Assessing the Status and Performance of Rural Drinking Water Supply Sector and Programs in Jharkhand

A REPORT

SUBMITTED BY

INDIAN INSTITUTE OF MANAGEMENT RANCHI

RANCHI, JHARKHAND

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Submitted To

Department of Drinking Water and Sanitation

Government of Jharkhand

On

April 9, 2013

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Executive Summary

The objective of the study was to generate information for the design of a rural drinking water supply component of the RWSS– LIS Project with a vision to accelerate effective, sustainable and improved services. The study assesses the sector and program status as well as the performance of the rural drinking water supply schemes in the state. Information provided here relates to the sector status, institutions and capacities, sector programs, key actors, finances, scheme designs and technologies, service levels (quality and quality), operation and maintenance, monitoring and governance. It then provides inputs for the improvements in the design and implementation of the RWSS-LIS Project.

The assessment provides both quantitative and qualitative information organized around the parameters of Technical and Service Delivery, Sector policies and programs, Institutional Mechanism, Economic and Sector finances, Social and Environmental context. The methodology of the study involved the use of both qualitative and quantitative research methods as also both primary and secondary data. The study was confined to the 4 Districts of Jharkhand viz. Dhanbad, Dumka, Khunti and Jamshedpur. These districts have been selected with care and have appropriate diversity in terms of issues and their facets. From within each sampled district, 5 schemes through random sampling method were selected. Within the Gram Panchayats (GPs) that were served by the scheme, habitations, households, schools, and other institutions such as aganwadi and community/primary health centres, were randomly selected. The study involved field visits and interaction with stakeholders at different levels including officials of State Departments (identified by the department), District, Block, GPs, NGOs, PRIs, Experts and Policy Makers, along with other key grassroots stakeholders and relevant persons. Interviews, using semi-structured questionnaires, and Focused Group Discussions were conducted with various stakeholders.

The study unraveled the following as key issues and has suggested appropriate recommendations for dealing with them.

The first and the foremost is the Low Sustainability of Water Sources/Schemes. The study found that inadequate recharge of aquifers, check dams, rainwater harvesting, etc. has led to rapid decline in the ground water table in Jharkhand. In several instances, the water source, largely in case of rivers and ponds, have dried up causing the habitation to slip back. The study recommends that a multi pronged approach which is holistic and participatory at the village level, involving afforestation, blanket ban on cutting of trees and groundwater recharge needs to be followed to ensure sustainability. Strategies should include a water budget with community monitoring of water tables to balance demand with available water as well as local measures for rainwater harvesting and groundwater recharge. DW&SD may also consider giving GPs more power over local water sources, so that agricultural and industrial use could be regulated so as not to jeopardize domestic water requirement. Besides, there is an urgent need of enacting a comprehensive Ground and Surface Water Development legislation and its effective enforcement especially in over exploited blocks.

The second major issue that has emerged is that of water quality which is affected by both point and non-point sources of pollution, wherein the non-point sources like coal mining, iron sources etc. was found to be more likely to impact the ground water quality, than point sources (open defecation near the source of water). The study found that water quality testing is yet to take off in most of the pipe water supply schemes. The water testing kits are in the process of being supplied to the community. However some crucial areas which require urgent interventions are adequate training to concerned persons in the DW&SD officials and community members in using the testing kits and regular testing of water through these kits, and a system of replenishment of components (reagents, litmus paper, etc.); a detailed plan for handholding and supporting the trained persons in using the testing kits and follow up in case of detection of quality issues; and training on waste water management to prevent contamination and for reuse and recycling.

Then is the issue of inadequacy in the knowledge of the VWSC members and the resources available to them for water management. The study found out that the VWSC participation is very limited in the state. In water

supply schemes, it is largely limited to jointly identifying the water sources and selection/ possession of site for development of water supply scheme, and planning for location of hand pumps. The involvement of women in planning for the water supply schemes, and particularly in decision making for location of hand pump in the villages, is further limited probably due to low education level and local customs and mindset. The study recommends that VWSC members who are managing the PWSS should be provided with strong technical support for Civil, Mechanical, Electrical and Financial Skills. This is based on the belief that water security planning is posited at the village level which in turn requires the knowledge of water resources management in the village, aquifer or watershed. It was indeed commendable to find that DW&SD has started training of VWSC and mukhiyas on software issues like raising awareness on need for recharge, avoiding water wastage and the need to plan for balancing availability and consumption, as well as, hardware issues which are focussed on building physical structures that can capture rainwater and surface water runoff, and/or help recharge ground water like ooranis, check dams, subsurface dykes etc. It is also important community members be trained on using and maintaining the water testing kits on a priority basis. The lack of knowledge and skills amongst Jal Sahiyas in certain places was appalling. The study recommends that the selection of community members be done on certain well laid down criteria such as their interest levels, academic qualifications, etc. It is also paramount that the DW&SD should not leave VWSC abandoned once project infrastructure has been built. VWSC need continuous support, including training, technical support, access to professional services and financing to supplement their own resources.

Another issue that has emerged is inadequate Operation and Maintenance of WSS. In several places the shortage of DW& SD staff at the lower level has led to a situation where one gang is responsible for maintaining 1000 hand pumps or schemes across 5-10 villages, thereby causing some of the hand pump/ schemes to get neglected. Places where fluoride were detected last year, FTP has not been installed even till date; and wherever it has been installed it is not being used. There are also other problems which are not related to the Department but pose a challenge in terms of their task accomplishment. In some districts, there is acute electricity problem, leading to non-functioning of the scheme for the period. At times even if the power is available, low voltage has caused the scheme to be non-functional. Pipeline distribution in these schemes was also found not only to be inadequate but instrumental in creating a further divide between the rich and poor. Since most of the PWSS were found unable to meet the service level throughout the year, the VWSC members lamented their inability to generate money from the consumers thereby exacerbating their inability to manage the scheme. The study recommends that the DW&SD speed up the process of introducing standard operating procedures for O&M of hand pumps and piped water supplies and make efforts to ensure that the local resource person is quickly identified and properly trained.

The study also found out an appalling lack of awareness with regard to water supply schemes in the state. This was not only at the user level. Even the VWSC members, when queried, were not aware about their roles and responsibilities. Around 30% of the Jal Sahiyas did not know why they have been appointed! It is also important to make the community aware of the need for regular water quality testing and required follow up. The study recommends that DW&SD develop a comprehensive IEC strategy detailing out target groups, key messages, media vehicles and monitoring plan. As this is a very specialized area, DW&SD could consider using services of a specialized agency from public/ private sector for this.

The study also found out a lag between planning of new schemes, survey and execution thereby leading to slippages and forcing a significant chunk of rural community to go out of the net of the water supply network. Planning, decentralization, use of project management technique and improved monitoring of the schemes is a way out. It is important the DW&SD builds a strong reporting system based on service levels and community feedback. The monitoring of the schemes must move beyond quantitative data to capture the qualitative aspects of the schemes on monthly/quarterly basis in the reporting system. For example, in case of hand pumps the current reporting system only tells the number of hand pump in a particular district but how many are able to provide the drinking water is not clear. In case of PWSS, the information is on the number of schemes. Now the next level of reporting should be on the service levels of these PWSS. Reporting should be on the number of total house hold, number of house hold having connection and revenue received by VWSC. The report recommends that reporting system must also provide the information on the water table in

each block especially in terms of zones that have gone red (i.e. the withdrawal is more than the recharge of ground water), going to be red (i.e. the withdrawal is at a pace and amount that the ground water recharge would not be able to replenish over next 2-3 years) and green (i.e a zone where the recharge is more than the withdrawal with no danger looming in the near future). This will help the DW&SD to quickly and clearly identify the regions on which it has to focus first and prioritize the necessary interventions.

Finally, the report suggests that sustainability plans should be prepared especially for over-exploited, critical and semi-critical blocks in terms of ground water table for taking up scientifically located recharge measures and water harvesting structures on a watershed or aquifer basis. These would be prepared using Ground Water Prospects (HGM) maps, GIS and GPS techniques to ensure maximum water conservation to benefit drinking water sources in a cost effective manner. These plans should be financed by convergence of NRDWP Sustainability MNREGAS as well as Watershed Development Programmes.

All in all while this State Sector Assessment has shown that the commendable efforts being made by the DW&SD to ensure that this most important resource of human civilization is available on sufficient, sustainable and equitable basis to all, there are certain significant challenges and issues which needs to be urgently addressed. A holistic, participatory, communitarian strategy and solution with the support of the State is the need of the hour.