GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO.1666

ANSWERED ON 04.08.2025

SUSTAINABLE WATER MANAGEMENT IN INDUSTRIES

1666. SHRI SANT BALBIR SINGH

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

(a) the steps that have been taken to encourage industrial sectors to adopt sustainable water usage practices, such as Zero Liquid Discharge (ZLD), water recycling, and rainwater harvesting;

(b) whether there is any compliance monitoring mechanism or incentive program for industries that reduce freshwater dependency and improve wastewater recycling; and

(c) whether Government has issued any sector-specific water audit guidelines or collaborated with industry associations to promote sustainable practices?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY**)**

(a) & (b) Since water is a State subject, State Governments undertake various measures to promote efficient water use which includes conducting water audits, enforcing relevant laws, and taking penal action against rule violators**.** The Central Government supplements the measures and efforts being taken up by the State Governments. Various steps and initiatives are taken to encourage industrial sectors to adopt sustainable water uses practices, such as Zero Liquid Discharge (ZLD), water recycling, and rain water harvesting.

Rainwater harvesting (RWH) compliance in government buildings, residential colonies, and industrial units has significantly advanced under the Jal Shakti Abhiyan: Catch the Rain (JSA:CTR), a flagship campaign launched in 2021 following the Hon'ble Prime Minister's clarion call in 2019—"Jan Shakti 4 Jal Shakti." Guided by the slogan "Catch the Rain, Where It Falls, When It Falls," the campaign aims to promote rainwater harvesting, groundwater recharge, and sustainable water practices across both urban and rural India. To further strengthen the momentum of Jal Shakti Abhiyan the "Jal Sanchay Jan Bhagidari (JSJB)" initiative with intensified community partnership, was launched in Sept' 2024. The key objective of the Jal Sanchay Jan Bhagidari initiative is to conserve every drop of water through collective efforts, adopting a whole-of society and whole- of-government approach. This has emerged as an innovative initiative for tapping private sector resources, for construction of low-cost artificial recharge structures with focus on roof top rainwater harvesting structures, recharging of defunct bore

wells and recharge pits. Progress of Industry Associations under Jal Sanchay Jan Bhagidari initiative is attached at **Annexure.**

To fulfill the requirements of one of the goals of National Water Mission i.e. to increase water use efficiency by 20%, Bureau of Water Use Efficiency (BWUE) has been set up for efficient use of water in irrigation, industrial and domestic sectors.

BWUE commissioned a bench-marking study to assess industrial water use efficiency in Thermal Power Plants, Textile, Paper, and Steel industries, and forwarded key recommendations to to concerned ministries and departments for taking necessary action . BWUE organized a workshop on 27.1.2025 titled " Water Use Efficiency: Strategies for a sustainable future", with focus on the domestic water sector manufacturers. A "Water Sustainability Conference 2025" was also organised by BWUE on 12.03.2025, focusing on industrial water use efficiency. Additionally, a stakeholder workshop titled "Enhancing Water Use Efficiency in RO-based Water Purification Systems" was held on 05.06.2025, addressing the reduction and potential re-use of reject water to improve overall efficiency.

Also, Central Ground Water Authority (CGWA) was constituted under Section 3(3) of the 'Environment (Protection) Act, 1986' to regulate and control, manage and develop groundwater in the country and to issue necessary regulatory directions for the purpose. Following steps are taken by CGWA for sustainable water usage practices in industrial sectors.

Central Ground Water Authority (CGWA) issues No Objection Certificate (NOC) for groundwater extraction to industries, infrastructure projects and mining projects as per guidelines dated 24.09.2020, notified by Ministry of Jal Shakti (MoJS) and amendments dated 29.03.2023 thereto. Following provisions in guidelines help in conservation of groundwater and its sustainable use.

i. Restrictions on use of Groundwater in Over-exploited Areas: New industries, except MSME, are not permitted to extract groundwater in over-exploited areas/ blocks.
ii. Recycle/ Reuse of Water: Industries are required to reduce their water consumption through recycle/ reuse of water. Conditions in the NOC issued by CGWA, inter-alia, include the condition that 'Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled/ treated waste water'.
iii. Water Audit: Industries extracting ground water more than 100 KLD (1 Lakh Litre per day) have to get water audit done biennially through Water Auditors certified by agencies as approved by CGWA and submit the report at the time of renewal. These Water Audit reports recommend minimizing wastage of water and reducing water consumption.
iv. Rain Water Harvesting: Project Proponents, including industries have to submit 'Copy of Rain Water Harvesting Plan submitted to Government agency by the applicant or a proposal for rain

water harvesting/ recharge in the project premises as per the prevailing Model Building Bye Laws issued by Ministry of Housing & Urban Affairs, Government of India' for obtaining NOC from CGWA for GW extraction.

To promote sustainable water usage in industrial sectors, compliance monitoring measures like levying charges for groundwater extraction, which serve as a deterrent to water misuse and wastage . Compliance with stipulated conditions is verified during the renewal of No Objection Certificates (NOCs). Further, as per the guidelines dated 24.09.2020, notified by Ministry of Jal Shakti (MoJS), the installation of digital flow meters with telemetry systems are made mandatory in industries for real-time monitoring of groundwater extraction. Additionally, industries located in non-cluster areas are required to install piezometers equipped with digital water level recorders to monitor groundwater levels. The recorded data from piezometers must be included in the reports submitted at the time of NOC renewal.

Futher, Ministry of Forest, Environment and Climate Change issues Environmental Clearance (EC) to projects as per the provisions of the EIA Notification, 2006, amended from time to time subject to compliance of terms and conditions providing / encouraging sustainable water management in industries. This include adherence to Zero Liquid Discharge (ZLD) wherever possible, installation of Effluent Treatment Plant (ETP), provision for air cool condensers and rain water-harvesting measures. Compliance and monitoring for the EC granted is dealt by IA-Compliance and Monitoring Division (C&MD) of MoEFCC through the Regional Offices (RO) /Sub-Regional Offices (SRO) of the Ministry. MoEFCC has a prescribed mechanism for Post Environmental Clearance Monitoring and Compliance of projects based on the Standard Operating Procedure (SoP) established vide Office Memorandum dated 25.11.2022.

Usage of advanced waste water treatment technology is a continuous process and varies from industry to industry depending upon environmental status and regulatory requirement. The Ministry of Jal Shakti incentivizes industries through the National Water Awards to improve water management, including innovations in water saving. In India, both the government and industry bodies have initiated incentives to encourage sustainable water usage in the industrial sector. These incentives aim to promote water conservation, wastewater recycling, and efficient water management.

Under the Credit Linked Capital Subsidy Scheme (CLCSS), MSMEs receive subsidies to upgrade technology, including water treatment systems. In Gujarat, the Gujarat Industrial Development Corporation (GIDC) extends capital assistance specifically for the installation of Zero Liquid Discharge (ZLD) systems. Additionally, industries adopting water-saving technologies can benefit from accelerated depreciation under Section 32 of the Income Tax Act. Units implementing sustainable water practices, such as the use of recycled water or ZLD systems, often encounter fewer compliance barriers and are prioritized for Consent to Operate (CTO) by State Pollution Control Boards (SPCBs).

(c) Since water is a state subject, State Governments take several measures for efficient utilization of water within the States, including water audit, implementation of laws and penal action against those violating the rules/ regulations etc. The Central Government supplements the measures and efforts being taken up by the State Governments.

The status with regard to water auditing in industries and management of waste water in these industries along with the steps taken by Government in this regard is as follows:

i. CGWA issued policy document for certification course on water auditing for industrial sector. A certification course on water auditing is conducted by Rajiv Gandhi National Ground Water Training and Research Institute (RGNGWTRI) as per the policy document. Domain experts from related fields and organizations such as, BWUE of NWM, POMIO of CWC, MOEF, CPCB, NPC, TERI etc. are invited to impart training. Industries extracting groundwater in excess of 100KLD are required to get water audit done biennially through the Water Auditors certified by RGNGWTRI and submit the reports to CGWA.

ii. Under the provisions of the Environment (Protection) Act, 1986 industry-specific environmental standards are notified for consumption of freshwater/ discharge on inland surface water, public sewer, land irrigation, and marine coastal area. Compliance of these standards are enforced by concerned State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs).

iii. Regulation of industrial pollution is implemented through various provisions of "The Water (Prevention and Control of Pollution) Act 1974" which provides for previous consent of the State Pollution Control Board (SPCB) for establishing any industry, operation/ process/ treatment and disposal system which is likely to discharge sewage or trade effluent.

In the interest of operational feasibility and profitability, industries adopt various measures for sustainable use of water. The measures for sustainable use of water need specific tailor solution and therefore differ from industry to industry. However, these measures are primarily based on the objective of reducing water consumption and increasing efforts for water conservation so that the industries become water positive. Adhering to the concept of 3 R's Reduce, Reuse and Recycle at a macro level is the key to comprehensive, holistic and sustainable management of water resources in the industries.

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ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (a) & (b) OF UNSTARRED QUESTION NO. 1666 TO BE ANSWERED IN RAJYA SABHA ON 04.08.2025 REGARDING "SUSTAINABLE WATER MANAGEMENT IN INDUSTRIES".

Progress of Industry Associations under Jal Sanchay Jan Bhagidari					
(Status as on 31.05.2025)					
S. No.	Organization Type	Organization	Completed Work	Ongoing Work	Total Work
1	Industries	FICCI Water Mission	273	28	301
2	Industries	ASSOCHAM	96	4	100
Total			**369**	**32**	**401**

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