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Enhanced Quality of Life through Sustained Sanitation

India Country Paper

SACOSAN - IV

The IV South Asia Conference on Sanitation

4th - 7th April, 2011

Colombo, Sri Lanka

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Government of India

Ministry of Rural Development
Department of Drinking Water and Sanitation

Ministry of Urban Development

Table of Contents

Abbreviations

APL	Above Poverty Line
AUWSP	Accelerated Urban Water Supply Program
BDO	Block Development Officer
BPL	Below Poverty Line
CCDU	Communication and Capacity Development Unit
CRSP	Central Rural Sanitation Program
CSP	City Sanitation Plan
DDWS	Department of Drinking Water and Sanitation
DWSM	District Water and Sanitation Mission
GDP	Gross Domestic Product
GoI	Government of India
GP	Gram Panchayat
HDI	Human Development Index
IDSSMT	Integrated Development of Small and Medium Towns
IEC	Information, Education and Communication
ILCS	Integrated Low Cost Sanitation Scheme
IPC	Interpersonal Communication
ISIP	Information Systems Improvement Plan
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
MDG	Millennium Development Goal
M&E	Monitoring and Evaluation
MHUPA	Ministry of Housing and Urban Poverty Alleviation
MoEF	Ministry of Environment and Forest
MoUD	Ministry of Urban Development
NFHS	National Family Health Survey
NGP	Nirmal Gram Puraskar
NGO	Non Government Organization
NGRBA	National Ganga River Basin Authority
NIUA	National Institute of Urban Affairs
NRHM	National Rural Health Mission
NRCP	National River Conservation Plan
NSS	National Sample Survey
NUSP	National Urban Sanitation Policy
O&M	Operation and Maintenance
PC	Production Centre
PRI	Panchayati Raj Institution
RAY	Rajiv Awas Yojna
RGDWM	Rajiv Gandhi Drinking Water Mission
RSM	Rural Sanitary Mart
SHG	Self-help Group
SLB	Service Level Benchmarking
SSA	Sarva Shiksha Abhiyan
SSRMS	Scheme for Rehabilitation of Manual Scavengers
SWSM	State Water and Sanitation Mission
TSC	Total Sanitation Campaign
UIDSSMT	Urban Integrated Development Scheme for Small and Medium Towns
UNICEF	United Nations International Children's Education Fund
ULB	Urban Local Body
UT	Union Territories
VAMBAY	Valmiki Ambedkar Awas Yojna
WHO	World Health Organization
WSP	Water and Sanitation Program
ZP	Zila Panchayat

Glossary

[Above/Below] Poverty Line: Absolute (private) consumption poverty line is taken to convey the inability of an individual or a household to afford a socially perceived normative minimal basket of basic human needs that is expected to be reflected in some normative minimal standard of living that should be assured to every individual/household. In the Indian context, it is measured in terms of consumption expenditure i.e. a certain exogenously given and privately purchased basket of goods and services (poverty line basket or PLB) evaluated at market prices. The poverty line in India determines eligibility for differential entitlements from the state. A number of exercises are currently on to review and revise the methodology for poverty line estimation. (Planning Commission, 2009).

Anganwadi: Nutrition Centre for pre-school children, initiative under the Integrated Child Development Scheme of the Government of India.

Civil Society: Civil society comprises the totality of voluntary, civic and social organizations and institutions that form the basis of a functioning society, in contrast with commercial organizations or state-backed structures. It can include organizations such as registered charities, development non-governmental organizations (NGOs), community groups, women's organizations, faith-based organizations professional associations, trade unions, self-help groups, social movements coalitions and advocacy groups.

District Level Health and Facility Survey: DLHS is a household survey at district level undertaken by the Ministry of Health and Family Welfare, Government of India through its designated nodal agency, the International Institute of Population Studies (IIPS). The purpose of the survey is to estimate the service coverage of child and reproductive health interventions provided by Government of India. DLHS data estimates % rural households using toilets.

Ecological Sanitation: Also referred to as 'ecosan', this is a sanitation method that works on the principle of 'closing the loop' i.e. human waste is a resource and rather than being disposed, should be treated, recovered and reused. In ecosan, urine and feces are separated at source and not mixed with water. The separated urine can be applied as fertilizer after treatment and feces can be composted.

Nirmal Gram Puraskar: lit. Clean Village Prize. This is a program introduced by the Government of India which gives a cash prize to local governments that achieve 100 per cent sanitation i.e. they are 100 per cent open defecation free and have tackled issues of solid and liquid waste management. More than a fiscal incentive, the award carries tremendous prestige as it is given by the Hon'ble President of India to winners.

Panchayati Raj Institutions: The term 'Panchayat' literally means 'council of five [wise and respected leaders]' and 'Raj' means governance. Traditionally, these councils settled disputes between individuals and villages. Modern Indian Government has adopted this traditional term as a name for its initiative to decentralize certain administrative functions to elected local bodies at village, block and district level. It is called *Gram Panchayat* at village level, *Panchayat Samiti* at block level and *Zila Parishad* at district level.

Information, Education, Communication: software activities that support and promote the provision of program services and facilities, e.g. media campaigns, capacity building activities, community hygiene promotion sessions and so on.

Millennium Development Goals: The Millennium Development Goals are eight goals to be achieved by 2015 that respond to the world's main development challenges. These include:

Goal 1: Eradicate extreme poverty and hunger

Goal 2: Achieve universal primary education

Goal 3: Promote gender equality and empower women

Goal 4: Reduce child mortality

Goal 5: Improve maternal health

Goal 6: Combat HIV/AIDS, malaria and other diseases

Goal 7: Ensure environmental sustainability

Goal 8: Develop a Global Partnership for Development

Total sanitation approach: a community-wide approach based on participatory principles which seeks to achieve not only 100 per cent open defecation free communities but also broader environmental sanitation objectives such as promotion of improved hygiene behaviours and solid/liquid waste management.

Total Sanitation Campaign (TSC): A national program launched by the Government of India in 1999 to achieve universal rural sanitation coverage by 2012 using demand-driven and participatory approach.

Numerical Units and Exchange Rates

1 lakh	100,000
1 million	1,000,000
1 crore	10,000,000
1 billion	1,000,000,000

1 US$ = INR 44, unless otherwise mentioned in the text

Executive Summary

Since SACOSAN-III, held in New Delhi in November 2008, India has continued to accord priority to sanitation at the national, state and local government levels. This has resulted in continued improvements in access to sanitation, increased attention to usage of toilets and sustenance of hygienic behaviour change, and safe conveyance and disposal at the community level to reap the benefits of improved health and environmental outcomes.

In rural sanitation, India's flagship rural sanitation programme, the **Total Sanitation Campaign (TSC)**, continues to be implemented with renewed vigour, and improvements in multiple facets of the programme.

The TSC has seen an increase in the number of households having access to sanitation facilities increasing by about 6.6% average annually over the past decade. The TSC programme was given a further boost with the introduction of the Nirmal Gram Puraskar (NGP) in 2003.

Achievements in rural sanitation

- One State viz. Sikkim has been declared total open defecation free with cent per cent access to sanitation facilities since SACOSAN-III.
- Three other States, viz. Kerala, Goa and Himachal Pradesh, are on the verge of attaining the status of open defecation free environment since SACOSAN-III.
- Increase in Nirmal Gram Puraskar (Communities with cent per cent sanitation coverage and awarded 'clean village award'). 25,251 Gram Panchayats (Local Self Governments at the village level) have achieved Total Sanitation, a total of 7364 achieving Total Sanitation since SACOSAN III
- 80.4 million people are living in Total Sanitation environments, 23.6 million more since SACOSAN III
- 10% of the total GPs have achieved Total Sanitation, 3% more since SACOSAN III
- 493 million additional rural people (68% of rural population) now have access to sanitation facilities since 1990, with 88 million (11% of rural population) additional since SACOSAN III
- 1.05 million toilets in schools have been constructed since 1999, 0.37 million since SACOSAN III
- 0.36 million toilets in anganwadis (Day Care Centre) have been constructed since 1999, 0.14 million since SACOSAN III
- 124 million children from 5,82,456 schools participated in Hand-washing with soap campaigns between the period 2009 to 2011.
- Central Govt Budget for rural sanitation has increased from Rs.1,650 Million in 2002-03 **tenfold** to Rs. 16,500 Million in 2011-12 (Rs. 12,000 Million in 2008)

(Source: http://www.ddws.nic.in,March 2011; Unicef)

The NGP is an innovative incentive scheme for those Gram Panchayats, Blocks and Districts, that have attained cent per cent sanitation coverage in their respective geographical areas. Cent per cent sanitation coverage includes eradicating the menace of open defecation, provision of sanitation facilities in all households and educational institutions, promoting hygiene education at school level and maintaining general cleanliness in the village. A handsome amount is being

given to the PRIs as incentive ranging from Rs.**50,000 to Rs.500,000** (based on the population criteria), which can be used by them for creating other sanitation infrastructure and maintenance of the same or any other step for solid and liquid waste disposal.

The phenomenal success of the scheme may be gauged from the fact that the Nirmal Gram Puraskar awards in the country have reached a figure of 25,251 including 2,808 awarded this year and adding 7,364 Panchayats since SACOSAN-III.

The rural sanitation sector has continued to receive increasing budgetary support. The TSC annual budget has increased to Rs. 16,500 Million, up from an annual budget of Rs. 12,000 Million in 2008. This only indicates the 65% of total outlay on rural sanitation sector from the Central Government, the balance being contributed by State Governments and beneficiary households and communities.

Some of the factors underlying achievements in this period included continued high-level political and administrative commitment to sanitation, a nation-wide enabling policy framework, decentralized planning, implementation and monitoring at Gram Panchayat levels, transparent national-level reporting and monitoring and independent validation, states' adoption of the incentive awards and recognition of communities achieving total sanitation, promotion of a range of appropriate and affordable technology options to suit different areas and communities, and support to the supply-side of sanitation material and products through alternate delivery mechanism.

Challenges that India is seeking to address in rural sanitation are sustaining toilet usage and behaviour change, variable performance across states and districts, accelerating the programmes to address the uncovered as well as population growth, improved targeting of the poorest households, addressing solid and liquid waste management, improving accountability for performance, and improving data-collection systems and reconciling different estimates of coverage and behaviour change.

The Dept. of Drinking Water and Sanitation (DDWS, Govt. of India) has finalized, through public consultations, a **'National Rural Sanitation and Hygiene Strategy 2012-2022'** to achieve sanitation related goals in a time-bound manner linked to Plan periods and feed the results into India's 12th Five Year Plan. Other efforts include performance benchmarking of states and districts, improving behaviour change communication strategies, streamlining and strengthening institutional structures, for planning, implementation and monitoring of sanitation at all levels, attention to incentives and capacity building issues, and according special attention to special segments and difficult areas.

In Urban Sanitation: India launched her National Urban Sanitation Policy (NUSP) in **Oct, 2008**, that signified a major watershed since it not only accorded national recognition *separately* to urban sanitation but also signalled to states and cities the urgency for planning and implementing measures for improving urban sanitation in a targeted manner. The NUSP envisions that: All Indian cities and towns become totally sanitized, healthy and liveable and ensure and sustain good public health and environmental outcomes for all their citizens with a special focus on hygienic and affordable sanitation facilities for the urban poor and women.

The NUSP targets awareness generation and behaviour change; open-defecation free cities including improved household coverage and provision of community and public sanitation facilities; city-wide integrated approach including sanitation for the poor, re-orienting and strengthening institutions; full cycle of safe collection, treatment and disposal/re-use; and proper operations and maintenance of all sanitation systems. States are required to prepare State Sanitation Strategies and City Sanitation Plans (CSPs) are to be prepared by cities in a participatory manner such that there is a city-wide ownership and commitment to sanitation plans and their implementation. Further, CSPs are to adopt a holistic approach towards addressing total sanitation needs of the city in a sustainable manner. The implementation of the policy is being given high priority in India's urban areas with the Ministry of Urban Development (MoUD), Govt. of India, supporting states and cities in preparing their state strategies and CSPs respectively.

Achievements in urban sanitation

- NUSP Launched and implementation in progress
- **Nine States** have drafted State Sanitation Strategies, others in progress
- More than 209 cities preparing CSPs by end of 2011
- National rating of sanitation in 423 Class-I cities (population more than 100,000) conducted and results widely disseminated in May 2010 and garnered excellent response from stakeholders and citizens.
- Service-level benchmarking of urban services (including sanitation) piloted and scaled up to more than 1,756 cities
- Thirteenth Finance Commission awards devolve financial resources as general and performance grants to cities to improve urban services (including sanitation)

Source*: MoUD, Govt. of India, 2011*

The household toilet coverage in urban areas grew from 61% in 2001 (Census of India) to 75% in 2008 (JMP 2010 estimate based on NFHS[1]-3, 2005-06). Later figures from a 2008-09 survey show increase in households' access to toilets – 77% households have septic tank/flush latrines 8% pit latrines, 1.6% service latrines, 1% other latrines, and 11% without any latrines. About 58% households have latrines for own exclusive use (individual), 24% households use shared, and 6.5% use community/public latrines (balance 11% without any access) (National Sample Survey NSS, 65th Round, Govt. of India, July 2008-June 2009). Hence, the proportion of households without access to any toilets has declined to 11% (*ibid.*) although a high proportion of households are dependant on shared and community/public latrines, as indicated above.

The Govt. of India commissioned a National Rating of Sanitation in 423 Class I cities (population more than 100,000) and dissemination of results in May 2010 leading to considerable public awareness and interest of states and cities in improving sanitation.

Nine states have drafted State Sanitation Strategies and more than 209 cities are in the process of preparing CSPs, and are expected to present their drafts by April 2011 – these will have short and medium plans that will be implemented in the coming years.

[1] *JMP is the UN-WHO Joint Monitoring Programme for Water Supply and Sanitation and NFHS is the National Family Health Survey (NFHS)*

A service level benchmarking exercise was carried for 28 pilot cities in 2009-10 and this has now been scaled up to more than 1,756 cities. The exercise promotes objective data collection and proposing tangible time-bound improvements in urban water and sanitation services. Cities are also being supported to access and properly utilize the sizeable grants awarded by the Govt. of India's Thirteenth Finance Commission (2010-2015) to cities to improve their urban services (including sanitation) using the benchmarking framework. Some of the factors underlying achievements in this period included improved profile to urban sanitation issues with the launch of the NUSP, assistance to states and cities in preparation of Strategies and City Sanitation Plans, dissemination of results of the National Sanitation Rating of Class-I cities, and a service-level benchmarking exercise that supports objective data collection and improvements in urban services including sanitation, training and capacity building, development of software for city-level sanitation planning, and partnerships with development partners for technical and financial assistance.

Challenges that India is seeking to address in urban sanitation include a high proportion of households dependent on shared and community toilets (24% and 6.5% respectively, NSS, 2010); a comparatively bleak situation in slum settlements (10% of notified slums, and 20% of non-notified slums did not have any latrine facility, NSSO, 2010); safe collection and treatment of human excreta (Central Pollution Control Board estimated in 2009 that only 13.5 % of the sewage from Indian cities is treated the rest being let out untreated leading to pollution of land and water-bodies), eradicating practices of manual scavenging; and mobilizing states and cities to accord sustained priority to urban sanitation.

The Ministry of Urban Development (MoUD, Govt. of India) is supporting the preparation and appraisal of CSPs, organizing training workshops for building capacities, and issuing advisories to cities to tackle a range of subjects related to sanitation, including improved management of septage from on-site installations, a hitherto neglected area. The Ministry of Housing and Urban Poverty Alleviation (MHUPA, Govt. of India) supports the implementation of the Integrated Low Cost Sanitation Scheme (ILCS) for the conversion of (dry) service-latrines into water borne flush toilets[2]. Other initiatives include the launch of the Rajiv Awas Yojana (RAY) targeted to achieve housing for all and a slum-free urban India, river cleaning projects to stop untreated municipal sewage and industrial effluents flowing into rivers.

SECTION 1

Rural Sanitation

Contents

1.1 Introduction

India has the second largest number of people in the world, with the majority of them living in rural areas. As per the Census 2001, the total number of people in the country was 1040 million, with 749 million of them in rural areas. As per recent estimates, the population in the rural areas has increased to 838 million.

The ongoing Indian national Census of India 2011 is likely to provide latest demographic information, including for those relating to sanitation in urban and rural households in India.

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[2]. 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. In rural areas, open defecation though reduced in scale continues to be a socially and culturally accepted traditional behaviour 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.

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

1.2 The Impacts of Sanitation

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. Diarrhoea, a preventable disease, is the largest killer and accounts for every twentieth death. Around 450,000 deaths were linked to diarrhoea alone in 2006, of which 88% were deaths of children below five (WSP Economics of 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 lead 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 productive labour, 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 was 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 stand improved to a great extent, the linkage between inadequate sanitation coverage and economic loss is of extreme significance.

1.3 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.

Sector Reforms: Total Sanitation Campaign (1999 onwards)

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 1.1).

BOX 1.1: 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.

1.4 National Level Sanitation Performance

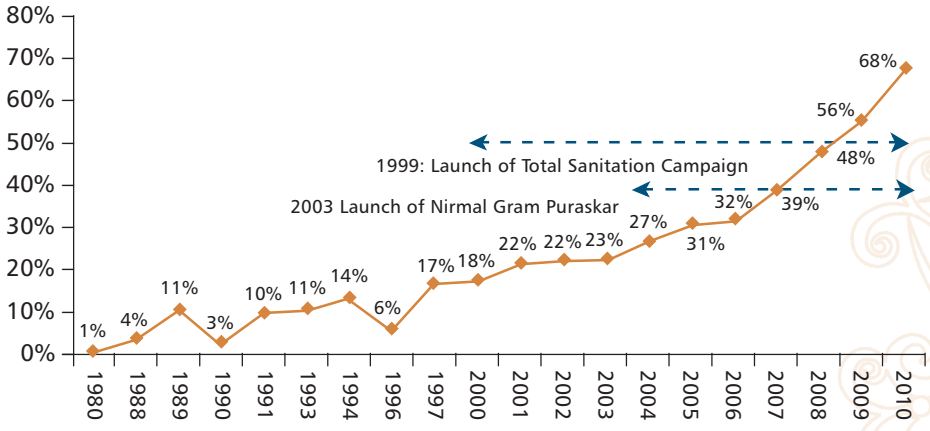
India has shown high country commitment to sanitation with increased support to India's rural sanitation flagship programme Total Sanitation Campaign. The national Five-year Plan Documents and Annual Plans and Budgets at the national and state levels recognise the rural sanitation vision and plans; and allocate considerable resources toward their achievement.

The profile of rural sanitation has been increasing over a period of time among political representatives, Government servants, civil society and rural communities. National leadership supports the sanitation programmes, The Nirmal Gram Puraskar is given by the highest office of the Country Her Excellency the President of India

Further the country commitment is evident from the fact that the Hon'ble Prime Minister of India addressed the issue of sanitation in his Independence Day speech on 15th of August 2010 and mentioned ***"I consider it a primary responsibility of all our citizens to maintain cleanliness and hygiene around them. I would like our children to be taught the importance of cleanliness and hygiene in schools from the very beginning under a campaign for a Clean India. I appeal to the State Governments, Panchayat Raj Institutions, civil society groups and common citizens to make this campaign successful"***

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 1.1 below, individual household latrine coverage has nearly tripled from just 21.9% at national level as reported by the Census in 2001 to around 68% 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 493 million rural people having access to sanitation, 88 million more since SACOSAN III.

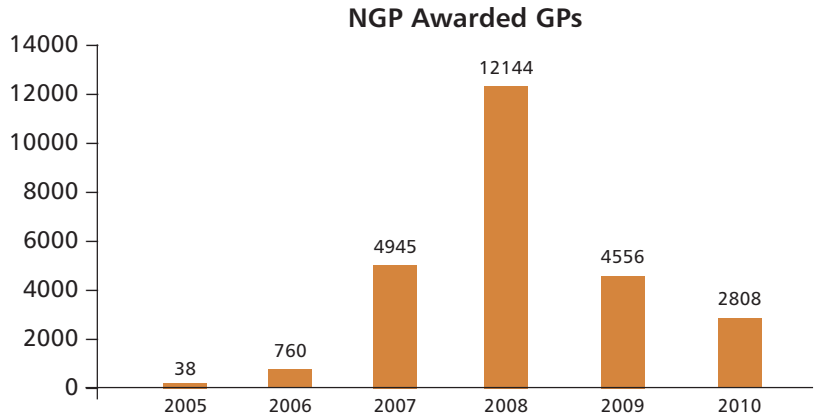
FIGURE 1.1: Rural Sanitation Coverage in India



Source: Government of India, Department of Drinking Water and Sanitation http://ddws.nic.in. Accessed January 2011.

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 25,251 in 2010, as can be seen from Figure 1.2. There was a steep growth in number of awardees each year till the year 2008. New stringent parameters coupled with open defecation free status like safe and proper disposal of solid and liquid waste and hygiene issues were added at this stage to take the communities to the next level of sanitation standards. This showed normalization of the award process with reduction in number of awardees each year with these higher standards in place. The number of such local governments (Gram Panchayats) by now is about 10% of the total number of GPs in the country. The number of people who are living in totally ***nirmal*** (clean) communities is well above 80 million.

FIGURE 1.2: NGP Winners (2005-06 to 2010-11)



Source: Government of India, Department of Drinking Water and Sanitation http://ddws.nic.in. Accessed March 2011.

The importance given to sanitation in schools, anganwadis (day care centres for under 5 children), and other institutions has also been significantly high. 1.05 million Schools in the country have been provided with sanitation facilities. Similarly 0.36 million anganwadis have gained access to a safe sanitation facility under the rural sanitation programme during the last decade.

1.5 Institutional Structure and Capacity

To effectively scale up and sustain rural sanitation outcomes, institutional arrangements with clearly defined roles and responsibilities and the resources (human and financial) to fulfil these roles effectively have been established. These institutional frameworks also include mechanisms for coordination between linked activities. Capacity, which 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 have also been clearly defined.

The institutional structure established for delivering on the goals of the national rural sanitation strategy is shown in *Figure 3* and roles and responsibilities of different institutions are detailed below.

At national level, the **Department of Drinking Water and Sanitation (DDWS)** enables and facilitates rural communities with opportunities to develop their social capital and resources to effectively achieve the goals of the strategy.

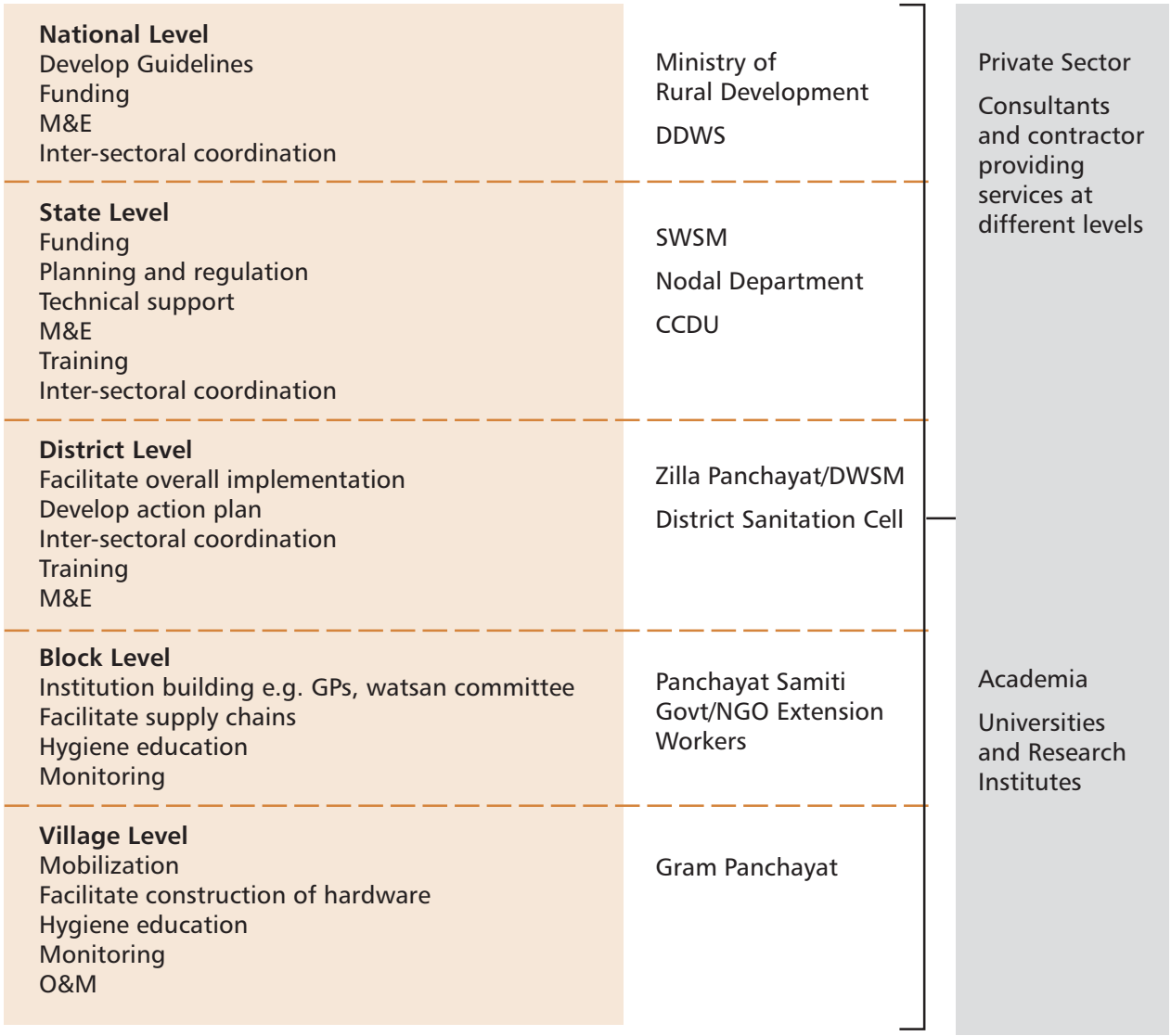
A **State Water and Sanitation Mission** (SWSM) develops strategies for the State on rural sanitation, which prioritize community led approaches leading to total sanitation outcomes at collective level.

A **nodal** agency is made responsible for sanitation at the State level. The agency is selected based on the **best fit for facilitating a participatory approach**. The **Communication and Capacity Development Unit (CCDU)** develops communication campaigns for the State, focusing on critical messages to change behaviour of communities and make usage of safe sanitation as a norm; CCDU develops capacity building strategies and roll out capacity building activities to bridge capacity gaps in sector on social mobilization, technical capacity and monitoring; CCDU sets up monitoring systems at State level to track processes, outcomes and sustainability to enable timely support to laggards and strengthen the leaders

The **District Water and Sanitation Mission** (DWSM) coordinates between various departments and programs, The DWSM/DWSC adopts a strategic planning and coordination role to drive the sanitation program in the district. A **District Sanitation Cell** facilitates scaling up of message dissemination and achievement of outcomes. The cell has various competencies like communication, capacity building, sanitation technologies, monitoring, etc.

Block Resource Centres (BRC) are 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 serves 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.

FIGURE 1.3: Institutional Framework for Rural Sanitation



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

The **Gram Panchayat**, being the lowest mandated local self government institution at the village level, is responsible for service delivery, and therefore takes leaderships in providing sanitation outcomes to the people. It plans, implements and monitors the achievement of sanitation in the villages under it. The Gram Panchayat supports the marginalized households of the GP to help them construct individual toilets and SLWM facilities; the GP also identifies and engages private parties (SHGs, CBOs, private sector) to operate and maintain common facilities in the village.

The involvement of the **private sector** in the sanitation sector is both formal and informal. On the formal side, there are three different types of organizations – the Non Governmental Organisations (NGOs), the large companies / private foundations who supports the sector in social mobilisation and other areas, and the commercial private sector sanitation firms which sell sanitation products likes pans and pipes. On the informal side, some of the material for construction of toilets like bricks, sand, etc. are often from the informal market; in addition, the masonry services are provided by masons, who are also often from the informal market. The **Rural Sanitary Mart**, 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, have been promoted as 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.

The two main functions of academic institutions, teaching and research are sought to be harnessed to support the sanitation sector. The additional requirements of qualified human resource, both in the social mobilization for demand generation and sanitation technology arena, and research into innovative approaches in various components of sanitation, including sanitation technology, psychology and approaches of community and individual behaviour, monitoring and evaluation of outcomes and impacts, are some of the other areas which are met through the involvement of academic institutions.

1.6 Approach to Demand Creation

The sanitation programmes 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.

Decentralized Approach: A decentralized approach with the Gram Panchayat as the focus institution which has the mandate and responsibility to achieve sanitation outcomes and sustain it is the core of the approach being adopted for scaling up rural sanitation.

Total Sanitation: The TSC **aims 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, is the main message disseminated through various interpersonal and mass media.

Incentive Delivery Mechanism: A habitation / village / GP is considered as one entity, for which incentives are available against milestones in addition to the individual incentives to the weaker. The strategy makes incentives available to Gram Panchayats for making the village ODF – GPs promotes to construction and usage of toilets through a community spirit to making the village open defecation free.

Behaviour Change Communication: Social marketing approaches are adopted to push for attitude and behaviour change among the people. Effective mass media based campaign to change the basic mindsets among people in the villages towards sanitation are undertaken at national and state levels so that attitude towards safe sanitation and hygiene is changed.

Sensitizing Political Leadership: The political leadership at national, state and district levels are 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 are 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 1.2: 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 writing this, 277 out of 333 GPs in Sirsa have 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 is also addressed through the development of separate guidelines on the programmatic and technical approaches.

Disaster and Emergency Situations: The programme also addresses 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: The approach to sanitation in public areas such as markets, religious and tourist sites are undertaken 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), are being explored to ensure that the management is sustainably undertaken.

1.7 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.

The TSC focuses on:

Safe Sanitation: Emphasis is given to technology options which shall effectively contain the human waste, completely eliminate the faecal oral transmission routes through water, air, insects and other vectors.

Promote Informed Choice: Selection of sanitation technology options 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.

BOX 1.3: Menu of technology options

Dry	Complex	High cost	Wet
			Septic Tank
Ecological Sanitation			Pour flush latrine with water seal
Ventilated improved pit latrine			
Unimproved pit latrine			
Shallow pit/Cat method			
	Simple	Low cost	

A variety of technological options, which correspond to the above approach, with varying affordability, site specific characteristics (see examples in Figure 4 below) are promoted. The focus is 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.

Options for Special Situations: Research/use of existing models to design and promote toilet options for difficult areas, for the disadvantaged and elderly, emergencies and other special requirements is an emerging field. Development of various technologies for sanitation and SLWM for different geo-climatic areas is also being taken care of under the programme.

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

Environmental Sanitation: The concept of ECOSAN is promoted for identified areas as suitable technology. The technology for SLWM is decentralized, household and community level facilities for the safe disposal of solid and liquid waste.

1.8 Supply Chain

The programme emphasises 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 are undertaken 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 1.4).

BOX 1.4: 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.

1.9 Solid and Liquid Waste Management

The management of solid and liquid waste in the village is the responsibility of the Gram Panchayat, which ensures service delivery. The institutions at other levels facilitates with communication, financial, technical and human resources required for the GP to ensure the undertaking of this responsibility. A GP views SLWM service delivery as an obligation. Different sources are considered for the upfront capital expenditure on SLWM works e.g. DDWS earmarked grant funding, Finance Commission funds, state subsidy, GP resources and user fees. Users may invest their own resources (financial, labour) into on-site household level options and variable O&M costs of community schemes Community level incentives includes benefit of a clean environment and any economic benefits from waste management.

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 is on household level waste management to the extent possible. The waste which cannot be managed at household level are handled at community level. For Liquid Waste Management, wastewater generated at household level is managed at household level itself. The liquid waste which cannot be managed at household level are handled at community level.

1.10 Financing

The rural sanitation sector has continued to receive increasing budgetary support. The TSC annual budget has increased to Rs. 16,500 Million, up from an annual budget of Rs. 12,000 Million in 2008. This only indicates the 65% of total outlay on rural sanitation sector from the Central Government, the balance being contributed by State Governments and beneficiary households and communities.

A project based approach with total project outlay of **Rs.200 billion** has been adopted clearly identifying financing requirements for achieving the project objectives. The financial assessments also find a specific mention in the Five Year Plan documents. Financial commitment has also been made to the rural sanitation sector to provide the balance funds for completing the objectives identified at present.

Further, as per the sanitation strategy 2012-22, an additional financial outlay of **Rs.470 billion** has been identified to be utilized over a decade to achieve the objectives of cent per cent rural sanitation.

While the policy of Government of India under TSC has been to disburse incentives to the Below Poverty Line households, considered the poorest in the rural areas, the incentives are disbursed post construction and the focus is on motivating capable households to create sanitation facilities for themselves through self-financing based on technology models meeting their affordability levels. In addition the Government of India encourages tapping diverse funding sources to upscale the sanitation programme. These include alternative financial sources like 13th Finance Commission, Public Private Partnerships to engage with the private sector / development sector, banks and micro finance institutions. The guidelines also has also the provision of revolving funds for setting up of rural sanitary marts and production centres and interest free loans to individuals not being provided any direct monitory incentive for construction of toilets.

1.11 Monitoring and sustaining change

Rural sanitation programme has a comprehensive system of monitoring the implementation and impact of the Programmes including utilization of funds, through Periodical Progress Reports, Performance Review Committee meetings, Area Officer's Scheme, District Level Monitoring and Vigilance and Monitoring Committees at the State/District Level. Besides, the programme adopts a five-pronged strategy consisting of (i) creation of awareness about the schemes, (ii) transparency, (iii) People's participation, (iv) accountability / social audit and (v) strict vigilance and monitoring at all levels. These measures help in maximum utilization of funds and monitoring progress under the scheme.

Comprehensive web-based online monitoring systems for TSC and NGP separately are in place with Gram Panchayat level data on targets and achievements. The data is being updated at district level and state level on real time basis displaying the beneficiary details on the monitoring system to ensure transparency. The system also captures beneficiaries under special segment covered with sanitation facilities to monitor progress. A comprehensive public grievance mechanism is also in place online to deal with public complaints on provision of sanitation services. All the above data is in the public domain and the Right to Information Act is in place which empowers citizens and service users to demand for services.

A separate online monitoring system also exists to evaluate and monitor totally sanitized communities under Nirmal Gram Puraskar. The process is a result of continuous modifications in the online systems resulting in '**evolution of a unique evaluation process**.'

Considerable work done on technology options, programme effectiveness, diagnosis using benchmarking performance indicators, and other periodic studies and evaluations conducted to measure effectiveness and sustainability.

Health and environmental outcomes now on the radar of both rural and urban sectors– measurement and tracking systems being developed.

1.12 Incentives

Multi-level Incentives: Incentives are instituted at different levels to motivate the achievement of sanitation outcomes. These incentives are 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.

State-level Reward Programs: States are 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 provides incentives for continued O&M of the total sanitation status. It prioritises GPs which have received NGPs for inclusion in the various developmental programs.

Looking to the remaining challenges in the sector, the Dept. of Drinking Water and Sanitation (DDWS, Govt. of India) has finalized, through public consultations, a **National Rural Sanitation and Hygiene Strategy 2012-2022** to achieve sanitation related goals in a time-bound manner linked to Plan periods and feed the results into India's 12th Five Year Plan. This strategy is based on the experiences in the sector and anticipates the end of open defecation in rural areas across the country in the year 2017, and achievement of total sanitation in the year 2022.

1.13 Lessons and Gaps

Lessons

The lessons from achievements in rural sanitation include:

- **High-level political and administrative commitment** for sanitation which was responsible for India's progress in rural sanitation
- **A nation-wide enabling policy framework** provided by TSC that helped in stimulating demand and provided the flexibility for states and districts to use their own implementation approaches in recognition of the wide diversity at state and local levels.
- **The NGP and state award schemes** that gave required push to sanitation agenda at all levels and helped in accelerating achievements at the community level.
- **Decentralized planning, implementation and monitoring** at district and Gram Panchayat levels that have made a positive impact on the program including accountability.
- **A holistic approach to sanitation service delivery involving all administrative levels** of the implementation chain from centre to village demonstrated in the current institutional arrangements.
- **The Government's policy of consultations with all stakeholders** in the planning process (example: recent strategic planning exercise by DDWS) which has improved transparency and quality of planning process and therefore better buy-in from different interest groups.
- **Various initiatives of convergence and coordination** with various related schemes being implemented by other Ministries viz, Ministry of Health and Family Welfare, Ministry of Human Resource Development, Ministry of Women and Child Development, Ministry of Social Justice and Empowerment, Ministry of Panchayati Raj that have not only provided impetus to the programme bringing in additional financial and human resources but also brought sanitation in the mainstream.
- **Transparent on-line reporting, independent verification and evaluation processes** that improved the effectiveness of the programmes, incentive schemes and reduced chances of slip-backs.
- **Promotion of appropriate and affordable technology options** by the Government to suit different conditions, support to sanitation marketing (including those from the private sector suppliers of sanitary materials/accessories) coupled with creating demand, IEC and incentives.
- **A mix of IEC and capacity building for all segments, and incentivizing the poor** (and special segment), shows potential for rapid and sustainable improvements.
- **Targeted interventions** to address manual scavenging.

Gaps

Variable priority to and performance of rural sanitation across States and Districts/Cities. In terms of Individual Household Latrines (IHHL) coverage, whereas some states have achieved full coverage, some others are too far from achieving such progress. Similarly, there are significant variations across states in the proportion of Panchayats becoming "Nirmal" (Clean). Since operational performance on ground is dependent on a host of local factors, this requires tracking of goals and achievements at State, District and local Government levels. Also, this indicates, the need for the development of differentiated strategies to deal with difficult terrains and environments, and different categories of un-served people.

In the wake of a large base-stock of population not having access to sanitation, programmes have to address not only shortfalls but also respond to the population growth in rural and urban areas of India. Scaling up and accelerating sanitation programs are therefore a formidable challenge.

While progress in improvements is commendable, there are major difficulties in sustaining results in rural areas in terms of sustaining the habit and changed sanitary behaviours leading to realizing health and environmental benefits.

Management of solid and liquid waste leading to environmental cleanliness is an issue to handle in the wake of growing population and use of non-biodegradable products.

In rural areas, reaching the poorest of the households has proved a major implementation hurdle. In spite of incentives at individual as well as community level, the poorest households' ownership and/or access to safe sanitation has not shown the expected improvements.

SECTION 2

Urban Sanitation

Contents

2.1 The Indian Urbanization and Sanitation Challenge

As presented in Section 1, the impressive growth of the Indian economy is in contrast with the deficits in sanitation to Indian citizens. While household coverage poses a major problem in rural India, urban Indians also suffer considerable deficits; and further, safe confinement and disposal of human excreta poses a huge challenge in cities.

While over the 1951-2001 period, the rate of urban population declined steadily (except the 1971-81 decade), in the last decade, urban India has enjoyed recognition as an engine of economic vitality, the space for significant future developments in social, cultural and technological arenas; as also as a complex canvass of evolving governance systems, inadequate infrastructure and services, with an increasingly large number of poor living in unplanned slums – factors that make ensuring safe sanitation coverage and disposal assume urgency.

In 2001, about 285 million people, or 55 million households comprising 28% of India's population, lived in 5,161 cities. About 37% lived in 35 million-plus metros, the rest being equally divided between 388 Class I (0.1 up to a million population) and 4,738 small towns (less than 0.1 million population). Projections estimate that more than 830 million people in rural areas and 360 million people would be living in Urban India by 2012 (Office of Registrar General and Census Commissioner, Govt. of India, 2006). The Registrar General of India (GoI, 2006) projects 535 million urban Indians by 2026 (38% of the total projected population of 1.4 billion) – an addition of 250 million people in 25 years. The on-going national Census of India 2011 is likely to provide latest demographic information. It may be noted however that there are variations in level of urbanization across states –more than 40% of Maharashtra and Tamil Nadu live in urban areas and Assam has only 13% in urban areas. The highly-urbanized states (e.g. Maharashtra, Tamil Nadu, Gujarat, etc.) may turn urban-majority states as early as by 2021, much ahead of rest of India.

Poor sanitation severely impacts public health, causes premature deaths, diseases and imposes huge medical expenditure, pollutes water, apart from the welfare handicaps that it poses for women and children, and differentially impacts the poor. A WSP study *The Economic Impacts of Inadequate Sanitation in India* (2010) showed that inadequate sanitation (viz. inadequate household access as well as associated poor hygienic behaviour and lack of safe confinement and disposal of fecal matter) caused India considerable economic losses, equivalent to 6.4 per cent of India's GDP in 2006 at US$53.8 billion (Rs.2.4 trillion), and highlighted that at 75% more than the national average and 60% more than the urban average, the poorest 20% of households living in urban areas bore the highest per capita economic impacts of inadequate sanitation.

2.2 Status of Urban Sanitation in India

The JMP 2010 revised estimates for 2008 were 18% urban Indian population defecating in the open and 7% using unimproved toilets i.e. about 75% population having access to sanitation – 51% individual toilets and 24% sharing toilets. The National Sample Survey (NSS, 65th Round, Govt. of India , July 2008-June 2009) estimated that 77% households have septic tank/flush latrines, 8% pit latrines, 1.6% service latrines, 1% other latrines, and 11% without any latrines. About 58% households have latrines for own exclusive use (individual), 24% households use shared, and 6.5% use community/public latrines (balance 11% without any access).

TABLE 2.1: Availability of Toilets for Households in India - Rural and Urban 2008-2009

Location	Without Toilets	Pit Latrine	Septic Tank/Flush Latrine	Service	Others	Total
Total	49%	12%	35%	1.40%	1.20%	99%
Rural	65%	14%	18%	1%	1%	99%
Urban	11%	8%	77%	1.60%	1%	99%

TABLE 2.2: Type of Toilets used by Households in India - Rural and Urban 2008-2009

Location	Without Toilets	Exclusive (own) Use	Shared	Public/ Community	Total
Total	49%	37%	11%	3.00%	100%
Rural	65%	28%	6%	1%	100%
Urban	11%	58%	24%	6.50%	100%

Source*: NSS 65th Round, Report No. 535: Housing Condition and Amenities in India: July, 2008-June, 2009 (Nov 2010).*

Thus, about 30 million urban residents (base population from Census 2001) were without access to toilets, and another 7 million using service and other (unimproved) toilets. Accounting for population growth, about 40 million urban residents are likely to be without access to toilets in 2011. Hence, the proportion of households without access to any toilets has declined to 11% (ibid.) although a high proportion of households are dependant on shared and community/ public latrines, as indicated above.

However, the situation in urban slums is worrisome – non-notified slums bearing the brunt of neglect. The percentage of notified and non-notified slums without latrines was 17% and 51% respectively. In respect of septic latrines, the availability was 66% and 35%, and for underground sewerage, the availability was 30% and 15% respectively.

In urban India, safe disposal of human excreta is the biggest challenge. A 2009 study of 498 Class I and 410 Class II[4] towns reported that while sewage generated was more than 38,000 MLD (million litres per day), treatment capacities were only about 12,000 MLD - 31% of the generation. (Central Pollution Control Board, 2009). The 35 million-plus cities have 68% of the total installed wastewater treatment capacity (11,787 MLD) but nearly 39% of the treatment plants did not conform to discharge standards into water bodies (ibid). CPCB estimated that only 13.5 % of the sewage from Indian cities is treated (CPCB, 2009). Most of the cities have only primary treatment facilities. Thus, the untreated and partially treated municipal waste water finds its way into water sources such as rivers, lakes and ground water, causing water pollution. According to the CPCB, organic matter and bacterial population of fecal origin continue to dominate the water pollution problem – mean levels of biological oxygen demand (BOD) have increased in six of the 18 major rivers accounting for 46% of the total river length nationally. Groundwater is also polluted due to discharge of untreated sewage (CPCB, 2009).

[4] Urban areas with population of 100,000 and above are classified as Class I towns in India; Class II towns with population of 50,000 and more up to 100,000. Metros have 5 million or more residents.

2.3 National Urban Sanitation Policy 2008

Sanitation in urban areas has conventionally been left to urban local bodies/municipalities to manage with assistance from State Governments. Limited national level policy priority and budgetary resources were allocated to urban water and sanitation schemes – in this too water supply dominated. Thereafter, investments were channelled toward building sewerage systems and finally, wastewater treatment plants in the larger cities. Most of the household latrines were left to households to build and maintain too without any regulation. At the national level, the Integrated Development of Small and Medium Towns (IDSSMT) Scheme started in 1979 with 235 towns and covered more than 900 towns by later 1990s. The Mega-cities scheme launched in 1993 covered, the five non-Delhi metros. The Accelerated Urban Water Supply Program was also started in 1993 and covered more than 1,200 towns[5].

Sanitation for the urban poor was supported through low-cost toilets' subsidy under the Integrated Low Cost Sanitation Scheme (ILCS of GOI and similar schemes of State Governments); and the community toilets were constructed for slum populations under the national VAMBAY scheme (Valmiki Ambedkar Awas Yojana, and its pre-cursor National Slum Development Project or NSDP).

Despite these investments, impacts were very limited – investments in water supply took away the bulk of the allocations and releases, and urban sanitation continued to suffer ignominy – A Govt. of India-commissioned study by NIUA (1998-2003, on 300 metros, Class I and Class II towns) (MOUD/NIUA, 2005) found …"while all the metropolitan cities have a sewerage system, only a third- of the Class I cities and less than one-fifth of the smaller sized urban centers have a sewerage system. However, the coverage of population by the sewerage system is partial in all these urban centers". Further, little information was available on on-site installations like septic tanks and pit latrines until the NFHS-3 (2005-2006) (which showed 24% urban Indian households sharing toilets, more than 5% of the households letting out untreated fecal matter into the environment even with household arrangements like septic tanks and pit latrines!). Thus, unlike the rural areas that have witnessed the implementation of a national-level TSC, programs in urban sanitation received much lower priority.

The year 2005 witnessed the launch of India's urban sector flagship, the Jawahar Lal Nehru National Urban Renewal Mission (JN NURM[6]) for 65 cities (accounting for 42% of population in Urban India) with emphasis on provision of basic services to the urban poor including housing, water supply, sanitation, road network, urban transport, development of inner (old) city areas etc. JNNURM consists of two sub-missions: (i) the Urban Infrastructure and Governance and (ii) the Basic Services to the Urban Poor. The Urban Infrastructure Development Scheme for Small & Medium Towns (UIDSSMT) covers the rest (non-JNNURM) of the cities and towns. The JN NURM signalled national recognition and priority to urban issues and challenges and provided the backdrop for greater attention to sanitation.

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[5] These schemes have since been subsumed under the JN NURM and UIDSSMT (2005).

[6] The erstwhile schemes of Accelerated Urban Water Supply program (AUWSP) and Integrated Development of Small and Medium Towns (IDSMT) have since been subsumed in the JN NURM to 63 mission cities; and as the Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) to cater to the non-mission urban areas (the rest of the 4,898 urban areas).

In response to the obviously alarming situation in urban sanitation, the Government of India, in discussion with the States, constituted a National Urban Sanitation Task Force in 2005 comprising eminent policy makers, practitioners, experts and NGOs in order to take stock of the situation and formulate a policy to comprehensively deal with the challenges in urban sanitation in Indian cities. Based on the recommendations of this task force, India's National Urban Sanitation Policy (NUSP, 2008) was approved by the Government of India in October 2008. The Vision of the National Urban Sanitation Policy is:

"All Indian cities and towns become totally sanitized, healthy and liveable; and ensure and sustain good public health and environmental outcomes for all their citizens with a special focus on hygienic and affordable sanitation facilities for the urban poor and women."

The NUSP recognized that the following key policy issues must be addressed to achieve the vision:

Poor Awareness: Sanitation has been accorded low priority and there is poor awareness about its inherent linkages with public health.

Social and Occupational aspects of Sanitation: Despite the appropriate legal framework, progress towards the elimination of manual scavenging has shown limited success, Little or no attention has been paid towards the occupational hazard faced by sanitation workers daily.

Fragmented Institutional Roles and Responsibilities: There are considerable gaps and overlaps in institutional roles and responsibilities at the national, state, and city levels.

Lack of an Integrated City-wide Approach: Sanitation investments are currently planned in a piece-meal manner and do not take into account the full cycle of safe confinement, treatment and safe disposal.

Limited Technology Choices: Technologies have been focussed on limited options that have not been cost-effective, and sustainability of investments has been in question.

Reaching the Un-served and Poor: Urban poor communities as well other residents of informal settlements have been constrained by lack of tenure, space or economic constraints, in obtaining affordable access to safe sanitation. In this context, the issues of whether services to the poor should be individualised and whether community services should be provided in non-notified slums should be addressed. However provision of individual toilets should be prioritised. In relation to "Pay and Use" toilets, the issue of subsidies inadvertently reaching the non-poor should be addressed by identifying different categories of urban poor.

Lack of Demand Responsiveness: Sanitation has been provided by public agencies in a supply-driven manner, with little regard for demands and preferences of households as customers of sanitation services.

The goals of the NUSP were enunciated as presented in Box (2.1).

BOX 2.1: National Urban Sanitation Policy (NUSP) Goals

To transform Urban India into community-driven, totally sanitized, healthy and liveable cities and towns, the policy sets out the following goals:

A. Awareness Generation And Behaviour Change

a. Generating awareness about sanitation and its linkages with public and environmental health amongst communities and institutions;
b. Promoting mechanisms to bring about and sustain behavioural changes aimed at adoption of healthy sanitation practices;

B. Open Defecation Free Cities

a. Promoting access to households with safe sanitation facilities (including proper disposal arrangements);
b. Promoting community-planned and managed toilets wherever necessary, for groups of households who have constraints of space, tenure or economic constraints in gaining access to individual facilities
c. Adequate availability and 100 percent upkeep and management of Public Sanitation facilities in all Urban Areas to rid them of open defecation and environmental hazards

C. Integrated City-wide Sanitation

1. Re-orienting Institutions and Mainstreaming Sanitation
   a. Mainstream sanitation in all sectors and departmental domains as a cross-cutting issue – especially in urban management;
   b. Strengthening national, state, city and local institutions (public, private and community) to accord priority to sanitation provision including planning, implementation and O & M management;
   c. Extending access to proper sanitation facilities for poor communities and other Un-served settlements;

2. Sanitary and safe disposal: 100 percent of human excreta and liquid wastes must be disposed of safely.
   a. Promoting proper functioning of network-based sewerage systems and ensuring connections of households to them wherever possible;
   b. Promoting recycle and reuse of treated water for non potable applications wherever possible.
   c. Promoting proper disposal and treatment of sludge from on – site installations (septic tanks, pit latrines, etc.); d. Ensuring that all the human wastes are collected safely conveyed and disposed of after treatment so as not to cause any hazard to public health or the environment.

3. Proper Operation and Maintenance (O&M) of all Sanitary Installations:
   a. Promoting proper usage, regular upkeep and maintenance of household, community and public sanitation facilities;
   b. Strengthening Urban Local Bodies to provide or cause to provide, sustainable sanitation services delivery

Source: *NUSP, 2008.*

Under the NUSP, Govt. of India has committed its support to the states and cities, by helping them prepare their state strategies and city plans, national level awareness generation, help clear assignment of roles and responsibilities, explore and facilitate avenues of financing, helping reach the un-served and the poor, and carry out national monitoring and evaluation, knowledge management and capacity building, etc.

Supportive Initiatives in Urban Sanitation

In order to replace all service-latrines (manually cleaned bucket-type latrines) and the rehabilitation of workers engaged in the occupation of manual cleaning, the Govt. of India had in 1980-81, launched The Integrated Low Cost Sanitation Scheme (ILCS). About 2.3 million such service latrines (of the 5.4 million reported by NSS, 1989) were converted into sanitary latrines by July 2007, and more than 50,000 scavenging workers reported to have been rehabilitated. But Ministry of Housing and Urban Poverty Alleviation (MHUPA, 2006) estimated that more than 120,000 workers remained to be rehabilitated. The ILCS guidelines have since been revised and now target converting 600,000 dry latrines into water borne flush toilets over 2007-2010. The Self-employment Scheme for Rehabilitation of Manual Scavengers (SSRMS), launched in 2007 under Ministry of Social Justice and Empowerment, aims to provide alternative occupations via self-employment to those who manually remove human excreta from remaining "dry toilets" and their dependents by skill training and financial assistance (loan and subsidy). The Ministry of Environment and Forests (MoEF) is responsible for protection of land, rivers and surface water bodies from pollution including that from municipal sewage. The MoEF has been implementing the National River Conservation Plan (NRCP) scheme since the early 1980s in which technical assistance and funding was provided to riparian cities along the main rivers in India to build and manage sewage treatment plants. The outcomes have not been satisfactory for a variety of reasons. In 2009, the National Ganga River Basin Authority (NGRBA) has been set up this has launched *Mission Clean Ganga* to stop all untreated municipal sewage and industrial effluents flowing into river Ganga. The NGRBA has estimated about Rs. 15,000 Crore (Rs 150 billion) financing requirement to create treatment and sewerage capacity to meet this goal over the next ten years (National Ganga River Basin Authority, 2009).

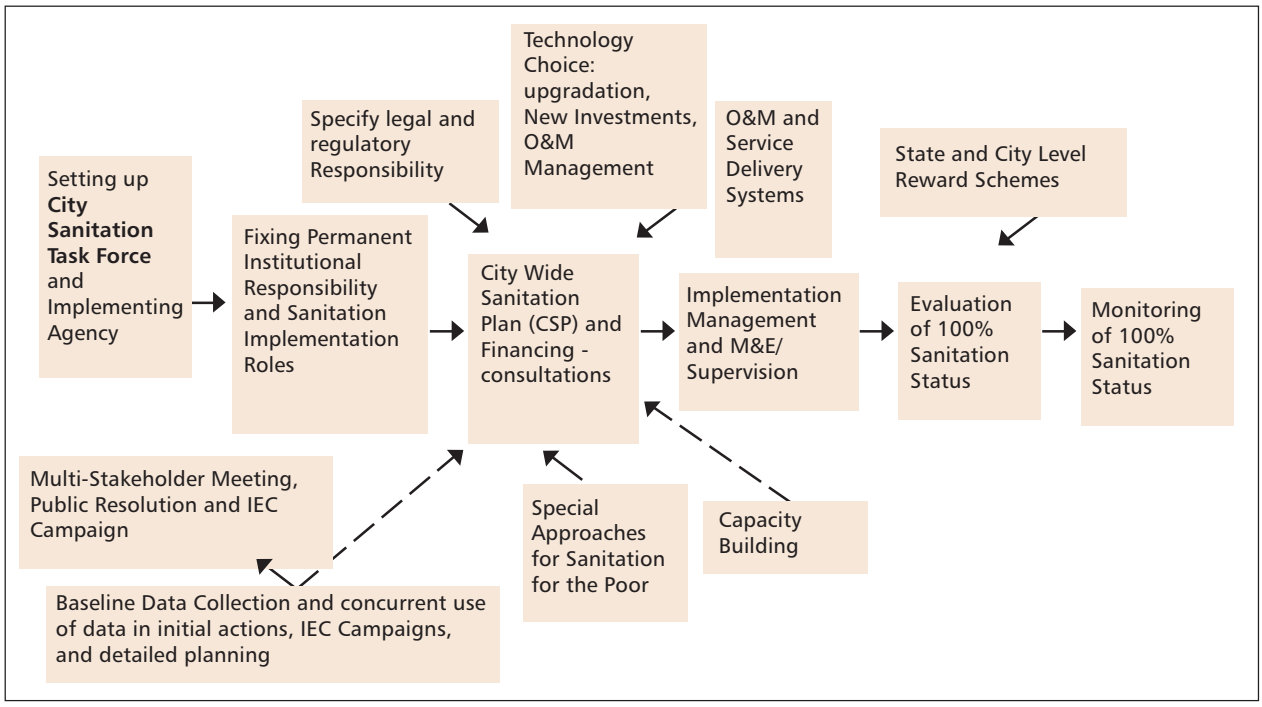
2.4 State Strategies and City Sanitation Plans (CSPs)

The NUSP explicitly recognises that sanitation is a state subject further devolved to cities by the 74th Constitutional Amendment. Further, in spite of the common characteristics, there are a number of factors and forces, constraints and opportunities, that are peculiar to specific situation of states and cities viz. their historical legacy with respect to sanitation, climate and physiographic factors, economic, social and political parameters, and institutional variables, etc. Therefore, the NUSP provides for each of the States to prepare their own State Sanitation Strategies taking into account its local urban context. This will set out the state level framework in which cities will plan and implement their City Sanitation Plans (CSPs). The states will also be encouraged to formulate State Reward Schemes. A state level apex body is recommended for the implementation and monitoring of the state strategy. Like in the national policy, state strategies are recommended to detail out the generic areas requiring attention viz. Clear assignment of institutional responsibility, resources and capacities; Setting standards at the State Level for public health and environmental outcomes as well as process, service standards and manpower indicators; planning and financing for urban sanitation; strategies for extending access to un-served and urban poor by means of individual, shared, community/public facilities; service delivery and O&M management of assets; capacity building and training; regulation, monitoring and evaluation at the state level.

Nine states have drafted State Sanitation Strategies by Feb 2011.

The NUSP requires cities to prepare and implement their City Sanitation Plans (CSPs) in order to holistically address the sanitation issues in the city. A number of workshops and training programmes have been conducted over 2009-2011 period, to build capacities of cities and facilitators in developing CSPs that have the ownership and participation of the stakeholders in the cities.

FIGURE 2.1: Generic Elements of Planning, Implementation and M&E of City Wide Sanitation



The CSPs are expected to be living documents that form a part of the City Development Plans (to be prepared under the JN NURM) and are revised and updated on the basis of better data and experience being available. Development Partners have partnered with the MOUD and State Governments, to help cities carry out data collection, consultations, and planning exercises to prepare their CSPs following a robust process and coming up with holistic plans.

More than 209 cities are in the process of preparing CSPs, and are expected to present their drafts by April 2011 – these will have short and medium plans that will be implemented in the coming years.

2.5 National Rating Survey of 423 Cities in India

In order to promote urban sanitation and recognize excellence in performance in this area, Government of India has instituted the "*Nirmal Shahar Puraskar" a* bi-annual exercise that recognizes sanitation initiatives of cities. The award is based on the premise that improved public health and environmental standards are the two outcomes that cities must seek to ensure quality of life for urban citizens, and that a periodic assessment of performance of cities that is made public will lead to greater public awareness and competition amongst cities. *The award scheme is a recognition of the city for the management of human excreta, treatment and recycle of wastewater, solid waste management, storm water drainage, operation and maintenance of the sanitation and storm water infrastructure and improvements in water quality and health.* In the first round, the focus was all cities with a population of 100,000 (Class-I Cities) that were covered and these accounted for 72% of the urban population. The country was divided into five packages (North, South, East, West and Central; with number of cities ranging from 69 to 104). The MoUD, GoI, commissioned three agencies, appointed on the basis of competitive bidding amongst short-listed ones, to carry out sanitation rating exercises of 423 Class-I cities of India. A detailed framework was prepared which ensured consistency in data collection and analysis and comparison of results across cities.

The rating covered a total of 21 indicators involving the following categories:

1. Output Indicators: pertain to the city having achieved certain results or outputs in different dimensions of sanitation ranging from behvioural aspects and provision, to safe collection, treatment and disposal without harm to the city's environment. *There are nine main output-indicators accounting for 50 points of the total of 100 points.*

2. Process Related: indicators pertain to systems and procedures that exist and are practiced by the city agencies to ensure sustained sanitation. *There are seven main process-indicators accounting for 30 points of the total of 100 points.*

3. Outcome Related: indicators include the quality of drinking water and that of water in water-bodies of city, as also the extent of reduction in sanitation-related and water-borne diseases in the city over a time period. *There are three main outcome-indicators accounting for 20 points of a total of 100 points.*

The survey agencies used a combination of published information and estimates available with city agencies (that were validated and cross-checked), field-visits to make physical observations and hold limited interactions with local residents, etc. The sources and methods for data-collection included:

TABLE 2.3: Indicative Objective Rating Chart For Sanitation In Cities

No	Indicators	Points*
1.	**OUPUT-RELATED**	**50**
A	No open defecation sub-total	16
	i. Access and use of toilets by urban poor and other un-served households (including slums) - individual and community sanitation facilities	4
	ii. Access and use of toilets for floating and institutional populations - adequate public sanitation facilities	4
	iii. No open defecation visible	4
	iv. Eliminate Manual Scavenging and provide personnel protection equipment to sanitary workers	4
B	Proportion of total human excreta generation that is safely collected (6 points for 100%)	6
C	Proportion of total black waste water generation that is treated and safely disposed (6 points for 100%)	6
D	Proportion of total grey waste water generation that is treated and safely disposed (3 points for 100%)	3
E	Proportion of treated wastewater that is recycled and reused for non potable applications	3
F	Proportion of total storm-water and drainage that is efficiently and safely managed (3 points for 100%)	3
G	Proportion of total solid waste generation that is regularly collected (4 points for 100%)	4
H	Proportion of total solid waste generation that is treated and safely disposed off (4 points for 100%)	4
I	City wastes cause no adverse impacts on surrounding areas outside city limits (5 points for 100%)	5
2.	**PROCESS-RELATED****	**30**
A	M&E systems are in place to track incidences of open defecation	4
B	All sewerage systems in the city are working properly and there is no ex-filtration (Not applicable for cities without sewerage systems)	5
C	Septage/sludge is regularly cleaned, safely transported and disposed after treatment, from on-site systems in the city	5
D	Underground and Surface drainage systems are functioning and are well-maintained	4
E	Solid waste management (collection and treatment) systems are efficient (and are in conformity with the MSW Rules, 2003)	5
F	There is clear institutional responsibility assigned; and there are documented operational systems in practice for b)/c) to e) above	4
G	Sanctions for deviance on part of polluters and institutions is clearly laid out and followed in practice	3
3.	**OUTCOME-RELATED**	**20**
A	Improved quality of drinking water in city compared to baseline	7
B	Improved water quality in water bodies in and around city compared to baseline	7
C	Reduction in water-borne disease incidence amongst city population compared to baseline	6

1. Collection of data from Urban Local Body (ULB) and/or the water and sanitation utility providing water, sanitation, sewerage, wastewater treatment, solid waste management, drainage, etc. services to the city.

a) City Working Map:

The survey agencies collected and used the city map that the ULB/utility uses for their planning and operations. These maps provided the basis for dividing the city into different regions (North, East, West, South, Central, etc.) as well as providing details of:

Ward boundaries with population under each ward;

Location of notified and non-notified slums across the city;

Location of main areas with old city and new planned and periphery areas, residential, government/offices, commercial/business districts, main market area, main rail and bus station, and other main natural and man-made settlement features of the city

Location of urban environment service infrastructure and systems including water treatment plants, water supply distribution lines, sewerage network, drainage, roads, water-bodies, solid waste collection points, transfer stations/depots; wastewater treatment plants; solid waste disposal sites, river or land outfalls for drains and wastewater, and so on.

b) Data on key indicators:

Data pertaining to outputs (i.e. adequate provision and use of toilets, open-defecation free status, no manual scavenging;, safe handling and treatment/re-use of human excreta, sullage, drainage and solid wastes, etc.) were collected or *computed or estimated* using the base data available in discussion with the ULB. These estimates were also supplemented and qualified by field studies.

Some data might be readily available even under Outcome indicators, as some utilities or ULBs may be monitoring water quality. In case of larger cities, the city health agency may be the custodian of data on sanitation and water related diseases. The State Pollution Control Boards will have data on water quality whereas the city's waste water treatment facility can also provide data on the water quality parameters. .

2. Collection of data from other agencies and authorities: that are responsible for collecting and/or monitoring specific indicators e.g. pollution control agencies may be collecting data on river water quality, quality of effluents after treatment; health departments / agencies may be collecting data on diarrhoeal diseases; development agencies according permissions for new buildings or developments (thereby monitoring household sanitation and arrangements for disposal); and so on.

3. Published sources: Such as the Census of India will provide details on ward-wise households' access to household-level sanitation arrangements but care needs to be taken to ensure that this data (last Census being held in 2001) is updated using more recent surveys (e.g. many states and cities have conducted household/BPL household surveys as preparations for GoI or state government schemes). The next-best alternative is to update the 2001 data with achievements made under various schemes e.g. number of toilets constructed since 2001.

4. Field Visit Studies: This formed the second main block of data collection and involved:

Discussions with local populations to find out or confirm data on certain indicators, e.g. proportion of a slum household practicing open defecation,

Perusal of records and interactions with officers at facilities, e.g. arrivals of solid waste at landfill, proportion of sewage being re-used, water quality after treatment etc,

Physical observations, including photo-documentation where relevant, e.g. instances of pits or "septic" tanks letting out wastes into drains or *nalas*, accumulated solid waste dumps, cesspools or flooding, etc.

Using the base working map of the city and in discussion with the ULB, the survey agency will select sites for primary field studies. In each city, these sites included:

Slums, squatter settlements and urban villages across the different parts of the city; other neighbourhoods (non-slum locations) including Apartments; Govt. colony; Planned colony; and unplanned colonies

Main public locations viz. main bus station, Main Railway Station, main market/shopping areas and main business districts

Sewage Treatment Plants if available

Solid Waste sanitary landfills or uncontrolled dumping sites

Locations where liquid and solid wastes are likely to be disposed in: rivers, canals, drains, lakes, ponds, etc. and hence visits will be needed to the outfalls/banks of such bodies

The survey firm used maps and simple recording formats to record their observations and findings in. Photographs were also taken to support the evidence gathered.

5. Water Sample testing: water samples were collected from drinking water sources and other water bodies across the city and tested for key quality indicators (Turbidity, Residual chlorine, Thermal Tolerant Coliform, Dissolved oxygen, COD and BOD).

A detailed protocol was developed for each indicator and how these would be assigned scores, cf. example below. A similar approach was adopted for the other indicators.

Rating Protocol example:
Access and use of toilets by urban poor and other un-served households (including slums) by individual and community sanitation facilities – 4 marks

1. *Use the Census 2001 Data or the latest ULB data (from baseline surveys) if available to establish the proportion of households without household toilets.*
2. *Discuss with the ULB, using the base city working map, the location of slums and other settlements in the city that are likely to have households without household toilets.*
3. *Use the city working map to segment the city into the main*
   Four zones in other Class I cities – North, East, West and South.
   Six zones in Big Class I or Metros, segment the city into six regions or zones (a Central zone and a Periphery zone in addition to North, East, West and South).
4. *From the list of the notified slums (according to the state laws) in the city, select the largest slum (by population) from each of the four / six zones.*
   Where notified slums are not available in a particular zone/s, select the largest non-notified slum or large irregular settlement in discussion with the ULB.
   In case a zone does not have any slum, select another slum from the zone reporting the largest number of slums in the city.
   Repeat process if there are further null cases from other zones.
5. *Conduct field visits to the sites selected. Usually time your field-visits in early morning or evening hours.*
6. *On reaching the settlement, make a reconnoitre walk-around of the settlement. Discuss with residents about access to toilets and sanitation practices of the population in the settlement.*
   Hold discussions with at least three sets of local informants, from different locations within the settlements, and as at least one set of women respondents.
7. *As a part of the above discussions, Locate and talk to residents who do not possess their own toilets – ascertain if they use community or Public toilets, or whether they defecate in the open and where these sites are.*
8. *Based on the above interactions, make an assessment of the extent of open defecation being practiced by the population of the settlement in percent terms.*
9. *After computing these proportions for the four/six settlements covered by the field visits, take a simple average of these proportions, and award marks according to the scheme below.*

Scheme For Marking	Marks
No Open Defecation in the sample settlements	Award 4 marks,
Up to 5% of the estimated population of the sample slums practicing Open Defecation	Award 3 marks
5% up to 10% of the estimated population of the sample slums practicing Open Defecation	Award 2 marks
10 up to 15% of the estimated population of the sample slums practicing Open Defecation	Award 1 mark
More than 15% of the estimated population of the sample slums practicing Open Defecation	Award 0 mark
Note we are measuring the behavioural dimension of practice or actual use, not merely access to physical facilities or existence of toilets. In addition, there may be households where some members use the toilets but some others continue to defecate in the open.	

Source: *National Rating of Class-I Cities, Detailed Methodology, Govt. of India, 2009-2010.*

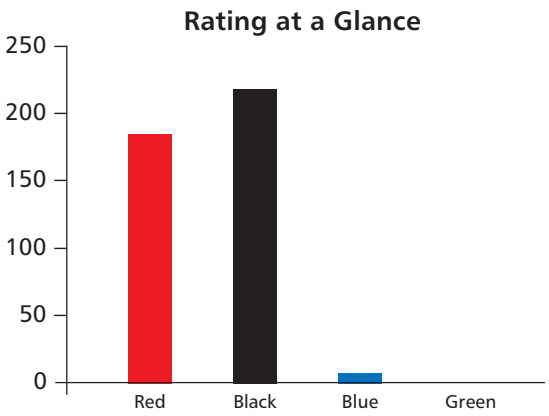
The scores obtained for all the 21 set of indicators were totalled and the combined score used to group cities to:

TABLE 2.4: City Colour Codes: Categories

No.	Category	Description
1	Red	Cities on the brink of public health and environmental "emergency" and needing immediate remedial action < 33
2	Black	Needing considerable improvements 34-66
3	Blue	Recovering but still diseased – 67-90
4	Green	Healthy and Clean city – 91 – 100

Rating Results May 2010

The results indicated that there were no city in the green category, 4 cities were in the blue category, 234 cities in the black category and 185 cities in the red category.



A few other interesting observations were:

No city "Open Defecation Free"

50 cities report 90% safe collection of human excreta

380 cities collect and treat less than 40% of the human excreta

24 cities reported collection of over 80% of the solid wastes

17 cities reported more than 60% of solid waste treated

Water quality samples satisfactory only in 21 cities

Drinking water samples quality satisfactory in only 40 cities.

The rating was well covered by the press across the country and generated considerable discussion and drew attention to the need to improve sanitation. The Honourable Union Minister for MOUD has also written to states urging them to improve sanitation. Additionally, MoUD is also making available funds to develop city sanitation plans, as a first step towards improving sanitation in cities.


Sanitation record not so clean

INDIA HAS NO CITY THAT IS HEALTHY AND CLEAN

229

190

4

It is proposed that the National Rating exercise will be conducted periodically so that cities are encouraged to plan and target improvements in their indicators over a period so that they can become clean, live-able and green cities. In addition, it is proposed that States start their own reward schemes so that much closer attention can be paid to cities' efforts at improving their sanitation in partnership with their citizens.

2.6 Service Level Benchmarking Initiative

With a view to moving away from hardware-based provision of urban infrastructure without commensurate outcomes, and for improving the accountability for service outcomes, the MoUD developed a common minimum Service Level Benchmarking (SLB) framework for monitoring and reporting on service level indicators in four key service sectors viz. Water Supply, Sewerage, Solid Waste Management and Storm Water Drainage. This framework has been formalized in the Handbook on Service Level Benchmarking, September 2008, that was nationally disseminated. Following the dissemination, the MoUD launched a Pilot Initiative covering 28 pilot cities across India, test and apply the framework by commissioning studies to collect data on these indicators, and discuss the findings in national workshops, leading to publication of detailed analyses and insights from the exercise.

TABLE 2.5: Service Level Indicators and Benchmarks

WATER SUPPLY		
S. No.	**Indicator**	**Benchmark**
1.	Coverage of Water Supply connections	100%
2.	Per Capita Supply of Water	135 lpcd
3.	Extent of Non-revenue Water	15%
4.	Extent of Metering	100%
5.	Continuity of Water supplied	24 Hours
6.	Efficiency in redressal of customer complaints	80%
7.	Quality of Water Supplied	100%
8.	Cost Recovery	100%
9.	Efficiency in Collection of Water Charges	90%
Sewerage		
1.	Coverage of Toilets	100%
2.	Coverage of Sewerage Network	100%
3.	Collection efficiency of Sewerage Network	100%
4.	Adequacy of Sewage Treatment Capacity	100%
5.	Quality of Sewage Treatment	100%
6.	Extent of Reuse and Recycling of Sewage	20%
7.	Extent of cost recovery in waste water management	100%
8.	Efficiency in redressal of customer complaints	80%
9.	Efficiency in Collection of Sewage Water Charges	90%
Solid Waste Management		
1.	Household Level Coverage	100%
2.	Efficiency in Collection of Solid Waste	100%
3.	Extent of Segregation of MSW	100%
4.	Extent of MSW Recovered	80%
5.	Extent of Scientific Disposal of MSW	100%
6.	Extent of Cost Recovery	100%
7.	Efficiency in Collection of SWM Charges	90%
8.	Efficiency in Redressal of Customer Complaints	80%
Storm Water Drainage		
1.	Coverage	100%
2.	Incidence of water logging	0 numbers

The exercise showed some remarkable results including the creation of baseline data for the 28 indicators listed in the Handbook for Service Level Benchmarking for all the 28 cities; helping local decision-makers identify gaps and plan improvement measures, based on the results of the exercise, some of the cities had immediately developed Information Systems Improvement Plans (ISIPs), that would enable them to collect reliable data reliably. The Pilot Initiative has since been rolled out to states, and it is estimated that more than 1756 cities across the country are at present involved in this exercise and are at some stage of completion. Since the service level benchmarks include sanitation, and at least the 423 Class-I cities already have their data on sanitation from the National Rating Exercise, the service level benchmarking initiative provides the impetus for greater thrust to accountable planning and service delivery in sanitation.

2.7 Institutional Arrangements: effectiveness and accountability in Urban Sanitation

Under the Constitution of India, water supply and sanitation is a State subject. Urban Local Bodies (ULBs) have the responsibility for planning, design, implementation, operation and maintenance of water supply and sanitation services in cities and towns. In line with the 74th Constitutional Amendment (1994) and its ratification by States in their municipal laws, sanitation-related decision making power, finances and personnel have been legally devolved to cities by states, with State level steering committees and urban departments for guidance and support. At the union level thus, the Ministry of Urban Development is the nodal agency for formulation of policies, strategies and guidelines and assists the States by providing financial assistance for the development of urban water supply and sanitation schemes in cities and towns. The Ministry of Housing and Poverty Alleviation (MHUPA) is the national ministries responsible for policies and financial support for schemes for the urban poor including those pertaining to sanitation, especially in slum areas[7].

The State Urban Development and PHED/Water and Sanitation departments are usually responsible for supporting their urban areas with planning, financing, implementing, and monitoring sanitation related infrastructure and services. The NUSP now calls upon the union Ministries as well as State Departments, and nodal technical agencies thereunder, to increasingly transform their roles into facilitation, capacity building, training and financing, and letting cities lead the preparation and implementation of CSPs and related activities.

Community and civil society participation and ownership of city stakeholders have been underlined to be central to the preparation and implementation of City Sanitation Plans. A number of NGOs are involved in urban sanitation initiatives e.g. pioneering approaches to slum sanitation provision, design of decentralized wastewater treatment, etc. The private sector is also involved in the provision of the numerous goods and services that are required in urban sanitation provision right up to wastewater treatment and disposal/re-use. A number of national and state level training and resource agencies have been mobilized for capacity building of cities to improve urban sanitation across the country. Special mention may be made of Development Partners who have closely participated in and assisted in the development and implementation of urban sanitation policies and programmes at the national, state and city levels. Their role has ranged from provision of exposure to best-practices, technical assistance as well as financing of planning and consultancy costs on behalf of cities.

[7] These ministries are responsible for extending support in the area of sanitation to States and 3,800 elected urban local bodies therein for urban sanitation programmes (there were 5,161 Census urban areas in 2001 Census, not all have elected local bodies).

2.8 Financing Urban Sanitation

Under the framework provided by India's urban flagship JN NURM, cities are supposed to propose their investment requirements based on their City Development Plans (of which the CSP is meant to be a part). Therefore, it is up to the cities to accord priority to sanitation and based on plans thereabout, seek funding from the Union Government. It is reported that of cities' proposed investments under the key urban development scheme sources, 32.67% and 24.47% respectively were intended towards improving urban water and sanitation services.

While there is no dedicated source of finances for urban sanitation plans, the MoUD is assisting states and cities to source financial assistance from public, donor, and private sources.

In addition, the Thirteenth Finance Commission has recommended devolution of funds (or "awards") to cities that not only comprise general purpose grants, but also *performance grants* that are based on cities achieving standards as per MoUD's benchmarking framework for urban services including sanitation. With the MoUD training cities and issuing detailed guidelines on the utilization of these funds, it is likely that cities will be able to fruitfully access and deploy these financial resources for sanitation improvements.

2.9 Monitoring and Evaluation

As described in the earlier sections, the National Urban Sanitation Rating conducted in the 423 top cities tat reported on 21 indicators; and the Service Level Benchmarking exercise now scaled up to more than 1,500 urban local bodies in the country; has generated the baseline data for sanitation and water, drainage, and solid waste services. These are also available for use by states and cities to assess the reliability of their data, to plan for improvements and for monitoring changes over a period of time. In summary, health and environmental outcomes are now on the radar of both rural and urban sectors – measurement and tracking systems being developed (e.g. urban sanitation ratings 2010 used health and water quality indicators).

2.10 Lessons, Gaps and Issues

Lessons

The lessons from achievements in urban sanitation include:

- Urban India needed a national sanitation policy framework that was flexible to enable states and cities to prioritise and address urban sanitation issues in a systematic manner. This was provided by the launch of the NUSP in 2008 - opportune since it was preceded by the launch of India's urban flagship JN NURM in 2005 that was a national response to India's challenges of rapid urbanization.
- The on-going implementation of NUSP has shown that the participation and ownership of the city stakeholders is paramount in planning and implementing measures for urban sanitation. National and State governments need to play the crucial role of enablers and facilitators for the cities.
- The national rating of cities in 2010 (learning partially from India's own rural sanitation experiences) was a crucial step following the launch of the NUSP in 2008, in highlighting to leadership at national, state and city levels, as well as to the media and the public at large, the urgency with which urban India needed to address sanitation issues, as well as the multiple dimensions of sanitation that stakeholders needed to take account of, in departure from conventional thinking on urban sanitation ("sewerage" and hardware only).
- The service-level benchmarking exercise supports objective data collection and improvements in urban services including sanitation, and its recognition as a basis of financial transfers (from the Thirteenth Finance Commission) provides the opportunity for Indian cities to move to a new performance-based framework.
- On-going training and capacity building, development of software for city-level sanitation planning, and partnerships with development partners have been critical in developing and sustaining the critical movements in urban sanitation. The on-going implementation of NUSP has also witnessed the development of considerable knowledge and methodologies in the sector.

Gaps and Issues

- The National Urban Sanitation Rating 2010 showed considerable variations across cities. This shows that the level of awareness, preparedness and commitment and priority accorded to sanitation across India's urban areas is variable. Therefore, states and cities will need to promote the priority to sanitation – especially in its holistic and full-cycle sense – from generation to safe confinement, and treatment / disposal / re-use in a systematic manner.
- Systematic planning and implementation of urban sanitation policies have begun recently and considerable priority and resources will need to be provided in coming years, to address the major challenges that the rapidly growing Indian cities are faced with. There still remains a shortfall of individual toilets and there is a high proportion of shared and community toilets (24% and 6.5% respectively). Provision of sanitation to the urban poor, especially those resident in slums, poses considerable challenges and barriers relating to tenure, affordability, space and other technical issues. These are going to require sizeable financial allocations as well as considerable capacities and will to address all the software aspects of city-wide sanitation.

Annexure 1

Achievements of India and Road Map for Sanitation Goals in line with Delhi Declaration

The Goals

MDG - By 2015: reduce by half the proportion of people without access to safe sanitation. India National Goal for rural sanitation – End Open Defecation by year 2017, achieve Total Sanitation by year 2022.

India Sanitation Status and Plans, 2011–2022

No.	Critical milestone	Suggested Action Points	Country STATUS, 2011	Action points[8]
No.	**COUNTRY COMMITMENT**			
1.	Do the key country vision and planning documents explicitly recognise achievement of sanitation national goals and MDGs?	* Sensitize leaders to deaths, diseases and huge costs incurred due to poor sanitation * Promote priority to sanitation in national vision and goals	Plan Documents and Annual Plans recognise rural and urban sanitation vision and plans. TSC and NUSP are two flagships for India's sanitation policies.	Strengthening the TSC and NGP for rural sanitation to make rural India ODF by 2017
2.	Are there national leaders committed to achieving sanitation goals?	* Build a constituency of leaders (not just political, religious and other leaders too) and advocates to be change agents and goodwill ambassadors * Strengthen the voice of civil society organizations and women's groups at the national level * Promote sanitation as a movement, not a government or sector matter	National leadership recognizes importance of sanitation well with the involvement of highest offices of HE President of India and Hon'ble Prime Minister. Sanitation is a state subject and commitment of States to sanitation is variable in rural areas, and emerging in urban areas. However, some states/cities have accorded highest priority and have either become or are on the verge of becoming open defecation free.	State specific strategies to increase the commitment of states where sanitation coverage is picking up.
B.	**ENABLING POLICIES**			
1.	Is there a goal-oriented time-bound national-level policy or strategy or plan covering sanitation in rural, urban, transitional and special (e.g. emergency, disaster) domains?	* Prepare a national vision and policy/ strategy or improve existing one * Ensure full ownership of country stakeholders in the plan * Reflect in national plans, annual schemes and budgets	National: goal-oriented policies exist for both rural and urban sanitation. These cover sanitation in public places and institutions. Govt. of India has finalised a time-bound rural sanitation strategy 2022. States/Cities: State Strategies for rural sanitation are	Strengthening the strategies to focus on peri-urban areas, difficult to reach areas, emergency situations are emerging areas being addressed.

[8] *Action points are based on India rural sanitation strategy of DDWS, 2011 – 2022, and India urban sanitation policy, 2008.*

No.	Critical milestone	Suggested Action Points	Country STATUS, 2011	Action points[8]
			implemented in time-bound phases - with districts as key implementation units. Some states have developed urban sanitation strategies whereas some cities are preparing time-bound City Sanitation Plans after consultations.	
2.	Is the policy/strategy/ plan integrated and aligned with other sector plans (viz. water supply, water resources, health, environment, education, rural and urban development, gender empowerment etc.)	* Link the importance of sanitation to development, and specify links to health, education, water, gender empowerment, environment etc. * Integrate with other sector plans and visions - identify how sanitation can be mainstreamed in turn in the policy and operations of other sectors as well	Both the national-level rural and urban sanitation policies and strategies seek to coordinate and seek links with other sectors. Rural policies and plans explicitly account for with school sanitation, health (NRHM) initiatives and promote role of women. Urban plans seek to coordinate pollution control and urban renewal issues.	Strengthening the partnership with other developmental programs within the government, such as health, education, etc. especially at state and implementation levels.
3.	Does the national policy/strategy/plan enable the development of sub-national strategies and local level action plans?	* Promote flexible policy frameworks that support ownership of local governments and communities * Encourage bottom-up planning for locally suitable operations following a set of principles that synthesize into a national plan	Both the TSC (rural) and NUSP (urban) are premised on development of state and local government level strategies and plans in accordance with India's 73rd and 74th Constitutional Amendments.	Encourage more and more states to adapt the national TSC guidelines to develop state level strategies that drive community led outcomes along with state award schemes on the lines of national 'Nirmal Gram Puraskar.'
4.	Do the national/local policies/strategies/ plans emphasize hygiene behaviour change as integral to sanitation?	* Position and detail behaviour change communication as key stratagems in the strategy / plan	Behaviour change communication has already been mooted as a key operational feature in rural sanitation with the IEC	Take the hygiene behaviour change among the people, especially among those states and communities which have achieved

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			guidelines 2010 in place - a move away from the one-way awareness generation. Hygiene is an integral component of TSC. This has also been recognized as a key in the urban policies and plans.	Open Defecation Free status to the next level.
5.	Do the national/local policies/strategies/ plans target sanitation provision to the rural poor as a priority in terms of extending access, prioritizing investments and service improvements?	* Identify rural populations not having access and prioritise them - not just provision but services too Assure and ensure basic sanitation to all * Promote a range of service levels responsive to demand and willingness to pay? * Integrate sanitation into rural development and decentralization strengthening initiatives	Rural sanitation policies and plans have hitherto targeted poor households through incentives on construction and use that have been periodically revised. This is supported by Nirmal Gram Puraskar that encourages local governments to achieve total sanitation including all the poor.	Increased support to poorer households through provisions of O&M, calamity and revolving funds for sustained sanitation.
6.	Do the national/local policies/strategies/ plans target sanitation provision to the urban poor and residents of slum and informal settlements as a priority in terms of extending access, prioritizing investments and service improvements?	* Identify urban populations not having access and prioritise them for extending provision and services * Situate sanitation in on-Government of Indiang urban efforts but highlight its unique importance (to prevent overwhelming influence of other "visual attractions" e.g. roads). * Ensure basic services to all and promote a range of service levels responsive to demand	National and State Urban policies and strategies specifically target the urban poor and slum settlements, and cities are encouraged to de-link tenure from sanitation provision. Urban development programs include JN NURM/ UIDSSMT that recommends priority to urban poor (BSUP/ IHSDP); Rajiv Awas Yojana (for slum-free India). Implementation of sanitation programs for urban poor has commenced.	National and State level policies to be further refined to target urban poor and residents of slums.

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		and willingness to pay - and demand-responsive services to who can pay * Promote access to basic sanitation as an entitlement even in non-recognised settlements * Adopt citywide approaches and do not plan for slums in isolation * Use sanitation to strengthen urban local bodies		
7.	Do the national/local policies/strategies/ plans explicitly recognise participatory approaches to sanitation provision and maintenance management as a key to success, especially for community sanitation solutions?	* Promote and build capacities of local community groups in participatory approaches * Encourage planning and maintenance management of community toilets by local groups.	Participatory approaches to planning, implementation and maintenance management are key pillars of rural and urban policies.	Strengthening the states, especially those picking up in performance, to strategise community led approaches is being done.
8.	Do policies/plans recognise the full cycle of sanitation (safe collection, conveyance and disposal/re-use) as a key pillar of sanitation?	* Do not merely build latrines or treatment plants, but and help inculcate behaviour change to ensure they are used for the right purpose * Ensure that the faecal matter is safely carried and disposed of after treatment without coming in human contact	Full cycle of sanitation is the core principle of urban sanitation policies and plans being prepared. Implementation is commencing. In rural sanitation, the importance of full-cycle was recognised in TSC and NGP and is explicit.	New and second generation of communication and motivation for safe disposal of waste and reuse are priorities in the next decade, to enable sustainable safe sanitation practices.
9.	Do policies/plans accord specific	* Promote systems that save water and other natural resources	Water-conserving technologies are being piloted in some rural	Increasing thrust on solid and liquid waste management based on

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	measures to conserve and protect water and natural resources, and the environment from pollution arising from poor sanitation? Does it promote recycling/ re-use of wastes?	* Identify pre-emptive measures to not pollute land and water * Promote re-use of wastes	areas - and these have received policy recognition. Pollution control and recycling are also indicators in urban sanitation.	recycling and reuse principles is being increasingly promoted and adopted with specific financial allocations for Solid and Liquid Waste Management.
10.	Do policies/plans encourage monitoring of performance in operations and maintenance management of existing assets (and are not just about infrastructure creation)?	* Maximize efficiencies of existing assets alongwith investing in new assets * Guard against huge capital investments without appropriate ecological and financial sustainability and adequate operations and maintenance arrangements	Sustainability (continued use as habit, proper upkeep and maintenance) outcomes in rural areas is emerging as challenges in many states. Urban policies have started according attention to proper sewage and septage treatment, and O&M of community/public toilets.	Increased support to poorer households through provisions of O&M, calamity and revolving funds for sustained sanitation.
11.	Do national and local plans make provisions for the preparation of disaster-preparedness and emergency response plans? Are budgets ear-marked for contingencies?	* Prepare disaster and emergency response plans for each major administrative unit, and in detail for locations vulnerable to disasters * Provide budgets for training and capacity building for implementing preparatory actions and response and rehabilitation plans	Recognised in policies and guidelines exist.	Specific provision for calamity funds to be introduced.
12.	Are there existing laws upholding dignity of communities (e.g. abolition of human cleaning of toilets / sewers) and related to safety of sanitation workers (e.g. safety gear and systems for cleaning of sewers)?	* Review whether laws are adequate to accord dignity to work on sanitation * Develop and implement transition and rehabilitation plans for communities engaged in inhuman	Considerable progress achieved in abolition of manual scavenging in rural and urban areas (law supported with TSC and ILCS financing). Proper safety gear and enforcement are issues in many urban areas.	Policies exists that abolish manual scavenging; existing practice in certain pockets are being removed

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	Are they enforced satisfactorily?	and unsafe occupations * Provide budgets for training and capacity building for ensuring safety of workers engaged in sanitation work		
C.	**EFFECTIVE AND ACCOUNTABLE INSTITUTIONS**			
1.	Do sanitation and hygiene have a clear institutional home at national, sub-national and local levels (with clear mandates/ jurisdiction, dedicated personnel, separate budgets - integrated into governmental cycles of planning and implementation)?	* At every level, identify clear focal point with clear roles and responsibilities - they should add up as complementary, avoiding gaps and overlaps * Provide adequate budgets, personnel, powers, etc. for sanitation - separate from water, solid waste etc.	Yes, at the national level. Rural Sanitation related State, district and sub-district sanitation missions/ committees and implementation cells with dedicated personnel and budgets implemented. In urban sanitation, city governments are being supported to become competent institutional homes for sanitation.	Institutional home for rural sanitation are clearly defined and unambiguous from national to district levels.
2.	Is there effective coordination within the sector viz. between government departments/agencies, NGOs, civil society, community groups, the informal and private sector?	* Institute coordination mechanisms (task forces, committees, missions) and ensure that they function well * Identify gaps in co-ordination and take corrective actions * Agree on convergent and supportive roles and minimize duplication and overlaps * Bring private sector and informal service providers into discussions and dialogues	Community groups programmed to be at the centre of rural sanitation initiatives. Community and civil society participation emerging in urban sanitation. Inter-departmental coordination state and local level issues - mixed performance in both rural and urban sanitation sectors. Large number of NGOs involved in rural and urban sanitation initiatives although their presence is variable across states/ cities. Private sector involvement increasing	Conscious and deliberate efforts to increase coordination between departments, between government and civil society groups and also, increase the role of private sector in both demand generation and sanitation marketing, are identified areas where focus is to be concentrated in the next decade.

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			in both rural and urban sanitation as supplier or goods and services.	
3.	Are the sanitation sector roles and responsibilities devolved to the appropriate level of local government (political, administrative and financial devolution)?	* Devolve appropriate political, administrative, and financial powers * Track percent of total investments being devolved to local bodies * Promote local ownership and planning in an inclusive national framework * Encourage local governments to raise resources locally and expend these for sanitation * Make explicit transfers to lower levels and incentivize effective spending	73rd and 74th Constitutional amendments have legally devolved funds, functionaries and functions to local (rural and city) governments . Sanitation-related power, finances and personnel fully devolved in rural sanitation with districts as operational units. Devolution in urban areas variable. Thirteenth National Finance Commission has specifically devolved funds to cities for urban services (including sanitation).	Gram Panchayats at village level implement and monitor sanitation achievements; as there are different levels of decentralisation in states, especially financial and functionary decentralisation, Ensuring 100% handing over of responsibility to Gram Panchayats for managing sanitation will be a major priority in the coming decade.
4.	Do the agencies responsible for sanitation infrastructure and services provision have adequate organizational capacities (personnel, skills, systems, etc.) to fulfill their mandate? (Is there a plan for capacity building being implemented?)	* Assist in mapping capacities and preparing capacity building plans for implementing / service provider organizations * Ear-mark budgetary resources for capacity building * Assist in mobilizing national and international capacity building resource agencies	State level WSSO/ CCDUs responsible as state resource centres for capacity building and communication in rural sanitation with clearly specified manpower. Support up to block level ensured through Block Resource Centres (BRCs). Urban Sanitation national and state resource agencies being mobilized for capacity building of local bodies.	Increase in Capacity building for facilitating participatory approaches to empower communities to build up at various levels, at scale.

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5.	Are there institutionalized service standards, disclosure and grievance redressal mechanisms for citizens and customers to hold agencies accountable?	* Develop differential standards of service delivery? * Make disclosure of plans and budgets of service providers mandatory * Identify weak service links (e.g. cleaning of pits) and invest in developing systems * Commission regular independent customer surveys and social audits * Implement single-window customer interface in service provider organizations * Promote information and other technologies to make services efficient	Comprehensive on line monitoring system in place with all data in public domain. grievance redressal mechanisms coupled with right to information also in place. National Sanitation Rating and Service Level Benchmarking in cities being developed.	Creating Awareness about the systems in place to empower the community with these tools to hold agencies accountable.
6.	Are there legitimate institutional spaces and resources (financial, capacities) available for participatory community managed systems of sanitation provision and service delivery? (with local governments, community / women's groups as custodians and/or managers of systems)	* Promote and support local community managed systems especially for community sanitation * Encourage local groups to contribute to provision, management and costs by innovative mechanisms like self-help groups, micro-credit, etc.	Policies and plans promote participatory community managed systems. Operational performance on ground dependant on local factors and variable.	Increase capacity to manage, availability of financial resources, incentives to sustainably manage community sanitation systems at various locations is a challenge which is being increasingly addressed.
7.	Are there clear policies and enabling frameworks for participation of the private sector and	* Clearly set out frameworks and guidelines for private sector participation in provision, maintenance	Policies promote participation by private sector as suppliers of goods and services in rural and urban	Although private participation is encouraged, explicitly stating facilitating policies to engage

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	informal sanitation services providers to respond to demand for sanitation?	management and services * Recognise informal service providers as legitimate, protect their livelihoods and assist in organizing their services * Support measures to ensure / augment supply chain of products and services	sanitation. Considerable participation noted in both domains - although greater clarity on effective engagement emerging. Recognition of informal service providers work in progress.	private sector as corporate social responsibility (CSR) may enable more intense engagement.
8.	Is the role and support of external support agencies integrated into a coherent sector-wide framework?	* Outline a sector wide framework for sanitation, and its links with other sectors * Set out sector guidelines for participation of donors and external support agencies * Ensure that external support agencies' contribution is convergent	Development Partners have positioned their support in the overall policy frameworks in both rural and urban domains. Regular coordination and collaborative efforts in technical and limited financial assistance.	Increasing level of coordination among external support agencies under coordination by the government has been increasing, leading to synergetic efforts by all.
D.	**FINANCING**			
1.	Does budgetary outlay for sanitation form at least 1-2% of Government's annual budget (at different levels)?	* Measure budgetary outlays quarterly, bi-annually and annually * Develop a multi-year budgetary framework * Measure actual expenditure and make efforts to ensure that these reach 1-2% of total outlay	The financial outlay required to achieve the desired results clearly identified. Rural sanitation budgets increased considerably in the recent past at the national level and transferred to states/ districts. Budgetary allocation for urban sanitation from urban development program sources. Proposals being prepared for separate funding of City Sanitation Plans.	More efforts shall be made to obtain the desired funding as identified in a project mode.

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2.	Does the budget have a balance between outlays on hardware and software? Across new investments and maintenance management/services?	* Promote accounting and reporting categories that distinguish different types of investments * Assess current expenditure and progressively increase O&M budgets	Rural sanitation budget allocations ear-mark budgets for software and hardware activities clearly identified. Urban Sanitation investments mainly hardware and capital oriented.	Adequate budgets for software and incentives exist to support sustainable behaviour change
3.	Do new budgetary investments justify benefits in terms of explicitly target outcomes of reduction of diseases, mortality, and improved water quality? (and not just building infrastructure?)	* Collect baseline indicators viz. on diarrhoeal diseases, water quality, pollution levels etc. at appropriate scales * Track actual expenditures on sanitation and relate these to changes in health and environmental outcomes * Include outcome indicators as a part of public audits	Health and environmental outcomes now on the radar of both rural and urban sectors - measurement and tracking systems being developed (e.g. urban sanitation ratings 2010 used health and water quality indicators).	Increased attention to usage of facilities, sustenance of behaviour change, impact on water quality and health outcomes are being prioritised in the coming years.
4.	Are non-government resources leveraged well? (Are resources mobilized from private sector, NGOs, households and communities?)	* Collect regular data on contribution of different stakeholders * Take measures to leverage increased investments from private sector, banking institutions, NGOs, households and communities for local management	NGOs' roles and resources embedded in rural and urban sanitation. Community groups active in rural sanitation, and specific instances of urban community sanitation. Investments from private sector agents yet to be mobilized.	Increased role and investment from the private sector is being targeted.
5.	Are tariffs and user charges wherever levied adequate to meet costs of providing services?	* Carry out an audit of cost of sanitation services * Identify current collections, potential improvements, and	Maintenance in rural areas self-financed, and not a big financial challenge in absence of large treatment. In urban areas, financing of sanitation related	The issue to be addressed once the ODF status is achieved and sustained.

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		new sources of revenue * Prepare a plan for reducing dependence on budgetary resources for maintenance management	O&M are a challenge - cities being encouraged to address these in their sanitation plans.	
6.	Are there targeted incentives/support for those who cannot afford to pay full costs?	* Identify population groups who need to be incentivizes/ subsidized -use objective criteria according to Govt. policies on poverty * Track quantum of incentive/ support being provided and method of delivery * Study who is actually benefitting from the incentives/support - what proportion of this support is mis-directed? * Prepare and implement an improvement plan	Rural sanitation program caters for incentives to target poor households whereas software for mobilization and awareness generation is targeted to the whole community. Urban sanitation affordability and targeting being worked out.	Incentives to be revised from time to time to generate effective demand for sustained sanitation,
E.	**MONITORING AND SUSTAINING CHANGE**			
1.	Are the indicators of measurement of progress appropriate to accelerated achievement of sanitation goals (not counting merely latrines and physical coverage but Open Defecation Free or Totally Sanitized communities/ settlements, not counting financial	* Review monitoring indicators and data collection system - are we merely counting pans and latrines? Are implementers reporting biased data? * Train communities in using and reporting with simple indicators * What needs to be counted so that	Rural sanitation program monitors both i.e. financial and physical progress as well as NGP counts Totally Sanitized communities. Periodic studies conducted to measure program effectiveness and sustainability. Urban sanitation policies promote thinking on totally sanitized cities -	Comprehensive measurement indicators being developed in line with world wide trends.

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	outlays but health and environmental outcomes)?	stakeholders behave differently? Is counting open defecation free or sanitized communities also required? * Is the monitoring system geared to health and environmental outcomes?	implementation commencing.	
2.	Are there fiscal and non-monetary incentives for institutions and stakeholders at every level to achieve sustainable outcomes?	* Institute fiscal awards for communities and governments performing on sanitation indicators * Collect data and publish to mobilize stakeholders - give recognition, training, and other non-monetary incentives to good performers	NGP is the national fiscal and non-monetary reward for rural sanitation. Some states have instituted state rewards too. National Sanitation Rating of Cities raised awareness and awards are proposed.	Encourage states to have their own reward schemes on the lines of National Nirmal Gram Puraskar.
3.	Are there mechanisms for monitoring and sustaining change in behaviour and practices of communities?	* Encourage communities and local governments to track behaviour change as a part of programs * Allocate budgets and support institutional arrangements to carry out remedial actions, repairs and maintenance services	Key challenges being addressed in rural areas. Proposed in urban sanitation.	
4.	Are there gaps and overlaps in the discharge of institutional responsibilities for monitoring and regulation, viz. health agencies (health outcomes), education	* Map the monitoring and regulation agencies and their mandates - identify gaps and overlaps and take steps to streamline the system * Identify measures to	Coordination difficulties at national and state levels are being addressed at local (district) level in rural sanitation - variable outcomes. Considerable gaps and overlaps in urban	Further efforts planned to bridge the gaps.

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	(school sanitation), environment (effluents, protection of land and water bodies)	pre-empt and address regulatory failure or capture situations * Mainstream sanitation in the routine operations of the respective sectors	sanitation - proposed to be resolved at state and city levels.	
5.	Are there alliances and networks across regions and agencies to generate and sustain behaviour change communication, advocate or improvements and monitor the above processes and outcomes in sanitation achievements?	* Promote inter-governmental mechanisms to support, share and monitor Milestones * Identify and support alliances and networks of practitioners, community groups, civil society groups in sanitation within and across countries	Programmes like International Learning Exchange and Study Tours carried out in collaboration with partner organisations like UNICEF and WSP.	To be intensified further through discussions in ICWG meetings.

Ministry of Rural Development
Department of Drinking Water and Sanitation
9th Floor, Paryavaran Bhawan, CGO Complex,
Lodi Road, New Delhi 110 003, India
Phone: (91-11) 24362705 Fax: (91-11) 24361062
E-mail: js.tsc@nic.in Web site: www.ddws.nic.in/

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