Round Table on Strategies for Rural Drinking Water Supply and Sanitation

21st October 2009, Scope Complex, Lodi Road, New Delhi

Proceedings

In order to plan for the medium and long term in the rural drinking water supply and sanitation sector, the Government of India organized a policy Round table discussion with seventy-six participants, including 42 from outside New Delhi, representing the Government, civil society, academia, research organizations and international donor organizations on the 21st October 2009. The Round Table was inaugurated by the Hon’ble Minister of State for Rural Development Ms Agatha Sangma with presentations by Shri Vijay Bhaskar, Joint Secretary (Drinking Water) and Shri Mathur, Joint Secretary (Sanitation) in the plenary session.

Plenary

In her inaugural address the Hon’ble Minister addressed the direct relationship between water, sanitation, health, nutrition, and human well being and the additional burden women face due to lack of access to drinking water and basic sanitation facilities with significant implications for attendance and enrolment of girls in schools. She outlined the Governments priorities in the sector that focus on sustainability, quality and improved operations and maintenance by incentivizing decentralized management of water supply and sanitation with an enhanced allocation from Rs 2,930 crore in 2004-05 to Rs 8,000 crore for drinking water supply and from Rs. 165 crore to Rs. 1,200 crore for the Total Sanitation Campaign this year. Allocations have been earmarked for sustainability, quality and decentralized service delivery.

At the same time, Hon’ble Minister of State expressed concern that India faces an increasingly urgent situation with rapidly growing inter sectoral demands on finite water resources and yet inefficient use pervades all sectors due to continued emphasis on creating supply side infrastructure under a top-down fragmentary institutional framework resulting in unsatisfactory demand side outcomes. As 85% of drinking water needs are met from ground water, rapid depletion in ground water tables and deteriorating ground water quality due to massive exploitation for irrigation had resulted in unsustainable water supply systems. A 2003 National survey by the Government concluded that more than 60% of 3.5 lakh habitations slipped back due to ground water depletion. Secondly, in addition to chemical contamination in the form of arsenic, fluorides, iron, salinity, nitrates in ground water, industrial pollutants are putting additional pressure on the already depleting sources of drinking water. Lack of reliable data makes it difficult to appreciate and address the problem. Further, she pointed out that while most surface water resources are managed by the public sector, exploitation of ground water is mostly in the private domain making it imperative to look into the issues of regulation for equitable and judicious inter sectoral use.
On the institutional front, Hon’ble Minister of State stressed that after the 73\textsuperscript{rd} Constitutional Amendment, panchayats are mandated entities for governing the delivery of drinking water and sanitation. She suggested that apart from ensuring efficient operations and maintenance for which adequate provisions are made in the new guidelines, panchayats should also undertake measures to ensure source sustainability and recommended legislative and physical measures that could be entrusted to panchayats. For example, conjunctive use of water from different sources could be actively explored and states are being encouraged to come out with formulation of village, district and State level water security plan under the programme. She stressed on the urgency for states to ensure convergence of resources between NREGS, BRGF and CGWB programmes in augmenting groundwater resources. Finally having outlined the Government’s current priorities and approach, Hon’ble Minister of State expressed the need to discuss the changes required in the Government’s approach and requested the participants in the workshop to provide necessary inputs and recommendations to ensure that every citizen of this country is provided with safe and adequate drinking water and sanitation facilities on a sustainable basis.

The key messages from the presentations made by the JS Water and JS Sanitation(enclosed as Annexe I & II) were that the focus would now be on speedy implementation of the national program as well as on the sustainability of service provision. While JS (Drinking Water) stressed that piped water supply coverage would need to increase from the present 20\% level, the JS (Sanitation) stated that the Total Sanitation Campaign was targeting completion by 2012.

Following the plenary presentations, the workshop broke up into three working groups on the themes of Water Supply, Water Resource Management and Sanitation respectively.
Group-I Improving Services

The group discussed various ideas on Improving Services, and came out with recommendations in three broad themes; Financial, Governance and O&M; as listed below:

Financial

*Principles of Financial Allocation to States:* Many of the State Secretaries in the group wanted the Government of India to review its allocation criteria for transferring funds to the states: in particular, they suggested that less weightage should be given to the population criteria. The states wanted the allocations to the states to be reviewed; as they felt that purely population focused allocations would go against the ground realities in some states such as water scarcity, water quality, hydro geological conditions, ability to provide access in remote areas, sparsely populated areas in some states etc. The states also desired that the guidelines should be flexible to the states to allocate the funds based on their specific needs based on the ground realities. Further the states expressed difficulty with the requirement to manage funds through a separate bank account rather than through the treasury system.

Governance

The group emphasized the key role of PRIs in service provision and delivery, along with the principle of subsidiarity. If, for example, multi-GP schemes were necessary for techno-economic reasons, then the planning and management of the bulk supply would have to be primarily done at the district or scheme level, with in-village management by VWSCs. Regarding the role of PHEDs, the group felt that they would need to be realigned with the strategy to place the PRIs at the forefront of RWSS service delivery. The group felt that regulation in the sector could be premature given the overall political economy considerations but also felt that the need for regulation be examined given the emerging role of the private sector. The group stressed that safe drinking water is people’s right but also underlined that it also comes with responsibility, which shall be promoted. The group agreed that various innovative concepts such as Public Benchmarking shall be adopted to improve performance including the existing M&E systems.

Operations & Maintenance

The group was of the view that as the focus shifted from providing infrastructure to service sustainability, O&M service agreements should be developed and that these should be performance based. A dialogue with the private sector involved in infrastructure delivery to discuss various options should be held by the Government. While the traditional approach is to provide large engineering solutions, which have huge O&M liabilities, new approaches should aim to incentivize right sizing. Various solutions to effective and efficient O&M were discussed: such as capacity constraints in O&M and the need for capacity building at necessary levels; PHEDs to become facilitators and Output based transfer of resources. Further, the group felt that 10% capital contribution by the community is not the only way for sustainable O&M. Required O&M funds should be mobilized sustainably through various sources (e.g., taxes from the Gram Panchayats), while maintaining local control of assets.
**Group II - Use of water resources for drinking**

The group discussed the inter sectoral pressures in the water sector and possible institutional options.

**Holistic view of water resources**

The group identified important gaps between policy prescriptions and practice: Firstly, drinking water gets first priority in policy but in practice excessive use/exploitation of water resources by other sectors, especially agriculture, undermine the sustainability of drinking water systems. Secondly, the increasing consumption and capital investments in urban areas without corresponding cost recovery appears iniquitous compared to the programme principles in the rural areas which demand capital contribution and 100% O&M cost recovery particularly when majority of the systems are designed through a top down approach. The group felt that the inconsistency in polices/pricing/standards between rural and urban areas need to be revisited and rationalized.

The group suggested that water resources should be seen as part of one virtual cycle and any changes in either surface or ground water patterns affect the other. The group also suggested that innovative realistic solutions need to be looked into as recent research shows that isolated water harvesting/conservation efforts might not yield desired results. The group further underlined the need to monitor the use of water resources in a periodic manner to understand trends and plan corrective actions.

**Institutions for bottom-up planning**

The group suggested that PRIs be empowered to undertake planning, use and regulation-for all sectors/uses to enable a bottom up process. PRIs being the mandated entities to deliver drinking water, it is appropriate that priorities in planning and use are set at that level. The next level of social institution could be an ‘Aquifer Level Users Association’. There are various examples of local users regulating water use such as Hiwre bazaar, Ralegaon Siddhi, Alwar etc. The group felt that while the local institutions will look at local issues, the higher tier of intuitions could look at more complex or larger issues like: industrial pollution (eg Palar river pollution in TN), excessive draft by farmers, etc. The group also recommends that appropriate incentives such as pricing issues, entitlements are designed to optimize water draft, use and maintain quality.

**Water Quality**

The group identified that water quality is mainly affected by overdraft, discharge quality, pollution from industrial and sewage waste etc. As drinking water quality is monitored by District labs, there is need for enhanced budgetary support to procure good equipment. Further the group felt that drinking water management should be linked to sanitation in order to ensure better quality. Private sector participation in monitoring of drinking water quality should be explored.
Group III - Sanitation

Scaling up of TSC to achieve ODF status by 2012
To scale up the TSC, it is critical to involve institutions and the private partners along with village level motivator/natural leaders. Convergence between other line departments and enhanced participation from NGOs/CSO/Private sector needs to be ensured at all levels. There is an urgent need to build the capacities of the functionaries and institutions involved in TSC at all levels. States should identify and focus on poor performing districts. It is desirable to provide community rewards on achieving results/outcomes rather than just individual incentives. Further the group stressed the importance of identifying successful models of IEC activities that can catalyse TSC with focus on collective behavior change with emphasis on involvement of school children. Interpersonal communication through community led approaches would be more effective and faster in catalyzing the implementation of TSC

Sustainability of sanitation achievements
The group identified the reasons many ODF village are slipping back: such as non involvement of PRIs, absence of post implementation monitoring, and weak institutions. Therefore it was suggested that PRIs should be made responsible for post implementation IEC activities to focus on O&M of common facilities by mobilizing/ensuring necessary resources and partnering with CSO/CBOs to promote behavior change. Part of the NGP amount could be linked to sustainability.

Technological options for different conditions and regions
The group identified that current supply driven models/technology with limited options is one of the major constraints in accelerating total sanitation due to non feasibility, high cost etc. and suggested that each state should update the technology hand books with provision for using the locally available materials-resource. Refinement of the technology by the local communities need to be encouraged and supported including the community toilet models that can be used and maintained by local communities on a sustainable basis.

Strengthen the supply chain mechanism
The group recommended that each state should build the capacities of the district and block level institutions to ensure the supply chain through RSM, private markets, production centers etc. Care should be taken to ensure the use of locally available materials suitable to the site.

Improvement in monitoring and evaluation
The group suggested that each state shall have a system of frequent/regular mentoring with appropriate indicators on coverage, usage, O&M at state/district/block level incorporating social audit, participatory monitoring and concurrent evaluation.
Closing Plenary
The closing plenary was an open session chaired by the Honorable Dr. C.P. Joshi, Union Minister for Rural Development. The following are the key issues brought out during the open session with a concluding address by the Honorable Minister Dr. Joshi.

Holistic approach to water and sanitation issues
All water sources (e.g. ground water, surface water) are interdependent and issues related to their management should be viewed holistically and there is a need to develop a holistic approach to water and sanitation.

Currently drinking water and sanitation issues are being looked at separately in the urban and rural environments. As the concerns in urban and rural areas are interlinked (for example, issues of water pollution and water quality), there is a need to work in collaboration with the Ministry of Urban Development.

There is also a need to work closely with other sectors, particularly with agricultural and health departments. Agriculture is a major user of water supply and is based on high fertilizer input. Links could be forged between sanitation and agriculture to promote the use of sludge, etc., as input into agriculture. This would address the issue of disposal of sanitation waste as well as food security issues.

Link between water, sanitation and health
The link between water, sanitation and health outcomes such as malnutrition and anemia needs to be recognized. To control the incidence of diarrhea, which is a major killer in India, there should be a special focus on monitoring the quality of water of not just water sources and water supply but also the hygienic preparation of food in specific food establishments. This would require establishing a link between the water and sanitation agencies and other departments, including Health and Women and Child Development, and their programs. It should also be recognized that anganwadi centers can be an important centre for the provision of sanitation facilities to mothers, adolescent girls and children.

Need to adopt appropriate technology
Water is part of a natural cycle and is too valuable to be wasted on sanitation. There is a need to adopt appropriate technology options, such as eco sanitation, to optimize the use of this scarce resource. It was suggested that technology for eco sanitation could be promoted under the Total Sanitation Campaign.

Water security can be achieved by the adoption of low-cost technologies. There is a need to build awareness at the grassroots with regard to overdraw of water, which affects the natural cycles of recharging, as well as issues of water pollution. A plan for solid liquid waste management would need to be incorporated into water security plans at the district/village level.

Water rights
The community should be made aware of their rights to water. It would need to be explored as to who would be responsible for ensuring these rights--the community, PRIs,
PHED, or state level units. The possibility of a constitutional legislation on the issue of water rights needs to be explored.

**Financing issues**
There is a need to focus on rehabilitation of water sources rather than merely on the introduction of new water schemes. In fact, rewards could be instituted for taking up schemes for rehabilitation. Competition between states on the use and management of water could be encouraged based on the Nirmal Gram Puruskar model for rural sanitation, which rewards communities for the achievement of outcomes.

Under the 12th Finance Commission, funds are available to PRIs for the O&M of WATSAN facilities; these funds should be used specifically for the O&M of village level facilities in schools, anganwadi centers, etc.

As the cost of new rural schemes is increasing, and such schemes are likely to be located relatively further away from the main habitations, it is important to ensure that the limited finances are used productively. Funding to the state governments could be linked to the extent of financing to villages for O & M.

Financing for sanitation schemes could be based on assessment and reward for usage rather than coverage.

As the rate of slippage of habitations from fully covered to partially or not covered is dynamic and funds are limited, states may prescribe their own norms for per capita consumption of water.

**Monitoring**
To increase sanitation coverage to meet the 11th Plan/ MDG goals, there is a need to keep sanitation high on the agenda, especially in the context of India’s rapidly growing population. It is estimated that 3-5 million new sanitation users would be required each month to meet the MDG goal for sanitation. National level surveys should be appropriately framed to monitor the progress of sanitation coverage, and monitoring mechanisms should focus on outcomes rather than coverage.

It was suggested that the RGNDW Mission could form an advisory board within the CCDU for monitoring. Further, Citizen’s audits have been used effectively to monitor the implementation of schemes at the ground level and to gain an understanding of schemes from the clients’ point of view. This approach can generate structured data for comparison across districts, and could be institutionalized and implemented through civil society organizations. For monitoring and evaluation, a database could be created which would form the basis for strategy building and decision-making. Citizens’ audits can be a useful method to generate awareness at the household level on issues such as water quality testing.

It was suggested that a report card system could be developed based on various parameters to monitor the progress of WATSAN schemes at the ground level, including the management of water sources, access to sanitation, incidence of disease and levels of nutrition. This public benchmarking could foster state-level ownership of programs and encourage a competitive spirit between states for the achievement of outcomes.
While the focus of rural water schemes so far has been on monitoring levels of ground water, inadequate attention has been paid to the need to map the sources of ground water.

**Coverage of water and sanitation facilities**

While toilets are being constructed in anganwadi centers located in government-owned premises, in order to cover all anganwadi centers and reach children and mothers in the community, the GOI needs to take a view on whether anganwadi centers housed in private buildings could also be provided water and sanitation facilities.

The Guidelines indicate levels of coverage based on per capita consumption of water. Perhaps a better yardstick would be to define coverage and address water security issues based on levels of service; e.g. access to water sources or where the client is located in relation to the “water ladder”. Based on local hydro-geological conditions, each state could define its own parameters for coverage.

**Sustainability of water sources**

With traditional water bodies being neglected, the recharge of ground water sources is an issue. In order to ensure the sustainability of rural water sources, water supply schemes should promote the conservation/recharge of existing sources rather than focus only on the exploitation of new sources. In some settings in South East Asia, new water projects have a component of sustainability built into the scheme, which ensures the conservation of the source.

There is a need to nurture ideas and innovations at the local level. In rural Maharashtra, a citizens’ audit has been used to increase sustainability of water schemes. The gram panchayat of one village visits rural water projects in other villages to audit the scheme and assess the strengths and weaknesses of schemes on the ground. In Tamil Nadu, a community has recognized the need to identify and protect natural recharge sites; village members have adopted a traditional tank as a ‘temple tank,’ and are protecting the site, which has improved the level of the water table in the area.

While for policy formulators and administrators the implementation of water and sanitation schemes is only a program, it must be kept in mind that for villagers it is a ‘way of life’. As the outcome of schemes will be evident at the micro level, it is important to build local leadership to take on the responsibility of implementing and managing program activities. However, issues with regard to how to build local leadership and social capital, i.e. whether through political or government channels, to take on the challenge need to be addressed.

Water management should be undertaken at the community level, which would include aspects of ‘Aquifer management;’ i.e., the mapping and management of water sources. These efforts may require technical support.

**Networking**

There is a need for a network or structure to facilitate the sharing of information by users and stakeholders in the sector. As there is no structured learning across states, there is a need to create a formal “water users” platform, which would enable users to learn from each other.
The Mission would need to provide technology support on available technologies for water testing in water quality affected areas.

**School sanitation and hygiene**

The issue of provision of toilets in schools set up prior to the Sarva Shiksha Abhiyan (SSA) was raised. It was suggested that district plans for funding should include a budget for the provision of toilets in these schools; moreover, PRI/VWSC funds could also be utilized for the provision of toilets so that all schools would be covered by March 2010.

**Capacity building**

Capacity building for the planning and implementation of WATSAN schemes has been identified as a major challenge at various levels, e.g. PRIs, community, PHED, etc. There is an excellent network of CCDUs in place, with a specific budget for community activities; these bodies could be used to build the capacity of institutions.

Water and sanitation schemes are to be planned and implemented at the community level and involve the complex management of land and water resources, including drainage treatment, land development, liquid and solid waste management, etc. However, at the village level planning tools and capabilities are not available. There is a need to invest in building local capability for micro level planning and implementation.

**IEC**

At present IEC for water management and sanitation issues is not adequate. Indeed, IEC activities tend to focus more on sanitation and less on water issues. There is a need to build awareness among stakeholders so that these issues, including those relating to ecosan, solid/liquid waste management, are given priority. The importance of training for IEC was also emphasized.

Schools could be a focal point for the provision of IEC. Awareness raising activities should also be undertaken in anganwadi centers to target key beneficiaries such as mothers, adolescent girls and children. Moreover, IEC activities could be undertaken during specially organized “village health and sanitation days”.

To achieve the objective of water security, the new guidelines should ensure that stakeholders are mobilized before the infrastructure of the scheme is put in place. In some areas in Gujarat, an extended period of mobilization is mandatory before a scheme is implemented.

**Water quality testing**

Water quality testing should include the monitoring of bacteriological contaminated sources in addition to testing chemical contamination.

**Key Points raised by Dr. C.P. Joshi, Hon’ble Minister for Rural Development**

The Valedictory Address was presented by Dr. C.P. Joshi, Hon’ble Minister for Rural Development. Making a departure from the prepared speech, the Minister stressed the need to think out of the box. His question was ‘there are more than 265,000 panchayats in the country that are mandated to deliver drinking water and what do we need to do to support them in fulfilling their responsibility’. For water to be managed at the local level,
and as PRIs form the lowest level of governance, there is a need to develop a policy to allow
the panchayat to identify how to use and protect local natural resources, including the
extent of usage of water for drinking and sanitation at the village level.

The Minister observed that it is necessary to delink the issues of water and sanitation and
to develop R & D for sanitation without water. There is a need to explore innovative local
ideas and to identify effective models that are being implemented in rural areas with
minimal cost. These models can then be replicated as the government has the funds for
upscaled.

The quality of sanitation facilities in rural areas is very poor and needs to be addressed.
Indeed, if sanitation facilities are poor, then local communities would not be motivated to
use them. Particular attention should be ensured for sanitation facilities in schools.

To improve sanitation coverage, issues of equity are important. There is a need to identify
the availability of sanitation facilities among vulnerable communities such as Scheduled
Castes/Schedule Tribes/minorities in villages. Moreover, there is a need to change
behaviors and to generate a ‘mass awakening’ for the adoption of sanitation practices
within these communities.

There are a large number of funding options available for rural water and sanitation
schemes. For example, funds available under NREGA can be used for activities in the
WATSAN sector, which could lead to significant outcomes. These funds could be used to
improve groundwater recharge in each village, and appropriate schemes for water
harvesting or water conservation could be implemented. These funds could also be used to
build awareness of sanitation in schools.

Due to the competing demands on scarce water resources from agriculture, industry,
domestic use, etc., the management of water is a key issue. To address the problem of
water scarcity, there is a need to prepare a holistic blueprint and identify the requirement
of water at the village level for these sectors and for drinking water (for example, how
much land in the village needs to be irrigated, how much water is required for industry and
the generation of electricity). The Minister underlined that if competing demands are
creating a scarcity of drinking water in rural areas, he is ready to take it up at the higher
levels to ensure a policy outcome that could contribute to sustainability of drinking water
sources. The Minister concluded by noting that “there is a need to develop a long term
strategy with short term innovations.”

Summing up the day’s proceedings, the Secretary DDWS said that focus should now shift to
implementation of sustainable RWS programs at the state level and that GOI stood ready to
provide all support, both financial and technical. She welcomed the assistance of external
support agencies, including the WSP and the World Bank, in this effort and promised a
continued dialogue.
Summary conclusions for follow up at the policy and operational level from the proceedings of the National Roundtable discussions on rural water supply and sanitation, 21st October 2009:

1. Government of India needs to review its allocation criteria for transferring funds to the states as largely population based allocations would go against the ground realities in some states such as water scarcity, water quality, hydro geological conditions, accessibility in remote areas, and sparsely populated areas.

2. Government of India needs to review the rural-urban disparities in terms of public investment in the sector, principles of cost recovery and rural-urban linkages in terms of efficient resource use and infrastructure creation.

3. There are 2,50,000 panchayats that are mandated to deliver drinking water supply and sanitation. The existing sector institutions should be realigned to support the panchayati raj institutions in fulfilling their responsibility.

4. This will mean building the capacity of the engineering departments to perform a facilitation role, enabling appropriate fiscal transfers to the lowest levels, and augment the existing capacity in the private sector.

5. Drinking water gets the first priority in resource allocation. Legal and physical measures have been tried so far with limited success. While strengthening these measures, it is also time to seriously consider economic instruments across the water sector and incentivize infrastructure creation in the right direction.

6. A highly focused IEC campaign addressing collective behavior change and school children needs to be launched by the Government while enhancing rural sanitary marts to promote appropriate and cost effective technology options to achieve total sanitation outcomes by 2012.

7. Convergence of resources under various central programmes needs to be ensured at the operational level of the panchayats to achieve better outcomes. At the same time monitoring and evaluation systems should be strengthened towards outcome monitoring in drinking water supply and sanitation.
Participants

Government of India

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2. Ms. Agatha K. Sangma, Union Minister of State for Rural Development
3. Mrs. Rajwant Sandhu, Secretary, Dept. of Drinking Water Supply
4. Shri. Chiranjib Basu, Additional Secretary, Department of Land Resources, Delhi
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Presentation by Shri T.M. Vijay Bhaskar, Joint Secretary (Drinking Water)

Background
- Drinking Water Supply – State subject, may be devolved to Panchayati Raj Institutions (PRIs).
- 1971-72 - Accelerated Rural Water Supply Programme (ARWSP) of Min of Rural Development, Govt. of India to supplement efforts of States.
- 1999 – Formation of Department of Drinking Water Supply (DDWS) in M of RD
- ARWSP modified as National Rural Drinking Water Programme w.e.f 1/4/2009

Background - Water Usage
- Infrastructure existed
  - 4.3 million Hand Pumps
  - 1.05,000 piped water supply schemes
  - 496 water-quality testing labs and 23 mobile laboratories established
- Tackled “Problem Villages” in mission mode till 1996, when only 63 went left
  - In 1999, targeted to cover all “Habitations” (identified 1.5 mm) by end of X Plan
- Chemical contaminants survey in 2001
- Introduced Sector Reforms in 2002
- Fresh survey of Habitations in 2003 – 1.6 million habitations
- Impetus to create infrastructure – Bharat Nirman in 2005

Background - Investments in Rural Drinking Water
- Highlights of new NRDWP Guidelines
  - 20% allocation for Sustainability of sources and system
  - Goal to achieve water security at household level rather than at the habitation level.
  - States encouraged to move away from over-dependence on single source to conjunctive use of surface water, groundwater, and rainwater.
  - Incentive for performance rather than rewarding under-performance by the States.

Issues
- Coverage - Uncovered & Slipped back habitations
  - There are still about 580 uncovered habitations left
  - These are reportedly located in remote / difficult areas.
  - About 24,000 Slipped back habitations due to a number of factors such as –
    - Declining ground water table.
    - Systems outliving their lives.
    - Systems working below rated capacity due to poor operation and maintenance.
    - Increase in population resulting in lower per capita availability.

Highlights of new NRDWP Guidelines
- 10% of the NRDWP fund as incentive for decentralisation of RWS to PRIs.
- Support to set up Water and Sanitation Support Organisation at the State level to provide both technical as well as software activity support.
- WSSO to utilise 2% of NRDWP funds for various support activities viz. IEC, capacity building, quality monitoring & surveillance, training, water quality testing laboratories, MIS, etc.
**Issues**

- **Water Quality**
  - 2.60 lakh quality affected habitations
  - Coverage of quality affected habitations through alternate sources increases costs
  - Usually engineering solutions instead of low cost options adopted
  - Traditional systems are not utilized fully
  - Disposal of sludge such as arsenic and fluoride remains a problem.
  - Bacteriological contamination due to open defecation, solid and liquid wastes

- **System & Financial sustainability**
  - Where schemes are implemented without local participation, communities are not very enthusiastic in sharing the O&M costs.
  - Schemes revert to Line Departments in times of water stress

- **Keeping pace with rising expectations**
  - Earlier coverage norms of 40 lpcd, distance of 1.6 km / 100 m elevation and one hand pump / stand post for 250 persons have been removed.
  - Each state can prescribe its own norms
  - Demand for more quantity, nearer and more sources.

**Drinking Water Supply Ladder**

- Increasing
  - Customer satisfaction
  - Water Quality
  - Quantity – 24 X 7

- Standposts
- Tubewells
- Handpumps
- Protected Springs
- Unprotected Spring, shallow
- Handpumps, canals

**Percentage of HH by Source of Drinking Water (NFHS-3 2005-06 Data)**

- Household Tap
- Public tap
- Tube well
- Protected well
- Non-Improved

According to NFHS an improved source of drinking water includes water piped into developing project, water available from public tap or stand post or a tube well or borehole, or a protected well or spring

**Thank You**
Annexe II

Presentation by Shri J.S. Mathur, Joint Secretary (Sanitation)

Strategies for Rural Drinking Water Supply and Sanitation
21st October 2009

Sanitation
A cause for concern

55% of people practising open defecation in 2006 were in India

1.2 billion people practice open defecation, 85 per cent of whom live in 19 countries

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Inadequate sanitation

- Pollutes water and spreads numerous water born and infectious diseases
- Increases health costs
- Lowers workers' productivity
- Denies the right of people and especially women to live in dignity
- Affects environment adversely
- Lowers school enrolment and retention rate of girls

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Sanitation Influences All MDGs

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Total Sanitation Campaign-Objectives

- Bring about an improvement in the quality of life in rural areas;
- Generate felt demand for sanitation facilities through awareness creation and health education;
- Cover schools/ anganwadis in rural areas with sanitation facilities and promote hygiene education and sanitary habits among students;
- Encourage cost effective and appropriate technologies in sanitation;
- Eliminate open defecation to minimize risk of contamination of drinking water sources and food;
- Convert dry latrines to pour flush latrines and eliminate practice of manual scavenging.

Nirmal Gram Puraskar (NGP)

- Nirmal Gram Puraskar awarded from 2005
- Largest incentive scheme launched by GOI for Panchayati Raj Institutions
- Award given to panchayats which become Open Defecation free and maintain clean environment
- Village, Block and District Panchayats are eligible
- Gave massive thrust to rural sanitation coverage

Issues

- Successful models of IEC activities that can catalyze TSC
- Scaling-up of TSC to achieve universal toilet coverage by 2012
- Sustainability of sanitation coverage
- Accelerating participation of stakeholders viz. PRIs, NGOs, line departments etc