GOVERNMENT OF INDIA
MINISTRY OF COAL

LOK SABHA
UNSTARRED QUESTION NO. 4158
TO BE ANSWERED ON 26.03.2025

Treatment of Mine Water

4158. Shri Dineshbhai Makwana:
Dr. Rajesh Mishra:
Shri Kota Srinivasa Poojary:
Shri Yogender Chandolia:
Shri Bidyut Baran Mahato:
Shri Chhatrapal Singh Gangwar:

Will the Minister of ***COAL*** be pleased to state:

(a) the measures being taken to ensure the sustainable utilization of mine water for irrigation without depleting ground water resources;

(b) the long-term plans for expanding the use of treated mine water for drinking purposes in other States;

(c) the details of investment made so far in infrastructure for mine water treatment across Coal and Lignite PSUs;

(d) the details and the number of villages expected to get benefit from the Memorandum of Understanding (MoU) signed between Western Coalfields Limited and Maharashtra State Power Generation Corporation Limited; and

(e) the details of NCL's plan for water management along with the extent of works completed so far?

ANSWER

MINISTER OF COAL AND MINES

(SHRI G. KISHAN REDDY)

(a) and (b) Coal and Lignite Public Sector Undertakings (PSUs), namely Coal India Limited (CIL), NLC India Limited (NLCIL), and Singareni Collieries Company Limited (SCCL), are implementing various measures to ensure the sustainable utilization of mine water for irrigation use. Excess mine water is gainfully utilized for industrial, and community use, including irrigation and domestic use, thereby reducing the need for groundwater extraction for such purposes. Regular monitoring and quality checks are conducted by accredited laboratories to ensure that the water meets the required standards for irrigation and domestic use. Rainwater

harvesting and groundwater recharge measures are implemented alongside mine water utilization to maintain the groundwater balance. During FY 2024-25 (up to February 2025), Coal and Lignite PSUs have supplied approximately 3963 Lakh Kilo Liters (LKL) of treated mine water for domestic and irrigation use to local communities in and around coal and lignite mining areas in the respective states.

(c) Investment on infrastructure for mine water treatment has been made by Coal and Lignite PSUs on a regular basis in coal and lignite mining areas. Mine water treatment infrastructure forms an integral part of mining operations as per the statutory provisions mentioned in the Environment Clearance, Consent to Establish and Consent to Operate of the coal and lignite mining projects and includes such as effluent treatment plants for treating industrial discharge, water filter plants to ensure treated mine water meets quality standards, sedimentation tanks for filtration and settling of suspended particles, maintenance and upgradation of existing water treatment infrastructure to enhance efficiency and capacity, etc.

(d) An Memorandum of Understanding (MoU) has been executed between Western Coalfields Limited (WCL) and Maharashtra State Power Generation Corporation Limited (MAHAGENCO) for supplying treated mine water from Bhanegaon Open Cast Mine to Kapakheda Thermal Power Station. Due to this, water from the irrigation department, which was previously catering to the water requirements of Thermal Power Station, is now available for domestic and irrigation purposes.

(e) Northern Coalfields Limited (NCL) has implemented a comprehensive water management plan across its mines to ensure efficient utilization and conservation of water resources. Mine seepage within the quarry is collected in dedicated mine sumps and pumped to the surface, where it undergoes treatment at Effluent Treatment Plants (ETPs). The treated water is effectively utilized within the mine premises for industrial purposes such as dust suppression on haul roads and Coal Handling Plants (CHPs), firefighting, green belt development, washing of Heavy Earth Moving Equipment (HEMMs), and wheel washing. To manage stormwater, garland drains and catch drains have been constructed in respective mines to facilitate water collection, while sedimentation ponds are used to remove suspended particles. Additionally, retaining walls and Gabion walls have been provided at the toe of overburden dumps to arrest silt and prevent erosion. As part of its commitment to sustainable water management, NCL has constructed a total of 12 Effluent Treatment Plants across its mines to ensure effective mine water treatment and utilization.

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