

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
LOK SABHA

UNSTARRED QUESTION NO. 1362

ANSWERED ON 27.07.2023

REUSE OF WASTE WATER

1362. SHRIMATI KANIMOZHI KARUNANIDHI

Will the Minister of **JAL SHAKTI** be pleased to state:

- (a) the measures taken to monetize and reuse of waste water and sludge under Arth Ganga project;
- (b) whether the Government has classified the sludges as Class A or Class B;
- (c) if so, the details of the available quantity of Class A and Class B sludges in the country; and
- (d) if not, whether the Government proposes to formulate any standards for Class A or Class B category sludges and if so, the details thereof?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) Arth Ganga is a sustainable viable economic model conceptualized under “Namami Gange Program” to integrate people in the basin with Ganga Rejuvenation. A number of initiatives have been taken by the National Mission for Clean Ganga (NMCG) under Arth-Ganga concept, in co-ordination with many Ministries/ Departments of Central and State Governments. There are six key verticals of intervention in the model, namely:

- i. Promotion of Zero Budget Natural Farming (ZBNF), which includes promotion of Natural Farming in Ganga Basin.
- ii. Monetization and reuse of treated wastewater and sludge. It refers to reuse of treated wastewater by ULBs for generation of revenue and conversion of sludge into usable products such as manure, pavers and bricks for revenue generation as well as safe disposal of sludge.
- iii. Development of Livelihood generation opportunities through activities like ‘Ghat Main Haat’ for sale of local products of Ganga cities/towns along riverbanks; self-sustaining of Ghats and capacity building trainings of Ganga Praharis etc. Jalaj units for income generation activities for Ganga Praharis have been set up in many locations.
- iv. Encouragement of Public Participation through organizing regular events such as Ganga Aartis, cleanliness drives, Ganga Guide Trainings, Yoga on Ghat, Ghat Pe Haat etc. in coordination with District Ganga Committees.

- v. Promotion of Cultural heritage and tourism by development of small local tourism and cultural circuits; introduction of boat tourism through community jetties; promotion of yoga and wellness, medical tourism, adventure tourism, eco-tourism, enhancement of cultural connection with the river through aartis & Ganga trails;
- vi. Institution Building through setting up of decentralized monitoring and governance units like District Ganga Committees (DGCs); enhancement of the capacities of DGCs and other local administration institutions for better water governance and sustenance of the projects, post asset handover.

The Government of India has been promoting the reuse of treated water for different non-potable purposes, particularly for industrial use, horticulture, agriculture, etc. The following initiatives have been taken at Central level towards promotion of reuse of treated waste water are:

- i. A National Framework for Safe Reuse of Treated Waste Water has been published by the National Mission for Clean Ganga (NMCG) which is available in the website of NMCG at <https://nmcg.nic.in>. The framework gives guidelines for the formulation of State reuse policy and is intended to build appropriate market and economic models for the reuse of treated waste water. It has been circulated to all States & stakeholders.
- ii. MoUs have been signed by NMCG with Ministry of Power, Ministry of Railways and Ministry of Agriculture for reuse of treated wastewater.
- iii. NMCG has floated an EOI for empaneling agencies for the reuse of treated wastewater. Many agencies have shown interest in the reuse of sludge for manufacturing paver block, fertilizers, soil conditioners etc.
- iv. Centre of Excellence (CoE) has been established in partnership with The Energy Research Institute (TERI) on Water Reuse at the TERI Headquarters in New Delhi. The CoE on Water Reuse is an alliance between NMCG, TERI, industry partners and industry representative bodies.
- v. 20 MLD Mathura Tertiary Treatment Plant commissioned for supply of treated wastewater to IOCL's Mathura Refinery.
- vi. Thermal Power Plants (TPPs) are required by the Ministry of Power's Tariff Policy 2016 to use treated sewage water from STPs operated by municipalities or other local authorities located within a 50 km radius. 23 thermal power plants have been identified in Ganga basin in 1st phase for reuse of treated waste water. Feasibility report/ DPR for these projects are being prepared and monitored jointly by NMCG/ Ministry of Power.

- vii. Central Pollution Control Board (CPCB) has formulated charter based participatory approach to facilitate the industries for water recycling and pollution prevention in major industrial sectors like Pulp & Paper (in 2015), Sugar (in 2018), Distillery (in 2018), Textile (in 2019) and Tannery (in 2022) in river Ganga main stem states emphasizing on technological upgradation, waste minimization practices, augmentation of effluent treatment plants (ETPs) and reuse/recycle of treated effluents which resulted in reduction in specific fresh water consumption, waste water discharge & pollution load and improvement in compliance.
- viii. Industry Specific Improvement: Reuse and recycling of wastewater in Industries has been promoted in water intensive grossly polluting industrial units along river Ganga with following outcomes:
- Zero black liquor discharge achieved in paper and pulp industries. Zero liquid discharge achieved in molasses based distillery.
 - Salt free tanning being adopted in tannery industries, which lead to less consumption of water.
 - Reuse of treated water in textile units during process is being encouraged.

(b) to (d) There are no regulatory norms for municipal sludge quality in India. The desired sludge characteristics viz. dry solid consistency, VSS and coliform reduction are being followed as per CPHEEO Manual sludge guidelines. Globally, the sludge is classified comparing its characteristics with USEPA norms to categorize Class A or B, defining its reuse areas (un-restricted re-use or re-use with certain restrictions).

Under Namami Gange Programme, a study was carried out by Indian Institute of Technology Roorkee (IIT-Roorkee) titled “Comprehensive Characterisation of variably processed sewage sludge in Ganga basin to classify its suitability for safe disposal. Sludge samples were collected from forty four STPs and examined for physico-chemical parameters and microbiological parameters. All standard criteria specified by Fertiliser Control Order (FCO) 2009, US EPA Class A and Class B sludge were considered to compare the quality of sludge. The dewatered sludges satisfied the USEPA Class B criteria and safe for re-use with limited/ restricted control.
