

GOVERNMENT OF INDIA  
MINISTRY OF WATER RESOURCES,  
RIVER DEVELOPMENT & GANGA REJUVENATION  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 4788**  
ANSWERED ON 30.03.2017

**WORKSHOP ON GROUND WATER CONTAMINATION**

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Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION be pleased to state:

- (a) whether the Central Ground Water Board (CGWB) has organized a workshop on Arsenic problem in ground water and its remediation in Ganga Basin recently;
- (b) if so, the details and the objectives thereof along with the eminent persons who participated therein;
- (c) the issues discussed in the workshop and the outcome as a result of the same;
- (d) the present status of the National Aquifer Mapping Programme; and
- (e) the funds allocated/spent/utilized thereunder during the last three years and the current year till date including the steps taken/being taken by the Government to make people aware about the negative impact of Arsenic in ground water and to make ground water pollution free?

**ANSWER**

THE MINISTER OF STATE FOR WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION  
(DR. SANJEEV KUMAR BALYAN)

- (a) Yes, Madam. Central Ground Water Board (CGWB) has organized a workshop on “Arsenic problem in Groundwater and its Remediation in Ganga Basin” on 07<sup>th</sup> March, 2017 at New Delhi.
- (b) The objective of the Workshop is to formulate a comprehensive plan/ strategy to mitigate the Arsenic problem through a wider consultation process. Nearly 300 participants attended the workshop including eminent scientists from all over the Country, students from various departments of University of New Delhi, faculties, water experts, policy makers and staff members from various Ministry including Ministry of Water Resources, RD & GR. Among others Prof. K.J. Nath, Chairman, Arsenic Task Force, Government of West Bengal from Kolkata, Prof. Kunal Kanti Majumdar, KPC Medical College and Hospital, Jadavpur, Kolkata, Dr. Shekhar Mallick, Scientist, National Botanical Research Institute (NBRI), Lucknow, Dr. D.N. Guha Mazumder, DNGM Research Foundation were present. In the technical session of the workshop, 08 invited papers were presented apart from a panel discussion among the eminent subject experts. A workshop volume was released containing 23 selected papers.

(c) The issues discussed include - Gangetic Plains- Hydrostratigraphy and Arsenic Contamination, Arsenic contamination in ground water and in food chain, human health and mitigation: Experience in West Bengal, Groundwater Arsenic Contamination in Gangetic Basin: An Overview and A Way Forward Towards Mitigation, Groundwater Arsenic in the Bengal Delta Plain: Geochemical and Geomorphological Perspectives for Sustainable Water Supply to Rural Areas, Low cost arsenic mitigation strategy in rural Bihar, Access to safe drinking water: Pathways to address the challenge of arsenic contamination, Arsenic monitoring and assessment in the rice paddy grown on Indo-gangetic plains and means for its mitigation, Arsenic problems in rural drinking water.

The major recommendations of the Workshop include periodic survey of the Arsenic affected / vulnerable areas and sharing of data generated by multiple agencies on common platform. It is suggested that water quality testing laboratories needs to be upgraded and NABL accredited. Infrastructure for alternate source of water supply based on surface water sources should be contemplated in affected areas and rainwater harvesting should be encouraged. Appropriate policy interventions to encourage growing Arsenic resistant crops should be brought in. Identification of Arsenic free aquifers in different areas to be explored under NAQUIM. Arsenic tolerant crops should be promoted rather than the normal varieties to avoid/fight Arsenic contamination problem. Boro cultivation of rice needs to be stopped at the earliest, as this is the main problem through which Arsenic enters the Food Chain. Adequate database regarding number of persons affected by Arsenic contamination is non-existent, periodic survey of the Arsenic affected/vulnerable areas must be taken. R&D activities, capacity building and awareness campaign on Arsenic contamination in ground water should be stepped up. Soil path (water – soil –plant – human) link should also be taken into consideration while planning any Arsenic mitigation project/scheme. All Arsenic mitigation measures to be amalgamated and implemented through community participation.

(d) During XII Plan, CGWB has taken up Aquifer Mapping and Management programme under the scheme of Ground Water Management and Regulation. Aquifer maps have been prepared and management plans have been developed for an area of 5.20 lakh km<sup>2</sup>.

(e) The status of the funds allocated/spent/utilised during the last three years and the current year under the Ground Water management and Regulation scheme is as under:

<b>Year</b>	<b>Budgetary Estimate (Rs. in Crores)</b>	<b>Revised Estimate (Rs. in Crores)</b>	<b>Actual Expenditure (Rs. in Crores)</b>
2013-14	220.50	134.00	78.33
2014-15	325.00	143.00	124.89
2015-16	163.00	164.02	140.84
2016-17	303.38	114.75	103.74 (upto February 2017)

CGWB through their training institute under Human Resources Development & Capacity Building scheme of Ministry of Water Resources R D & G R is organizing block level training courses (tier –III) in entire Country, including contaminated groundwater blocks. These trainings are conducted at grass root level involving stakeholders to educate them on water conserve and pollution aspects CGWB, NGI has planned to continue block level training courses (Tier –III) in entire Country beyond XII plan for next three year.

Under NAQUIM Programme, CGWB is giving special attention to map arsenic affected areas in the States of Assam, Bihar, Haryana, Jharkhand, Karnataka, Punjab, Uttar Pradesh and West Bengal.

Ministry of Drinking Water and Sanitation has informed that the States are assisted technically and financially in providing safe drinking water through the centrally sponsored National Rural Drinking Water Programme (NRDWP). Upto 67% of funds provided to the States under NRDWP can be utilized for coverage and tackling water quality problems with priority to Arsenic and Fluoride affected habitations. In addition, the States also received certain funds under the 5% Water Quality earmarked funds.

The State Governments have been directed to ensure availability of safe drinking water through Piped Water Supply as a long term measures. Since tackling this problem is a long term measure, NITI Aayog, as a stop gap arrangement, is supporting the State Governments for installation of Community Water Purification Plants for providing safe drinking water in the rural habitations of the Country, where water is contaminated with Arsenic and Fluoride. To this end, over and above the regular allocation of funds under NRDWP, on the recommendations of NITI Aayog, Ministry of Finance has released Rs. 800.00 Crore during the financial year 2015-16 as a one-time 100% Central assistance to the States affected with water quality from Arsenic and Fluoride in the Country. In addition, based on the recommendations of NITI Aayog, Ministry of Finance has also released Rs. 100.00 crore to each of the State of Rajasthan and West Bengal during the financial year 2015-16 to ensure supply of safe drinking water through surface water based piped water supply schemes in quality affected habitations as last mile connectivity.

Since the problem of contamination of water by Arsenic and Fluoride has been serious in the rural habitations, Central Government has taken cognizance of this serious problem and decided to take short-term and long term measures with a ring fenced funding to tackle this problem in the remaining habitations of the Country. Over and above the normal release of funds to the States, during 2016-17, under NRDWP, the Centre share amounting to Rs. 746.23 crore has also been released to the States affected with Arsenic and Fluoride under Water Quality Sub-Mission in the ratio of 90:10 (Centre:State) for Northern–Eastern States and 50:50 (Centre:State) for other States focusing on mitigation of contamination of Fluoride and Arsenic in drinking water.