

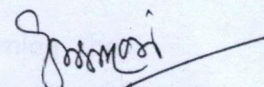
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Government of India  
Ministry of Drinking Water and Sanitation  
NBA Division

12<sup>th</sup> Floor, Paryavaran Bhawan,  
CGO Complex, Lodhi Road,  
New Delhi – 110003  
Date: 08.09.2014

**Office Memorandum**

Sub: Forwarding of minutes of the meeting with the TOT holders to examine the possibility of implementation of Bio-digester toilets in rural areas held on 22<sup>nd</sup> August, 2014.

The minutes of the meeting with the TOT holders to examine the possibility of implementation of Bio-digester toilets in rural areas held on 22<sup>nd</sup> August, 2014 at Conference Hall No. 403, 4<sup>th</sup> Floor, B 1 Wing, Paryavaran Bhawan under the chairmanship of Shri Saraswati Prasad, Joint Secretary (S) is forwarding herewith for information and necessary action.



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4. Shri R. N. Bhardawaj, Scientist D, Central Pollution Control Board, Ministry of Environment and Forests, Parivash Bhawan, East Arjun Nagar, New Delhi – 110 032 (Ph : 43102409, Fax No. 22302188)
5. Shri Sreeshan Raghavan, Joint Secretary, Department of Bio-technology, Ministry of Science & Technology, CGO Complex (24362982 )
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**Minutes of the meeting with the TOT Holders to examine the possibility of implementation of Bio-digester/Bio tank toilets in rural areas held on 22<sup>nd</sup> August, 2014 at Conference Hall 4<sup>th</sup> Floor, B1 Wing, Paryawaran Bhawan, Lodhi Road, New Delhi**

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A meeting with the TOT Holders to examine the possibility of implementation of Bio-digester/Bio tank technology toilets in rural areas was held under the chairpersonship of Shri Saraswati Prasad, Joint Secretary(Sanitation), Ministry of Drinking Water and Sanitation, Government of India on 22<sup>nd</sup> August, 2014 at the Conference Hall, 4<sup>th</sup> Floor, B1 Wing, Paryawaran Bhawan, Lodhi Road, New Delhi. The list of participants is enclosed (Annexure-1). The meeting began with the introduction of the representatives of various agencies.

2 Shri. Saraswati Prasad, Joint Secretary (Sanitation), MDWS welcoming the participants, said that the essential idea of the meeting is to seek a view on the DRDO Bio-digester toilet technology especially with regard to the following points: 1. Suitable model / design of Bio-digester for Individual Household Latrine (IHHL) in rural areas, 2. Issues regarding the cost of Bio-digester toilets (Pan India cost or Statewide / area wise cost), 3. Any practical difficulties faced in execution of Bio-digester toilets and how to overcome this, 4. Materials including Inoculums availability and transportation of the same to rural areas, 5. Issues related to maintenance of bio-digester toilets. 6. Training to rural people in using of Bio-digester toilets, 7. Planning and IEC campaign for sustainability of Bio-digester toilets, 8. Discussion regarding disposal of the treated outlet water and outlet gas, 9. Discussion regarding the places which are not suitable for Bio-digester Toilets as per site condition if any, 10. Any technical / technological issues of Bio-digester toilets, 11. Possibility of use of Bio digester toilets in Schools and Community Sanitary Complexes (CSC).

3. Shri. Sujoy Majumdar, Director (NBA), MDWS made a presentation in which he raised the issue of suitability of Bio-digester toilets in differing climatic conditions like varying humidity, temperature, elevation etc. like in Hilly areas, Coastal areas, River banks, Sandy areas, Saline areas, Rocky areas. He informed that Govt. of India provides

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support for construction of Individual household latrines (IHHLs), Schools and Anganwadi toilets, Community Toilets. Presently Rs. 10000/- is being provided as incentive for construction of Individual household latrines. He raised sustainability issues, O&M problems and Outlet Waste Management issues. He also raised the issue of costing of the Bio-digester units. He pointed out that there is a need of Standardisation of Design of Bio-digester toilet.

4. Shri Lokendra Singh, Director, DRDO said that Bio-digester toilets are working well in all climatic condition including colder regions even at sub-zero temperature up to Minus 50 deg. Centigrade also. It also works well in high water level areas and in submerged condition. He also informed that, at present there are no national or international standards in respect of Bio- Toilets outlet treated water and gas. DRDO is working in this technology with Inoculums for the past 15 years .The technology of Bio digester are being transferred to 38 TOT holders and the Inoculums production technology has also been transferred to 3 or 4 ToT holders.
5. Representative from Central Pollution Control Board, Ministry of Environment and Forests, Govt. of India Shri Arun Kumar Sinha, Scientist 'D' informed that there is no specific effluent standards for Bio-digester/septic tank available in CPCB.
6. Representative from the Ministry of Urban Development, CPHEEO, Shri Amit Kumar Saha, Assistant Adviser indicated that their Ministry is also considering Bio-Toilets for implementation in urban areas.
7. Representative from the Department of Bio-Technology, Ministry of Science and Technology Dr. Shaija Vaidya Gupta, Director raised the issues of technical viability of Bio-Toilets such as the existence of pathogens and BOD of the outlet treated water.
8. Shri.G.Balasubramanian, Deputy Adviser (Sanitation), MDWS suggested to provide the Reed Bed system or soakage pit wherever applicable as mandatory in the Bio-digester toilets to overcome the BOD issue. He also informed that the design and specifications for the Bio-Toilets have to be standardized.

9. During discussion, many Rep. of TOT holders participated and indicated that they are working in this field and installing Bio-Toilets, but it is not a widely used option due to it being a new technology and therefore people hesitating in accepting the same. After detailed discussions following points were emerged:

- i. Costing issues – There was no unanimous view in respect of costing of Bio-Toilets as it depends on area, quality, capacity etc. However, it was learnt that the cost can range from 16,000/- -17,000/- to 30,000/- 40,000/- including super-structure
- ii. For making Bio-Toilets more acceptable it was demanded that Taxes such as Excise duty, Sale tax, Service tax, VAT, DRDO license fees etc may be reduced or exempted for say five years. Details of the Taxes presently being charged will be provided by the Agencies separately.
- iii. Quality: Quality of construction should be maintained otherwise the toilets will not be sustainable.
- iv. Pan Design: Less water Pan Design should be used. Orissa Pan/deep rural pan is suitable option for which less water is sufficient.
- v. Super-structure can be any type such as RCC / FRP / Pre-fabricated material.
- vi. FRP and Pre-fabricated tanks can be installed easily and in less time, but needs transportation.
- vii. Bio-Toilet tank should be made available in nearby hardware shops so it can be processed easily.
- viii. Mindset regarding Bio-digester toilets needs to be changed. Mass media campaigns have to be launched.
- ix. While discussing efficient standards there should be one common standard applicable for all types of toilet like Leach-pit, Septic Tank and Bio-digester toilets regarding BOD, COD etc. Availability of water is also issue in some places. DBT officials have raised certain technical issues regarding the technology which needs resolution.
- x. Bio- toilet of 700 Lt. Tank is more than sufficient for family of 5 members.
- xi. Bio-toilets can be used for schools and CSCS. DRDO needs to assist in preparing standard models / designs.

**ACTION POINTS:-**

- DRDO will work towards standardization of DRDO-Bio-toilet design with the help of CPHEEO, MoUD and MDWS for Schools, CSCs, IHHLs (TL 20<sup>th</sup> Sept, 2014)
- Dy. Adviser (Sanitation), MDWS will organize a meeting of DBT officials with DRDO officials to discuss and resolve the queries on technology.
- Rate and quality of Inoculums may be examined for standardization.
- MDWS to examine the possibility of relaxation of taxes and loyalty of DRDO.
- Dy. Adviser (Sanitation) to follow-up daily on all the above issues.

While giving Vote of Thanks, Shri.Sujoy Majumdar, Director (NBA), MDWS, requested to all ToT holders to send to the Ministry the "Success Stories" in implementation of Bio-Toilets if they have and other details in regard to Bio-Toilets.

The meeting ended with thanks to the chair.

Annex-I

List of participants of the Meeting with the TOT Holders to examine the possibility of implementation of Bio-digester/Bio tank toilets in rural areas held on 22<sup>nd</sup> August, 2014 at Conference Hall , 4<sup>th</sup> Floor, B1 Wing, Paryawaran Bhawan, Lodhi Road, New Delhi

Meeting regarding implementation of DRDO Bio-digester toilets on 22/08/2014 at 11.00 AM

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