). The State Government is committed to the goal of promoting sanitation amongst rural families and institutions. The present coverage as per the survey by Rural Development Department up to January 2006 is 59.16 per cent.

All 29 districts of Tamil Nadu are covered under TSC. The Hon'ble Chief Minister's programme for Construction of Integrated Sanitary Complexes for Women had sown the seed and created the momentum to bring about a Sanitary Revolution in the State. In continuation to the above novel scheme for women empowerment, the Hon'ble Chief Minister has announced a new approach to environmental sanitation and protection through community empowerment, rightly called "Clean Village Campaign". The Clean Village Campaign was launched by the Honorable Chief Minister in July to motivate the panchayati raj functionaries to take greater interest in sanitation programme and thus promote clean and green villages. Beyond the immediate purpose of accessing toilets the State Government has expanded its vision to include TSC plus objectives that includes

overall environmental cleanliness and hygiene promotion.

The TSC plus aspects aim to integrate water, sanitation and solid waste management components and through a Government Order rewards "Clean Villages" that meets the stated specifications. The "Clean Village Campaign" is spearheaded by the district administration and Panchayats at the block and village level and involve NGOs, Self-Help Groups (SHG) and the Nehru Yuva Kendras (NYK). The Government promotes cost-effective models for household toilets. School sanitation is also a pursued significantly by the government. The Rural Development department through the DRDA is implementing these two programmes for promotion of better sanitation and hygiene practices in rural areas through convergence approach at various levels.

TSC in Tamil Nadu is characterised by "integration" of different sorts. Firstly, the different programme components are integrated ensuing comprehensive inputs for health and hygiene promotion. Sanitation and solid waste management are promoted corresponding to promotion of bio-gas units and innovative methods for water conservation and recharging with specific emphasis on rain water harvesting. Finer inter linkages between different inputs are defined and disseminated through massive awareness-generation programmes. Thus, at the family and community level, inputs for overall improvement of standard of living are ensured. Secondly, the different line departments such as the Rural Development, Department of Education, TWAD board and Department of Public Health, etc works in unison to achieve the avowed objectives of the TSC. Establishment of the "State Rural Sanitation Society" has cemented the convergence of line departments. The Hon'ble Minister for Rural Development is the chairman of the Society, Secretary, Rural Development is the Member Secretary, and has Secretary, Education, Health, TWAD board, etc, representatives of NGOs, Village Panchayat Presidents, as its members. The Society has an Executive Committee with Directors of Rural Development, Public Health and Education (and others) as its members. The Executive Committee supports and makes possible convergence of programme with different line departments.

Gender Development Index

A comparison between GDIs and HDIs will give an assessment as to the degree of gender equality. The GDI (2001) for Tamil Nadu is 0.654 as against the all India value of 0.553 (Government of India, 2002). This shows that Tamil Nadu's achievement in gender equality is better than that in the country as a whole. Gender Development Index values for the district in Tamil Nadu vary from 0.766 to 0.582. Once again, Chennai fares the best and Dharmapuri (and Villuppuram) the worst. The other districts, which fare well, are Kanyakumari, Thoothukkudi, Kancheepuram and Coimbatore — the same districts that fared well with regard to the HDI.

Self-Help Groups are a Force to Reckon

SHGs formation dates back to the early 1990s with the literacy campaign activity in the State. The Self-Help Groups are micro institutions, which contribute largely to the poverty reduction programmes. Self-Help Groups mainly have helped the women to organise themselves in collective endeavour and generate income. They also make them aware of the importance of thrift and small savings, which is a boon to them in times of need. In almost all villages of Tamil Nadu women have enthusiastically enrolled themselves in the Self-Help Groups. The Rural Development department is implementing the SGSY (Swarna Jayanthi Gram Rojgar Yojana) which is a self employment programme aiming to each group and individuals to set up rural micro-enterprises. The DRDAs with Mahalir thittam grade the groups, build the capacity of the SHG on a chosen activity and provide credit through banks to take up any group activity. The SHGs are now federated at different levels. Village SHGs network forms a federation at the Panchayat. In several villages, these SHGs have stopped arrack sales, struggled against husbands who beat their wives, taken up the cause of women victims of violence, and even fought against police injustice and inaction.

In Tamil Nadu, SHGs have emerged as important local institutions in villages. NGOs act as an external catalyst in social mobilisation, formation and nurturing of the SHGs through Government administrative and financial support. SHGs are developing into strong local institutions providing a legitimate avenue for members to participate in public life outside their home as a means to access public inputs such as training, banking services, government schemes, etc. In the 29 districts of Tamil Nadu, there are around 2.50 lakh self help groups in which more than 37.50 lakh women have been enrolled as members.

Women Sanitary Complexes – The First Step

The first key component of the sanitation programme in the field is the integrated women's sanitary complex. The women's complexes address the immediate need of the women and are expected to ingrain demand for toilets/ toilet use at the household level. They are further expected to exhibit a "demonstration effect" in the community and supplemented by the ongoing IEC campaigns lead to demand for home toilets.

An initiative that was undertaken prior to the TSC has become stronger after its inclusion under TSC. The complex has toilets, bathing and washing facilities and is a well thought out scheme to meet the requirement of rural women comprehensively. Each block is spread over approximately 750 sq.ft, with 10–14 latrines

No solution to society's social, economic and political problems can be found without the full participation and the full empowerment of women.

and two cubicles for bathing. A leader has been chosen who oversees that facilities are well kept and maintained. Approximately 70–100 women use these complexes in every village. They also determine how much users should be charged, and whether the fee should be paid per visit or monthly.

The women's complex is very popular and the convenience enjoyed by the women using the complex is palpable. This will result in a long-term positive impact on women's health. Village-based Self-Help Groups also generate awareness in the community on the need for hygiene and sanitation. These groups also motivate users to adopt more hygienic practices and create a demand for sanitation facilities within the village. The operation and maintenance of the complex, including repairs, is the responsibility of the local government and Self-Help Groups. The women's groups also make a contribution to supplement the Government's share.

Toilet complexes have an established priority in the agenda of the rural women. Even men are demanding similar facilities. These are the highlight of the sanitation programme. Highly motivated women groups are using and managing these complexes.

SHGs move into the male domain of masonry and construction. Women in this state and elsewhere have been involved in construction activities mostly as unskilled labour and assistants to male masons. The exposure and systematic capacity building to women of SHGs to the masonry skill and also training them on pan production and toilet production has empowered them both socially and economically. They have earned the respect of the village community and their family members alike and have fully committed themselves to construct toilets for the rural households in various parts of the state to give dignity and better health to women like them and their families alike. So far more than 8827 Women have been trained as masons and 156 SHGs are involved in the production of rural pans. The Self-Help Group members have played a major role in popularising and promoting total sanitation campaign in the state and have been critical to the success of the total sanitation campaign and clean village campaign in almost all the districts.

Sanitation Campaign gets Closer to SHGs through Addressing their Special Needs

Involvement of SHGs in this campaign is part of a well thought-of strategy to use women as mobilisers/

motivators, masons in short movers and shakers of the programme due to it being a most important felt need of women and their large presence in all districts at the cutting edge level. The menstrual hygiene and its linkage to access sanitation facilities and availability of low cost sanitary pads was an important trigger which formed the basis to move women SHGs into the rural sanitation arena as thousands of rural women suffer silently without proper sanitation facilities and pads to keep them healthy and suffer from various diseases and untold hardships.

In schools especially, adolescent girls face a lot of problems. The situation is very complex – no toilets. If toilets are there then no water and if water is there disposal of napkins during menstruation. Disposal of sanitary cloth and sanitary napkins in girls' toilets is a big problem. It affects the proper functioning of the toilets when disposed in the toilet and serious health problems if thrown out in garbage dumps or in the open. There is, thus an imminent need to address this important sanitary waste disposal effectively especially in terms of developing cost-effective and simple technology for composite waste disposal for schools.

The major areas of concern for the Self-Help Groups is maintenance of personal hygiene of the Self-help Group members and other women members of the family during menstrual period.

All these genuine concerns for women and adolescent schoolgoing girls have to be addressed in any sanitation campaign and exactly these issues were the pivot of the sanitation promotion strategy in Tamil Nadu.

Training and Capacity Building

In a few districts initially one or two interested SHGs were trained in the production of sanitary pads by reputed institutions like Christian Medical College, Vellore and Gandhi Gram Rural Health Institute, Dindugal. The technique of production of low-cost

hygienic sanitary pads was not very difficult and the SHGs were very interested and mastered the skill in a few days. These sanitary napkins were now available within the village area and they did not have to pay as high a cost like sanitary napkins available in the open market. Now in every district 5–10 SHGs are trained in the production of low-cost sanitary napkins through the various institutions and also the SHGs which took a lead initially into this arena.

Production and Quality Assurance

Self-Help Groups are producing the napkins with cotton as raw materials covered with intra-woven fabric cover. The cotton is being purchased from Rajapalayam. The other types of raw material used are medicated cotton gel pad and wood pulp. Sanitary pads using cotton by ensuring quality control through autoclave subsequently some SHG-started using pulp which has higher capacity to absorb. The safety of women and the hygiene aspects are not compromised and therefore no plastic sheets and harmful chemicals are used in the production of these pads. Simple machines for cutting cotton and fabric and autoclaves are procured from Vellore CMC Hospital, Coimbatore and Chennai. As the sanitary napkins are hygienically produced it is received well by the Self-Help Group women and others.

Packaging and Marketing

The napkins are packed based on the customer preference and market demand. Apart from selling packets containing 10 pieces for Rs.15 to 18, they are selling it to the fellow Self-Help Group members and other women in pieces for Rs.5/- they sell 3 napkins wrapped in newspaper also. They also make packets with 8 pieces and sell it for 12–14 rupees. After production, the Self-Help Group members initially marketed the napkin among other self help group members. They also sold it to their friends and relatives. After the good reception they received, the napkin was also marketed through the near by colleges and schools. Self-help groups marketing these sanitary pads among the Self-Help Group members, schools and colleges nearby their villages. The District Supply and Marketing Society (DSMS) is supporting the SHGs in procurement of raw materials and marketing of the sanitary pads. In some districts the Self-Help Groups are producing napkins to the sum of Rs.15,000/- every month. In some districts it is also given to them at the lowest rate @ Rs. 4.50/- = 5.00 (for 5 pads) which is cheaper to that of one available in the market. The Self-Help Groups take the product to almost all the block rural meetings of self help groups, schools, participate to all fairs and exhibition. Marketing of sanitary napkins is being done through local sales and at local hospital.

The problems and needs of women and girls:

- No access to sanitation facilities
- No privacy to wash themselves during menstrual periods
- No place to wash and dry sanitary cloth
- No place to dispose of sanitary clothes/ pad
- No toilet in school-adolescent girls had to drop out school
- No place to dispose sanitary pads – adolescent girls absented themselves for 4-5 days every month
- Non availability of affordable safe and hygienic sanitary pads.

Simple Incinerators for Disposal of Pads brings Girls Back to School

The total sanitation campaign has brought about a welcome change in the rural areas in the improvement of sanitation facilities in the villages including other institutions like schools, anganwadis, health centres etc. In rural areas, with increasing in all these institutions the disposal of waste is becoming a serious problem. Both biodegradable and non bio degradable waste can prove hazardous for health, if proper and complete disposal is not done. The innovative low-cost technology incinerator has been developed for proper disposal of sanitary wastes. This design is simple, safe and cost effective. The incinerator burns/incinerates waste soiled cloth, cotton waste, sanitary napkins, paper towels, etc. The waste gets converted into ash and other non-hazardous residues. The incinerator is user friendly and manually operated. The cost of this technology is not very high which is around Rs. 1200-1500/- only.

The incinerator comprises two chambers, an emission control system along with a door for firing and removal of ash. In each incinerator, there is a spout/opening in the toilet wall for disposal of soiled napkins into the chamber. The soiled napkin drops on the wire gauze in the chamber on the other side of the toilet wall. This dropped napkin and other waste are fired on weekly basis through the door/firing inlet in the lower chamber. The entire incinerator is attached to the outer wall of the toilet. A smoke vent is provided for the disposal of gaseous substances while firing the sanitary wastes.

This simple addition to the toilets is highly appreciated by girls and teachers. The use of incinerator has removed the inhibitions among girls on attending schools during menstruation and has made them comfortable attending the school during those days.

Voices

- “My daughter who dropped out of school on attaining puberty has now started to go back to school.”
- “My relatives from the town visit us and stay longer with us in our village.”
- “My adolescent daughter takes sanitary pads manufactured by our group to her school.”
- “The rural economy is booming with lot of women health and basic products like under garments sale going up after launch of Sanitation campaign and especially sanitary pad production in our villages.”
- “We get all essential commodities including sanitary pads in the PDS shops.”
- “I buy it in my village, use it and dispose it in the incinerator... No problems and I am free.”
- “No clogged toilets in my school thanks to the incinerator.”
- “I don’t have to stay back at home during periods now; my school has a toilet with incinerator.”
- “I am proud of myself and my group we have changed our lives and our village is clean.”

There are also no blockages of toilets due to sanitary waste disposal into the toilets. With such low investment required for incinerators, schools can install such technology in toilets for better disposal of sanitary waste to check health hazards and subsequently ensure clean toilets and healthy learning environment for children, especially girls.

The SHGs have come full circle from shying away speaking about sanitation to the ones spear heading this movement in all districts. They have taken centre-stage in the sanitation revolution in the state and key to the success of this campaign in many districts.

Sanitary Napkins Production by Self-Help Groups in Tamil Nadu – A Success Story

CASE STUDY: Coimbatore District

Sanitary Napkin Project – The Inception

The project first took shape in Coimbatore District with the convergence of Total sanitation campaign (TSC) with SGSY-SGRY (Infrastructure) schemes.

A sanitary Napkin production unit was started in Kalampalayam village, Thondamuthur Block on 02-02-2004. The details of the production facility are as follows.

General Information

Name of the SHG	: Poonthalir SHG
Animator	: Valarmathi
Location	: Kalampalayam Village, Thondamuthur Block
Start Date	: 02-02-2004
Total Investment	: Rs.5.20 lakhs
SHG members/ Employees benefited	: 13 Women SHG members
Income	: Rs.75/- per day/per member (Average)
Employment generated	: 26 days/month (310 days/a year)

Budget

Rs. 4.75 lakh was the initial investment towards Building (Rs. 3.00 lakhs) and basic machineries and instruments. These machineries are modern ones which include Pulverising Machine, Autoclave – sterilising machine, Dies, Peddle Sealing Machine, Hand Sealing Machine, Electrical installations, and Cutting Machine (The total budget is about Rs.2.50 lakh).

Beneficiary Details

13 rural women of Poonthilir SHG manage this Sanitary Napkin Production unit.

Training

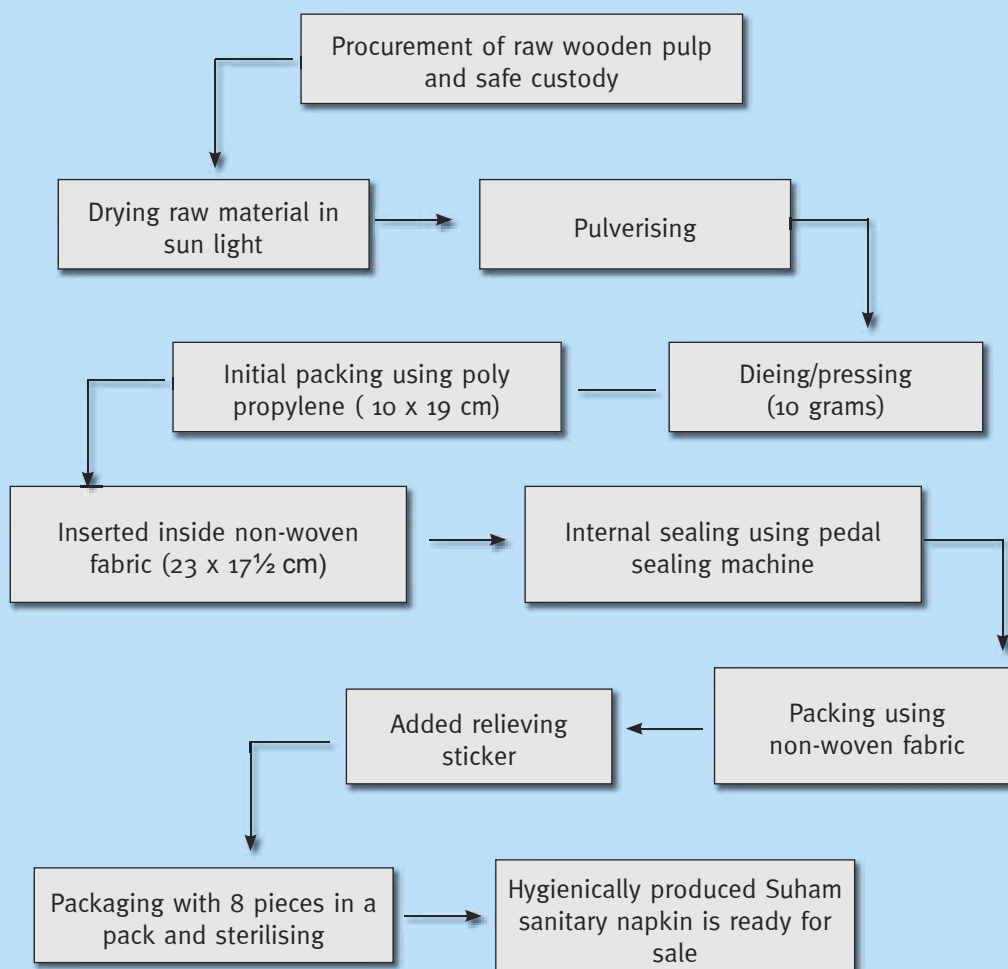
A systematic and comprehensive training was given to all 13 members involved by Goodwill NGO, Tirupur. A 10-day training along with 35 day apprenticeship training was arranged with Rs.75/- as stipend per day.

Budget

S. No.	Particulars	Unit Cost (in Rs.)	No.	Budget
1.	Pulverising Machine	1,75,000	1	1,75,000
2.	Autoclave – sterilising machine	35,000	1	35,000
3.	Peddle Sealing Machine	9,000	2	18,000
4.	Hand Sealing Machine	1,500	2	1,500
5.	Electrical installations	15,000	1	15,000
6.	Cutting Machine	25,000	1	25,000
Total				2,69,500

The Production Process

A hygienically produced sanitary napkin must pass through various stages of production. Further, ensuring the hygienic processing is equally important. The following diagram shows the production process:



Product details (Raw materials, etc)

Pulverised wooden pulp	:	Rs. 0.30
Non-woven fabric	:	Rs. 0.19
Polypropylene	:	Rs. 0.02
Super bond gum	:	Rs. 0.03
Relieving sticker	:	Rs. 0.02
Electricity	:	Rs. 0.02
Labour	:	Rs. 0.45
	=	Rs. 1.03 per pad

Production capacity

- Production capacity : 4500 pads/per day
- Current production : 1500 pads/per day (single shift – 8 hrs)

Marketing

- District Supply and Marketing Society (DSMS) arranges for external marketing – supplied to local clinics, other district DSMS, etc.
- Napkins are sold among peer SHG members through internal marketing.
- Napkins distributed through PLF, & BLFs during monthly meetings.
- District.

Employment Generation

At least 13-15 SHG members could be employed in a Sanitary Napkin unit during single shift of production.

Hence, at peak production, in all three shifts at least 40-45 labour could be employed. Further, at least 4000 (310 x 13) man days are generated through this sanitary napkin unit. This is in fact an achievement compared to what these rural women got earlier. Most were unemployed or only a few were self-employed (seasonal employments/selling vegetables, wire bag, etc).

Income Generation

The women SHG members engaged in Sanitary Napkin get at least Rs.75/- per day so that they earn descent monthly income of Rs.1800/- (approximately). Now, income is much higher than their expectations (earlier only a few were employed and got between Rs.400/- to Rs.500/- a month).

Social Impact

1. Adoption hygienic practices (usage of modern napkin all because of availability of low-cost sanitary napkins).
2. Increased confidence and self-esteem among adolescent girls.
3. Improvement in personal hygiene and health status.
4. Fall in girl child dropout in middle school (the schoolgoing adolescent girls reportedly drop out from schools due to inconvenience during the menstruation period).

Annexure 1:

Total Sanitation Campaign (TSC)

Department of Drinking Water Supply, Ministry of Rural Development Govt. of India

Year-wise achievements of Physical Components

Sr		2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	Total
1	ANDHRA PRADESH							
1	IHHL BPL	38500	73474	2155607	342336	531955	253843	3395715
2	IHHL APL	0	0	880	32585	419249	119823	572537
3	TOTAL IHHL (BPL+APL)	38500	73474	2156487	374921	951204	373666	3968252
4	Women Sanitation	0	0	10	12	325	77	424
5	School Toilets	2372	1999	24515	8729	1969	169	39753
6	Balwadi Toilets	0	300	227	7	2	7	543
2	ARUNACHAL PRADESH							
1	IHHL BPL	106	0	5240	2393	7199	0	14938
2	IHHL APL	0	0	0	0	1129	0	1129
3	TOTAL IHHL (BPL+APL)	106	0	5240	2393	8328	0	16067
4	Women Sanitation	0	0	0	0	0	0	0
5	School Toilets	58	6	256	52	1081	1	1454
6	Balwadi Toilets	0	0	10	3	215	0	228
3	ASSAM							
1	IHHL BPL	0	0	9958	29017	22970	4486	66431
2	IHHL APL	0	0	350	158	2573	1	3082
3	TOTAL IHHL (BPL+APL)	0	0	10308	29175	25543	4487	69513
4	Women Sanitation	0	0	0	0	0	0	0
5	School Toilets	0	0	75	27	100	2	204
6	Balwadi Toilets	0	0	0	0	6	0	6
4	BIHAR							
1	IHHL BPL	0	0	32973	50843	53203	12797	149816
2	IHHL APL	0	0	0	4245	5380	4471	14096
3	TOTAL IHHL (BPL+APL)	0	0	32973	55088	58583	17268	163912
4	Women Sanitation	0	0	198	84	140	0	422
5	School Toilets	0	0	380	76	3950	918	5324
6	Balwadi Toilets	0	0	0	0	37	0	37
5	GOA							
1	IHHL BPL	0	0	0	0	0	0	0
2	IHHL APL	0	0	0	0	0	0	0
3	TOTAL IHHL (BPL+APL)	0	0	0	0	0	0	0

4	Women Sanitation	0	0	0	0	0	0	0
5	School Toilets	0	0	0	0	0	48	48
6	Balwadi Toilets	0	0	0	0	0	8	8
6	GUJARAT							
1	IHHL BPL	2309	0	7	25674	162235	64534	254759
2	IHHL APL	0	0	0	29444	185470	96706	311620
3	TOTAL IHHL (BPL+APL)	2309	0	7	55118	347705	161240	566379
4	Women Sanitation	0	0	0	0	329	207	536
5	School Toilets	1509	114	293	223	9712	2624	14475
6	Balwadi Toilets	0	0	0	0	6720	1897	8617
7	HARYANA							
1	IHHL BPL	0	99	38530	85400	44525	39745	208299
2	IHHL APL	0	0	2426	10806	97616	60715	171563
3	TOTAL IHHL (BPL+APL)	0	99	40956	96206	142141	100460	379862
4	Women Sanitation	0	0	8	139	199	40	386
5	School Toilets	583	151	314	539	803	19	2409
6	Balwadi Toilets	0	0	0	1406	637	142	2185
8	HIMACHAL PRADESH							
1	IHHL BPL	13	20	41	198	1586	2806	4664
2	IHHL APL	0	0	0	98	3295	6345	9738
3	TOTAL IHHL (BPL+APL)	13	20	41	296	4881	9151	14402
4	Women Sanitation	21	2	13	8	0	0	44
5	School Toilets	56	18	189	121	59	111	554
6	Balwadi Toilets	0	0	2	0	0	0	2
9	JAMMU & KASHMIR							
1	IHHL BPL	0	0	623	1694	0	0	2317
2	IHHL APL	0	0	0	184	0	0	184
3	TOTAL IHHL (BPL+APL)	0	0	623	1878	0	0	2501
4	Women Sanitation	20	5	0	0	0	0	25
5	School Toilets	58	4	65	51	0	0	178
6	Balwadi Toilets	0	0	0	0	0	0	0
10	KARNATAKA							
1	IHHL BPL	0	13707	14404	3427	82969	106605	221112
2	IHHL APL	0	0	3350	23	138304	196157	337834
3	TOTAL IHHL (BPL+APL)	0	13707	17754	3450	221273	302762	558946
4	Women Sanitation	0	7	12	22	56	16	113

5	School Toilets	0	142	873	557	11259	4901	17732
6	Balwadi Toilets	0	0	12	19	8709	4492	13232
11	KERALA							
1	IHHL BPL	0	100867	108225	138982	130298	27349	505721
2	IHHL APL	0	0	6800	27450	23688	5744	63682
3	TOTAL IHHL (BPL+APL)	0	100867	115025	166432	153986	33093	569403
4	Women Sanitation	0	71	331	110	31	4	547
5	School Toilets	0	112	757	435	320	42	1666
6	Balwadi Toilets	0	0	15	476	291	21	803
12	MADHYA PRADESH							
1	IHHL BPL	1337	10034	43081	174176	272352	246939	747919
2	IHHL APL	0	0	186	99523	158450	100979	359138
3	TOTAL IHHL (BPL+APL)	1337	10034	43267	273699	430802	347918	1107057
4	Women Sanitation	1	5	59	81	167	69	382
5	School Toilets	3	891	5543	8572	13248	3984	32241
6	Balwadi Toilets	0	0	479	705	1326	320	2830
13	MAHARASHTRA							
1	IHHL BPL	0	60570	49587	89526	379613	105959	685255
2	IHHL APL	0	0	73786	266089	695464	206393	1241732
3	TOTAL IHHL (BPL+APL)	0	60570	123373	355615	1075077	312352	1926987
4	Women Sanitation	0	296	237	333	707	207	1780
5	School Toilets	131	3430	2051	6568	15195	2659	30034
6	Balwadi Toilets	0	1	1115	1722	9269	2487	14594
14	MANIPUR							
1	IHHL BPL	0	0	0	0	672	380	1052
2	IHHL APL	0	0	0	0	0	0	0
3	TOTAL IHHL (BPL+APL)	0	0	0	0	672	380	1052
4	Women Sanitation	0	0	0	0	9	1	10
5	School Toilets	0	0	0	0	72	38	110
6	Balwadi Toilets	0	0	0	0	0	0	0
15	MIZORAM							
1	IHHL BPL	0	0	0	0	0	6747	6747
2	IHHL APL	0	0	0	0	0	4000	4000
3	TOTAL IHHL (BPL+APL)	0	0	0	0	0	10747	10747
4	Women Sanitation	0	0	0	0	0	0	0
5	School Toilets	0	0	0	0	0	133	133
6	Balwadi Toilets	0	0	0	0	0	138	138

16	NAGALAND							
1	IHHL BPL	2450	0	24124	1827	0	0	28401
2	IHHL APL	0	0	0	0	0	0	0
3	TOTAL IHHL (BPL+APL)	2450	0	24124	1827	0	0	28401
4	Women Sanitation	0	0	65	6	0	0	71
5	School Toilets	13	0	271	6	1	0	291
6	Balwadi Toilets	0	0	34	0	0	0	34
17	ORISSA							
1	IHHL BPL	13332	44876	220780	217645	269023	96859	862515
2	IHHL APL	0	0	0	95479	29745	19039	144263
3	TOTAL IHHL (BPL+APL)	13332	44876	220780	313124	298768	115898	1006778
4	Women Sanitation	0	0	1	0	8	1	10
5	School Toilets	2	1582	3942	1781	3143	1403	11853
6	Balwadi Toilets	0	0	0	25	1072	1044	2141
18	PUNJAB							
1	IHHL BPL	6830	15263	2432	0	25	0	24550
2	IHHL APL	0	0	0	0	0	0	0
3	TOTAL IHHL (BPL+APL)	6830	15263	2432	0	25	0	24550
4	Women Sanitation	31	24	2	0	0	0	57
5	School Toilets	23	277	98	55	17	0	470
6	Balwadi Toilets	0	0	0	0	0	0	0
19	RAJASTHAN							
1	IHHL BPL	0	0	16372	63001	37090	13285	129748
2	IHHL APL	0	0	0	53551	70428	16887	140866
3	TOTAL IHHL (BPL+APL)	0	0	16372	116552	107518	30172	270614
4	Women Sanitation	0	0	9	8	72	23	112
5	School Toilets	0	0	2164	4245	4760	4287	15456
6	Balwadi Toilets	0	0	0	6	662	993	1661
20	SIKKIM							
1	IHHL BPL	435	700	3000	2575	16897	0	23607
2	IHHL APL	0	0	0	32246	14765	739	47750
3	TOTAL IHHL (BPL+APL)	435	700	3000	34821	31662	739	71357
4	Women Sanitation	88	16	16	46	56	39	261
5	School Toilets	249	306	173	49	718	0	1495
6	Balwadi Toilets	0	43	0	0	128	0	171
21	TAMIL NADU							
1	IHHL BPL	166239	14894	683312	524199	552547	43975	1985166

2	IHHL APL	0	0	791	280560	1754255	97258	2132864
3	TOTAL IHHL (BPL+APL)	166239	14894	684103	804759	2306802	141233	4118030
4	Women Sanitation	100	70	218	618	399	9	1414
5	School Toilets	2953	381	8401	6218	7411	622	25986
6	Balwadi Toilets	674	743	7613	6306	5402	265	21003
22	TRIPURA							
1	IHHL BPL	0	33825	208987	35639	83633	7227	369311
2	IHHL APL	0	0	37426	15741	18340	0	71507
3	TOTAL IHHL (BPL+APL)	0	33825	246413	51380	101973	7227	440818
4	Women Sanitation	0	2	4	16	110	7	139
5	School Toilets	0	233	497	754	969	89	2542
6	Balwadi Toilets	0	44	661	970	1870	134	3679
23	UTTAR PRADESH							
1	IHHL BPL	157241	0	477279	539848	1125388	134535	2434291
2	IHHL APL	0	0	0	489592	1227594	279293	1996479
3	TOTAL IHHL (BPL+APL)	157241	0	477279	1029440	2352982	413828	4430770
4	Women Sanitation	251	0	276	121	251	2	901
5	School Toilets	1603	0	3839	9442	10332	3108	28324
6	Balwadi Toilets	0	0	0	0	772	198	970
24	WEST BENGAL							
1	IHHL BPL	253208	293788	1656394	421562	483189	141946	3250087
2	IHHL APL	0	0	494355	302891	545421	268414	1611081
3	TOTAL IHHL (BPL+APL)	253208	293788	2150749	724453	1028610	410360	4861168
4	Women Sanitation	0	0	36	70	78	11	195
5	School Toilets	597	1551	10628	4327	5863	1384	24350
6	Balwadi Toilets	0	0	0	1	14	181	196
25	D & N HAVELI							
1	IHHL BPL	0	0	0	37	0	0	37
2	IHHL APL	0	0	0	0	0	0	0
3	TOTAL IHHL (BPL+APL)	0	0	0	37	0	0	37
4	Women Sanitation	0	0	0	1	0	0	1
5	School Toilets	0	0	0	0	0	0	0
6	Balwadi Toilets	0	0	0	0	0	0	0
26	PONDICHERRY							
1	IHHL BPL	0	0	900	0	0	0	900
2	IHHL APL	0	0	0	0	0	0	0
3	TOTAL IHHL (BPL+APL)	0	0	900	0	0	0	900

4	Women Sanitation	0	0	1	4	2	0	7
5	School Toilets	0	0	26	0	0	0	26
6	Balwadi Toilets	0	0	2	5	0	0	7
27	UTTARANCHAL							
1	IHHL BPL	10	0	767	24912	31997	9295	66981
2	IHHL APL	0	0	0	10603	25786	8500	44889
3	TOTAL IHHL (BPL+APL)	10	0	767	35515	57783	17795	111870
4	Women Sanitation	0	0	0	12	9	16	37
5	School Toilets	0	0	0	69	264	177	510
6	Balwadi Toilets	1	0	-1	0	33	51	84
28	CHHATTISGARH							
1	IHHL BPL	0	0	892	4283	20861	25914	51950
2	IHHL APL	0	0	0	42	3000	14341	17383
3	TOTAL IHHL (BPL+APL)	0	0	892	4325	23861	40255	69333
4	Women Sanitation	0	0	12	3	0	1	16
5	School Toilets	0	0	1098	586	369	659	2712
6	Balwadi Toilets	0	0	0	0	0	520	520
29	JHARKHAND							
1	IHHL BPL	0	13	8970	15741	59946	27629	112299
2	IHHL APL	0	0	0	1142	3148	1804	6094
3	TOTAL IHHL (BPL+APL)	0	13	8970	16883	63094	29433	118393
4	Women Sanitation	0	0	2	0	14	0	16
5	School Toilets	0	0	618	1362	1627	1336	4943
6	Balwadi Toilets	0	0	0	7	52	26	85

Ministry of Rural Development, NIC-Dept. of Drinking Water Supply

Annexure 2:
List of NGO Partners with contact details

Sr. No.	Name of the Person	Organisation name	Address	Office No.	Mobile	E-Mail ID
1	Mr. Devendra Singh	DHARTI GRAMOTHAN EVAM SAHABHAGI GRAMIN VIKAS SAMITI	M-625, Mayur Van,Near Housing Board colony, Morena - 476 001, Madhya Pradesh	07532-233471, 07532-233625	9425215714	dhartiorg@yahoo.com
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WaterAid – Water for All

WaterAid is an International NGO, established in 1981, in response to the United Nations declaration of the Water and Sanitation Decade, 1980–90, to enable better access of poor communities to adequate, safe water. WaterAid remains the UK's only major charity dedicated exclusively to the provision of safe domestic water, sanitation and hygiene education to the world's poorest people. WaterAid works in 15 countries across Asia and Africa, through local organisations and communities, helping them set up low cost, sustainable projects using appropriate technology that can be managed by the community itself. WaterAid also seeks to influence the water and sanitation policies of other key organisations, such as governments, to secure and protect the right of poor people to safe, affordable water and sanitation services.

WaterAid in India

WaterAid began working in India in the latter part of the 1980s with a few small projects and has since grown in strength and coverage. Today, WaterAid works in more than 10 states with three regional offices in Bhopal, Bhubaneshwar and Bangalore, in partnership with local NGOs and government departments and ministries that seek assistance in the specific areas of rural and urban water supply, sanitation and hygiene promotion. Community sustained improvement in drinking water and sanitation has been WaterAid's watchword in all its programmes.

Different models of community participation and management, of both rural and urban water supply and sanitation, alternate delivery mechanisms, school hygiene promotion programmes, water conservation and recharge measures have been demonstrated to the sector. These projects have a strong partnering component with state governments and departments and have proved to be the inspiration behind successful replications in other states. A vast array of publications, including training manuals for development workers, issue sheets and concept papers for advocacy initiatives and IEC material have been jointly developed with NGO partners and are in wide circulation.

WaterAid has participated in collaborative initiatives with the government and other agencies including the Water Supply and Sanitation Collaborative Council (WSSCC), the Water and Sanitation Programme (WSP) of the World Bank, UNICEF and DFID. Alliances are important for core programming concerns of rural and urban programming for water and sanitation, Integrated Water Resources Management and Networking with a range of government departments and government organisations, at the national and regional levels in India. WaterAid India is committed to making its own contribution to the MDG challenge and is open to exploring ways of partnering with all stakeholders for achieving water and sanitation for all.

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