

Research & Development in the field of Rural Water Supply and Sanitation programme is one of the support activities of the Department of DWS for which 100% funding to research organizations including NGOs is given by the Central Government. For this activity, a Research Advisory Committee under the Chairpersonship of Secretary (DWS) has been constituted primarily to promote research and development activities for the Mission. Areas of research include:

- Water resources exploration, assessment & exploitation related technology development.
- Technology development for improvement in water extraction techniques like improvements in hand pumps designs, solar pumps/ hydraulic rams etc.
- Improving energy efficiency for reducing O&M costs for projects using conventional power.
- Water scarcity reduction and related technology development like artificial recharge, control of salinity ingress etc.
- Improvements in distribution network of water supply projects for reducing water losses including unaccounted losses.
- Technology for water quality enhancement for rural areas, development of WQ kits.
- Development of appropriate rural sanitation technology.

The major areas for R&D inputs to enrich and sustain the current sanitation program include:

- Technology related, which is sanitation technologies particularly in the product/design, evacuation, decomposition and maintenance and construction with regard to leach pit technology or any improvement in existing installed septic tank technology, solid and liquid waste management, EcoSan etc.
- Program related: Innovations in planning, communication, monitoring, financing sanitation program to ensure faster and sustainable implementation of the sanitation program.
- Studies, which include impact assessment studies, Initiation of impact studies of sanitation, studies on MHM, including technologies like incinerators, designs of HH toilets etc.

The Research advisory committee performs the following functions:

- Generate new ideas for research & development and fix priority for R&D project and decide thrust areas.
- Identify field problems from the user departments and community organizations viz. NGOs, Voluntary agencies, etc.
- Identify Institutions and Scientists for specific R&D projects and invite them to submit proposals.
- Help the identified scientists to formulate inter-sectoral and multidisciplinary research projects relevant to the Mission.
- Scrutinize and recommend individual research project proposals.
- Review the progress of the ongoing projects and suggest midcourse correction, if any.

To strengthen the R&D facilities in the concerned Departments in various States, State Governments are encouraged to establish R&D cells with adequate manpower and infrastructure. R&D Cells are required to remain in touch with premier technical institutions within the State. The network of technical institutions may follow the guidelines issued by the Mission from time to time for effective implementation of the rural water supply programme. R&D Cells are also required to be in constant touch with the Monitoring & Investigation divisions and the Monitoring & Evaluation Study Reports for initiating appropriate follow up action.