
**MINUTES OF THE
1st MEETING OF SECTORAL INNOVATION COUNCIL
MINISTRY OF DRINKING WATER & SANITATION**

Dated: 5th July 2012

Venue: Unnati Conference Hall, Krishi Bhawan

The 1st meeting of Sectoral Innovation Council under the aegis of Ministry of Drinking Water & Sanitation was held on 5th July 2011 at Krishi Bhawan. The meeting was flagged off by Shri Jairam Ramesh, Hon'ble Minister for Drinking Water & Sanitation and was held under the chairpersonship of Smt. Vilasini Ramachandran, Secretary (MDWS). The list of participants is annexed.

The meeting started with welcome address by Secretary – MDWS. She said that a key aspect of the National Innovation Council's work was to set up Sectoral Innovation Councils comprising of domain experts in different sectors to focus on innovations in that sector. She also shared the progress made so far in implementation of the National Rural Drinking Water Supply Programme (NRDWP), and the Nirmal Bharat Abhiyan formerly known as Total Sanitation Campaign (TSC). She urged the members to give their ideas on the potential for innovation in these sectors, a strategy for operationalising these innovations, and a roadmap for innovations in the medium to long term.

Thereafter, a short presentation was made by Shri T.M. Vijay Bhaskar, JS (Water) on National Rural Drinking Water Programme (NRDWP), areas of concern for the Ministry and areas where there is greater need for innovation. The presentation was followed by a detailed discussion and participants were invited to share their views on potential innovations in the sector.

Shri J.S Mathur, JS (Sanitation) made a presentation on the paradigm shift in the Total Sanitation Campaign, now called the Nirmal Bharat Abhiyan (NBA). The major innovations introduced in NBA were based on feedback from field and consultations with all stakeholders. He also urged the group to suggest technological options in the Sanitation sector both at the individual and community levels to attain the goal of Nirmal Bharat.

Following points were discussed by the Members during the Meeting:

Hon'ble Minister mentioned that desalination and solar powered pumps were the most important areas for innovation in drinking water sector.

1. Desalination

Hon'ble Minister enquired about the unit cost of water being provided by desalination plants in rural areas with problem of salinity. Dr. Ghosh, Director CSMCRI said that WASMO conducted a

study in Narayanpur village of Kutch area in Gujarat to ascertain the cost of treated water. As per the study, in a plant with capacity of 6000 litre/hour, cost comes to appx. 11 paisa per litre. Per litre cost is higher in case of plants with smaller capacities.

Hon'ble Minister advised him to conduct audit of 50 desalination plants set up in terms of power consumption, filter capacity and per litre cost etc. Hon'ble Minister asked members about the strategic goals in area of desalination. Joint Secretary – Water said that strategic goal could be to bring down per litre cost to 1 paisa. Dr. Ghosh said that they have reduced per litre cost from 18-19 paisa to 8-9 paisa. By taking advantage of 'Economies of Scale' in plants with higher capacities (6 KL/hour or above), we can provide water at much lesser cost i.e. 5 paisa per litre.

Hon'ble Minister said that a team of experts would be constituted to ascertain as to how we can reduce cost of treated water from 11 paisa to 8 paisa to 5 paisa per litre in case of sea water and from 5 paisa to 1-2 paisa in case of brackish water both for 6000 lph plants. He emphasised on formulating a Technology Support Programme for the same.

2. Solar Powered Pump

Hon'ble Minister asked members about the strategic goal in the area of Solar Powered Pump. Secretary – MDWS said that presently 1 HP pumps were being imported for water supply projects. He asked why we can't make solar pumps for Solar Power based water Supply Schemes. It was decided to entrust research projects on the subject to reputed Institutes like Central Mechanical Engineering Research Institute, Durgapur etc.

3. Sludge Removal in water treatment plants

Secretary – DWS suggested that Sludge Removal in water treatment plants be taken as another area for innovation, since the sludge accumulated in a water treatment plant must be treated and disposed of in a safe and effective manner.

4. Biodigester

Dr. Khuntia said that bio-digester is an effective technique for sludge removal, which can be applied in rural areas at grass root level. He also informed members about concept of CSIR-Tech-village – Gram Vigyan Kutir, which will be implemented during the XII Five Year Plan. It was mentioned that Ministry to work up with DRDO to introduce biodigesters in the Nirmal Bharat Abhiyan in a big way.

It was decided that following areas be focussed on for Sanitation

1. Biodigester
2. Specific Toilet technologies based on lower water usage and for different hydrological areas

3. Area specific Solid Liquid Waste Management (SLWM) models to be developed for rural areas.

Members also suggested that an open competition be organised for Toilet and SLWM technologies. Shri Vikas Bagri from 'National Innovation Council' informed members about India Innovation Portal. This portal is a sharing platform, where innovators can share their innovations. On this portal, visitors can create different communities and share their views with wide range of stakeholders. Link of this portal may also be provided on Ministry's website.

To sum up the following areas were identified by the Council for fostering innovations in the sector:

Rural Drinking Water:

1. Development of technologies to bring down the cost of desalination of sea water from about 11 paise per lt to less than 5 ppl and for brackish water from 5 ppl to 1-2 ppl.
2. Development of solar powered pump for small drinking water supply schemes through reputed institutes like CMERI, Durgapur.
3. Sludge removal in water treatment plants

Rural Sanitation:

1. Cost effective biodigester
2. Specific Toilet technologies based on lower water usage and for different hydrological areas
3. Area specific Solid Liquid Waste Management (SLWM) models to be developed for rural areas.

The meeting ended with the vote of thanks to the Hon'ble Minister and the Chair.

List of Participants		
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Date: 5th July, 2012		
Venue: Unnati Conference Hall, Krishi Bhawan, New Delhi		
Ministry of Drinking Water & Sanitation		
S. No.	Name	Designation
1	Sh. Jayram Ramesh	Hon'ble Minister of RD and MoDWS.
2	Smt. Vilasini Ramachandran	Secretary(MoDW & Sanitation)
3	Sh. T.M. Vijay Bhaskar	Joint Secretary (Water)
4	Sh. J.S. Mathur	Joint Secretary(Sanitation)
5	Sh. Dinesh Chand	Additional Advisor
6.	Sh. P.P Nagrath	Deputy Secretary (WQ & Coordination)
7.	Sh. Mohan Lal	Under Secretary (Coordination)
Representative from Technical Group		
1	Prof. Vijayaraghavan M Chariar	IIT Delhi
2	Sh. D Walther	GIZ, India
3	Sh. S K Khuntia	CSIR-IMMT
4	Dr. R K Ingle	VNIT, Department of Applied Mechanics
5	Sh. Joe Madiath	Gram Vikas
6	Sh. P K Ghosh	CSIR-CSMCR1, Bhavnagar, Gujarat
7	Shri Devinder R. Parikh	Environmental Sanitation Institute Ahmedabad
8	Sh. Vikas Bagri	National Innovation Council
9	Sh. Rahul Nayar	National Innovation Council