

**National Workshop on Sustainable Rural Water Supply and Sanitation Services
Chandigarh
15-17 December, 2011**

PROCEEDINGS

The Government of Punjab, Department of Water Supply and Sanitation (DWSS) under the guidance of the Government of India, Department of Economic Affairs (DEA), and Ministry of Drinking Water and Sanitation (MDWS) convened a National Workshop which

- highlighted and shared the experience of Punjab in achieving sustainable operations of water supply services and other initiatives.
- showcased the best practices and successful implementation of sustainable water supply program.
- enabled learning from the good experiences/ innovations in rural water supply & sanitation sector from other states and the achievements being made at National/ International level.

The Joint Secretary and the Additional Advisor from the MDWS, delegates from 17 states, WHO, Water Aid, IRC Netherlands and World Bank offices in Delhi, Dhaka and Washington, and the Department of Public Health Engineering, Bangladesh actively participated in the workshop.

15 papers were presented in four technical sessions spanning on 15th & 16th December, 2011.

December 15, 2011, Thursday

Inaugural Session

Shri P.S Aujla, Secretary, DWSS, Punjab welcomed the participants. He provided a brief introduction of the World Bank assisted Punjab Rural Water Supply and Sanitation Project and narrated how a turnaround in the implementation status changed the outlook of the project with the dedicated hard work of DWSS officers. Initially, the stakeholders were totally opposed to the concept of cost sharing and contributing their beneficiary share. As a result, there was not even a single water supply scheme which was recovering O&M cost fully in the year 2007-08. Even the change of mindset of the departmental officers and the politicians for adoption of the new concept of demand driven participatory approach sector-wide where the beneficiaries would play the central role of service provider took long time. But, once the political masters were convinced, the implementation of the PRWSS Project gained momentum. The DWSS has received demand from 3982 Gram Panchayat Water Supply Committees (GPWSCs) and also received their beneficiary share.

Now many GPWSCs are having in their O&M account balance exceeding Rs. 2 lacs. In fact, the GPWSC of Naushera village in District Amritsar is having more than Rs. 10 lacs in the O&M account. Progress achieved in the project implementation clearly demonstrates that people are ready to contribute towards capital cost and pay the user charges if they get convinced about the assured and sustainable water supply services. Implementation of the project has also demonstrated that continuous communications and capacity building programs are essential for carrying on with the reform approach. He wished the participants good deliberations on the papers and a comfortable stay in Chandigarh.

Shri S.C Agrawal, Chief Secretary to the Government of Punjab in his inaugural address congratulated Mr. Aujla, Secretary, DWSS for the excellent work done and the success achieved in the implementation of the Punjab RWSS Project. He mentioned that it was not just a technological project; it was a multidimensional project which also included social & cultural aspects prevalent in the State. The strong point of the project achievements is that it succeeded in negating the opposition to the concept of contribution by the beneficiaries and taking over of O&M of water supply scheme by the GPWSC. He also mentioned that there is not even a single city in

Punjab which can boast of 24X7 metered water supply whereas under this project 11 villages have moved already to 24X7 metered water supply, and the DWSS has set up an ambitious target of achieving 24x7 water supply operation in 100 villages on pilot basis. He desired that the wastewater is treated to an extent that it becomes suitable for agricultural use. He conveyed his sincere thanks to the World Bank for not only providing funds for implementing the Project but also for providing technical as well as administrative guidance to the implementation and management team at all stages. He concluded by saying that all of us must judiciously manage the available water to sustain it for the future, and wished the Workshop a great success.

Technical Session-1: Chair- Mr. P.S. Aujla, Secretary, DWSS, Punjab

The first technical session covered topics pertaining to sustainable operation of water supply & sanitation services in India by Dr. Dinesh Chand, Additional Adviser, MDWS, assured availability of drinking water -- challenges of bringing financially self-sustainable O&M by Shri Sudhir Bhatia, Chief Engineer, DWSS, Punjab. The other topics deliberated were the experiences from a multi country study by Dr. Kurian Baby, and Jalanidhi (Kerala) experience for sustainable water supply sanitation by Shri Pranabjyoti Nath.

Dr. Dinesh Chand highlighted that although 91% of the rural community in the country has been covered through water supply schemes and 71% through sanitation, various studies revealed that 30% to 40% of the schemes remained non operational due to O&M related problems. He also highlighted that only better facilities can recover full O&M cost and for achieving sustainable operation on a long-term basis, the responsibility for O&M should be transferred to the PRIs in accordance with 73rd & 74th amendment of the constitution. He mentioned that Government of India has chalked out a long-term action plan to be implemented during 2011-22 under which 90% households would be covered through piped water supply schemes in all villages and at least 80% households should have tap water connections in their households. This would require water security, decentralization and decentralized planning, and sound service delivery mechanism along with capacity building of PRIs. He also remarked that Gol fully supports the process and the concept which have been adopted by the Punjab Government for the implementation of the Punjab RWSS Project.

Shri Sudhir Bhatia, Chief Engineer, DWSS, Punjab, highlighted the challenges of bringing financial sustainability for the O&M of the rural water supply schemes. Now the demand for safe water supply has increased whereas ground water in Punjab is prone to all types of water quality problems. At present, the overall number of individual household connections in Punjab is around 30%, but the same is required to be increased to 80% level to ensure sustainable O&M. He highlighted various activities required to secure community demand for achieving sustainable operations.

Dr. Kurian Baby, Senior Programme Officer, IRC, highlighted the findings of the reviews on the rural drinking water supply in 13 countries undertaken by IRC. The study supported the shift from construction of infrastructure to a more service delivery oriented approach. Important aspects of service delivery approach identified were support to rural operators, professionalization of community management, greater attention to investment planning for long term capital maintenance & asset renewal, monitoring of services.

Shri Pranabjyoti Nath IAS, Deputy Executive Director, Jalanidhi shared the experiences of Jalanidhi in establishing Rural Water Supply and Sanitation Projects in Kerala with the aid of the World Bank. The model of implementation of schemes under Jalanidhi has demonstrated successfully an equitable, inclusive and decentralized delivery system mainly benefiting the backward and BPL category of rural households in Kerala. In addition to water supply schemes other components like ground water recharge activities, latrines, environmental sanitation measures, rain water harvesting, etc., were also undertaken and successfully completed under the project. His presentation gave a brief over view of the salient features of the Jalanidhi-I and the impact it has made in the water supply & sanitation sector of Kerala while highlighting the

importance of sector reforms, namely, demand responsiveness, community ownership and sustainability of investments through cost recovery for the success of rural projects.

Technical Session – II: Chair: Dr. Kurian Baby, IRC

The speakers of the 2nd technical session were Shri N.K Dhir, Superintending Engineer, DWSS, Shri H.V Harish, Superintending Engineer, Panchayat Raj Engineering Department, Karnataka, Shri R.P Gupta, Executive Engineer, DWSS, and Ms. Elizabeth Kleemeier, Senior Water & Sanitation Specialist, World Bank, Washington D.C. The first two speakers highlighted the importance and benefits of 24X7 metered water supply system and discussed why metering was felt necessary and how much it cost to install 24X7 water supply. Effective revenue management system & fixation of tariff to recover the O&M cost is the backbone of 24X7 metered water supply system. Mr. N.K Dhir informed that in the 11 villages covered with 24X7 metered water supply in Punjab, the quantity of non revenue water (NRW) has decreased substantially.

Similarly Shri R.P Gupta enumerated various PPP models adopted by the department for contracting out water supply & sewerage operations. It was concluded by him that although all the models adopted by the department are working to the satisfaction, still there is scope for improvement in the water supply models, and therefore, the DWSS proposed to engage consultants to study & advise the department on these issues.

Ms. Elizabeth Kleemeier highlighted that private operators are required by the village committee to gain market experience, better management and financing. She observed that design of cluster scheme increase profitability and seeking the services of commercial bank for financing are useful as the banks closely monitor the progress as well as utilization of funds financed by them. Franchising by public water utility is also another good idea. She summed up the lessons learned from numerous case studies conducted on schemes managed by private operators.

Technical Session – III: Chair: Mr. Shyamal Sarkar, World Bank

The speakers of the 3rd technical session were Dr. A. Gunasekar from WHO, Shri G.K. Gupta and Shri Ranjit Singh from DWSS and Shri T. Vijay Anand, CDD Society, Bangalore. Dr. A. Gunasekar highlighted the WHO supported activities in Nagpur and Hyderabad where water quality monitoring through implementation of water safety plan have been taken up. He mentioned that although 88% population of the country is covered through water supply schemes, due to contamination of water in the conveyance system diarrhea is a very prevalent disease and on an average 4 lacs children die in India per year due to drinking contaminated water. He highlighted the necessity for identifying the risk areas, assessing its magnitude, duration & diseases it can cause. Adoption of water safety plan will ensure safe water quality to the consumers. He agreed to support a pilot Water Safety Plan in Punjab for rural water supply.

Shri Ranjit Singh presented the early experiences in providing sewerage in rural areas and highlighted the challenges and opportunities. He presented the experiences with the sewerage schemes at Chawa village, which is based on conventional sewerage system, and that of village Baba Bakala where a solids-free sewerage system has been provided. He highlighted the necessity of effective IEC to change the mentality of the villagers for adopting the solids-free sewerage system and also deliberated the necessity for providing sewerage schemes in the villages of Punjab which are congested and have adopted semi urban character. Moreover, due to better economic status, the aspirations of the rural population have increased and they require all the modern facilities at par with cities.

The last speaker of the Technical session, Sh. T Vijay Anand highlighted the treatment process of the DEWATS Technology for treatment of wastewater through the decentralized treatment solutions. He pointed out that the treatment should be done close to the place where the wastewater is generated and the effluent from DEWATS plants could be utilized for irrigation, gardening or toilet flushing as the treated water will have BOD less than 30.

December 16, 2011, Friday

Technical Session IV: Chair: Mr. T.M. Vijay Bhaskar, Joint Secretary, MDWS, GoI

Four papers were presented in this session. One paper was on water quality monitoring & surveillance in Tamil Nadu, two papers pertained to community management & community mobilization and empowering of PRIs whereas the fourth paper was on achieving sustainable operations through efficient & effective public complaint redressal system (SNK). Shrimati V Tamilarasi, Chief Water Analyst, TWAD Board, Tamil Nadu indicated the pattern of prevalent water quality in Coastal plains, Eastern Ghats, Central plateau & Western Ghats of Tamil Nadu and discussed the organizational chart for TWAD Board laboratories for water quality monitoring to ensure supply of safe & potable water to the public. She also described the complete setup of water quality management including its monitoring, sample collection, water testing, data processing and R&D. She also informed the participants that the TWAD Board's Chennai Laboratory is the first Government owned ISO 9001:2008 certified Water Testing Laboratory in India.

The 2nd speaker, Ms. Jasmine Ahirwar, Programme Officer, Water Aid highlighted community based approaches for addressing drinking water quality in rural areas on the basis of experiences from the various studies conducted by Water Aid. She highlighted that Water Aid is focusing on developing community based sustainable models for the removal of fluoride & arsenic in the villages in Dhar district of Madhya Pradesh and arsenic in Balia district of Uttar Pradesh. Testing of all water sources in the village is done for checking microbial and fluoride contamination, awareness is created amongst villagers about the ill effects of consuming fluoride and arsenic contaminated water.

The 3rd paper regarding community mobilization and empowering of PRIs was presented jointly by Shri Mohd. Ishfaq, Executive Engineer, DWSS, Punjab and Ms. Priya Ojha, Senior Community Mobilization Specialist, State Programme Management Cell (SPMC), Punjab. They mentioned that the adoption of decentralized approach and the successful implementation of the initial water supply schemes under the Punjab RWSS Project, user communities are now engaged in the process of selecting, financing, executing, operating and managing their systems. They highlighted the challenges faced in the initial project period due to lack of political support, weak communications and capacity building activities. In order to empower the PRIs, HRD & IEC Specialists were recruited, vehicles were provided to the staff for field visits, communications materials were designed and provided to the field staff and strong IEC activities & capacity building workshops were launched from mid 2008. All these were regularly monitored at SPMC level and political leadership was adequately sensitized. As a result, the Project also began receiving strong administrative support. All these measures helped in mobilizing the community and generating demand.

The 4th paper was delivered by Shri S.R. Aggarwal, Programme Director, DWSS, Punjab. Elaborating on the Public Complaint Redressal system which helped in achieving sustainable operations in Punjab, he described the evolution of the Shikayat Nivaran Kendra (SNK).. The main objectives of SNK are to improve quality of service delivery system and to enhance efficiency of the water supply system. The SNK caters to the need of 14.9 million rural population in 13380 habitations. The consumers can register their complaints through a toll free number on 24X7 basis and the complaints are closed only after these are resolved to the satisfaction of the complainants. Shri Aggarwal highlighted that the setting up of SNK has increased the credibility of rural water supply operation in Punjab. It helped in checking absenteeism amongst operation staff in remote villages, which, in turn, has resulted in availability of safe drinking water on sustainable basis.

Draft Resolution was circulated to the participants and was read out. These were adopted. As suggested by Mr. Vijay Bhaskar a resolution on 'improving toilet coverage' has been included with the endorsement of the house.

Concluding Session

Shri T. M. Vijay Bhaskar, Joint Secretary, Ministry of Drinking Water and Sanitation, Gol in his concluding remarks congratulated Punjab for the success achieved in the implementation of water supply projects. He mentioned that the success achieved in providing piped water supply in Punjab following the Sector Wide Approach (SWAp) was possible due to community involvement, careful planning before implementation, and subsequent incorporation of O&M phase in the project support cycle. He mentioned that the project's success provides important lessons. He indicated that the Government of India is considering enhancing the provision to 8% for the support activities regarding community involvement in the guidelines of NRDWP and advised that involvement of community should not be confined to some projects, but it should be adopted for the entire sector as has been done in Punjab.

He also stressed on the need of project approval in 2 phases – the first phase constituting of 'pre-planning' and 'preparatory/planning' phases and the second of 'implementation' and 'post-implementation' phases. While emphasizing on metered household connections he elaborated on 12th 5-year plan's focus on piped water supply schemes to every village with enhanced water supply delivery from 40 to 55 lpcd.

Shri Bhaskar appreciated Punjab's adoption of decentralized wastewater treatment techniques in two areas – village pond rehabilitation and solids-free sewer system. He also stressed that since these are new areas where the involvement remained at pilot stage, the sustainability aspects of these techniques should be evaluated and lessons learnt. He expressed concerns regarding achieving MDG targets by 2015 and stressed on addressing the issue of toilet coverage and usage at individual household level. At the end, while appreciating the efforts of the Government of Punjab as well as Haryana in taking lead for construction of IHHLs, he stressed upon all present in the workshop for striving in enabling all households to have access to and use toilets in their respective states. He suggested that Punjab's experience in building partnerships and synergizing efforts with other sector partners such as health, rural development, and other government organizations should be followed to ensure sanitation for rural communities.

Shri S.C. Agrawal, Chief Secretary, Government of Punjab, during his concluding remarks advised that the people need to learn about good sanitation practice before they ask for piped sewers and emphasized on communications. He expressed that though the National figures of water supply coverage are impressive, the access is yet not satisfactory. Improving coverage through piped water supply needs attention. He also conveyed his concerns that the country has a long way to go as far as sanitation is concerned. He appreciated that the workshop provided a good platform for sharing experiences across the country and requested Gol to organize such workshops on regular basis.

At the end Shri Sudhir Bhatia, Chief Engineer, DWSS, Punjab presented vote of thanks to all participants and dignitaries especially the participants from Bangladesh who reminded the contributions made by India in their independence on the last day of the interactive sessions which coincidentally fell on the Victory Day of Bangladesh.