

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 540**  
TO BE ANSWERED ON 24.07.2025

**Air Pollution and Fly Ash Management in India**

540. SHRI BABUBHAI JESANGBHAI DESAI:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether Government is aware of the severe environmental and public health impacts caused by fly ash pollution from thermal power plants, including the degradation of fertile agricultural lands;
- (b) if so, the details of measures taken to support ecological restoration initiatives such as bamboo plantation or afforestation projects proposed or led by scientific institutions to mitigate fly ash contamination; and
- (c) the steps being taken or proposed to strengthen enforcement of pollution control norms, ensure safe fly ash disposal and utilization and rehabilitate affected agricultural zones through soil restoration and green cover development?

**ANSWER**

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

(SHRI KIRTI VARDHAN SINGH)

**(a) to (c):** Fly ash disposal in unscientific manner poses problems in the form of land use, health hazards, and hazard to ecosystems due to presence of respirable particulate matter and toxic trace metals in the ash.

The Ministry of Environment, Forest and Climate Change (MoEF&CC) notified Ash Utilization Notification, 2021 on 31.12.2021 and mandates coal or lignite based thermal power plants to achieve 100% utilisation of ash in the prescribed eco-friendly purposes and timelines.

The Notification prescribes 'Agriculture in a controlled manner based on soil testing' as an eco-friendly purpose for utilization of ash from coal or lignite based thermal power plants. Use of ash in agriculture in controlled manner enhances the soil health by increasing nutrient capacity and supply of micronutrients to soil. In the FY 2024-25, about 4 million tonnes (1.2%) of ash was utilised in agriculture out of the total ash utilization of 326.8 million tonnes.

The Notification promotes stabilization and reclamation of ash ponds with green belt or plantation including setting up of solar power plant or wind power plant on reclaimed ash ponds.

Further, the said Notification also mandates developing greenbelt around the operational ash pond by thermal power plants.

Central Pollution Control Board (CPCB) and Central Electricity Authority (CEA) have issued the “Guidelines on Design, Construction, O&M and Annual Certification of Coal Ash Ponds” in June 2023, which prescribes for storage of ash in ash ponds or dykes in an environmentally sound manner that includes development of greenbelt around ash ponds.

CPCB and the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) are the enforcing and monitoring authorities for ensuring compliance of the provisions of Ash Utilization Notification, 2021. The concerned District Magistrate has the concurrent jurisdiction for enforcement and monitoring the provisions of the Notification.

Council of Scientific & Industrial Research (CSIR) - National Environmental Engineering Research Institute (NEERI) has developed Eco-Rejuvenation Technology aimed at stabilizing fly ash dumps by utilizing site-specific plant species (Bamboo species) to foster biodiversity on degraded lands.

‘Fly Ash Management and Utilization Mission’ constituted by MoEF&CC recommended to the thermal power plants to leverage the expertise of CSIR-NEERI for stabilizing and ecologically rejuvenating ash dumpsites through bamboo plantation or suitable site-specific plant species.

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