

SUSTAINABLE OPERATIONS OF WATER SUPPLY & SANITATION SERVICES IN INDIA

Dr. Dinesh chand
Ministry of Drinking Water and Sanitation

The background of the slide is a solid blue color. In the lower half, there are several faint, concentric circular ripples that resemble water droplets or raindrops, scattered across the bottom right and center areas.

Layout

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Overview

Presently,

- 91 % rural people in 1.5million habitations have been provided RWSS infrastructure
- About 71 % rural households has access to toilets
- Do they figures indicate reliable, sustainable and affordable water and sanitation services?

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- Continuing ' Quantity and Quality' problems having poor operations and maintenance (O&M) standards and
- cost recovery are formidable constraints in achieving full coverage affecting about 30-40% schemes
- The main challenge is switching from a build-and-rebuild approach to a build-and-expand approach and
- Gram Panchayats (GPs) maintain these facilities
- States invest more and more in expanding systems to meet increasing demand for better and sustainable services

Challenges and Strategy

- Water and sanitation schemes experience the most serious problems with O&M and cost recovery aspects.
- Thousands of scheme newly built infrastructure deteriorates and become dysfunctional after the scheme's construction & commissioning within few years
- How to make operations of water and sanitation services Sustainable on long term basis- Today's the most challenging problem.
- Implementing Plan for operation and maintenance to transfer of ownership to local bodies/PRIs and need to adopt system approach for ensuring Sustainable services for all times.
- Recently, the Ministry of Drinking Water Supply & Sanitation has prepared long term strategic plan (2011-2022) for ensuring drinking water security and sanitation to all rural households.
- To cover 90% of households with piped water and at least 80% households with tap connections in the country.

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- The strategy emphasizes water security through decentralized governance with oversight and regulation, participatory planning and implementation of improved sources and schemes.
- To Develop sustainable service delivery mechanisms - a central feature of the program, with State institutions or ZPs implementing and managing large multi-village schemes, delivering bulk water to villages in water stressed areas, and GPs implementing and managing in-village and intra-Panchayat schemes.
- The strategy highlights source sustainability measures, water quality safety, monitoring and surveillance, convergence of different development programs, and building professional capacity at all levels.
- The main challenge now is the effective implementation and scaling-up of the proposed decentralized systems.
- The Total Sanitation Campaign (TSC)/ NGP is an incentive program to promote 'Nirmal' villages with awareness. However, the full potential of this campaign has yet to be realized.

Sustainable Operations

- Operations refer to all of the activities needed to run a water supply and sanitation scheme ensuring efficiency, effectiveness and sustainability except the construction of new facilities.
- It has two aspects- “operation”- activities of operating staff and the procedures or by-laws for governance of access the system and requires awareness/ knowledge of the scheme, managerial capability and finances and “maintenance” (O&M)- is purely the technical activities and to be planned to keep the system working and requires skills, tools and spare parts.
- The key to ensuring effective maintenance of scheme- define roles and responsibilities clearly, personnel equipped adequately with the appropriate skills and tools.
- Thus, it is essential to have mandate, men and money along with well developed scheme operation and maintenance plan.

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- There is greater need to adopt system approach-emphasising not only the planning, designing and construction of schemes but also post-construction activities including operational aspects-- .
- The ease of operation and maintenance of a facility should be focal point to its sustainability
- careful consideration in planning & designing of the scheme as some O&M issues are location-specific.
- In rural areas, the engineer must take into account the factors such as the availability of chemicals for treatment, spare parts, and equipment, the reliability of power supplies, and the availability of local skills and capacity to undertake O&M.
- The standardisation of equipment, spare parts, designs, construction methods, etc., has many benefits including the probability of local craftsmen being able to carry out the work
- If the scheme design is simpler, the O&M is better as it requires lower skill levels in the design process.

Community Managed Operations and Capacity Building

- The concept of Village/habitation Level Operation and Maintenance Management (VLOM) is a philosophy and favours technology choices which can be operated and maintained within the village/habitation by community.
- The proper community O&M requires O&M Manual, capacity building, O&M Plans apart from well designed scheme and having sustainable safe water source and revenue based.
- For the sustainability, a community ownership and management approach, make the end-users directly responsible for the operations of the installed facilities.

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- When new user-interfaces or management approaches have been introduced- Local technicians and caretakers need to be trained for the proper operation of the new infrastructure and on-hands training is essential.
- Organising for O&M require certain level of planning, commitment and monitoring. The aspects to be organised are as follows:
 - What: the activity which is to be carried out
 - When: the frequency of this activity
 - Who: the human resources required for the task
 - With what: what are the materials, spare parts, tools and equipments needed.
- O&M activities cost time and money, and therefore a provision for financing O&M has to be planned before the scheme starts.

Experiments & Experiences in World Bank Projects

- Over last twenty years, the World Bank has partnered with GoI for implementing nine RWSS projects in seven states
- These are Maharashtra (1991-1998), Karnataka RWSS (1993-2000), Uttar Pradesh and Uttarakhand RWSS (1996-2002), Kerala RWSS (2001-2008), Karnataka RWSS (2002- ongoing), Maharashtra RWSS (2003-2009), Uttarakhand RWSS Project (2006-2012), Punjab RWSS project (2007- 2012), and Andhra Pradesh RWSS (2009-2014).
- These projects potentially benefit about 24 million rural population in more than 15,000 villages.

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Interventions Experimented:

- Implementing New Institutional Models at Scale
- Demonstrating Inclusive Community-based, Participatory, Demand-responsive Approaches
- Building Capacity of State Departments, Sector Institutions, Local Governments and Communities
- Integrating Governance and Accountability Aspects into Project Designs
- Improving Sustainability - Financially, Source-wise, Service Delivery and Community Satisfaction
- Designing and Implementing Sector-wide Programs (SWAPs) to Scale-up Reforms
- Enabling achievement of 'Open Defecation Free' Clean Villages through Effective Sanitation Programs

Conclusion

- Decentralizing service delivery responsibilities, placing GPs and communities in the central role
- Implementing sustainable local bodies managed models for intra-GP RWSS schemes and using State-PRI partnership models for multi-GP schemes.
- Moving the RWSS sector to recovery of O&M cost and capital costs over time.
- Scaling up the reform program, towards uniform sector financing, institutional and implementation policies, across the State.
- Integrating water supply and sanitation, with % coverages and achieving 'open defecation free' clean villages.
- Addressing declining groundwater and its quality through community management s.
- Establishing Monitoring & Evaluation systems - reviews and social audits.

**If the scheme design is simpler,
the O&M of the scheme is better!**



Thanks

