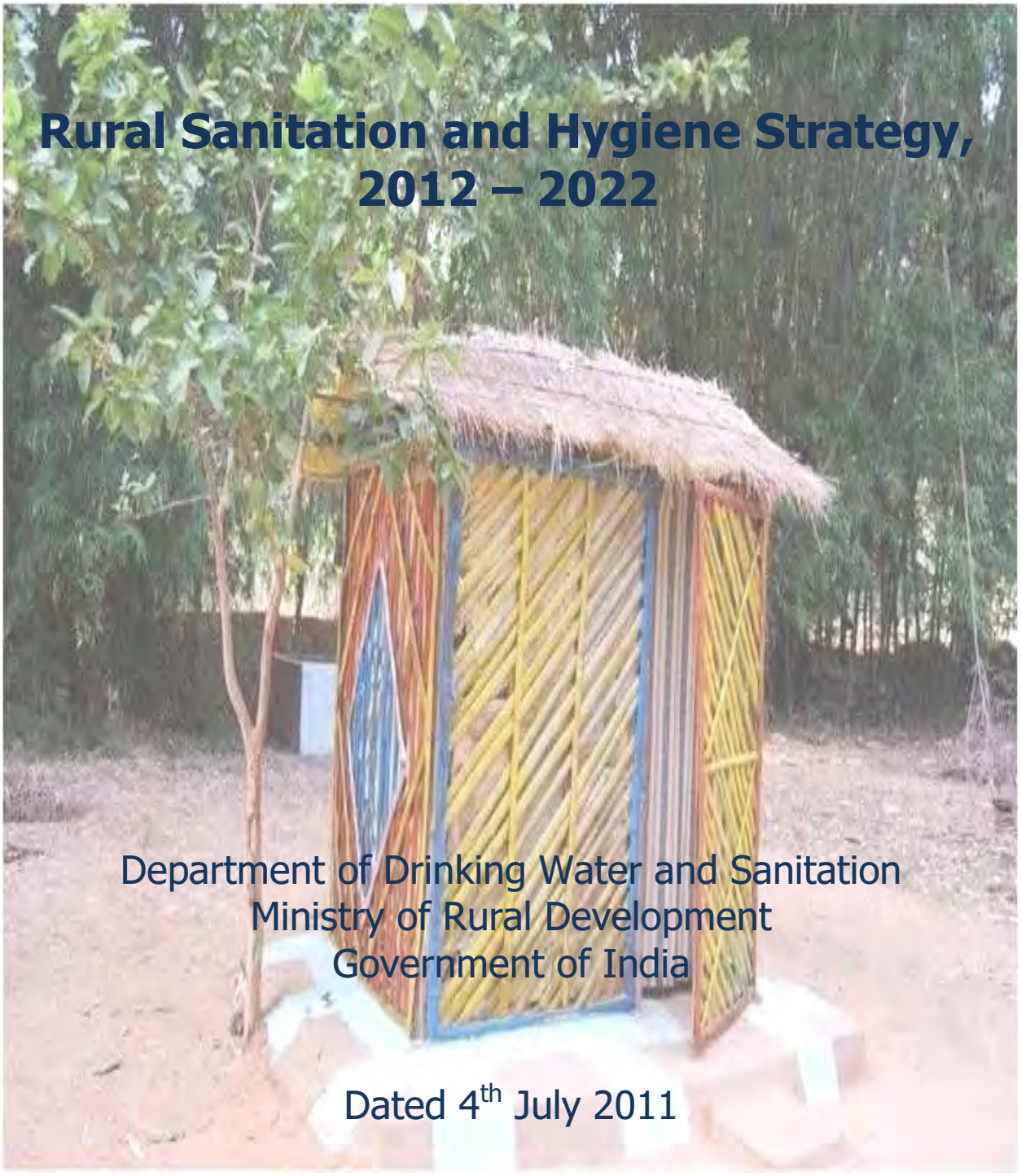
Rural Sanitation and Hygiene Strategy, 2012 – 2022

Towards Nirmal Bharat



Rural Sanitation and Hygiene Strategy, 2012 – 2022

Department of Drinking Water and Sanitation
Ministry of Rural Development
Government of India

Dated 4th July 2011

Introduction

This document presents the Rural Sanitation and Hygiene Strategy of the Department of Drinking Water and Sanitation for the period 2012 to 2022. The purpose of the Strategy is to provide a framework to realize the vision of *Nirmal Bharat,* an environment that is clean, healthy and contributes to the economic and social wellbeing of all rural citizens.

Towards Nirmal Bharat: Snapshot

Vision: A Nirmal Bharat

A *Nirmal Bharat* is the dream of a clean and healthy nation that thrives and contributes to the wellbeing of our people. To achieve this in rural areas, we are committed to:

- Completely eliminating the traditional habit of open defecation and making this a relic of the past
- Operationalizing systems for the safe management of solid and liquid waste at scale
- Promoting the adoption of improved hygiene behaviors
- Addressing inequalities in access with special attention to vulnerable groups such as women, children, aged and disabled
- Ensuring that providers have the capacity and resources to deliver services at scale
- Stimulating and enabling cooperation across public sector agencies concerned with rural development, health, environment and vulnerable sections
- Working with business, academic and voluntary partners to achieve the goals of the strategy

Goals

Our strategy has 3 goals:

- **Creation of Totally Sanitized Environments – By 2017:** The end of open defecation and achievement of a clean environment where human fecal waste is safely contained and disposed.
- **Adoption of Improved Hygiene Practices – By 2020:** All people in the rural areas, especially children and caregivers, adopt safe hygiene practices during all times.
- **Solid and Liquid Waste Management – By 2022:** Effective management of solid and liquid waste such that the village environment is kept clean at all times.

CONTENTS

Introduction 2

CHAPTER 1: STRATEGY 6

1.1 Aspiration 6

1.2 Vision: A Nirmal Bharat 6

1.3 Goals 7

CHAPTER 2: STATUS OF RURAL SANITATION 9

2.1 The Sanitation Impacts 9

2.2 Evolution of Policy Framework for Rural Sanitation 10

2.3 Efforts of Government of India in Strengthening the Campaign 11

2.4 Current Status of Sanitation Coverage and Trends 14

2.5 Impact of Total Sanitation Campaign 17

2.6 Profile of rural sanitation 18

CHAPTER 3: CHALLANGES FACING THE SECTOR 20

3.1 Scaling up to meet the population challenge 20

3.2 Sustaining Behaviour Change 20

3.3 Handling disused/misused sanitation facilities 23

3.4 Poverty continues to be a curse 24

3.5 Moving Beyond ODF: Integrating Sanitation and Hygiene 24

3.6 Strengths and Weaknesses 26

CHAPTER 4: LESSONS LEARNT 29

4.1 Role of Enabling Environment 29

4.2 Role of Institutions 31

4.3 Role of Information 33

4.4 Role of Incentives 34

CHAPTER 5: EMERGING PRIORITY AREAS 36

5.1 Collective Action to Change Social Norms 36

5.2 Panchayati Raj Institutions take the lead 37

5.3 Incentives to Achieve Outcomes and Sustainability 38

5.4 National Communication strategy 38

5.5 Covering left out areas 38

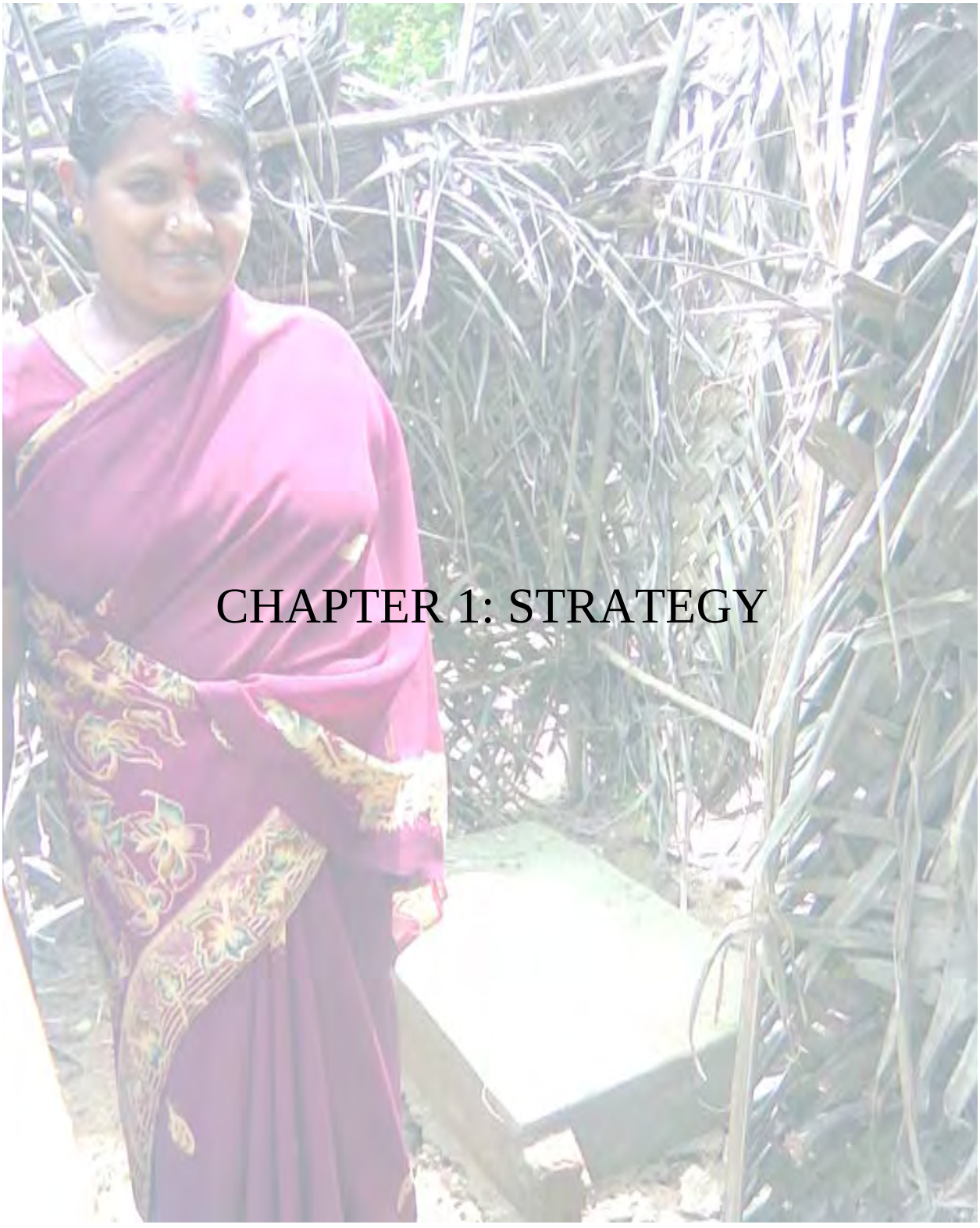
5.6 Sanitation coverage for floating population 39

5.7 Incentivizing weaker communities 39

5.8 Prioritize management of solid liquid waste 39

5.9 Increased focus and emphasis on usage 40

5.10 Promoting technical options 40
5.11 Convergence 40
5.12 Impact assessments and monitoring 41
CHAPTER 6: KEY PRIORITY AREAS 43
6.1 Institutional Structure and Capacity 43
6.2 Approach to Demand Creation 51
6.3 Technology Options 57
6.4 Supply chain 60
6.5 Convergence 65
6.6 Financing 66
6.7 Monitoring 68
6.8 Sustainability 69
6.9 Incentives 70
Chapter 7: IMPLEMENTATION PLAN AND WAY FORWARD 72
7.1 Phasing 72
7.2 Communication Strategy 73
7.3 Incentives 76
7.4 Institutional Sanitation Facilities 76
7.5 Solid and Liquid Waste Management 77
7.6 Sustainability 78
7.7 Adoption of improved hygiene practices 78
7.8 Impact Assessment 79
7.9 Monitoring Sanitation 81
CHAPTER 8: BUDGET AND FINANCING 85



CHAPTER 1: STRATEGY

CHAPTER 1: STRATEGY

1.1 Aspiration

"The day everyone of us gets a toilet to use, I shall know that our country has reached the pinnacle of progress."

— Jawaharlal Nehru

As we come to the close of the first decade of the new millennium, India can look to the future with optimism. A young nation with a vibrant democracy, our country now ranks as the fourth largest economy in terms of purchasing power parity. Yet, this picture of prosperity also conceals vast contrasts. Where India has a growing economy with annual growth rates among the highest in the world, more than 300 million Indians live below the official poverty line. Many of these lack improved sanitation facilities as well.

To achieve our promise as a nation, the transformation we need is not just an economic one but one that changes mindsets. Instead of being locked into traditional behaviors and habits that unquestioningly accept open defecation as a norm, we need a new way of thinking that sees even one person practicing open defecation as unacceptable. From this perspective, a clean and healthy environment is a public good and one that each one of us has a responsibility to preserve. Tapping into the desire to be seen at the forefront of global economic movers, the aspiration of this strategy is to ignite this change in mindsets such that the fruits of development are shared by many rather than the few. It is this transformation that will lay the foundation of our sustained development and lend credence to our claim to be counted as a global leader.

1.2 Vision: A Nirmal Bharat

A *Nirmal Bharat* is the dream of a clean and healthy nation that thrives and contributes to the wellbeing of our people. To achieve this in rural areas, we are committed to:

- Completely eliminating the traditional habit of open defecation and making this a relic of the past where dignity and worth of every human being is respected and quality of life is improved
- Operationalizing systems for the safe management of solid and liquid waste at scale
- Promoting the adoption of improved hygiene behaviors
- Addressing inequalities in access with special attention to vulnerable groups such as women, children, aged and disabled
- Ensuring that providers have the capacity and resources to deliver services at scale

- Stimulating and enabling cooperation across public sector agencies concerned with rural development, health, environment and vulnerable sections
- Working with business, academic and voluntary partners to achieve the goals of the strategy

1.3 Goals

The three specific goals of this strategy are as follows:

Goal 1: Creation of Totally Sanitized Environments - The end of open defecation and achievement of a clean environment where human fecal waste is safely contained.

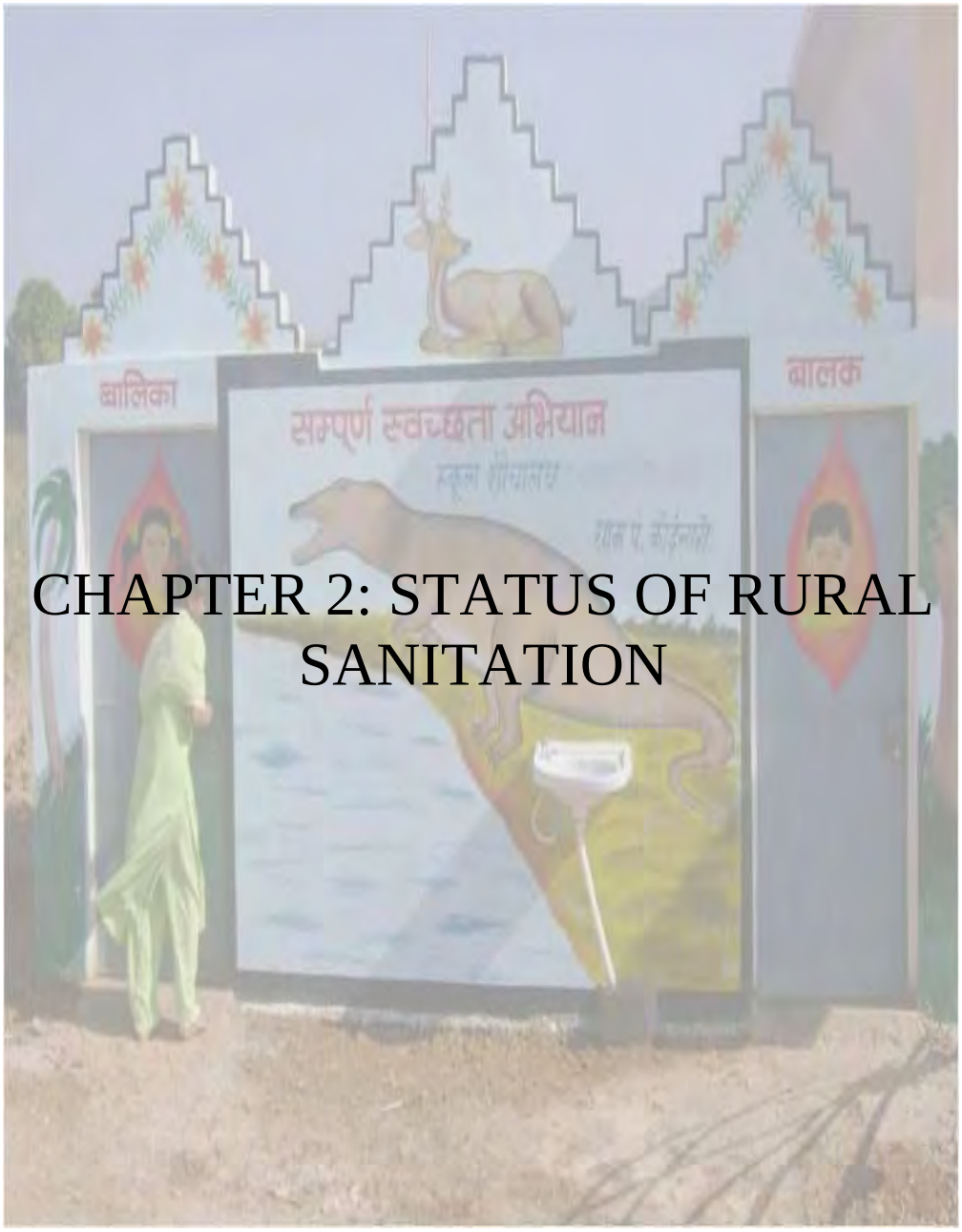
By 2015	• Access to safe sanitation by all rural households through individual or community toilets • Access to safe sanitation facilities at all government buildings in rural areas
By 2017	• Usage of safe sanitation facilities by all the population in rural areas. • Access to safe sanitation at public places e.g. markets, bus stand, religious/tourist sites in rural India • Operation and maintenance of facilities including emptying of pits/tanks and re-use or safe disposal of waste and maintenance of institutional toilets

Goal 2: Adoption of Improved Hygiene Behavior - All people in the rural areas, especially children and caregivers, adopt safe hygiene practices during all times.

By 2020	• Hand-washing at critical times
By 2022	• Hygienic handling of drinking water and food

Goal 3: Management of Solid and Liquid Waste - Effective management of solid and liquid waste such that the village environment is kept clean at all times.

By 2022	• Management of all solid waste generated in the village – biodegradable and non biodegradable • Management of all grey water generated in the village • General cleanliness of the village

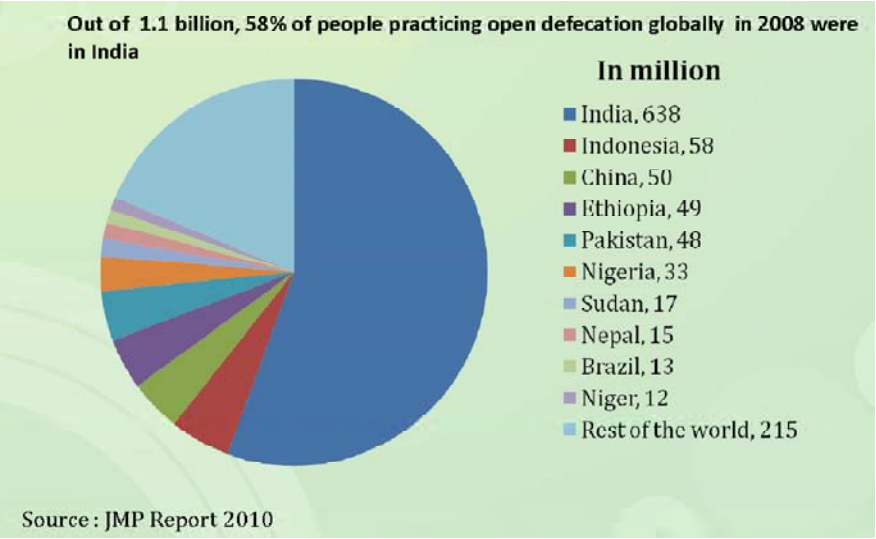


CHAPTER 2: STATUS OF RURAL SANITATION

CHAPTER 2: STATUS OF RURAL SANITATION

The Indian economy has been growing rapidly and the 10th Plan (2002-2007) clocked the highest growth rate (7.2%) of any plan period to date[1]. The paradox is that while India is now in the front ranks of fast-growing emerging economies, it is also one of the countries wherein a lot of efforts are still required to eliminate the practice of open defecation (see Fig 1). In rural areas, open defecation though reduced in scale continues to be a socially and culturally accepted traditional behavior at large. Lack of priority to safe confinement and disposal of human excreta poses significant health risks manifest in the sanitation challenge facing the nation today.

Fig 1: Open Defecation by Country (Urban+Rural) as of year 2008



2.1 The Sanitation Impacts

Diseases linked to poor sanitation and hygiene lead to substantial loss of life and potential. It is estimated that one in every ten deaths in India is linked to poor sanitation and hygiene. Diarrhea, a preventable disease, is the largest killer and accounts for every twentieth death. Around 450,000 deaths were linked to diarrhea alone in 2006, of which 88% were deaths of children below five (WSP Economics of

[1] Planning Commission (2006) *Towards Faster and More Inclusive Growth: An Approach to the 11th Five Year Plan (2007-12)*

Sanitation Initiative 2010). Prevalence of child under-nutrition in India (47 per cent according to National Family Health Survey III, 2005-06) is among the highest in the world.

Studies (UNICEF, 2009; Dillingham and Guerrant, 2004) have shown the impact of diseases caused by poor sanitation among children to their cognitive development. Due to the decreasing immunity suffered by the children in their early years as a result of sanitation linked diseases, the development of cognition is found to be significantly hampered, resulting in a lifelong impact on their development.

Studies (IRC 2009a; UN Water 2008; Wash in Schools, undated) have also shown that the education of children, especially the girl child, is also significantly impacted by poor sanitation. Frequent bouts of illnesses among children leads to their missing school for significant number of days. Elder children have to stay at home to take care of their sick siblings, again leading to loss of attendance. Girls are often forced to miss school or even drop out of education due to lack of sanitation facilities in their schools.

Another impact of poor sanitation and the resultant illnesses is the loss of productivity of the family members. The adult members of households have to either forego going for productive labor, or become weak to fully realize their productive potential or have to stay home away from work to take care of sick members of the household. This leads to loss of wages, which leads to them getting trapped in the vicious cycle of poverty.

It is also known that lack of adequate sanitation leads to significant losses for the country. As per a recent study carried out by Water and sanitation Program (WSP), if the economic losses linked to poor sanitation are monetized, the results are staggering. The adverse economic impacts of inadequate sanitation in India as reported in the study based on published details like sanitation coverage, child mortality etc as of the year 2006 is of the order of Rs. 2.4 Lakh crore (US$ 53.8billion), or Rs. 2,180 (US$ 48) per person. This works out to 6.4% of Gross Domestic Product (WSP Economics of Sanitation Initiative 2010). While the country has come a long way since then and all these indices stands improved to a great extent, the linkage between inadequate sanitation coverage and economic loss is of extreme significance.

2.2 Evolution of Policy Framework for Rural Sanitation

The responsibility for provision of sanitation facilities in India is decentralised and primarily rests with local government bodies – Gram Panchayat in rural areas and municipalities or corporations in urban areas. The state and central governments have a facilitating role that takes the form of framing enabling policies/guidelines, providing financial and capacity-building support and monitoring progress. In the central government, the Planning Commission, through Five Year Plans, guides investment in the sector by allocating funding for strategic priorities.

Pre-1986: Ad hoc Investments through Five Year Plans

Rural sanitation did not feature on the investment horizon during the first five plan periods as reflected in its negligible funding share. However, it received prominence from the Sixth Plan (1980-85) onwards amid the launch of the International Drinking Water Supply and Sanitation Decade in 1980. In addition, responsibility for rural sanitation at the central level was also shifted from the Central Public Health and Environmental Engineering Organisation to the Rural Development Department.

Conventional Approach: Central Rural Sanitation Programme (1986-99)

In 1986, the Rural Development Department initiated India's first national programme on rural sanitation, the Central Rural Sanitation Programme (CRSP). The CRSP interpreted sanitation as construction of household toilets, and focused on the promotion of pour-flush toilets through hardware subsidies to generate demand. The key issue of motivating behaviour change to end open defecation and use of toilets was not addressed. As a result the programme in the supply driven mode had limited intervention in improving rural sanitation coverage. Although more than Rs. 660 crore were invested and over 90 lakh latrines constructed, rural sanitation could grow at just 1 percent annually throughout the 1990s and the Census of 2001 found that only 22 percent of rural households had access to toilets vis-a-vis a rural sanitation coverage of 1% as of the year 1981.

2.3 Efforts of Government of India in Strengthening the Campaign

In light of the relatively limited intervention of the CRSP in improving the rural sanitation coverage, the Government of India restructured the programme, leading to the launch of the Total Sanitation Campaign (TSC) in the year 1999. A key learning that formed the basis of TSC design was that toilet construction does not automatically translate into toilet usage, and people must be motivated to end open defecation if rural sanitation outcomes are to be achieved. A second key learning was the recognition of the 'public good' dimensions of safe sanitation and the realisation that health outcomes will not be achieved unless

the entire community adopts safe sanitation. Accordingly, the TSC introduced the concept of a "**demand-driven, community-led approach to total sanitation**" (DDWS 1999). This was further strengthened with the introduction of the NGP in the year 2003, which incentivised the achievement of collective outcomes in terms of 100 percent achievement of total sanitation by a Panchayati Raj Institution (PRI).

Key features of the TSC include:

- A community-led approach with focus on collective achievement of total sanitation;
- Focus on Information, Education and Communication (IEC) to mobilise and motivate communities towards safe sanitation;
- Minimum capital incentives to be disbursed post construction and usage;
- Provision of revolving funds
- Flexible menu of technology options;
- Development of a supply chain through alternate delivery mechanism to meet the demand stimulated at the community level;
- Priority to School (and anganwadi) Sanitation and Hygiene Education (SSHE) and
- Community sanitary complexes for landless/public places
- Fiscal incentive in the form of a cash prize –NGP (Box 2).

Box 1: Nirmal Gram Puraskar

The Nirmal Gram Puraskar of the Government of India, introduced in 2003, is an innovative programme that offers fiscal incentives in the form of a cash prize to local governments that achieve 100 percent sanitation, that is, they are 100 percent open defecation free (ODF) and have tackled issues of solid and liquid waste management (SLWM). The amount of incentive is based on population as shown in Table 2.1.

Table 2.1: Population-linked Incentives *(All figures in Rs. 100,000)*

Particulars	**Gram Panchayat**					**Block**		**District**	
Population Criteria	Less than 1000	1000 to 1999	2000 to 4999	5000 to 9999	10000 and above	Up to 50000	50001 and above	Up to 10 lakh	Above 10 lakh
PRIs	0.50	1.00	2.00	4.00	5.00	10.00	20.00	30.00	50.00
Individuals	0.10					0.20		0.30	
Organisations other than PRI	0.20					0.35		0.50	

Providing post-achievement incentives is a significant shift from the upfront subsidy promoted by conventional rural sanitation programmes. The NGP has elicited a tremendous response with the number of GPs winning this award going up from a mere 40 in 2005 to over 22,000 to date. The NGP helps to raise the status of the winning Panchayat, and create peer pressure among neighbouring Pancahyats as well as tough competition at all tiers of the administration.

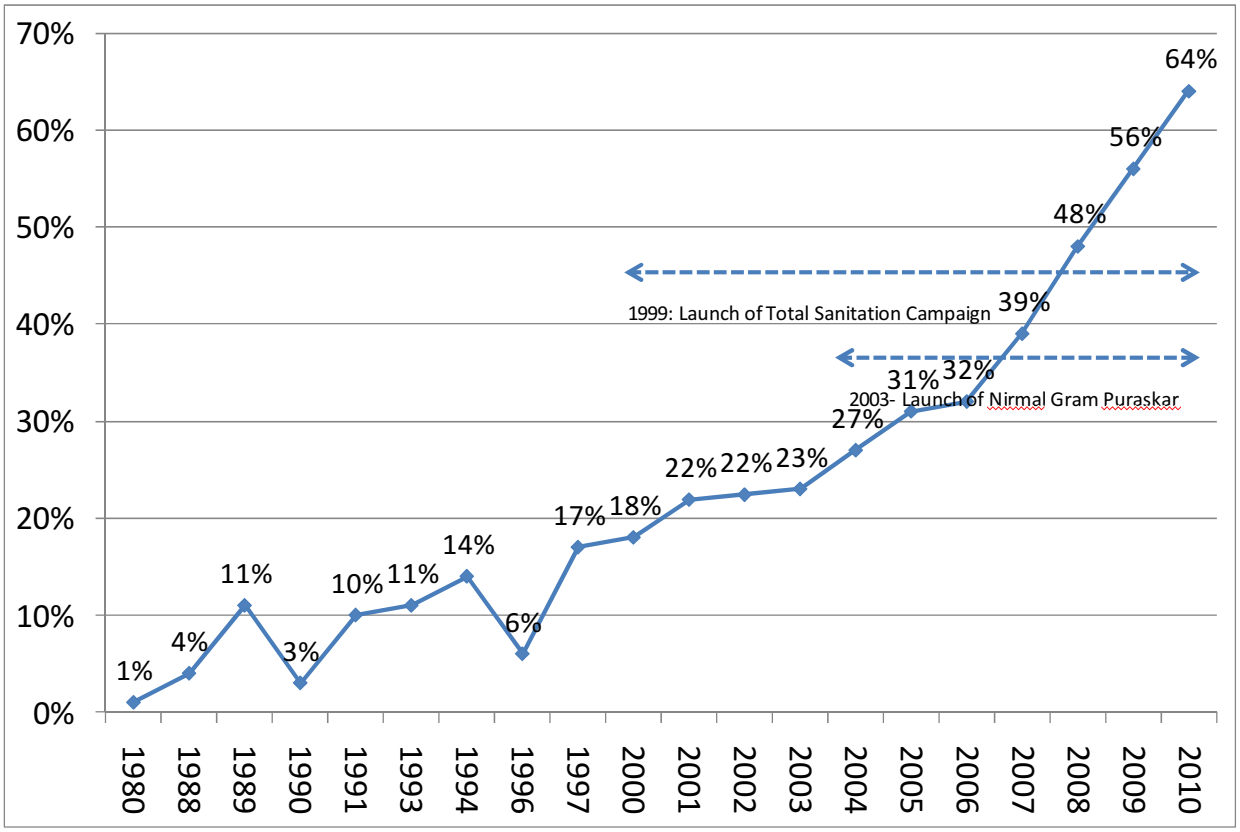
Source: Government of India, Department of Drinking Water and Sanitation <http://nirmalgrampuraskar.nic.in>

2.4 Current Status of Sanitation Coverage and Trends

National Level Sanitation Performance

After sluggish progress throughout the eighties and nineties, rural sanitation coverage received a fillip with the implementation of the TSC. As can be seen from Figure 3 below, individual household latrine coverage has nearly tripled from just 21.9% at national level as reported by the Census in 2001 to around 65% in 2010, according to the latest data reported by districts to the Department of Drinking Water and Sanitation through on line monitoring system. This translates to 35 crore of rural people gaining access to sanitation in the last decade.

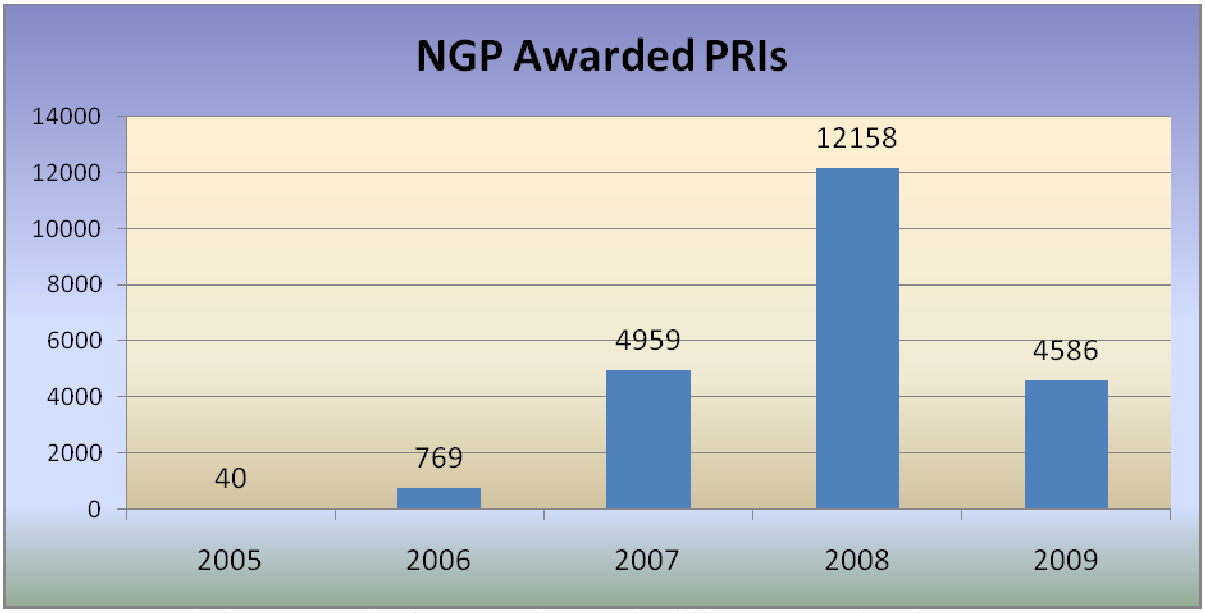
Fig 2: Rural Sanitation Coverage in India



Source: Government of India, Department of Drinking Water and sanitation http://ddws.nic.in. Accessed March 2010.

Since its launch, the NGP has been successful as a fiscal incentive to motivate scaling up of rural sanitation. The number of winners has gone up from approximately 40 in 2005 to 22,512 in 2009, as can be seen from Figure 4. The number of people who are living in 'Nirmal Grams' is well above 14 crore (18% of the total rural population).

Figure 3: NGP Winners (2005-09)

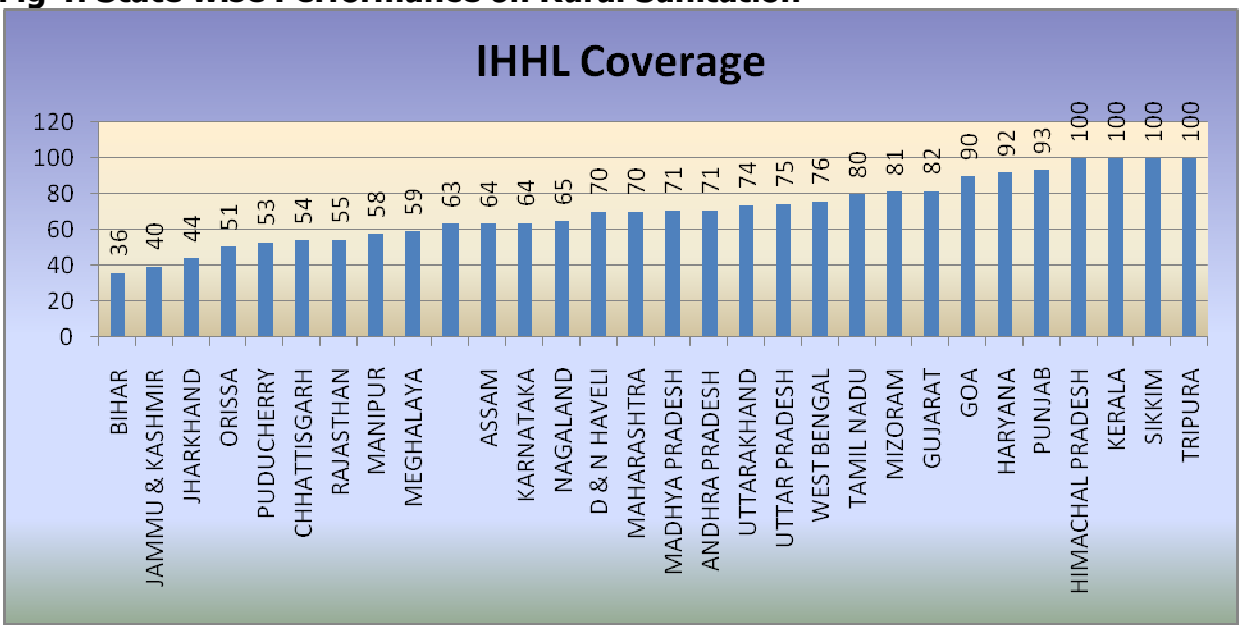


Source: Government of India, Department of Drinking Water and Sanitation http://ddws.nic.in. Accessed March 2010.

State Level Sanitation Performance

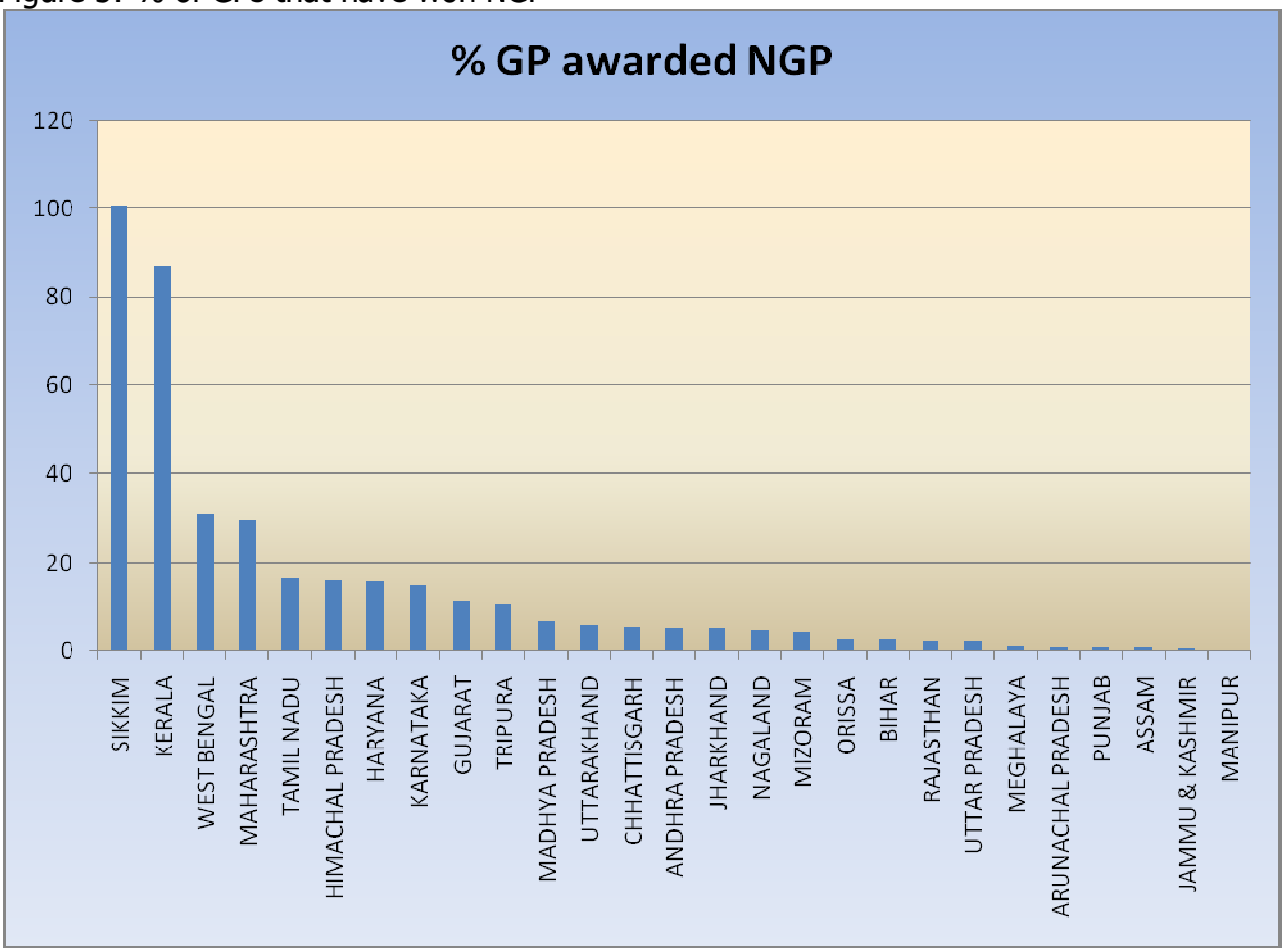
Despite the undeniable upward trend at the national level, these aggregated performance figures do not reflect disparities between and within states in terms of coverage on IHHL. The national level TSC monitoring system demonstrates this wide disparity. In terms of Individual Household Latrines (IHHL) coverage, whereas some states have achieved full coverage, some others could only achieve about 30%.

Fig 4: State wise Performance on Rural Sanitation



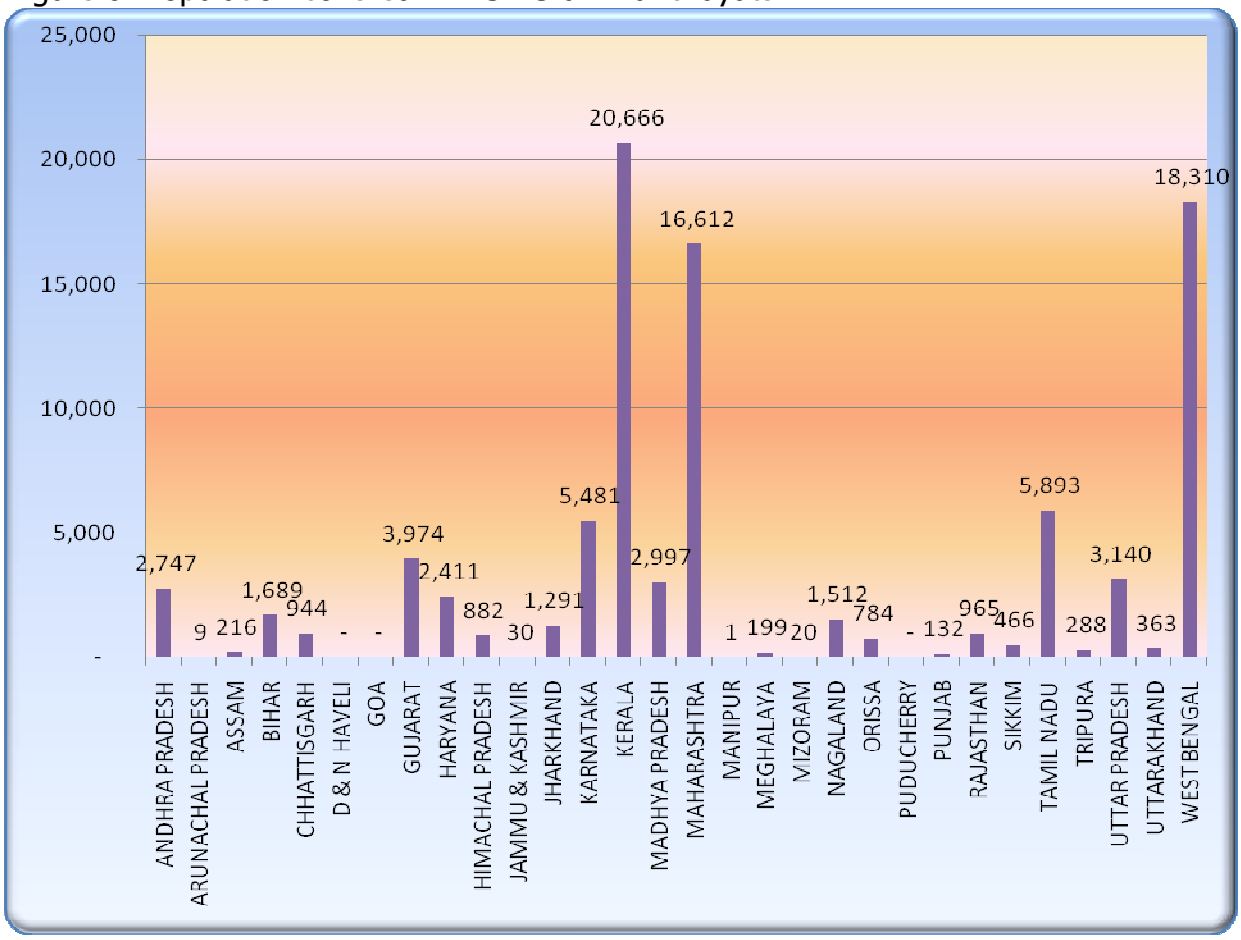
On the achievement of NGP GPs, while the State of Sikkim is already a Nirmal State, and other like Kerala are approaching Nirmal status, there are some States which have still to go a long way to attain Nirmal status.

Figure 5: % of GPs that have won NGP



In terms of achievement of NGP too, there has been significant variation among the states – this includes number of NGP won and the population that they cover.

Figure 6: Population covered in NGP Gram Panchayats



2.5 Impact of Total Sanitation Campaign

Increase in coverage

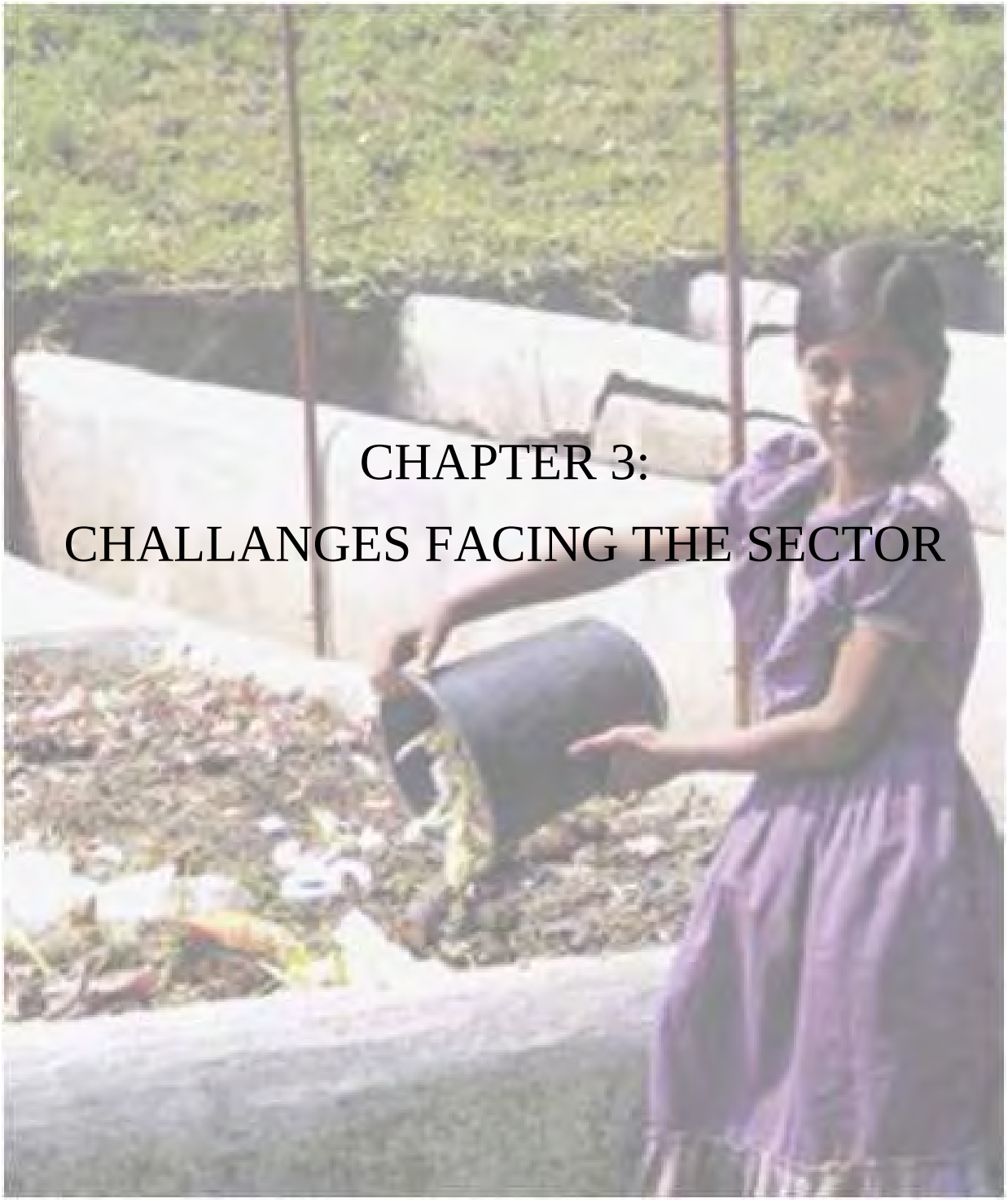
There has been an exponential increase in the coverage of households having access to a sanitation facility. In the course of about a decade (2001 to 2010), the sanitation coverage has tripled to reach 65%, which translates to an average of about 4.5% increase every year, compared to the 1% increase per year in the previous two decades. This has resulted in some of the states achieving 100% or close to that status in a short period of time. The increase in coverage is more in the second half of the decade with the introduction of NGP.

Increase in number of ‘Nirmal’ GPs

Recognizing that sanitation is a public good and health benefits are only achievable if the entire community becomes ODF, an outcome based incentive program, the Nirmal Gram Puraskar (NGP), was introduced by the Government of India. There has been a number of GPs which have worked together to achieve this status – more than 22,000 GPs have now been awarded the NGP.

2.6 Profile of rural sanitation

The profile of rural sanitation has been increasing over a period of time among political representatives, government servants, civil society and rural communities. The increasing allocation by the national government for sanitation over successive five year plans, the introduction of the NGP with incentives for outcomes given away by the President of India are some of the milestones for this.

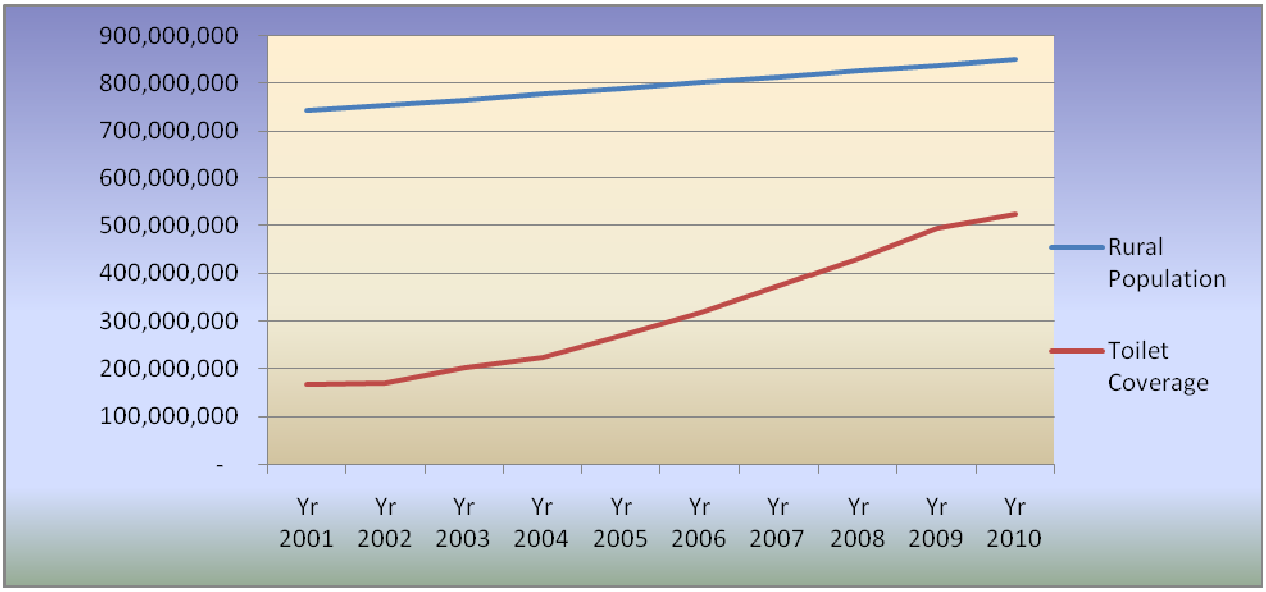


CHAPTER 3:
CHALLANGES FACING THE SECTOR

CHAPTER 3: CHALLANGES FACING THE SECTOR

3.1 Scaling up to meet the population challenge

Although the rural sanitation coverage has increased exponentially in the last decade, the real impact could not be appreciated due to increase in total number of rural households. The strategy therefore needs to take into consideration the impacts of population increase. The graph below shows the trend in sanitation coverage vis-à-vis population increase[2].



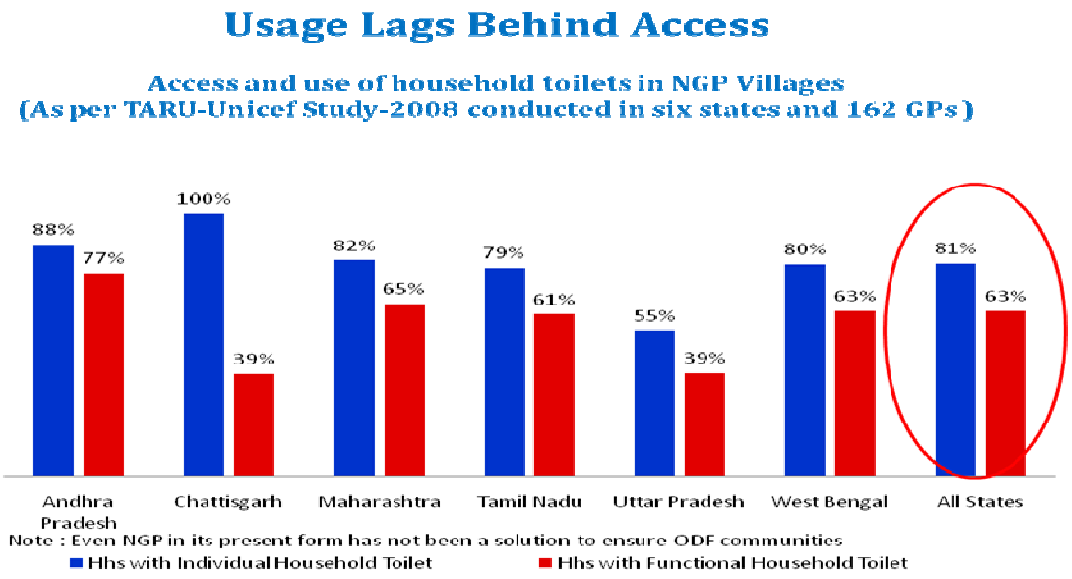
3.2 Sustaining Behaviour Change

A limitation noted while achieving sanitation coverage is that various Field studies have pointed to various levels of latrine usage depending upon the community awareness and also slippage in the status of NGP villages again varying from state to state due to

[2] Assumes a 21.9% coverage in 2001; 5 family members per household

Year	Yr 2001	Yr 2002	Yr 2003	Yr 2004	Yr 2005	Yr 2006	Yr 2007	Yr 2008	Yr 2009	Yr 2010
Rural Population	742,490,639	753,627,999	764,932,419	776,406,405	788,052,501	799,873,288	811,871,388	824,049,459	836,410,200	848,956,353
Toilet Coverage	166,541,341	169,523,241	200,208,291	223,119,706	268,976,741	317,405,191	375,043,091	431,286,671	493,681,091	524,638,171

non usage or linked to quality of the toilets constructed to accelerate the sanitation coverage in rural areas. For example, in *one such study undertaken by UNICEF in 2008, it was found that out of the 81% of the population having access to sanitation only 63% was using the facilities.*



The study also suggested that only 109 Gram Panchayats out of 162 GPs surveyed were having toilet usages more than 60%, i.e. the balance slipped back to the open defecation status.

TABLE (E.2) PROPORTION OF NGP AWARDED GPs REPORTING USAGE OF TOILETS

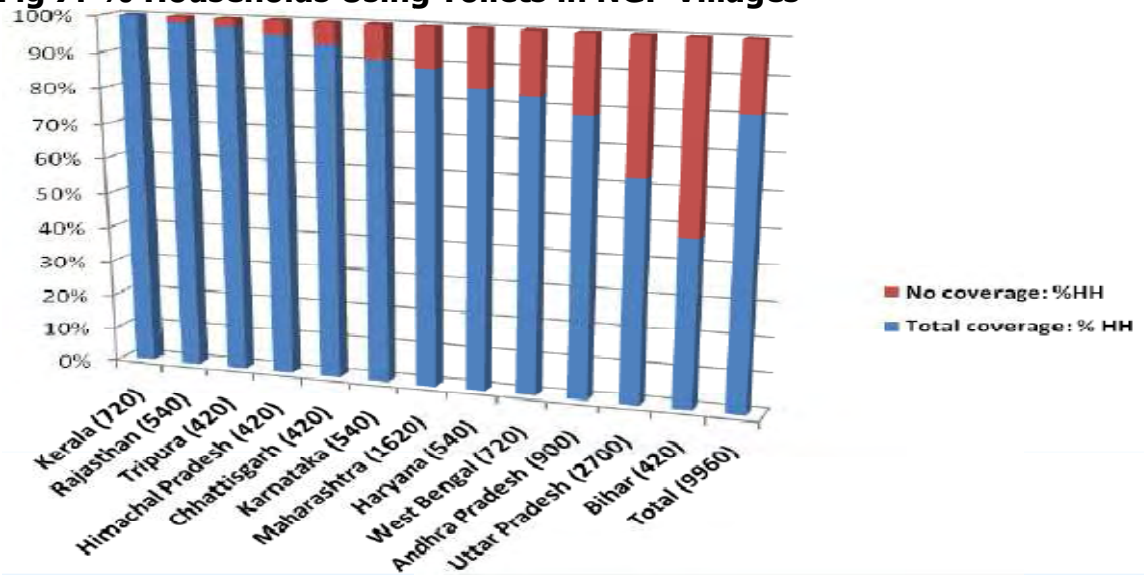
State	Proportion of People Using Toilet							Total
	None	< 20%	20% - 40%	40% - 60%	60% - 80%	> 80%	100%	
Andhra Pradesh				1	4	5		10
Chhattisgarh		1	5	4				10
Maharashtra		1	7	6	4	36	6	60
Tamil Nadu		2	5	9	6	11		33
Uttar Pradesh			1	6	7	1		15
West Bengal			2	3	18	11		34
Total		**4**	**20**	**29**	**39**	**64**	**6**	**162**

Source: TARU study

This is further corroborated by the top line results coming from a recent study with bigger samples undertaken by Government in India in 12 states, 56 districts and 664

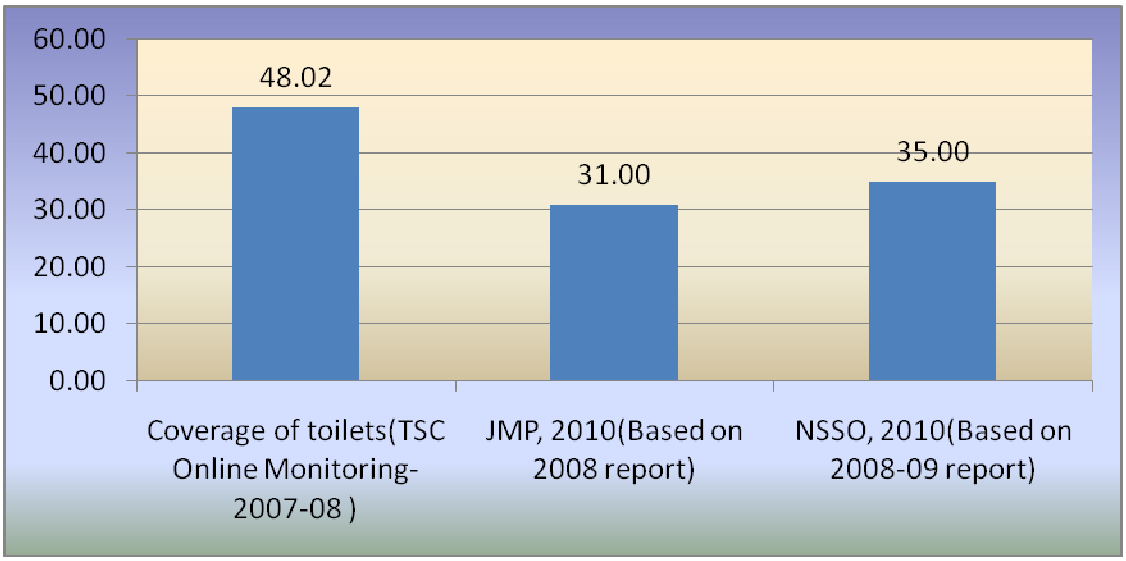
GPs, which found that toilet usage was less than 100% in some NGP villages (see Figure 7 below).

Fig 7: % Households Using Toilets in NGP Villages



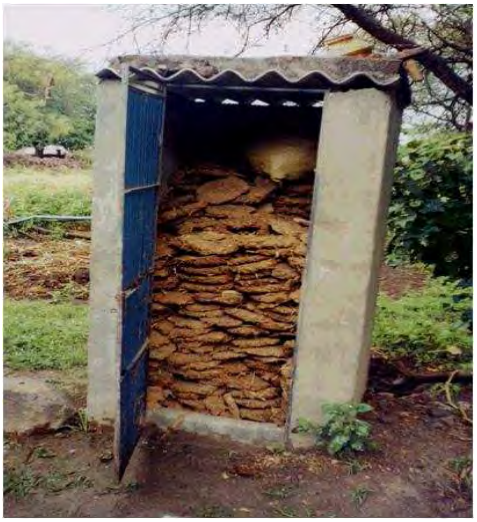
Source: Government of India (2010)

Third party monitoring like Joint Monitoring Program (JMP), the NSSO studies also point to the challenges of usage keeping pace with coverage.

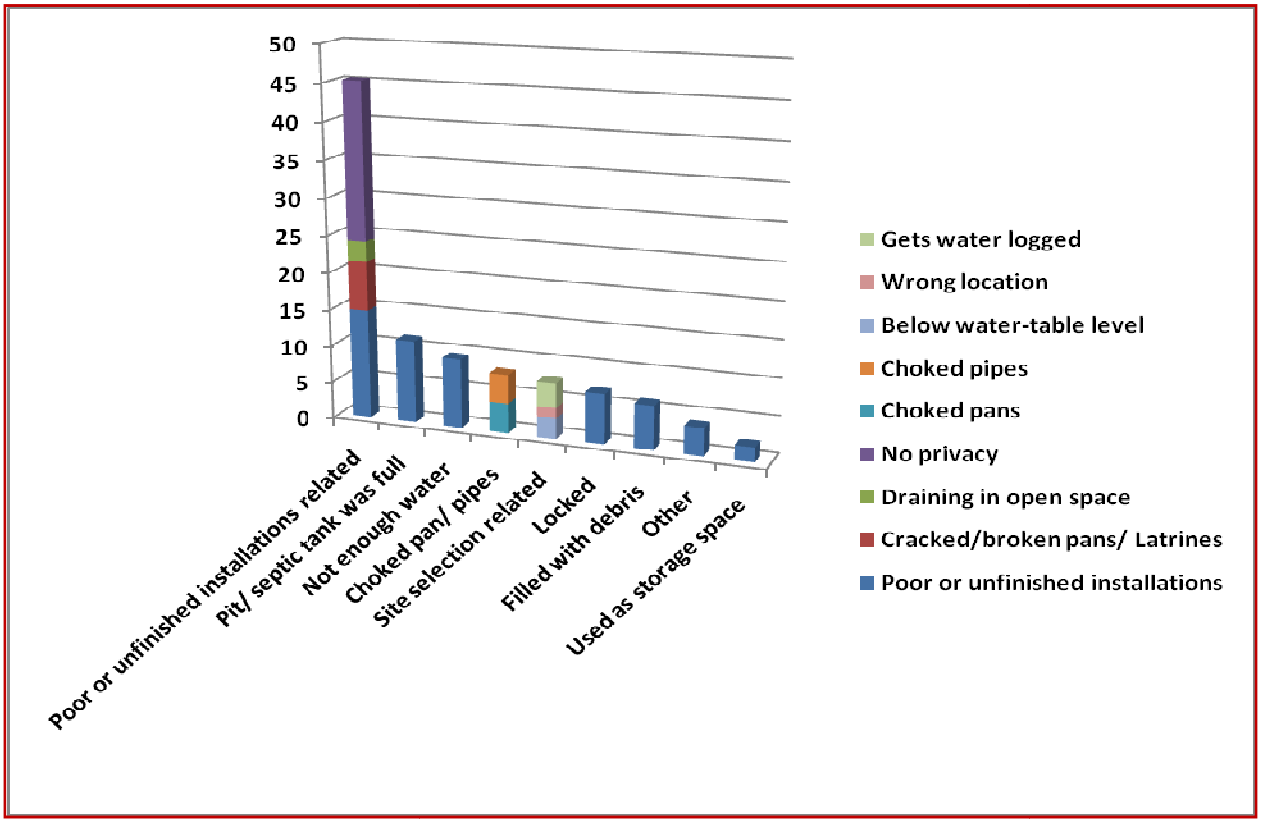


3.3 Handling disused/misused sanitation facilities

One of the important factors as emerging from various studies for lag between coverage and usages has been poor quality construction of sanitation facilities and dysfunctional toilets for reasons like pit/septic tank full, chocked pan/pipes, wrong location, filled with debris and used as storage space among others. The issue of water availability is one of the major concerns while dealing with water-seal toilets. This also got corroborated by the top line results coming from the study undertaken by Government in India.



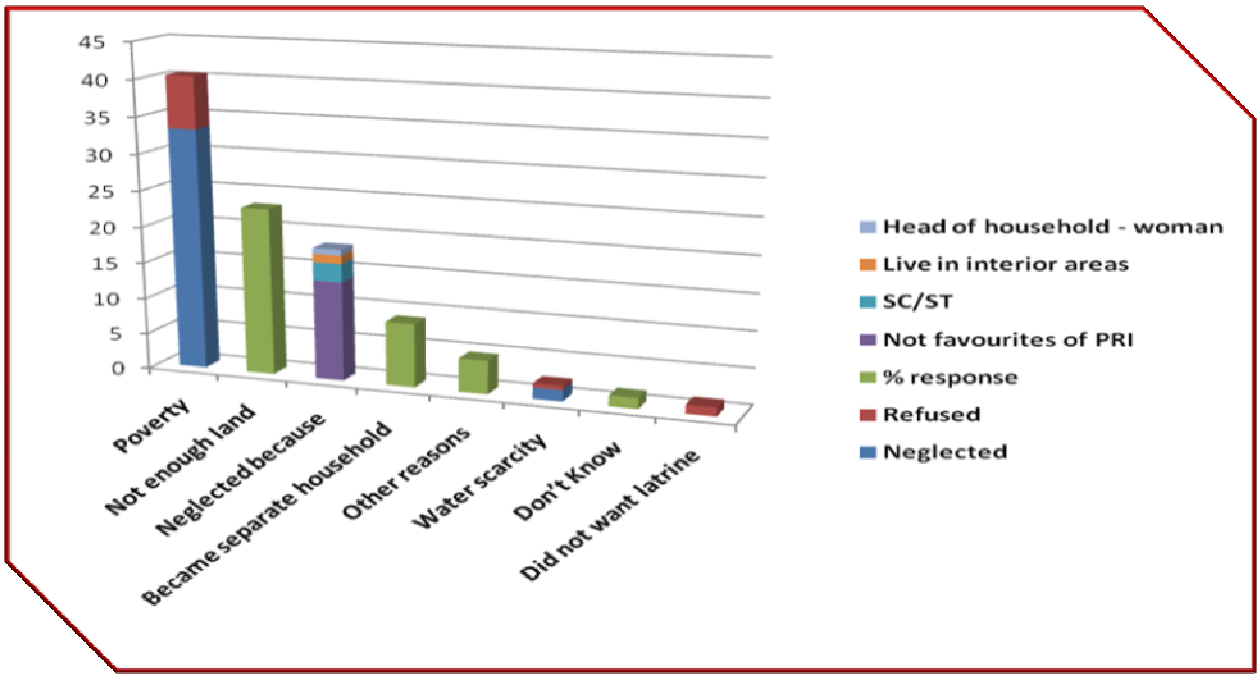
REASONS FOR DYSFUNCTIONAL TOILETS



Source: CMS Study, 2010

3.4 Poverty continues to be a curse

While the policy of Government of India under TSC has been to disburse incentives to the BPL households, considered the poorest in the rural areas, poverty continues to be a curse and a barrier for accelerating rural sanitation coverage. This gives an indication of continuing with the practice of incentives to the poor in recognition of their achievement to construct and use sanitation facilities with corrections as may be required to get the intended results. The CMS Study referred above identified some of the reasons for not having sanitation facilities as poverty, not enough land, neglected lot among others.



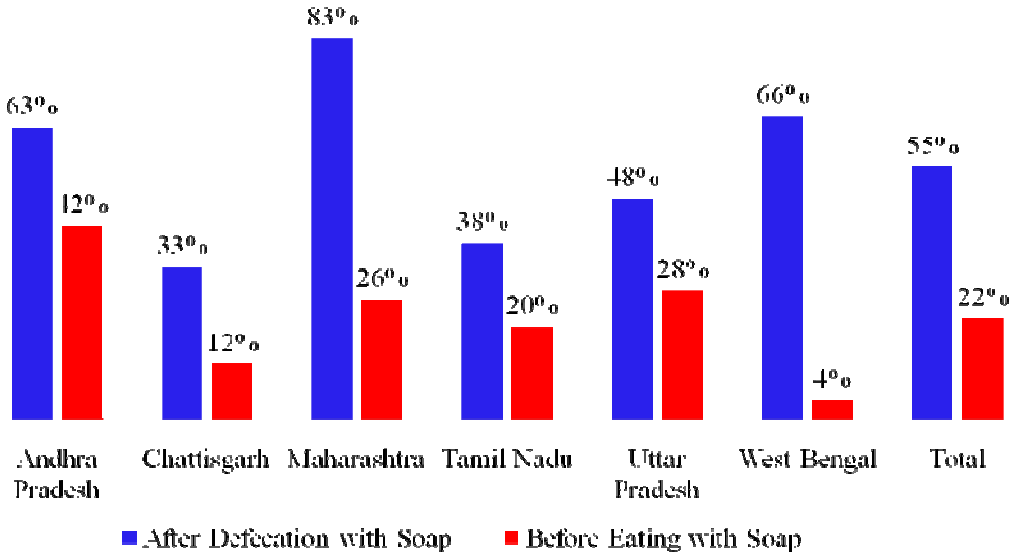
Source: CMS Study, 2010

3.5 Moving Beyond ODF: Integrating Sanitation and Hygiene

The focus of the TSC has been on sanitation in households, schools and institutions leading to the creation of ODF communities. Improved hygiene behaviour is included in the program guidelines but as a component of IEC and not as a specific behaviour change issue. In addition, the management of solid and liquid waste leading to environmental cleanliness is also a key component of the TSC, but has not relatively picked up till date in the campaign

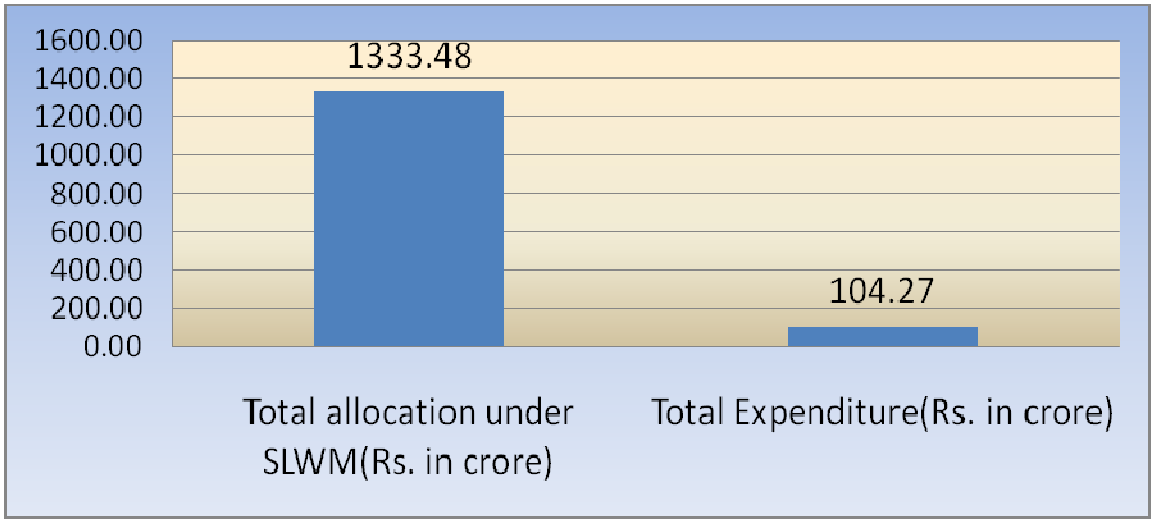
due to concentration on creating an ODF environment first. Figure 8 presents the results of a field study on hand-washing behavior at critical times, before eating and after defecation.

Fig 8: Hand-washing at Critical Times



Source: UNICEF (2008)

In SLWM, only about 0.5% of the total allocated expenditure has been spent till date



Going forward, a key issue for rural sanitation policy is to integrate improved hygiene and environmental sanitation into sanitation programs at scale.

3.6 Strengths and Weaknesses

An extensive consultation process underpins the development of this strategy. This has helped to identify the strengths and weaknesses of the TSC and earlier approaches, which are presented below as an analysis of Strengths, Weaknesses, Opportunities and Threats.

Box-2: TSC – Strengths, Weaknesses, Opportunities and Threats

Strengths

- Political and administrative will exists to tackle rural sanitation at the national level and in many of the states. Sanitation has been included as one of the key flagship programs of the Government of India.
- Financial resources mobilized to support rural sanitation. The total budget of the TSC is about Rs. 20,000 crores; in addition, the Nirmal Gram Puraskar has also been well funded to reward communities which reach outcomes.
- Guidelines stress lead role of Gram Panchayat and advocate for a community-led, demand-driven, participatory approach. The institutional structure for delivery and sustainability has promoted decentralization by empowering the local government institutions with other arms of the government and civil society acting as facilitators to the PRI institutions.
- Well developed private sector for supply of sanitary products. The private market network for the key sanitary products are available in the formal (pans, pipes, cement, etc.) or the informal (bricks, sand, etc.) sectors. This is often within reach in most parts of the country, usually at the nearest market of the village or the block headquarters. The markets also provide enough variety for different affordability brackets and aesthetic senses.
- The guidelines support creation of Alternate Delivery Mechanism through Rural Sanitary Marts and Production centres.
- TSC and NGP have established the role of post-achievement incentives to achieve outcomes, which has acted as a good motivation for local governments and communities to come together and reach sanitation outcomes. Incentives for an outcome for the whole community has also ensured that the poor and the disadvantaged are also included in the outcome achieved, thereby ensuring inclusion.

Weaknesses

- Lack of capacity to implement a demand-driven approach. The facilitating stakeholders at the state and district levels, usually the government functionaries, lack the attitude and skills to undertake a community-led approach to create demand. This results in incentives being used as subsidies and as the main driver to achieve toilet coverage, which often becomes unsustainable.
- Limited monitoring of toilet usage and quality, and health impacts – the coverage has become the dominant indicator for monitoring with usage data not being available on a regular real time basis (except for infrequent assessments such as the NLMs, Census, DLHS, NFHS which become outdated at times by the time released)
- Despite intended to play a key role, Gram Panchayat often used as agent to construct BPL toilets rather than achieve sustainable outcomes. Sanitation improvement was expected to be an important vehicle for strengthening of the Gram Panchayats, however, they have ended up as a conduit to building toilets and not acting as institutions of service delivery.
- Inadequate incentives to the beneficiaries because of rising construction costs of sanitation facilities.
- Incentives for BPL households can break community spirit and lead to neglect of APL and community-wide ODF status. Often the difference in income levels between the two levels of households are marginal; in addition, there exists a subsidy culture among the people, who expect the government to pay for all developmental activities. Having a provision for incentives (subsidy) for only one class leads to difficulties in building communities, so very required for achieving community level outcomes.
- Coordination with related departments like health, education, women and child welfare are necessary to receive the maximum benefits of sanitation, but this remains extremely weak at the implementation level due to communication gaps and tendency among the field functionaries not

to converge with others and implement their programme in isolation. The sanitation program therefore tends to become a scheme of the particular department implementing the campaign, rather than as a sectoral intervention where every department should have a stake. This has become more relevant in view of the fact that finances involved in the campaign are incomparable to some of the other flagship schemes of Government of India like MNREGA, NRDWP, PMGSY, NRHM, SSA etc.

- Inadequate focus on hygiene promotion and SLWM. The attention tends to be narrowly focused on construction of toilets, with the exclusion of its usage or on other habits like hygiene and handwashing, management of solid and liquid waste in the village. The full benefits of a sanitation program is, therefore, not available to the community.
- No provision in the guidelines for operation and maintenance of existing sanitation facilities for sustained sanitation
- Maintenance of community sanitary facilities is also an issue
- Institutional support to only Government schools and anganwadis
- IEC is decentralized and no central communication strategy to lead the campaign at the central level
- No rural sanitation policy in existence
- Non availability of sufficient committed workforce to work for sanitation

Opportunities

- Increased awareness among public representatives, PRIs, Women groups and government officials of the need for sanitation, understanding and desire among these stakeholders for the need for achieving community wide sanitation.
- Successful models in all states for scaling up, with each state having GPs which have become nirmal; in some states, blocks and districts have also become ODF and achieved Total Sanitation.
- Successful demonstration of Community-led approach in many states and situations, where the entire community is facilitated to analyze their sanitation status through participatory approaches to internalize the need for better sanitation, is linked to more sustainable outcomes

Threats

- Rate of population growth may outstrip the rate of increase in scaling up rural sanitation. The The rapid pace of the coverage in the rural areas, has limited impact due to the increase in the population.
- Social and cultural norms that accept open defecation as a traditional behavior in rural areas. In rural India, there is no shame attached to open defecation, this is practiced by both rich and poor, leaders and ordinary people, men and women. This is serious impediment to the people accepting that their behavior has to change; any change undertaken will not be sustainable in the long run, unless the social and cultural norm is changed.
- Change of behavior is a slow process and attempt to accelerate the sanitation coverage at times result in slipping back to open defecation after sometimes.
- There is no provision in the existing guidelines to provide funding for natural calamities. This may also result in slipping back to open defecation especially in flood prone areas where sanitation facilities get washed away or go bad after floods.

CHAPTER 4: LESSONS LEARNT

CHAPTER 4: LESSONS LEARNT

Drawing on the Regional Consultations that underpinned the development of this strategy, the key drivers of program successes are discussed below in the form of E3*i's*, namely, Enabling Environment, Institutions, Information and Incentives.

4.1 Role of Enabling Environment

In the context of rural sanitation, *enabling environment* is understood at two levels. Firstly, at the macro level it refers to mobilization of political and administrative will and creation of an environment to support program implementation. Secondly, at the grassroots level, it is the inclination generated towards behavior change in ending open defecation and achieving total sanitation.

At the macro level, TSC has been identified as a flagship social sector program for development of rural areas by the GoI (Planning Commission, Eleventh Plan). The strong buy-in for the program approach and goals at all levels of government is evidenced by the progressive increase in financial and other resources committed towards program implementation (from outside government also) and the up-scaling of project districts since 1999. Prioritization at the ministerial level has also been achieved at the national level, with it often taking precedence over rural water supply in attention and follow up. TSC has also received priority from Honorable President of India and Union Minister for Rural Development, who have graced the Nirmal Gram Puraskar awards ceremony and felicitated the winners in person.

At the state level, there has been varying degrees of attention and priority given to the TSC and NGP at the political and administrative levels. Some of the states have considered it as a high priority program, leading to a massive increase in levels of achievement, while in some of the other States, the program is not often on the radar. This has been one of the reasons for varying sanitation coverage across the states.

Another issue which has become critical in implementing TSC at the State level has been the nodal Department handling the implementation of the programme. It has been observed that the various Departments handling the implementation are

Department of Public Health Engineering, Department of Rural Development, and Department of Panchayati Raj, depending on the convenience of the State. The experience shows that the progress in States where the TSC is being implemented either through the Department of Panchayati Raj or the Department of Rural Development has been better than where TSC is being implemented by PHE. This obviously looks more logical in view of the fact that sanitation is more an issue social in nature than an engineering issue.

At the grassroots level, enabling environment is an inclination to change behavior to end open defecation and adopt safe sanitation. Further, safe sanitation becomes meaningful and effective only when an entire community adopts it because even if a few persons practice open defecation, all are exposed to sickness and disease. Recognizing that safe sanitation is a *habit* and not just constructing toilets, the TSC Guidelines explicitly support a demand-driven and participatory approach at community level. In addition, the TSC envisages that the key actor in changing the sanitation status of a community is the community itself, while the role of government and outsiders is to facilitate this process of transformation. This has been demonstrated by the increase in number of local governments (communities) which have attained NGP.

A Self-Help Group (SHG) is a small voluntary association of poor people preferably from the same socio-economic background. Provision of micro-credit to these groups makes them enterprising with greater bargaining power in the Society for fulfilling social objectives collectively. It has been the experience that women's groups perform better in all the important activities of SHGs. The component of revolving funds under the programme is currently being administered directly through the Government machineries without any exclusive support of manpower. As these funds are intended for extending credits at the grass root level to the needy households, the involvement of women SHGs will provide systematic administrative machinery at the grass-root level to manage the funds and would additionally empower the women for decision making in the society to support the cause of sanitation. The National Rural Livelihood Mission has a well defined coherent structure for formation and administration of SHGs. An option needed to be explored is to combine the incentive amount provided by the Government with a loan amount on soft terms to be routed through women SHGs created under the NRLM by canvassing and convergence with National Rural Livelihood Mission.

Local faith leaders in developing countries across the world are working with communities to tackle poverty issues at the community level, among them sanitation. The local faith leaders are found at the heart of a community, not only upholding beliefs, cultural values and social tradition but also as a force for positive change and development. They demonstrate a close integration in their communities at a grassroots level. They often have infrastructure available and flexibility in using it so that the community adapts to the new challenges. For many communities, the local faith leaders are more than just a meeting point. They are the very heart of the community. Thus, faith leaders are in a prime position to mobilize communities and work with them to

improve access to sanitation and affect behaviour change for better hygiene. By their very nature, faith leaders can most easily fulfill the role of messenger, demonstrator and implementer, depending on their knowledge and capacity. The faith leaders's long-term commitment in a community makes it ideal to act as a guardian for sustainability of projects. While a particular faith leader, or faith leaders-based organisation, may focus on one or more of these roles, they are often interconnected. For example, being a messenger for improvements in domestic hygiene and sanitation is often coupled with demonstrating the same. As the faith leaders are themselves part of the beneficiary community, its members understand the aspirations and mindsets of end-users, as well as their needs. The country also has examples of successful implementation of TSC through active involvement of faith leaders. The need therefore is to organise faith leaders as stakeholders to stimulate demand and maintain supply of sanitation improvements and facilities.

4.2 Role of Institutions

The current institutional arrangements demonstrate a holistic approach to sanitation service delivery and involve all administrative levels of the implementation chain, from centre to village. Experience with TSC implementation shows that having two kinds of institutions, one a policy decision making one and the other an operational one is important for effective delivery of the program. At the policy level, a functioning body such as the SWSM, DWSM undertakes the broad decisions regarding the policies (within the overall letter and spirit of the TSC guidelines) and implementation approach to be adopted by the district. At an operational level, *dedicated sanitation cell* within this holistic framework that is concerned specifically with and held accountable for implementation of sanitation initiatives can be very effective. This dedicated sanitation cell is found useful at all levels, from the national to the state, the district and the block levels. The functions of this sanitation cell may vary according to the levels at which they are placed – for e.g. at the state level, it may provide a facilitating role and undertake capacity building, communication activities, while at the district and block levels, the focus would be on actual implementation of the campaign at the GPs and monitoring them.

Support organizations such as NGOs, CBOs, etc. may also play a facilitating role to the government institutions in community mobilization and capacity building. Partnerships formed between these institutions and the government (national, state, district or block

levels) can be quite effective in combining the synergies to help reach the desired outcomes.

Sanitation is often a local issue that has to be addressed by the community residing in a particular habitation. The Gram Panchayat or local government is ideally placed to promote total sanitation due to their outreach and mandate (as per the 73rd amendment of the constitution and the relevant state decentralization laws, water and sanitation are primary responsibilities of the Gram Panchayat). In addition, Panchayats are in a good position to undertake or facilitate the long-term monitoring and support of rural sanitation services, as they are locally based and in close contact with the community. Experience shows that Panchayats' involvement, with support from and partnership with civil society organizations, accelerates scaling up and promotes sustainability. Most importantly, however, communities must be empowered to own the process of changing their sanitation status.

Commercial sanitary ware suppliers and masonary skill services can support this process by responding to demand for different types of technology products and toilet options at various affordability brackets. This may be through the private sector but this can also occur through local entrepreneurs, community groups, NGOs, Rural sanitary marts or cooperatives.

India has been emerging as one of the global forces in terms of industrial development. The corporate sector has emerged as leader of development. Of late, the concept of corporate citizenship has also gained momentum in the corporate world. Although sanitation has not been high on the agenda of corporate world in India, this is being suitably addressed in other developed countries. This can be taken as a ripe time to address the issue of sanitation to the corporate world and get the subject suitably inculcated in their CSR agenda. A convergence with the UN initiative, the Global Compact, particularly the Local Network in India can yield positive results in bringing together corporate houses for the cause of sanitation and help augment the activities of the Department in the adjoining rural areas of respective industrial belts. Getting sanitation on the agenda of CSR can also help bring in new technologies and innovations in this field leading not only to increase in sanitation facilities but also to better technologies in terms of management of Solid and Liquid Waste at both micro and macro levels. A positive interaction with the corporate houses can be initiated focusing TSC to influence the corporate world to suitably incorporate sanitation in their CSR policy.

4.3 Role of Information

TSC Guidelines advocate a departure from the traditional mode of implementing sanitation programs by focusing on behavior change rather than infrastructure. Communicating this approach across tiers and building the capacity of different actors involved in implementation is integral to the success of the program. To realize the full potential of this campaign, a key learning has been that instead of seeing IEC as a one-time activity, it cannot be considered complete until total coverage and usage are achieved and sustained. To facilitate IEC, GoI provides funding at state and district levels and has also identified reputed research and development institutions as Key Resource Centres to orient program managers in states and districts. In addition, the innovations introduced by TSC such as shift from a subsidy to a post achievement incentive regime can be scaled up based on demonstrated success on the ground through exposure visits, documentation (electronic, audio-visual and print) and exchanges at different levels e.g. a regional exchange like SACOSAN which the Department successfully hosted in year 2008 and has been actively participating in others hosted by member countries. At grassroots level, there are many approaches to mobilization but experience has suggested that conventional IEC approaches like posters, pamphlets, etc. have limited appeal and impact; the best way in terms of demonstrated impact has been found to be a holistic approach that empowers communities through participatory, visual methodologies, which enables their analysis of the situation and thereby, 'triggers' the minds of the community members to take informed decisions regarding their sanitation status. While this change can be initiated by a facilitator (government or NGO), leadership within the community is required for scaling up and sustaining change. This communication at community level to empower them can be complemented by a mass media Behavior Change Communication (BCC) initiative, which focuses on changing social and cultural norms regarding Open Defecation among the community, which will aid in changing behaviors, but most importantly, support sustainability of the behavior change.

There is however, a need to supplement the decentralized IEC envisaged under TSC through an extensive national level campaign based on well defined communication strategy to create awareness among the whole range of beneficiaries to generate effective demand and sustain the same through repeated decentralized IEC.

4.4 Role of Incentives

The sanitation programme for the rural areas of the country started in a supply driven mode with Central Rural Sanitation Programme (CRSP) as the India's first national programme on rural sanitation. Based on the experiences gained through the limited intervention of the CRSP in improving the rural sanitation coverage a key learning has been the recognition of role of incentives in accelerating sanitation coverage.

TSC therefore, moved away from high, upfront subsidy and instead provided for a post usage cash incentive for identified BPL families. According to the Guidelines, this has to be given as a reward *after* the BPL family has constructed its own toilet and is using it. Further, to incentivize collective outcomes, Nirmal Gram Puraskar (NGP- Clean Village Award) did play an integral role in scaling up TSC. The NGP scheme has elicited a tremendous response, with the number of Panchayats awarded going up from a mere 40 in 2005 to more than 22,000 in 2010. The key challenge as we go into the next generation of rural sanitation reforms are to improve the mechanisms for incentive delivery and strengthen the monitoring system that is the backbone of the incentive program. There is therefore a need to move further up the ladder in the incentive delivery mechanism and incentivize both, individuals and the communities at identified levels in the next phase. Further, based on the experience gained in the past, merely incentivizing individuals only on the basis of APL/BPL may not result in ODF communities in real terms. The department needs to identify weaker communities which may include SC/STs and minorities among APLs also or other categories like people with disabilities and people living with HIV rather than only BPL so as to broaden the base of beneficiaries to achieve the goal of universal sanitation. The weaker communities can also be defined in line with the policy of Government of India in other similar centrally sponsored / Government run schemes.

Also there is a need to have monitoring of sanitation coverage not merely on access to sanitation but based on a combination of indicators wherein due weightage is assigned to institutional sanitation, ODF communities also apart from individual household coverage.

CHAPTER 5: EMERGING PRIORITY AREAS

"Good Sanitation should be birthright of all citizens"

Dr. Manmohan Singh

Prime Minister of India

CHAPTER 5: EMERGING PRIORITY AREAS

The following are identified as the key drivers for change to achieve the vision of *Nirmal Bharat:*

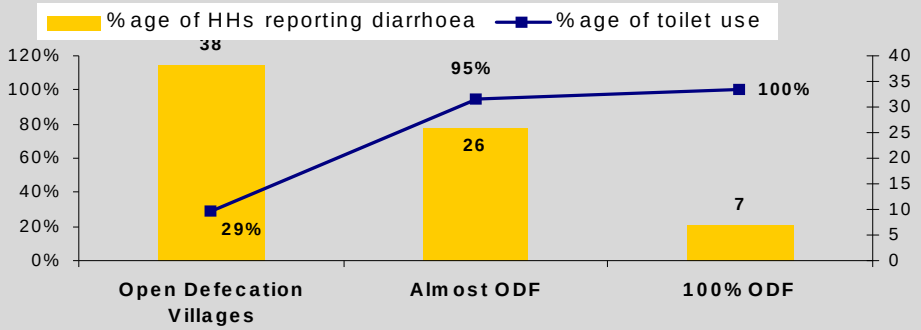
- Collective action to change social norms
- Panchayati Raj Institutions take the lead
- Incentives for Outcomes and Sustainability
- National Communication strategy to supplement decentralized IEC
- Covering left out institutional sanitation
- Sanitation coverage for floating population in rural areas
- Incentivizing weaker communities
- Prioritize management of solid liquid waste at scale
- Increased focus and emphasis on usages
- Promoting technical options depending on geographical situations
- Convergence with other related programmes for effective implementation and sustainability
- Impact assessments and monitoring as a tool for mid-course correction

5.1 Collective Action to Change Social Norms

Unsafe sanitation behavior by an individual carries negative externalities since it leads to fecal contamination of the environment that can put others health at risk. A clean and sanitary environment is a public good that requires communities to achieve and sustain total sanitation in order to realize health benefits. A collective approach therefore forms the first pillar of this strategy and it is instituted on a change not just in individual behavior but a shift in social norms such that open defecation by even a single individual is seen as unacceptable behavior which can put the health of the entire community at risk. Such a collective approach lays the foundation for an approach that seeks to ensure that the benefits of a clean environment are available to all, including the vulnerable and disadvantaged, both socially and geographically.

Box 3: Why target collective behaviour change to end open defecation?

A Rapid Assessment undertaken in Himachal Pradesh in 2005 revealed that in villages with ~30 per cent household toilet use, the incidence of diarrhea was reported as being around 40 per cent. Even in villages with 95 per cent household toilets, still reported around 25 per cent diarrheal incidence. Only open defection free villages with 100 per cent usage have reported significant drop in diarrhea to less than 10%. In effect, *even if a few individual households switch to using toilets, the overall risk of bacteriological contamination and incidence of disease continues to be high* (see figure below).



Source: Formative research by WSP –Knowledge Links for IEC Manual in Himachal Pradesh, 2005

5.2 Panchayati Raj Institutions take the lead

As per the Constitution 73rd Amendment Act, 1992, Sanitation is included in the 11th Schedule. Accordingly, Gram Panchayats have a pivotal role in the implementation of sanitation programme. PRIs can carry out the social mobilization for the construction of toilets and also maintain the clean environment by way of safe disposal of wastes. Certainly, they are custodian of the assets such as the Community Complexes, environmental components, drainage etc. created under any sanitation linked scheme.

Further, since provisions of incentives shall also be available at the community level through award schemes like Nirmal Gram Puraskar, Panchayats must also play a role in the monitoring of the sanitation status. At higher levels, both Block and District level PRIs may also regularly monitor the implementation along with the concerned officials. Therefore, the scaling up and long term sustainability of the intervention requires the adoption and ownership of the program by the Panchayati Raj Institutions (PRIs). Facilitating the delivery of sanitation outcomes, which has to go through a process of developing the social capital of the village, can also become the entry point for strengthening of the capacities of the GPs to ensure service delivery. Experience has also shown that GPs are ideally placed to promote total sanitation in order to ensure public benefits and well suited to address the issue of scaling up due to their outreach. In addition, they are in a good position to undertake or facilitate the long-term monitoring and support of rural sanitation services to ensure sustainability.

5.3 Incentives to Achieve Outcomes and Sustainability

The sanitation program has to focus on the change of behavior among the community as a whole, with incentives provided for adoption and sustained usage of safe sanitation facilities. The best strategy is to incentivize weaker communities as identified on demonstrated usage of sanitation facilities. The incentives as a strategy are also required to be given to communities once it has achieved Total Sanitation and for ensuring sustainability. This approach of incentivizing outcomes, based on a transparent and robust monitoring process, shall drive communities towards improving the situation.

Another area which can be concentrated upon for total sanitation as a strategy is incentives for institutions either as a standalone (for e.g. reward for cleanest school) or as part of larger incentive programme (e.g. NGP) to have wholehearted participation of the institutions to achieve total sanitation.

5.4 National Communication strategy

Information Communication and Education (IEC) has been an important component of the campaign. The stress however has always been on decentralized IEC through financial provisions in district projects to create effective demand among the beneficiaries. A need has however been felt to have a national communication strategy to sensitize all the stake holders for a joint effort to accelerate and sustain rural sanitation coverage (Box 7).

5.5 Covering left out areas

Children are more receptive to new ideas and schools/Anganwadis are appropriate institutions for changing the behaviour, mindset and habits of children from open defecation to the use of lavatory through motivation and education. The experience gained by children through use of toilets in school and sanitation education imparted by teachers would reach home and would also influence parents to adopt good sanitary habits. School Sanitation, therefore, has to form an integral part of any sanitation approach.

The priority therefore, has to be on covering the left out institutions with sanitation facilities once the project objectives under TSC as per the present district projects are completed. The present policy is to extend financial assistance to only government rural schools and Anganwadis. There has to be similar provisions for government aided and private institutions if universal sanitation is to be achieved in real terms.

Another area which needs attention as a strategy is to evolve and standardize school toilet designs complying with benchmark set for "child friendliness", "gender responsiveness" and to provide access opportunities to children with special needs

(children with disabilities) so that the institutional sanitation facilities created are utilized in real terms by all students.

5.6 Sanitation coverage for floating population

TSC envisaged community sanitary complexes as an important component. These complexes comprising of appropriate number of toilet seats, cubicles, washing platforms, washbasins, etc. could be setup in places acceptable to the community to take care of landless population and floating population in the GP area. Such complexes could also be made in public places, markets etc. where large scale congregation of people takes place. With the individual household sanitation coverage showing an accelerated upward trend in the recent past, this area shall need more and more attention as strategy to ensure total sanitization of the community.

5.7 Incentivizing weaker communities

TSC has till now concentrated on financial incentives for BPL households with a provision of revolving fund for APL for creation of sanitation facilities. While it may be argued that financial incentives are required only for the poorest of the poor, there is certainly a case to finance weaker communities (SC/ST and minorities) among APLs to create ODF communities and get the benefits of clean environment at the community level.

5.8 Prioritize management of solid liquid waste

An area which is yet to take off at scale certainly is management of Solid and Liquid waste. The present policy has been to concentrate more on creating ODF communities in the first stage. However, with certain states achieving relatively high sanitation coverage, they need to up the sanitation ladder with effective solid and liquid waste management to create clean environment. The policy to prioritize management of solid and liquid waste therefore has to take shape with specific guidelines and financing arrangement at the GP level. As

a matter of strategy, solid and liquid waste management should be the main component of the programme around which the other supporting activities to achieve total sanitation like left out household sanitation, institutional sanitation and software activities like IEC/HRD etc. can be built up.

5.9 Increased focus and emphasis on usage

A limitation noted while achieving sanitation coverage is that various Field studies have pointed to various levels of latrine usage depending upon the community awareness. This has also at times resulted in slippage in the status of NGP villages again varying from state to state due to non usage. There have also been cases wherein only some of the household members have been found to be using sanitation facilities while others resorting to open defecation. While the communication strategy at the national level and decentralized IEC at the district level needs to primarily generate effective demand for sanitation, repeated IEC intervention as a strategy is required especially at the community level to ensure full usage of sanitation facilities created.

5.10 Promoting technical options

TSC as a strategy looked for low cost household sanitation options to accelerate rural sanitation coverage. Providing technological options / informed choices to the beneficiaries was always one of the strategies of TSC to that the sanitation facility created matches with the local situation and enhances its demand irrespective of the socio-economic conditions leading to a sanitary way of defecation. It has ,however, been observed that the dissemination of information regarding various technological options available to the community including their own innovations depending on local geographical situations was limited and perhaps not prioritized as key area for accelerating sustained sanitation coverage. As a result, the acceleration of sanitation coverage for relatively difficult areas like coastal, hilly, drought prone and flood prone has not been able to keep pace with the plain areas where two-pit pour flush toilets were suitable and acceptable to the community at large. This area shall, therefore, need more and more attention as strategy to ensure total sanitization of the community in various geographical locations of the country.

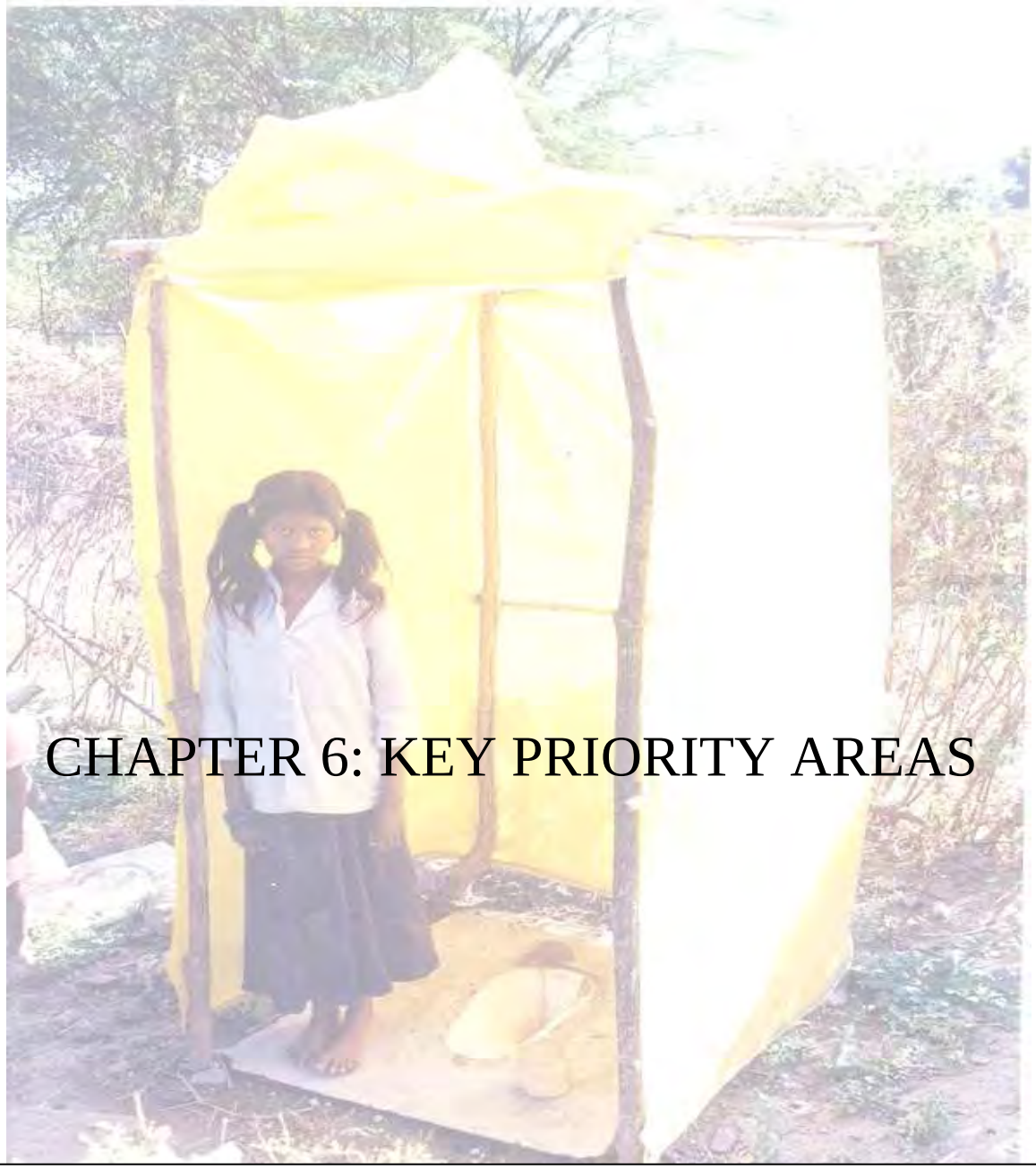
5.11 Convergence

Rural development as a sector has number of flagship schemes operating to cater to needs of the rural masses for enhancement of many aspects of their lives. The concept of convergence though not new to the sector, somehow did not pick up till the recent past. The tendency was to operate all the flagship schemes in isolation. However, the need for convergence by now is well established. One of the emerging priorities is to have good convergence among various schemes operated through various line ministries like Rural Development, Human Resource Development, Health and Family

Welfare, Women and Child Development, Panchayati Raj which have the common objective of enhancing quality of life in rural areas.

5.12 Impact assessments and monitoring

TSC has since completed a decade of its implementation. The concentration till now has been on accelerating rural sanitation coverage with the policies and implementation mechanism put in place. Though various estimations have been made of rural sanitation coverage at present, the real picture will emerge from census 2011 report. Certainly there have been many success as well as constraint stories linked to the campaign during the entire decade. A more organized and periodic approach shall now be required to assess the success and limitation both of the policies made so as to carry out mid-course corrections for optimum results. Obviously the improved information and communication technology, if adopted well, shall have a major role to reveal real picture continuously helping us reaching the desired goals.



CHAPTER 6: KEY PRIORITY AREAS

"Sanitation is more important than Independence"

Mahatma Gandhi

CHAPTER 6: KEY PRIORITY AREAS

The building blocks of the strategy are discussed below:

- Institutional Structure and Capacity
- Other institutions
- Approach to Demand Creation
- Technology Options
- Supply Chain
- Monitoring
- Sustainability
- Financing and Incentives

6.1 Institutional Structure and Capacity

Institutions set the rules and define the framework for service delivery. To effectively scale up and sustain rural sanitation outcomes, institutional arrangements must have clearly defined roles and responsibilities and the resources to fulfill these effectively. Institutional frameworks should also include mechanisms for coordination between linked activities. Capacity refers to the availability of skilled human resources for program implementation, budgetary allocations to effectively implement program activities, an organisational home within the institution that is accountable for rural sanitation, ability to monitor program progress and make revisions as needed

The institutional structure envisaged for delivering on the goals of this strategy is shown in Figure 10 and roles and responsibilities of different institutions are detailed below.

National Level

The **Department of Drinking Water and Sanitation (DDWS)** will enable and facilitate rural communities with opportunities to develop their social capital and resources to effectively achieve the goals of the strategy. The DDWS will:

- Plan, implement and monitor centrally sponsored programs for rural sanitation
- Support R&D initiatives, IEC & HRD activities
- Enable states and local governments to access resources (technical, human and financial) from different sources
- Technical support to state in facilitating rural sanitation
- Providing inputs to other departments/ Ministries for formulation of policies imparting water and sanitation issues
- Recognizing and awarding Panchayats and organizations for excellent work in rural sanitation
- Build partnership with other organizations in the sector towards common goals

The DDWS will be supported by a National Sanitation Council, an autonomous body formed by ex-officio members from DDWS and individual experts of repute in the field of sanitation. The Council will be a body registered under the Societies Registration Act and will work as a support agency to the DDWS for providing technical and administrative consultancy, organizing events and undertaking pilot projects. The Council will also have the responsibility to monitor the progress made under the programmes and conduct evaluation studies. The body will have the mandate to receive funds/Grant-in-aid from the Government, grants from other national and international bodies for its support activities and administrative costs.

State Level

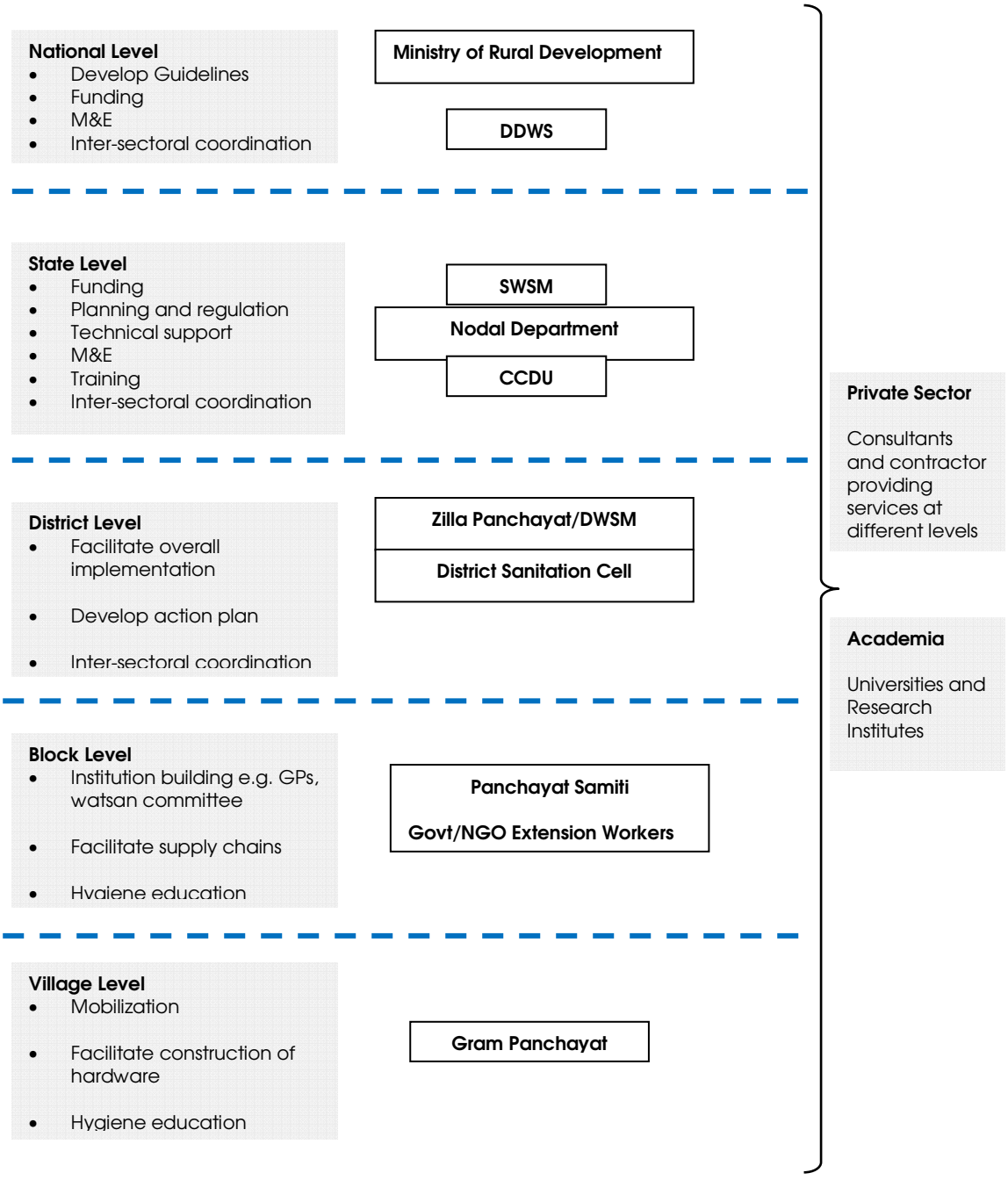
A **State Water and Sanitation Mission** (SWSM) will develop strategies in line with the national strategy for the State on rural sanitation, which prioritize community led approaches leading to total sanitation outcomes at collective level. Specific responsibilities of the SWSM include:

- set milestones for achievement of various components of sanitation for the districts
- take proactive steps at regular intervals (of 3 months) to review the progress
- undertake six monthly meetings as well as annual workshops of districts, to review the progress and share experiences and best practices
- compare and benchmark the overall performance of districts against each other
- initiate State level competitive or milestone based reward programs for GPs, institutions and individuals.

A **nodal** agency will be made responsible for sanitation at the State level. The agency will be selected based on the **best fit for facilitating a participatory approach**. The nodal department can be changed or strengthened depending on need to effectively manage the sanitation program.

The **Communication and Capacity Development Unit which shall function under Water and Sanitation Support organization (WSSO)** will develop communication campaigns for the State, focusing on critical messages to change behavior of communities and make usage of safe sanitation as a norm; CCDU will develop capacity building strategies and roll out capacity building activities to bridge capacity gaps in sector on social mobilization, technical capacity and monitoring; CCDU will set up monitoring systems at State level to track processes, outcomes and sustainability to enable timely support to laggards and strengthen the leaders

Fig 9: Institutional Framework for Rural Sanitation



District Level

The **District Water and Sanitation Mission** (DWSM) will effectively coordinate between various departments and programs, through quarterly meetings to review the progress and chalk out the implementation strategy and plan. The DWSM/DWSC will move beyond an ad-hoc functioning and adopt a strategic planning and coordination role to drive the sanitation program in the district.

A **District Sanitation Cell** will be set up to facilitate scaling up of message dissemination and achievement of outcomes. The cell will have various competencies like communication, capacity building, sanitation technologies, monitoring, etc. The staff in these Cells will be either taken from within the government departments on deputation, or contracted from the open market.

Box 4: Creating a Dedicated District Sanitation Cell: Example from Kolhapur District, Mahrashtra

At the district level in Kolhapur, a DWSM has been set up as a policy-making body, with the Zilla Parishad President as Chairperson, the CEO as Vice-Chairperson and line department heads as members. The District Water and Sanitation Committee (DWSC) is an executive body which reviews and provides implementation support. The CEO of the Zila Parishad is the Chairperson with the Deputy CEO as member secretary. Effectively, the work is coordinated from the CEO's office and committees or Missions are activated when there is a specific need to discuss issues across stakeholder segments.

The Deputy CEO, Village Panchayat, coordinates day-to-day operations. A dedicated sanitation unit for TSC implementation has been set up at the district level. This consists of three consultants (for communications, social mobilisation and capacity building) and one retired officer (former Block Development Officer - BDO) on contract in addition to one supporting staff (data entry operator). At the block, the TSC is coordinated by the Taluka Panchayat Officer, assisted by an engineer. The BDO regularly reviews the programme and further undertakes regular monitoring visits.

The TSC cell has the following responsibilities:

- Prepare action plans and monitor project progress;
- Coordinate IEC campaign – on its own, or through blocks and GPs;
- Undertake training of trainers and coordinate cascade events at sub-district levels; and

Prepare reports on project progress for the state/central level

This systematic institutional arrangement with clear roles and responsibilities has enabled the district to be one of the leading districts in the state in sanitation coverage and in NGP.

Block Level

Block Resource Centres (BRC) shall be the institutional set up at the block level to provide continuous support in terms of awareness generation, motivation, mobilisation, training and handholding to Gram Sabhas, GPs and VWSCs. The BRC will serve as an extended delivery arm in terms of software support from the districts and act as a link between the District Water & Sanitation Mission and Gram Panchayats/ VWSCs/Gram Sabhas. Block Panchayat is an ideal unit for providing support as it is nearer to the Gram Panchayats than the Zilla Panchayat.

Capacity building and generating awareness on various aspects of improved sanitation practices will be the first step in the preparation of 'Village Sanitation Plans and achieving open defecation free status. It will also help the villages in achieving Nirmal Gram Panchayat status, sustaining and building on it with effective and low cost management of solid and liquid wastes.

Gram Panchayat

The Gram Panchayat, being the lowest mandated local self government institution, will be responsible for service delivery, and therefore take leadership in providing sanitation outcomes to the people. It shall plan, implement and monitor the achievement of sanitation in the villages under it. It could appoint a representative committee (Village Water and Sanitation Committee or similar) to facilitate and implement the sanitation and SLWM activities. The committee depending on the local conditions may also be named as Village water Health and Sanitation Committee with good convergence with Health programme being implemented by Gram Panchayat. The Gram Panchayat will support the marginalized households of the GP to help them construct individual toilets and SLWM facilities; the GP may also identify and engage private parties (SHGs, CBOs, private sector) to operate and maintain common facilities in the village. The Gram Panchayat will be strengthened with human resources and capacitated to exclusively work on sanitation program.

Other Institutions

Sanitation is an issue which cannot be the responsibility of the Government as the only institution. As a matter of fact, every citizen of the country, irrespective of his linkages to any institution (organized or unorganized) is a stakeholder in achieving the goal of ending open defecation and achievement of clean environment. The role of institutions

other than Government is therefore equally important. The institutions could be identified in the following broad categories.

- Non Government Organisation
- Companies/Private foundation
- Small Entrepreneurs / Sanitary marts
- Academia

Non Governmental Organizations: NGOs can be an effective vehicle for mobilizing the community to raise its social capital to collectively bring about change in the sanitation situation. Engaging the NGOs to form a partnership with the governments, to push for community led approaches needs to be implemented to bring about the desired sanitation changes in the community. To supplement the efforts of Government in Sanitation Campaign, Non-Governmental Organizations (NGOs/) & Civil Society Organisation (CSOs) can play a major role. In order to achieve sustainable results in the rural sanitation program, the local NGOs have to play a major role in implementing any sanitation programme with an active coordination, support and facilitation of gram panchayats (VWSC) in creating demand for sanitation and provide post implementation support. NGOs have a distinct advantage in delivery of WASH as they have a better rapport and understanding of socio-cultural-economic status of the rural communities and therefore, have a wider reach among the marginalized and disadvantaged people in sanitation promotion. Involvement of NGOs in sanitation promotion would also help to address exclusion and gender issues. These local NGO's are expected to carry out the social mobilization, promote usage and provide timely post implementation support. With the support of GP and assistance of VWSC, NGO's can conduct preliminary baseline survey to assess the status of sanitation and hygiene practices, people's attitude and demand for improved sanitation with the aim to prepare comprehensive community based design to implement sanitation plan through participatory rural appraisal, micro planning and social auditing etc.

Companies / Private foundations: The whole world has focus on India as one of the global forces in terms of industrial development. The corporate sector has contributed a lot to make the country a leader of development. Of late, the concept of corporate citizenship has also gained momentum in the corporate world. Although

sanitation has not been high on the agenda of corporate world in India, this is being suitably addressed in other developed countries. This can be taken as a ripe time to address the issue of sanitation to the corporate world and get the subject suitably included in their CSR agenda. Getting sanitation on the agenda of CSR can also help bring in new technologies and innovations in this field leading not only to increase in sanitation facilities but also to better technologies in terms of management of Solid and Liquid Waste at both micro and macro levels. A positive interaction with the corporate houses can be initiated focusing TSC to influence the corporate world to suitably incorporate sanitation in their CSR policy. These institutions could provide funding for software or hardware, undertake social mobilization activities in the village, provide R&D support to develop innovative approaches, technologies, etc. In addition to approaching development activities as a part of corporate social responsibility, there is scope to enlarge the role of the private sector e.g. through competitive bidding to perform social mobilization activities to make an identified area such as a cluster of Gram Panchayats or a block free from open defecation on a business model wherein private sector is encouraged to evolve business model on commercial basis.

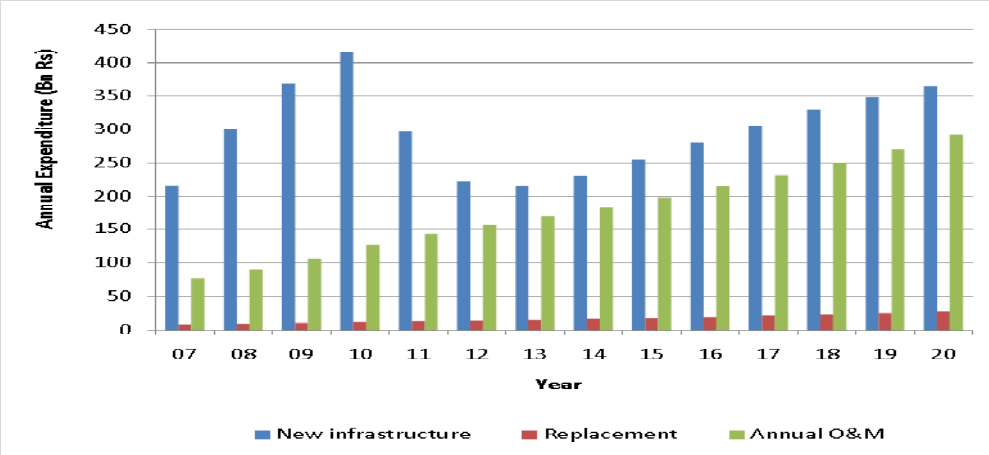
Sanitation Market: Achieving the vision of a Nirmal Bharat means that there will be a significantly huge market for private suppliers to sell sanitary products and provide services for operation and maintenance e.g. pit or septic tank emptying (see Box 5: Estimating the Size of the Sanitation Market).

In addition, there will be opportunities arising out of communities adopting improved hygiene behaviors such a hand-washing with soap and address solid and liquid waste management. The strategy envisages a greater role for the private sector to respond to the demand for safe sanitation from communities. This can take the form of innovation in technology options e.g. by developing designs and price points for different types of toilets such that a range of affordable options is available to suit different income levels. Beyond the sanitation market, there is also a role for the private sector in improving service delivery.

Box 5: Estimating the Size of the Sanitation Market

The national cumulative sanitation market from 2007 to 2020 has potential of Rs.6.87 trillion ($152 billion), of which Rs.4.4 trillion (64%) will be in infrastructure and another Rs.2.5 trillion (36%) in O&M services. The cumulative sanitation market has a potential of Rs.3.77 trillion ($83 billion) in rural and Rs.3.1 trillion ($69 billion) in urban areas from 2007 to 2020. Of this total cumulative market size, cumulative market of household toilets from 2007 is projected to be Rs.2.8 trillion by 2015 and Rs.4.8 trillion by 2020, as shown below

Trends in Potential Annual Sanitation Expediture on Infrastructure, Replacement and Operation and Maintenance in India from 2007 to 2020



Source: WSP Economics of Sanitation Initiative, 2010

Rural Sanitary Marts: The Rural Sanitary Mart is an outlet dealing with the materials, hardware and designs required for the construction of not only sanitary latrines but also other sanitary facilities, such as soakage and compost pits, vermi-composting, washing platforms, certified domestic water filters and other sanitation & hygiene accessories required for individuals, families and the environment in the rural areas. RSM necessarily have these items, which are required as a part of the sanitation package. It is a commercial venture with a social objective. The main aim of having a RSM is to provide materials, services and guidance needed for constructing different types of latrines and other sanitary facilities, which are technologically and financially suitable to the area. RSMs at times, depending on their commercial model also have their own Production Centers to have cost effective affordable sanitary materials. Rural Sanitary Marts could be opened and operated by NGOs/ SHGs/ women Organizations/Panchayats etc. Support of private entrepreneurs may also be taken for ensuring an effective supply chain.

An important strategy could be to evolve business models for these RSMs so that they not only survive as a business identity but also contribute towards accelerating sanitation coverage to create a win- win situation. One of the important activities for RSMs would also be to participate in the IEC activities through interpersonal communication so as to generate effective demand for sanitation which would ultimately result in more business for them in terms of sale of their hardware materials. RSMs can have a Memorandum of Understanding with the implementing agencies like a system of joint monitoring evolved to ensure that the RSMs & PCs are on track with production plans and production targets and are able to respond to local requirements, have a method of quality certification of its products and a band of trained masons and motivators. They should demonstrate success as an enterprise and, function in accordance with the objectives of the sanitation Programme.

Academia: The two main functions of academic institutions, teaching and research, can be harnessed to support the sanitation sector. There is a serious lack of qualified human resource, both in the social mobilization for demand generation and sanitation technology arena. It is important that there be a cadre of people who have the capacities in the above two areas, acquired through their education or through specialized trainings. Additionally, research into innovative approaches in various components of sanitation, including sanitation technology, psychology and approaches of community and individual behavior, monitoring and evaluation of outcomes and impacts, are some of the other areas which are required for the sector. Both these needs, of teaching and research, can be met through the involvement of academic institutions, as part of this strategy.

6.2 Approach to Demand Creation

A programme approach consists of specific activities, their timing and sequence. At present, the TSC guidelines advocate a demand-driven approach to rural sanitation backed by post-achievement incentives. Districts have the flexibility to implement this principle based on their context and capacity. It is expected that this approach is continued in the next phase as well.

Decentralized Approach*:* The strategy will adopt a decentralized approach with the Gram Panchayat as the focus institution which has the mandate and responsibility to achieve sanitation outcomes and sustain it.

Box 6: Process decides outcomes

The Sanitation program envisages creating demand for usage of sanitary facilities at the household and community levels in an environment where there is no felt need among the people and is low on their hierarchy of needs. The change in attitude and behavior among people is therefore challenging to achieve, but more so to sustain. A strong and robust Behavior Change Communication, where the members of the community are involved as an active participant in analyzing their sanitation situation and then deciding to change, on their own, is the only changed behavior which will sustain. This requires the adoption of a strong process of changing behavior, which will lead to sustainability.

The strategy for rural sanitation will therefore focus on **creating and ensuring a process which will lead to sustainable outcomes**.

Total Sanitation***:*** The strategy to address total sanitation will be **aimed at incentivizing both, individuals and the community as a whole**, to motivate it to achieve total sanitation to achieve health and other quality of life benefits. The achievement of 100% safe sanitation, at the collective level apart from individual achievements, will be the main message disseminated through various interpersonal and mass media .

Incentive Delivery Mechanism**:** A habitation / village / GP will be considered as one entity, for which incentives will be available against milestones in addition to the individual incentives to the weaker section (targeted group) of the society. The targeted group shall be defined in line with the policy of government of India in other similar Centrally sponsored/Government run schemes. While dealing with the community, the community will decide on the level and timing of support / incentives to be given to individual households. The strategy will make incentives available to Gram Panchayats for making the village ODF – these will also be used by GPs to assist needy households for construction and usage of toilets to ensure that community spirit behind making the village open defecation free is not hampered.

Behavior Change Communication***:*** Social marketing approaches will be adopted to push for attitude and behavior change among the people. An effective mass media based campaign to change the basic mindsets among people in the villages towards sanitation will be undertaken at national and state levels so that attitude towards safe sanitation and hygiene is changed.

Box 7: National Nirmal Bharat Communication Campaign

Building on the available data and the experience of the Total Sanitation Campaign since its inception, it is clear that changing behaviour linked to total sanitation cannot be addressed by focussing mainly on individuals. The elimination of unsafe behaviour, such as open defecation are part of a system of cultural and social norms. Addressing and changing these norms would put increased pressure on individuals to adopt the new improved behaviour. While IEC materials have a role in the campaign, their effectiveness depends from the overall design of the strategy and the way these form part of a coherent programme with other interactive approaches, such as multimedia, interpersonal communication and capacity building of front line workers and service providers. A national level Nirmal Bharat Communication Campaign therefore needs to be designed and rolled out, to enable the shift in social and cultural norms on Open Defecation.

The communication campaign will be focused on three areas:.

The first will be focusing on sensitization and awareness raising and importance of benefits of improved sanitation, including elimination of open defecation, critical hygiene practices as well as safe disposal of solid and liquid waste**.** A strong awareness raising strategy is needed to bring about a seismic shift in the understanding of and response to the critical sanitation situation: people need to understand that apart from shame, poor hygiene can kill and, hits children, girls and women hardest. A redefined understanding of the importance of sanitation and hygiene at national, state, district and local levels will encourage local governments, civil society, leaders, and communities to strengthen their resolve to improve hygiene conditions for the health of the Indian nation as a whole.

The second focus will specifically address the change of social norms:. This phase, while still addressing and enforcing the objective of the above, will identify key influencers and will address the rationale towards improved sanitation services and practices as well as resistance to change at community level.

The third focus will be on addressing the up-scaling of advanced sanitation practices as well sustained private and public hygiene behaviour. This phase will promote specific behaviour change leading to successful achievement of total sanitation, improved private and public hygiene as well as safe disposal of solid and liquid waste in rural India.

The campaign will be implemented in a phased manner, based on the understanding that there are two critical factors that need to be addressed for sustained behavioural change:

1) people need to be motivated and understand the benefits for adopting new behavior and

2) all elements allowing the adoption of the behaviour need to be in place (i.e toilets, availability of soap, water, etc) .

The various behaviour required to achieve the goals of the Nirmal Bharat need to deal with as one package since addressing open defecation without understanding the importance of safe disposal of waste won't impact the ultimate public health outcomes and it might even be counterproductive in the long run. Throughout the three phases specific attention should be given to the most vulnerable and marginalised communities, making sure that specific component of the campaign are developed to suit their social-cultural reality.

Sensitizing Political Leadership**:** The political leadership at national, state and district levels will be sensitized on the principles of demand driven approaches to total sanitation, to enable high level political support for sanitation. The political support is required to enable adequate funding to be provided to the sector, given priority at all levels but especially at the implementation levels in the face of other competing public sector programs. Addressal of this issue at the level of Chief Ministers, Ministers, the PRI political representatives levels would need to be undertaken to convey messages of priority to the government staff implementing the project and also motivate and mobilize the communities to address this situation.

Box 8: Community Mobilisation for Behaviour Change to End Open Defecation: A Case Study of Sirsa District

In October 2007, Sirsa district, Haryana, drew up a strategy to implement the TSC as a time-bound mission, with government facilitating the community to change its sanitation status. To this end, dedicated teams of motivators were created. Each team comprised eight to ten members and was made responsible for five to six villages. The motivators were trained as 'swachhata sainiks' through training programmes at the district level. The training included participatory tools and motivational songs to inspire the participants to spearhead the sanitation movement in the district.

At the village level, the following steps were taken:

- *Step 1:* Village visit by the motivators, reaching out to people from all walks and all ages, working with the community members to undertake a self-analysis of their present sanitation status.
- *Step 2:* Motivating students and women to come forward and participate in the sanitation movement. Appeals to issues of shame, dignity, convenience and health costs to induce behaviour change were made. The major trigger seems to have been the realisation that open defecation was tantamount to community members consuming each other's faecal matter.
- *Step 3:* Formation of the Sanitation Committee (*Swachhata Samiti)* comprising natural leaders who were motivated to change the sanitation status of their village.

In addition, innovative IEC techniques were used such as catchy slogans instead of traditional greetings (*Jai Swachhata*), rallies and processions, torch light processions, recognition and rewards, and inviting village leaders who had achieved ODF status to share their experiences with those who were in the process. Triggering was matched by dedicated follow-up. Motivators report visiting villages at 4 am and going along with the village *Swachhata Samiti* members to ensure that no one would defecate in the open.

At the time of undertaking a visit to the district in March 2010, 277 out of 333 GPs in Sirsa had won the NGP and the remaining GPs are applying for the NGP this year. The district has declared itself completely ODF, making it one of the first to achieve this feat in India.

Remote and Difficult Areas: The sanitation program for remote and difficult areas will look at developing separate guidelines on the programmatic and technical approach to sanitation in remote areas and difficult terrain which is based on an understanding of the special challenges faced in these situations. Timelines for implementation will be based on the accessibility and special provisions will be made to ensure adequate supply of sanitary products and services in response to demand.

Disaster and Emergency Situations**:** The strategy shall address sanitation in disaster and emergency situations through information on specific requirements for emergency sanitation, developing disaster and emergency preparedness plan to ensure a timely response to sanitation issues such as toilets, garbage disposal, availability of water substitutes for cleansing/disinfecting, dealing with illnesses and controlling rodents and insect breeding.

Sanitation in Public Places**:** Total Sanitation Campaign places high priority on achieving and sustaining the status of open defecation free Gram Panchayats in rural areas. While the individual household latrine has been a major component of the campaign, public or community sanitation also assumes importance to tackle the sanitation in public places especially in situation of lack of space for toilet construction and in situations of high percentage of floating population. Gram Panchayats often lack adequate knowledge not only for the construction of public toilet but more importantly on various operation and maintenance aspects of these facilities. As a result, the sanitation facilities even if created, fall into disrepair or become unhygienic forcing beneficiaries to revert back to open defecation rather than using these facilities. The approach, therefore, would be to disseminate maximum information about various technical options available with indicated costs to enable the community to opt for the best choice available. The approach will also be to disseminate case studies related to successfully operating sanitary complexes for replication by others.

Apart from the above, the approach to sanitation in public areas such as markets, religious and tourist sites will be through communication and incentives to motivate key

stakeholders (tourist/religious authorities, restaurant owners) to provide sanitary facilities, as well as regulatory approaches to ensure that public place owners comply with the existing rules to provide such facilities. Various institutional models to undertake the operation and maintenance of sanitation facility, including those involve Public Private Partnerships (PPPs), shall be explored to ensure that the management is sustainably undertaken.

Sanitation and People living with HIV (PLHIV)**:** There will be special attention given to sanitation for people living with HIV/AIDS, in form of incentives, rebates, etc. in construction and use of sanitation and waste management facilities. For this purpose, convergence with NACO shall be established for joint IEC campaign, to identify the beneficiaries and the mechanism for providing incentives.

Box 9

Key O&M Arrangements

Community Management:	Self management by user households.
Community Contracting:	User households hire a person/agency to do O&M for them and beneficiaries pay a monthly charge.
NGO/SHG/CBO Involvement:	User households or the Gram Panchayat hire NGOs/SHGs/CBOs to undertake O&M.
Private Sector Participation (PPP):	A private sector party undertakes the entire O&M or specific activities in O&M through the following models:

- Contracting;
- Leasing; or
- Independent service provision

6.3 Technology Options

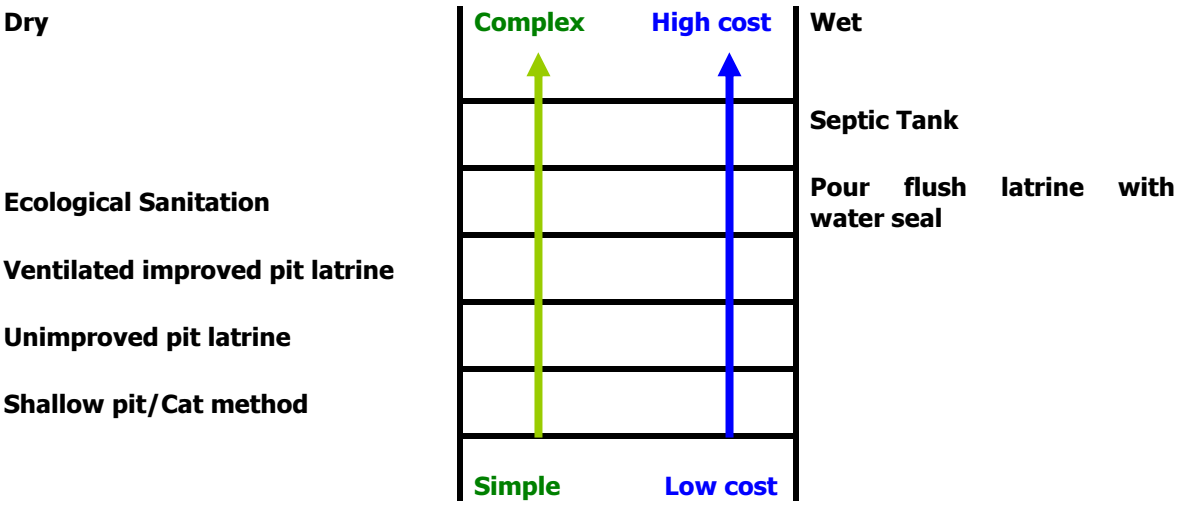
At the implementation level, technology promotion includes not just separate toilet components (for example, sanitary pans, pipes, traps, etc.) but also existing latrine technology options (for example, septic tank, ventilated double pit toilet, eco-sanitation). It also includes provision of masonry services for installation, and sanitary services for operation, maintenance and final disposal.

Focus on Safe Sanitation*:* The strategy will promote an approach for technology which only emphasize that the technology option adopted shall effectively contain the human waste, completely eliminate the fecal oral transmission routes through water, air, insects and other vectors.

Promote Informed Choice**:** Selection of sanitation technology options must take into account technical and demand factors. Technical factors relate to physical parameters, for example, terrain, soil permeability, ground water table level, availability of space and risk of flooding. By contrast, demand factors relate to customs and socio-economic conditions and are crucial to the acceptance of, and willingness to invest in, a sanitation option. Examples of demand factors include affordability, hygiene behaviours (for example, material used for cleansing), and preparedness for maintenance and emptying.

The strategy shall promote a variety of technological options, which correspond to the above approach, with varying affordability, site specific characteristics (see examples in Figure 11 below). The focus of this promotion shall be on the sub structure, as it is the main component of the toilet which contains waste, and leave the choice of superstructure to household preferences.

Fig 10: Menu of Technology Options



Options for Special Situations*:* The strategy shall undertake research/use existing models to design and promote toilet options for difficult areas, for the disadvantaged and elderly, emergencies and other special requirements. Development of various technologies for sanitation and SLWM for different geo-climatic areas will be undertaken.

Appropriate Technology*:* Resource conservation (e.g. use of limited water for sanitation) and recycling (e.g. use of decomposed human waste for agriculture) shall be other principles adopted while promoting technologies for sanitation and waste management.

Environment-friendly Sanitation*:* The concept of ECOSAN shall be promoted for identified areas as suitable technology. The technology for SLWM shall be decentralized, household and community level facilities for the safe disposal of solid and liquid waste.

Box-10
Assessment of some widely use technologies in rural areas

Type of Technology	**Simple Pit Toilet**	**Single pit pour flush**	**Pour Flush Toilet with Twin Pit**	**Eco-san Toilet**	**Septic Tank toilet**	**Biogas plant linked with toilet**
Important Features	Squat plate with a hole, a lid (or cover) foot rests near squat hole. A pit below the squat hole	Squatting pan with water seal having single offsite leach pit	Pour Flush Squat platform lined two pits with honey combs	Separate collection of faeces and urine in water-tight chambers	Squatting or commode with cistern , 2 to 4 tanks in series for settling of wastes	Squatting pan, pour flush, instead of pits underground biogas plant is required
Requirement for Land	Low	Low	Medium	High medium	High	High
Degree of skilled labour	Low	Medium	High	Very High	High	High
Suitable for soil conditions	Permeable/ not suitable for high water table or rocky soil	Permeable/ not suitable for high water table or rocky soil	Permeable/ not suitable for high water table or rocky soil	Suitable for any soil including rocky and high water table	Stable soil, but not suitable for rocky soil	In all soil type
Requirement of Water	Little water	Medium (2 Litres per use)	Medium (2 Litres per use)	No Water	High	Medium
Ease of O&M	Easy	Easy	Fairly Easy	Difficult	Difficult	Needs training
Meeting Hygiene	Low	Low	High	High	High	High
Overall Cost of Technology	Low	Low-Medium	Medium	High	High	High
Safe reuse or disposal of human wastes	It needs manual efforts or mechanical devices to empty pit	It needs manual efforts or mechanical devices to empty pit	Safe reuse of human wastes manure for agriculture purpose	Safe reuse of manure and urine as manure	Disposal of sludge and effluent is a problem	Safe reuse of effluent. Biogas is used for beneficial purposes
Socio-cultural Acceptability	Acceptable with health risk	Acceptable with health risk	Acceptable without health risk	Acceptable where people don't use water for cleaning	Acceptable	Acceptable when properly demonstrated.

6.4 Supply chain

The strategy shall emphasize the establishment or strengthening of a robust supply chain mechanism for sanitary products and services, required to achieve total sanitation at scale. Some of the options that will be considered to facilitate the supply of these products and services are **private wholesale and retail networks** and **Rural Sanitary Marts** or 'one-stop-shop' retail outlets. RSMs have evolved into a sustainable alternative delivery system for sanitary products and services (see Box 11).

Box 11: An Effective Rural Sanitary Mart Operation: The Bardhaman Experience

In Bardhaman district of West Bengal, RSMs are the cornerstone of the district strategy to promote rural sanitation. The operation of RSMs is undertaken by NGOs and the RSM network combines supply of sanitation products with extensive social marketing. Fundamental to the success of the RSM is the support network of motivators. They campaign door to door to create awareness about sanitation and generate demand, manifest in the beneficiary contribution for construction of a toilet as per the TSC cost norms. Once a household has agreed to have a toilet, all the hardware items are delivered to the household and a trained mason installs the toilet including digging of the pit. In terms of performance, Bardhaman district report 100 percent household latrine coverage and 137 out of 277 GPs have won the NGP to date.

Solid and Liquid Waste Management

The strategy for management of solid and liquid waste in the village shall be the responsibility of the Gram Panchayat, which will ensure service delivery. The institutions at other levels shall facilitate with communication, financial, technical and human resources required for the GP to ensure the undertaking of this responsibility. A GP will view SLWM service delivery as an obligation. Different sources may be considered for the upfront capital expenditure on SLWM works e.g. DDWS earmarked grant funding which may need to be increased, Finance Commission funds, state subsidy, GP resources and user fees. Users may invest their own resources (financial, labor) into on-site household level options and variable O&M costs of community schemes Community level incentives can include benefit of a clean environment and any economic benefits from waste management. In addition, achievement of SLWM at scale may attract a cash prize or

recognition from higher levels of administration. A system of penalties/fines may be instituted for improper disposal of garbage and wastewater

Technology Options for Solid Waste Management - Garbage is generated at household level and in public places e.g. markets, street waste. In order to properly manage this waste, the focus may be on household level waste management to the extent possible. The waste which cannot be managed at household level may be handled at community level.

Household Level Waste Management shall include the motivation of households to segregate at source, i.e. classification of waste according to its type or nature: Bio-degradable waste which can be decomposed by biological processes, can be treated at household level through available technology options to convert this waste into manure e.g. composting, vermi-composting, biogas plant.. Non-biodegradable waste which cannot be broken down by biological processes. Non-biodegradable waste which has economic value that can be recovered e.g. metal, will be recycled through selling to scrap dealers. Non-recyclable waste waste which does not have economic value of recovery e.g. tetra-pack, PET mineral water bottle, thermocol, will be sent to landfills for safe disposal.

Community Level Waste Management shall be undertaken where all waste cannot be managed at household level; for this, segregated household waste will need to be collected, transported and treated. Secondary segregation shall be done, if required, in addition to the primary household segregation, to ensure that all waste is properly segregated. The Panchayat may select a body for collection of waste e.g. SHG group, youth group. For transporting waste, carts or tricycles may be used. The number of vehicles required may be decided based on the size of the Panchayat and density of population. Generally, one tricycle is sufficient for 100 to 200 households. The tricycle may also have separate compartments to store the segregated waste.

Waste collected from households and public spaces may be transported to a place identified at community level e.g. land donated by a Panchayat. For treatment, all biodegradable waste should be composted. This can be done by adopting a technology option such as, for example, composting, vermi-composting or a bio-digester. Non-biodegradable waste may be further segregated and sold to a scrap dealer or recycled

For Liquid Waste Management, wastewater generated at household level may be managed at household level itself. The waste which cannot be managed at household level may be handled at community level. Waste water generated in the kitchen, bathroom and laundry, grey water, can be treated and used for other purposes like kitchen gardening or disposed through soak pit, leach pit. At community level greywater can be managed through on-site options such as soak-away channel, leach pit or piped root zone system. Off-site options could include collection and transport of greywater and may include drainage. Here, final disposal options may include sullage stabilization pond and re-use; sedimentation, filtration and re-use, and screening stabilization tank systems.

Thus it works out that there is a financial implication of approximately Rs.3000/- per household to create a self sustainable solid and liquid waste management model for a clean environment in a Gram Panchayat.

Approximate cost norms for Solid Waste Management at current prices

Considering an average production of Solid waste 250 g/person/day and compostable matter as 50% of the total Solid waste generated, the quantity of biodegradable waste works out to 125 grams/person/day. Therefore, for 5 persons in each household, production of biodegradable Solid Waste in each household works out to approximately 600 gram/day.

Collection system & composting For 300 household, requirements of equipment & manpower is estimated as follows:

Particulars	Estimated Expenditure
Compost Pit Preparation	50000.00
Purchase of Rickshaw van (3 nos)	30000.00
Container 600 Nos	30000.00
Dress Materials of Sanitary Workers	20000.00
Construction of segregation shade	400000.00
Tools & Plants	10000.00
Total	**5,70,000.00**

Manpower

Supervisor	6000.00
SHG Workers (10 Nos)	30,000.00
Total	**36,000.00**

Therefore, total estimated expenditure for solid waste management per household works out to approximately Rs 2020/-

Approximate cost norms for liquid Waste Management at current prices

Considering water supply to households will be 70 litres per capita per day with future projection and estimated waste water generation is about 80% of water supply, wastewater generation per household per day shall be of the order of 280 litres. Further, considering 5 persons in each household and considering black water generated with urine as 7 litres per person per day, volume of grey water from each household would be 245 litres. The liquid waste management requirement would be as follows:

A. Soak Pits in each household

Considering normal soil infiltration rate the cost of unlined soak pit is estimated at Rs600.

B. Stabilisation Pond

For a population of 300 households Land Area required is 900 sq. meter aproximately.

Earthwork required may be of the order of 1600 cubic meter.
The Cost may work out to approximately Rs. 80000/-.

Cost per household therefore would be Rs.266/- approximately.

Estimated Drainage channel cost for a community of 300 households would work out to approximately Rs.1,00,000/- at the rate of Rs.1000/- per metre.
Therefore, estimated expenditure for each HH = Rs 334/-

C. Total cost for Liquid waste management would therefore be Rs 600+266+334=Rs 1200/- per household

Box 12: Dustbin - a source of financing. The Tapi Model of Solid and Liquid Resource Management

Solid and Liquid Resource Management (SLRM) is a new way of looking at waste – not as garbage to be disposed but as a resource to be exploited. From this perspective, any disposed item, from an egg shell to a plastic bag, is a potential source of revenue. Mr C Srinivasan, Project Director of the Indian Green Service, explains: 'Any biodegradable waste becomes a waste only after 24 hours, when it starts emitting foul odour. If it is lifted once in 12 hours, it is a resource, which could be sold. Now we have started promoting the concept of solid and liquid resource management as against waste management which was hitherto being implemented in different parts of the country'.

An SLRM project has been successfully implemented in Vallod Panchayat of Tapi District in Gujarat. It all started with an exposure visit for around 96 officials (comprising Asst Project Officers, District Engineers and Consultants) from Gujarat to the Vellore Zero Waste Management Model (ZWM) in Tamil Nadu, sponsored by UNICEF. At Vellore, the Gujrat completed training on SLRM which is a system of managing solid wastes that strives for maximum waste recovery through recycling and reuse, aiming at zero waste generation. The system's strengths include:

- segregation of waste at source leading to maximum recovery of resources, minimization of waste and reduction in area required for storing and composting
- minimizes pollution of ground water and air by doing away with disposal of wastes at dumpsites and landfills
- provides opportunities for income generation

Following this visit, the Gujarat team was motivated to replicate the Vellore experience and the Gram Panchayat of Vallod was selected for this on 19 April 2010. The project was undertaken in three phases covering 900 households in each phase. To begin with, each house was provided with two dustbins of red and green color to segregate waste into organic and inorganic at the point of generation. In the first phase, 18 members of a Self Help Group were engaged for the door to door collection of waste twice a day (morning 7:30 to 10:30am and evening 3:30 to 6:00pm) in a tricycle and were paid Rs 100 per day (ie Rs 3000 per month). Initially families were reluctant to get involved in this 'dirty work'. Gradually, a few women came forward to get involved in this initiated. The district government provided these workers with a uniform of green sari, white gloves, mask and shoes. After that, unemployed village youth also joined the women SHG members to support this initiative.

A ZWM centre was established where all the collected waste is brought and workers further segregate waste into organic and inorganic lots and organic waste is used to produce compost fertilizer. District officials point out that around 4000 kg of compost was produced in the first phase that was sold at the rate of Rs 5/kg. For marketing, an MOU has been signed between district authority and District's Forest Office, which purchases all the compost produced by this project. In the first lot, forest office purchased the compost and handed over a cheque of Rs 20,000 to Mr Sanjay Rathod, the Sarpanch of Valod Gram Panchayat. At present, the price per kg of compost paid by the Forest Department has been increased to Rs 8/kg since the quality is very good and this is still below the rate Rs 10/kg at which the Department was sourcing compost earlier. To sustain this project, Gram Panchayat has passed a resolution to collect Rs 20 per family per month for waste collection and management.

Following on the success of Vallod, five additional Gram Panchayats have come forward to replicate this approach. The Panchayat has also been visited by senior policymakers in the state and also used as a site to train 280 Taluka Development Officers. The Government of Gujarat plans to scale up this approach in a phased manner starting with 5000 Gram Panchayats in the first phase.

Sources:

Success Stories on Gujarat Sanitation, Rural Development Department, Govt of Gujarat (undated)

Practising Zero Waste Management in Vellore P Amudha, in India Infrastructure Report 2007

6.5 Convergence

The strategy shall be to have good convergence among various schemes operated through various line ministries like Rural Development, Human Resource Development, Health and Family Welfare, Women and Child Development, Panchayati Raj which have the common objective of enhancing quality of life in rural areas for optimum results and effective acceleration in rural sanitation coverage. Some of the activities which can be effectively converged with related schemes are as follows:

Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS)

- Preparation of leach pits for IHHL
- Unskilled labour component in Anganwadi toilets, school toilet blocks, Community sanitary complexes
- Solid and Liquid Waste disposal and treatment areas
- Employing sanitation workers for overall cleanliness of the Gram Panchayat

Sarva Shiksha Abhiyan (SSA)

- Appropriate coordination mechanisms for O&M of school toilets.
- Effective Training of Teachers and School Management in School Sanitation and Health Hygiene Education .
- Joint District and State levels action plan for coverage of all school for water supply and sanitation by pooling in resources.
- Use of common school toilet design norms for construction of school toilets under TSC and SSA.
- Inclusion of health and hygiene messages in the Activity based learning methodology of SSA.

National Rural Health Mission (NRHM)

- Sanitation Committees at District and Gram Panchayat level to include health related officials to facilitate intersectoral convergence activities in terms of pooling of financial and human resources.
- Joint Training programmes for functionaries of both Ministries at District, Block and Village level for health, hygiene and sanitation.
- Provision of toilets to ASHA Workers, (the Accredited Social Health Activist in the community at the GP level) and to provide incentives for their role in Community mobilization on importance of sanitation facilities and health and hygiene education programmes particularly in School and Anganwadis.
- Convergence of data collection on health indicators like Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR), anemia among children and women, child morbidity and linkages to sanitation related illnesses.
- Highlighting significance of sanitation in high Polio risk Districts.

- Carrying out joint studies on linkages of health and sanitation to generate comprehensive data.

The Integrated Child Development Scheme (ICDS)

- Provision of water and sanitation facilities and Health and Hygiene Education programmes in all Anganwadi Centres through intensive IEC and training programmes.
- Anganwadi worker could work as sanitation motivator under TSC to generate effective demand for sanitation and also earn incentive under TSC

Indira Awaas Yojana (IAY):

- Households constructed under IAY to be essentially provided toilet under TSC.
- Joint IEC so as to have effective demand generation.
- On line monitoring of sanitation facility available in houses constructed under IAY.

National Rural Livelihood Mission (NRLM)

- Setting up Rural Sanitary Mart / Production Units
- Masons training
- Encouraging SHG to access revolving fund for APL under TSC

6.6 Financing

Reaching the Poorest of the Poor

While the policy of Government of India under TSC has been to disburse incentives to the BPL households, considered the poorest in the rural areas, poverty continues to be a curse and a barrier for accelerating rural sanitation coverage. The strategy shall therefore be of continuing with the practice of incentives to the poor in recognition of their achievement to construct and use sanitation facilities with corrections as may be required to get the intended results. The efforts shall also be to bring the weaker communities amongst APL like SC/STs and minorities under the umbrella of incentives appropriately to accelerate sanitation coverage. A key driver of change to achieve the vision of Nirmal Bharat is an approach which is driven by incentives for achievement of various milestones at individual and collective levels.

Motivating Self-Financing for Capable Households:

Information Education and Communication is an important component of TSC in its existing form. The guidelines also suggest that IEC is not a onetime activity and involves all sections of the rural population in a manner where willingness of the people to create sanitation

facilities for themselves is generated. The strategy shall therefore be to motivate capable households to create sanitation facilities for themselves through self-financing based on technology models meeting their affordability levels.

Financing School/Institutional Sanitation*:* The strategy shall be to provide assistance for institutional sanitation such as school/anganwadi/health centre sanitation facilities, community solid/liquid waste management facilities. Further, in order to achieve total sanitation in real terms, the strategy shall be to finance/facilitate construction of toilet facilities in Government aided and private rural schools in a phased manner once the project objectives of having sanitation facilities in all Government schools is completed. Similarly, many of the Anganwadis are operating from Panchayat Bhawans, rented buildings, schools, other kachcha/pucca structures. The strategy shall be to finance/facilitate construction of toilet facilities in Anganwadis operating from other than government buildings in a phased manner once the project objectives of having sanitation facilities in all Government Anganwadis are completed.

Tapping Diverse Funding Sources*:* Within the ambit of the above principle, the strategy shall promote alternative financial sources like 13th Finance Commission, Public Private Partnerships to engage with the private sector / development sector, banks and micro finance institutions

Financing for Sustainability:

Operation and Maintenance

Sanitation facilities, if not maintained properly shall always result in slipping back of entire community to open defecation status. This is particularly applicable to institutional sanitation facilities which are found lacking in proper cleanliness due to no fund provision available for operation and maintenance. Strategy shall therefore be to provide funds for operation and maintenance at the Gram Panchayat level which could be used as per the defined methodology to maintain the sanitation facilities.

Calamity Fund

It has also been observed by States particularly vulnerable to natural calamities like flood, drought, earthquake etc., the need for provision of funds in a scenario where sanitation facilities have got destroyed due to natural calamities etc. The strategy shall therefore be to provide funds for such damaged toilets at district level which could be used as per defined methodology to restore the sanitation facilities.

Revolving fund at Gram Panchayat level

Provision of revolving fund is also required to be made at the Gram Panchayat level for major repairs of the damaged/disused/misused sanitation facilities to bridge the gap between access and usage of sanitation facilities and assisting Gram Panchayats to attain open defecation free status in real terms.

Impact Assessment

The strategy shall be to have more organized and periodic approach to assess the success and limitation both of the policies made so as to carry out mid-course corrections for optimum results. For this purpose, periodic assessments on all policy interventions and related outputs shall be carried out using various tools of impact assessment.

6.7 Monitoring

Responsibility: The strategy shall adopt a strong monitoring system where the **institution which is responsible to carry out an activity shall undertake monitoring of the activities.** The monitoring system shall be the basis of incentivizing on achievement of various milestones.

Box13: Mobile based monitoring of sanitation outputs and outcomes

An effective monitoring is a basic necessity to implement a responsive, effective and sustainable development program. The two primary ingredients of an effective monitoring system is the timeliness and the robustness of the data. A third party monitoring system for TSC which tracks coverage and usage in near real-time can help the TSC achieve its objectives effectively.

Mobile based monitoring system using SMSs are increasingly gaining currency as economical and effective monitoring approaches. Due to the spread of mobile phones and its cheapness, data can be collected through an army of data collectors, transferred to servers immediately, collated and analysed immediately, to feed into program management for aiding decision making. Payments to the investigators can also be undertaken through the mobile.

Examples of the adaptation of this approach are already available and could be found on www.episurveyor.org and others.

Monitoring Mechanism*:*

- **Process monitoring** – The monitoring system tracks the processes adopted by the program in achievement of the objectives and benchmarks against ideal processes
- **Quality monitoring** – The monitoring system undertakes monitoring of the quality of the facilities constructed to ensure that they subscribe to improved sanitation parameters.

- **Usage and sustainability monitoring** – monitoring of usage and sustainability will be undertaken at quarterly intervals through sample studies of NGP villages, through third party organizations.
- **Impact monitoring** – the impact of sanitation on health will be monitored by comparing the changes due to achievement of sanitation outcomes (NGP) on main health parameters such as diarrhea through data available from the health department (PHC, rural hospitals, NRHM, etc.)

MIS System*:* A comprehensive MIS system incorporating the above monitoring outcomes shall be designed / strengthened – the existing TSC / NGP monitoring system will be integrated into one system, with upgrades to include latest available data from processes, usage, sustainability; the MIS system will evolve composite indicators to assess the overall performance of States and districts and benchmark them against each other.

Reconciling Monitoring Data from Different Sources*:* The monitoring system will develop common indicators for measurement and develop inherent systems to compare and reconcile data and results with other monitoring programs like NFHS, JMP, DLHS, NSSO etc.

Community-level Monitoring*:* The monitoring system will incorporate community level monitoring, third party monitoring and social audits of achievements.

6.8 Sustainability

Sustainability of sanitation facilities created and it usage is of utmost importance if rural sanitation coverage is to be consistently improved. Studies as mentioned in previously in this strategy paper have suggested that villages awarded Nirmal Gram Puraskar have slipped back to open defecation status in absence of sustainable sanitation facilities due to various reasons.

Operation and Maintenance

Sanitation facilities, if not maintained properly shall always result in slipping back of entire community to open defecation status. Strategy shall therefore be to provide funds for operation and maintenance at the Gram Panchayat level which could be used as per the defined methodology to maintain the sanitation facilities.

Calamity Fund

It has also been observed by States particularly vulnerable to natural calamities like flood, drought, earthquake etc., the need for provision of funds in a scenario where sanitation facilities have got destroyed due to natural calamities. The strategy shall therefore be to provide funds for natural calamities at district level which could be used as per defined methodology to restore the sanitation facilities.

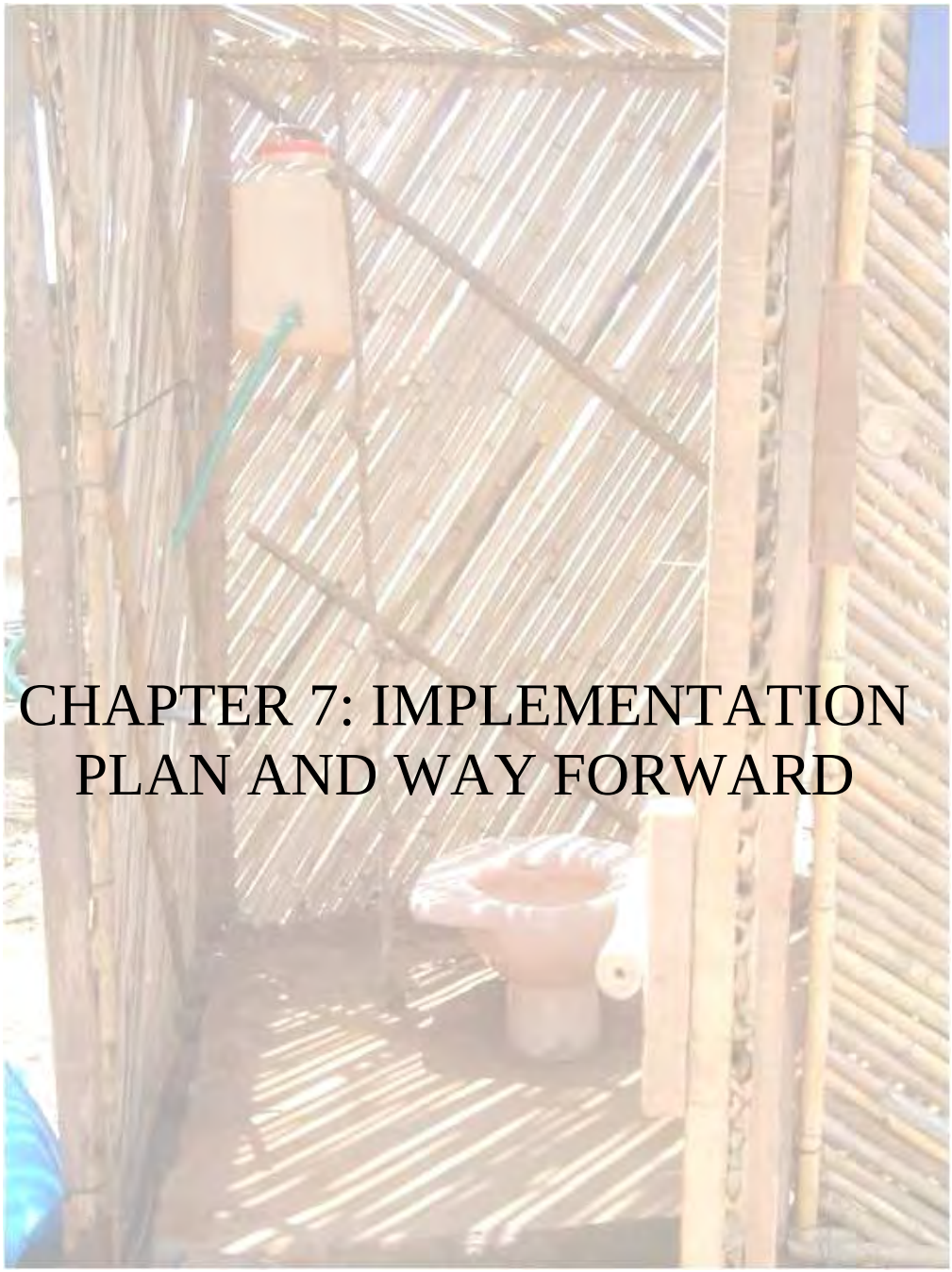
6.9 Incentives

Multi-level Incentives*:* Incentives will be instituted at different levels to motivate the achievement of sanitation outcomes. These incentives could be for individuals, villages or Gram Panchayats and other local and State governments that achieve various milestones towards total sanitation as well as for sustaining the total sanitation status.

Box 14: Monitoring and Incentivising Sustainability of NGP Status: *Swachch Puraskar*
Rewa district, Madhya Pradesh, initiated 'Swachch Gram Puruskar' in 2009 at the district level to award one GP from each block which follows demand-driven principles and sustains ODF status. The award (Rs. 50,000) is presented based on scores given in the peer review process led by sub-division-level officers. The scope of the award is limited to those GPs that have applied for NGP.

State-level Reward Programs*:* States will be encouraged to design and implement state level Reward program for villages to achieve Nirmal Gram status and existing NGP villages to sustain their Nirmal status. The State and districts will provide incentives for continued O&M of the total sanitation status. It will prioritize GPs which have received NGPs for inclusion in the various developmental programs.

Disincentives*:* There will be disincentives for local governments, and other levels in case of slipping back from their Nirmal status to open defecation status. Further, the strategy shall be to discourage frivolous applications for Nirmal Gram Puraskar through disincentives such as bearing the cost of survey by the States, apart from any other disincentives as deemed fit.



CHAPTER 7: IMPLEMENTATION PLAN AND WAY FORWARD

***Ultimately, it is not our capacity for prediction but our action that will determine the outcome* – India Vision 2020**

Chapter 7: IMPLEMENTATION PLAN AND WAY FORWARD

7.1 Phasing

As mentioned at the outset, this strategy has three main goals over the period 2012-22.

I. Creation of Totally Sanitized Environments
Access to Safe Sanitation by all Rural Households
Access to Institutional Sanitation

II. Adoption of Improved Hygiene Practices
Hand-washing at critical times
Hygienic handling of drinking water and food

III. Management of Solid and Liquid Wastes

A phased approach to achievement of goals will be followed through focused implementation. Therefore, the first issue to be addressed is the achievement of ODF followed by ODF+ activities such as improved hygiene and management of solid and liquid wastes.

The implementation measures to achieve the above phased goals, in addition to the existing provisions under TSC are set out below.

The approach to motivate the households to adopt improved and safe sanitation facilities will be decentralized and community led. The motivation of the families shall be undertaken at a collective level, using a variety of interpersonal and mass media communication approaches. Interpersonal communication shall include all forms of

participatory, visual based approaches, which enables the community to participate in an interactive manner, makes them analyze the situation and thereby internalize the need for adoption of sanitation behavior. Drivers that 'trigger' the community towards ending open defecation, which shall create emotional responses from the community (such as shame, disgust, prestige, status, etc.) alongwith applied logical ones (such as health). Mass media too shall promote messages, which may focus on emotional triggers, to move households and communities towards ending open defecation.

7.2 Communication Strategy

The National Nirmal Bharat Communication Campaign will be rolled out as part of the implementation of the strategy.

The campaign will be developed in three phases. The first phase will be focussing on sensitization and awareness raising and importance of benefits of improved sanitation, including elimination of open defecation, critical hygiene practices as well as safe disposal of solid and liquid waste. The expected time line will be 2012-2015.

The second phase will be specifically addressing needed change of social norms. This phase, while still addressing and enforcing the objective of phase one will identify key influencers and will address the rationale towards improved sanitation services and practices as well as resistance to change at community level. The time line for this part of the campaign is 2014-2018.

दिनांक–19.11.2009 को प्रातः 8.00 बजे विभिन्न विद्यालयों से आये बालक एवं बालिकाएँ अपने हाथों में स्वच्छता का संदेश लेकर प्रभात फेरी हेतु छपरा समहरणालय में एकत्रित।

The third Phase will address the up-scaling of advanced sanitation practices as well sustained private and public hygiene behaviour. This phase will promote specific behaviour change leading to successful achievement of total sanitation, improved private and public hygiene as well as safe disposal of solid and liquid waste in rural India. The time line for this part of the campaign is 2017-2022.

Box - 15

Best Practices in IEC in Rural Sanitation – A case study of Dakshina Kannada (Karnataka)

In Dakshina Kannada district, the TSC was launched on October 2, 2005, by the district minister along with elected representatives of the gram panchayat (GP) and district officials. Implementation of the TSC requires large scale social mobilisation. GPs, under the guidance of the district authority, played a pivotal role in the success of the TSC in the district. The GPs carried out the social mobilisation for the construction of toilets and maintenance of a clean environment by way of safe disposal of waste. Panchayats and non-governmental organizations (NGOs) made the implementation of the campaign a priority.

The efforts and involvement of rural Dakshina Kannadigans was rewarded by the Nirmal Gram Puraskar (NGP) award: 49 GPs in 2007, 131 GPs in 2008 and 23 GPs in 2009. Besides, three blocks also received NGP awards. Dakshina Kannada district, was the first and the only district to represent the state at the block-level NPG award.

Information, Education and Communication (IEC) Campaigns

Children were given education on sanitation and personal hygiene continuously. Teachers were trained by ZP members. School Sanitation Committee ensured the cleanliness of the toilets. Elocution, essay writing, debate, slogan writing and other competitions on the topic of TSC were held for students of all levels. Nursery rhymes and dances on TSC, for instance, were exhibited by anganwadi kids. Pamphlets on TSC were distributed with the help of self-help groups. People's active involvement in the sanitation programme was boosted by conducting ward-wise competitions. Yuvaka/Yuvathi Mandals, Sthree Shakthi, other self-help groups and National Social Service units of various colleges and elected members of the panchayats helped in spreading information about the campaign. School children, for example, visited nearby houses regularly with the aim of spreading awareness about good sanitary habits.

Educational Visits

Teams of people's representatives, NGOs, officials and development agencies from different districts, states, and also from different countries visited the GP to study the district model of total sanitation. This inspired the villages to maintain the success they had achieved. Many other people were involved in the campaign. The NGO Janashikshana Trust provided pivotal support to the campaign. The SKDRDP conducted the best SHG competitions (Nirmal Okkuta Award) to boost the movement. Nagarika Seva trust, Guruvayanakere, conducted mass IEC campaign. The women of the district, especially, made the movement a top priority irrespective of all the social hurdles. A strong communal fraternity emerged as the task progressed. This large-scale mass movement was strengthened with large-scale material donations. The district minister, Members of Legislative Assembly, Members of Parliament, and Panchayat members pitched in with help.

As a result, Dakshina Kannada has emerged as leading district in the State in implementation of Total Sanitation Campaign.

Empowering Communities through proactive IEC

7.3 Incentives

The existing policy of Government of India incentivizes both, individuals below poverty line and community as a whole under its reward scheme called Nirmal Gram Puraskar (NGP). Weaker communities among APL like SC/STs and Minorities shall also be incentivized in order to accelerate the rural sanitation coverage.

A habitation / village / GP will be considered as one entity, for which incentives will be available against milestones in addition to the individual incentives to the weaker section (targeted group) of the society. The targeted group shall be defined in line with the policy of government of India in other similar Centrally sponsored/Government run schemes. While dealing with the community, the community will decide on the level and timing of support / incentives to be given to individual households. The strategy will make incentives available to Gram Panchayats for making the village ODF – these will also be used by GPs to assist needy households for construction and usage of toilets to ensure that community spirit behind making the village open defecation free is not hampered, the incentives will be given only after the entire village becomes ODF.

7.4 Institutional Sanitation Facilities

The priority shall be given for assistance to the identified institutional units such as school/anganwadi/health centre as per the present project objectives. Further, in order to achieve total sanitation in real terms, creation of sanitation facilities shall be facilitated through financing construction of toilet facilities in Government aided and private rural schools in a phased manner once the project objectives of having sanitation facilities in all Government schools is completed. Similarly, many of the Anganwadis are operating from Panchayat Bhawans, rented buildings, schools, other kachcha/pucca structures. Similarly, construction of toilets shall be in Anganwadis operating from other than government buildings in a phased manner once the project objectives of having sanitation facilities in all Government Anganwadis is completed.

Incentives for institutions, either as standalone (for e.g. rewards for cleanest school) or as part of a larger incentive program (e.g. NGP) shall be devised to motivate institutions to undertake the behavior change and sustain it. Monitoring of the sustained usage and

its upkeep will be undertaken, through routine monitoring systems and evaluation studies/assessments.

Sanitation in public areas shall be facilitated through communication to ensure motivation of various stakeholders (tourist/religious authorities, restaurant owners) to provide sanitary facilities. Regulatory approaches shall be adopted to ensure that public place owners comply with the existing laws and rules to provide such facilities. Coordination with the other departments, in the case of railways, shall also be undertaken to ensure that sanitation facilities are provided. The National, State, district and Gram Panchayat governments will be involved in formulation of strategies.

7.5 Solid and Liquid Waste Management

Solid and liquid waste management shall be based on motivating the community to see health, economic and aesthetic value in managing the waste generated in the village. The concept of zero waste, i.e. recycling the waste to productive use, will be promoted, so that community sees value. The management of the waste shall be ideally done at the household level, and if possible, at the community level.

The Gram Panchayat will be the institutional responsible for the overall management of solid and liquid waste management. Within this responsibility, it may outsource responsibility of operation and management to other institutions such as CBOs/SHGs/private operators, etc. Capital expenditure required, wholly or partially, for the establishment of community based approaches to waste management shall be funded. The operation and maintenance costs of the operations shall be borne by the households / village itself; public funding shall be explored to finance part of the operating costs.

Incentives for SLWM shall be given as part of the overall incentives available for the village, such as the NGP, state reward programs, etc.. Monitoring of the sustainability of the proper management of waste and clean habitats shall be undertaken through regular monitoring systems, periodic assessments as part of the NGP, state reward programs, etc. as well as periodic studies by second or third party organizations.

Suitable funding provisions shall be made for Solid and Liquid Waste Management linked to the project objectives and not as a percentage of project outlay. The

component shall form the major share for future project objectives going up the sanitation ladder to achieve the goals identified for clean environment in rural areas. Separate guidelines shall be prepared based on existing successful models for solid waste management and liquid waste management separately linked to the population and geographical conditions of the Gram Panchayats in a project mode.

7.6 Sustainability

i. Operation and Maintenance

Provision shall be made in the guidelines for operation and maintenance funds as estimated as a percentage of project outlay at the Gram Panchayat level which could be used as per the defined methodology to maintain the sanitation facilities.

ii. Calamity Fund

Provision shall be made in the guidelines for calamity funds as estimated as a percentage of project outlay at the Central level which could be released to the affected and identified States/districts for use against natural calamities as per defined methodology to restore the sanitation facilities.

The cumulative fund support for the Operation and Maintenance and calamity together could be of the order of 10% of total project outlay.

iii. Revolving fund at Gram Panchayat level

Provision of revolving fund shall also be made at the Gram Panchayat level for major repairs of the damaged/disused/misused sanitation facilities to bridge the gap between access and usage of sanitation facilities and assisting Gram Panchayats to attain open defecation free status in real terms. The fund support shall be of the order of Rs.1 lakh to Rs.5 lakh linked to the population of the Gram Panchayat. The loan amount shall be available to all the households in the community irrespective of their APL/BPL status for the said purpose.

7.7 Adoption of improved hygiene practices

Improved hygiene practices shall be promoted through communications, mostly using mass media, to create enabling conditions for people to adopt hygiene behaviour. The communication will ensure that proper hygiene behaviour should be seen by the people as a status issue, that it is a social norm to adopt these

practices. Positive reinforcements for adoption of this behaviour along with negative image for non practicing shall be used throughout the communication.

The communication campaign for this behaviour change shall be undertaken at the state, district and block nodal agencies for implementation of the sanitation program, as well as the schools. The strategy shall not involve any financing at any levels, except to fund the software campaign for motivating the behaviour change among the people.

The incentives for hygiene behaviour shall be included in the overall incentive programs such as the NGP, state reward programs, school reward programs, etc. Non cash incentives like a better status, better family and improvement in quality of life would be added as incentives in the communication for hygiene behaviour change.

Monitoring of change of hygiene behaviour is most appropriately done at the local level, at the school and the village levels. Teachers and village leaders would be involved for the monitoring of this behaviour.

7.8 Impact Assessment

Periodic impact assessment shall be undertaken through studies by engaging independent institutions of repute or suitable governmental/non-governmental organisations that are familiar with the development context by way of independent survey undertaken in the community and through reviews of Secondary Data collected in routine under the programme.

In addition, the assessment of running programme would also be undertaken using the traditional methods of assessment involving following strategies and methods:

Community-based methods

Participatory approaches and methods, which would emphasise local knowledge and action by way of group animation and exercises to facilitate stakeholders to share information and make their own appraisals and plans enabling local people to work together to plan community development.

Consultation methods

Systematic investigation by beneficiary assessment of the perceptions of a sample of beneficiaries and other stakeholders to ensure that their concerns are heard and incorporated into project and policy formulation with the strategy to provide systematic listening, which would give voice to beneficiaries, highlighting constraints to beneficiary participation, and obtaining feedback on project implementation.

Observation and interview tools

Participant observation based on looking, listening, asking questions and keeping detailed field notes supplemented by desk reviews of secondary sources gathering local realities through key local informants. It could be in the form of semi-structured interviews partially structured by a written guide to ensure focus on the issue, but stay conversational enough allowing participants to introduce and discuss aspects that they consider to be relevant.

Focus Group Meetings to collect comparative data from a variety of stakeholders to address particular concerns; to build community consensus about implementation plans; to cross-check information with a large number of people; or to obtain reactions to hypothetical or intended actions.

Village meetings allowing local people to describe problems and outline their priorities and aspirations. They can be used to initiate collaborative planning, and to periodically share and verify information gathered from small groups or individuals by other means.

Participatory methods

By way of helping people to be creative, opening their perspectives, understanding the choices that another person might make, and making choices free from their usual responsibilities. This would stimulate discussion, improve communication, and promote collaboration at various levels.

Mapping tool for gathering both descriptive and diagnostic information for collecting baseline data on availability of sanitation facilities as part of a beneficiary assessment or rapid appraisals, laying the foundation for community ownership of development planning by including different groups.

Need Assessment drawing information about people's needs and requirements in their daily lives raising participants' awareness of sanitation issues and providing a framework for prioritising actions and interventions.

7.9 Monitoring Sanitation

Monitoring shall measure indicators of processes, coverage, usage and sustainability of household toilets and ODF villages. Monitoring shall be based on direct reporting by program implementers, as well as third party studies and assessments.

There is considerable variation in the performance of states on rural sanitation. The online monitoring system set up for the TSC contains a wealth of information on different indicators, disaggregated by state. Drawing on this information, a set of key indicators shall be selected from a mix of input, output, process and outcome indicators to come up with a composite score to benchmark state performance. On this basis, States shall be divided into four performance bands – Below Average, Average, Above Average and Superior to create an environment of competition among the States/districts to improve their rural sanitation coverage.

An option worked out by the Department in association with WSP as a unique process to benchmark performance on rural sanitation which could be used as a reference is explained in Box 15.

Box 16: Model to Monitor and Benchmark Rural Sanitation Performance of States/Districts

This model comprises a simple 4 step process, which combines input, process, output and outcomes indicators sourced from monitoring sources to create a performance score for states and districts, which enables their comparison. These four steps include:

Step 1: Select indicators: For a balanced measurement across inputs, outputs, processes and outcomes, key indicators shall be selected on which information is available in the public domain from online monitoring system or through major household surveys such as Census, NFHS, DLHS, NSSO etc.

Step 2: Assign Scores: Each indicator shall be assigned a weighted score which specifies the maximum and minimum range of marks. Outcomes score higher relative to other indicators and the maximum score is capped at 100.

Table 1: Indicators to Track State/District Performance on Rural Sanitation

#	Indicator	Type	Max Score
1	% of funds utilized	Input	10
2	Waste Management Project Status	Process	20
3	% Individual Household Latrines (IHHL) Construction objectives achieved	Output	50
4	% Institutional Sanitation Objectives Achieved	Output	10
5	Ratio of Success Rate of NGP Applications to total number of GPs	Outcome	10
	TOTAL		100

Step 3: Sum up scores: This entails adding up individual scores on each indicator to arrive at a cumulative performance score out of a maximum of 100.

Step 4: Benchmark States/Districts based on Scores: States and districts are ranked in descending order on the basis of the cumulative performance score achieved. The scores are presented such that state/district performance can be gauged relative to the national/state average.

Another option worked out by the Department in association with WSP as a unique process to incentivise benchmark performance on rural sanitation which could be used as a reference is explained in Box 16.

A stepped incentive structure can include:

Box 17: Strengthening a decentralized, incentive based approach to reaching Sanitation outcomes: Ensuring sustainability and inclusion

An approach which builds on the three focuses of the strategy and which builds on the existing TSC/NGP approach .

The cornerstone of this approach is that the **Gram Panchayat plays a central role** in achieving the sanitation outcomes in the villages under it. The **GPs would be incentivized** on a staggered basis to motivate them to achieve Total Sanitation and also sustain it; the incentives would be also designed to ensure **inclusion of the poor and marginalized** in the process and outcomes.

The approach would include an average financial support to all households in the GP, with a flexibility for the GP to provide unequal support to different households, but with a mandatory minimum support ensured for the poor and the vulnerable.

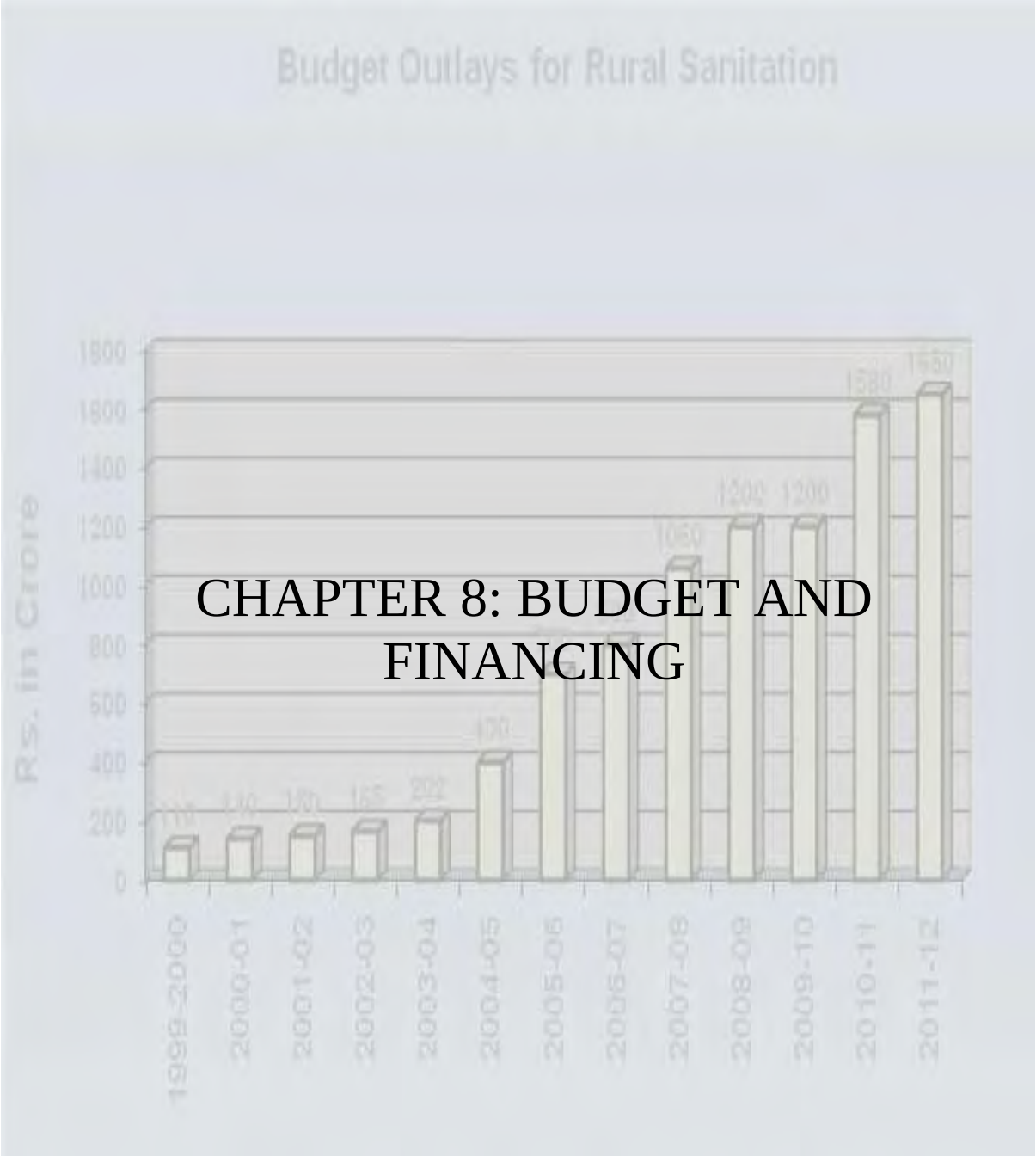
The approach could have the following process :

- On adoption of a resolution by the Gram Panchayat, a fraction (say x) of the financial support due to that GP (total number of households X amount allocated per household) would be released to the GP. This would ensure that the poorer households are supported to access sanitation facilities. The identified BPL and other vulnerable households will have to be supported with a minimum amount of support.
- On achievement of ODF, the GP will receive the remaining part of the incentives for toilet construction and usage.
- On achievement of total sanitation (ODF, SLWM, hygiene behavior, etc.), the GP will receive the NGP.
- On sustained usage, after a minimum of one year, the GP will receive a sustainability award (to be named; few times higher than the NGP).

This approach has the following advantages:

- The Gram Panchayat is strengthened as a service delivery institution
- Total Sanitation of the GP is ensured. Even the poor and marginal households are therefore included in the process.
- The incentive pattern ensures that the poor and marginalized have to be supported; in addition, others which the GP feels require support are also supported – this could also include those from among the APL families.
- The incentive system is also structured that higher incentives are available on achievement of higher goals; this ensures that the GP is motivated to achieve these higher goals and not rest on achieving partial goals.
- The GP can support some of the households which had constructed toilets in the past years (under less incentive), which have now collapsed
-

The Department shall move from the present project based approach of TSC after completion of more than a decade to a more comprehensive approach of National Total Sanitation Mission (NTSM) to incorporate the provisions mentioned in implementation mechanism above in such a manner that there is a smooth shift from TSC to NTSM with suitable overlapping period.



CHAPTER 8: BUDGET AND FINANCING

CHAPTER 8: BUDGET AND FINANCING

Based on the strategy building blocks and the implementation plan, an effort has been made to estimate the budget requirement over the next two plan periods to achieve the goals defined in this strategy paper. The component wise estimation works out as follows:

Indicative budget for implementation of programmes from 2012-13 to 2021-22

IEC and Start-up Activity, including motivation, awareness and educational campaigns, advocacy – the provision may be kept same as at present i.e. at 15% of project outlay.

Administration charges including training, support staff - the provision may be kept same as at present i.e. at 5% of project outlay.

Solid and Liquid Waste Management – Rs.2000 for solid waste management per rural household and Rs.1000 for liquid waste management for approximately 15.6 crore rural households at present. The total requirement works out to Rs.46,830 crore. The same may be supported in an incentive mode as is the case of IHHL to the extent of 40% in a selective mode which may be shared by Centre and State in the ratio of 70:30.

IHHL funds at the rate of Rs.4000 per beneficiary for the balance project objectives (also considering 25% of the APLs as weaker communities i.e. SC/ST and minorities). The total requirement works out to Rs.7800 crore approximately. The sharing pattern between Centre, State and beneficiary may be Rs. 2500, 1000, 500 respectively.

Institutional Toilets including School and anganwadis (including government aided and private buildings) including community sanitary complex at the rate of 10% of the project outlay

Revolving fund at the rate of Rs.1,00,000/- to Rs.5,00,000/- linked to the population of the Gram Panchayat. The total requirement works out to Rs.4300 crore.

O&M and Calamity at the rate of 10% of the project outlay.

NGP at the present rates i.e. up to Rs. 5,00,000/- linked to the population. The total requirement works out to Rs.4500 crore for balance PRIs.

ESTIMATED BUDGET REQUIREMENT

Rupees in crore

Sl. No	**Component**	**Funds Required**
1	IEC and Start-up Activity, including motivation, awareness and educational campaigns, advocacy	**4625**
2	Administration charges including training, support staff	**1542**
3	Solid and Liquid Waste Management	**18732**
4	IHHL funds	**7800**
5	Institutional Toilets including School and Pre-school and Community Sanitary Complex	**3083**
6	Revolving fund	**4300**
7	O&M and Calamity	**3083**
8	NGP	**4500**
	TOTAL	**47665**