

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 3487
TO BE ANSWERED ON 11.08.2025

Fly Ash Usage in Cement Manufacturing

3487. SHRI G LAKSHMINARAYANA:

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

- (a) the total quantity of fly ash generated by thermal power plants in the country during the last three years and the percentage of fly ash utilised by the cement manufacturing units, State/UT wise;
- (b) the number of thermal power plants found non-compliant with IS 3812 standards for fly ash quality during the same period along with the number of inspections conducted annually, State/UT-wise;
- (c) whether substandard fly ash has been reported to compromise the quality of cement or construction outputs and whether any testing or impact assessment studies have been conducted in this regard, if so, the details thereof;
- (d) whether any central mechanism exists to monitor, certify and ensure the quality of fly ash used in cement plants; and
- (e) if so, the details thereof and if not, whether the Government is considering for introducing a national traceability and quality monitoring system for fly ash usage?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a) Ash Utilization Notification, 2021 notified by the Ministry of Environment, Forest and Climate Change (MoEF&CC) on 31.12.2021 mandates coal or lignite based Thermal Power Plants (TPPs) to achieve 100% utilisation of ash, including fly ash and bottom ash, in the prescribed eco-friendly purposes and in prescribed timelines. Use of ash in cement manufacturing and ready mix concrete is one of the eco-friendly purposes prescribed under the Notification.

State/UT-wise details of quantity of ash (including fly ash and bottom ash) generated by TPPs and percentage of ash utilised by the cement manufacturing units in the country during the last three years i.e. Financial Year (FY) 2022-23, FY 2023-24, and FY 2024-25 are enclosed at **Annexure-I**.

(b) and (c) No such information is available with Department for Promotion of Industry and Internal Trade (DPIIT) and Bureau of Indian Standards.

(d) and (e) Central Government has notified the Cement (Quality Control) Order, 2003 under the powers conferred by section 14 of Bureau of Indian Standards Act, 1986 and it prohibits manufacture, sale and distribution of cement which does not conform to Specified Standard issued by the Bureau of Indian Standards and which do not bear the standard mark.

In this regard, Bureau of Indian Standards has issued Indian Standard (IS) 1489 (Part 1):2015 for 'Portland Pozzolana Cement (PPC)-Fly Ash Based' which mandates that fly ash used in the manufacture of Portland-Pozzolana Cement shall conform to IS 3812 (Part 1) : 1981 for 'Use as Pozzolana in Cement, Cement Mortar and Concrete'.

Further, as per the Cement (Quality Control) Order, 2003, manufacturers of cement shall be required to obtain license from the Bureau of Indian Standards for use of Standard Mark.

An appropriate authority specified under the Cement (Quality Control) Order, 2003 has been mandated to implement the provisions of this Order which inter alia include:

- (i) inspection of any documents or cement kept by or belonging to or in possession or under the control of any person engaged in the manufacture, storage for sale, sale or distribution of cement;
- (ii) require any person to give such information as necessary or to furnish samples of cement;
- (iii) enter and search any premises and seize cement where it has reason to believe that the contravention to this Order has been made or the said cement is not of the prescribed standard;
- (iv) powers to issue directions to the manufacturers, dealers or sellers for carrying out the purpose of the Order.

Annexure-I

State/UT-wise details of quantity of ash generated by thermal power plants in the country (including fly ash and bottom ash) during the last three years i.e. FY 2022-23, FY 2023-24, and FY 2024-25, and the percentage of ash utilised by the cement manufacturing units

(in lakh Metric Tonnes)

State	FY 2022-23		FY 2023-24		FY 2024-25	
	Ash Generation	Ash Utilization in Cement Manufacturing	Ash Generation	Ash Utilization in Cement Manufacturing	Ash Generation	Ash Utilization in Cement Manufacturing
Andhra Pradesh	163.46	63.31 (38.7%)	184.97	74.65 (40.4%)	166.05	61.00 (36.7%)
Assam	10.25	5.06 (49.4%)	11.74	5.99 (51%)	10.60	6.95 (65.6%)
Bihar	125.63	36.86 (29.3%)	151.78	36.48 (24%)	172.52	39.47 (22.9%)
Chhattisgarh	463.82	49.58 (10.7%)	522.96	53.19 (10.2%)	532.84	49.95 (9.4%)
Gujarat	91.34	48.48 (53.1%)	99.76	39.16 (39.3%)	91.21	31.31 (34.3%)
Haryana	81.78	61.26 (74.9%)	78.42	47.38 (60.4%)	85.14	50.58 (59.4%)
Jharkhand	101.87	32.87 (32.3%)	133.83	41.02 (30.7%)	143.83	41.90 (29.1%)
Karnataka	90.78	43.76 (48.2%)	114.28	52.21 (45.7%)	107.75	48.18 (44.7%)
Maharashtra	321.38	71.78 (22.3%)	335.21	76.06 (22.7%)	302.05	70.13 (23.2%)
Madhya Pradesh	309.04	69.05 (22.3%)	321.81	74.99 (23.3%)	310.18	73.04 (23.5%)
Odisha	390.67	37.08 (9.5%)	389.75	46.83 (12%)	391.38	47.43 (12.1%)
Punjab	80.69	45.45 (56.3%)	81.71	48.65 (59.5%)	78.36	46.01 (58.7%)
Rajasthan	123.99	70.09 (56.5%)	134.95	82.60 (61.2%)	127.24	71.49 (56.2%)
Tamil Nadu	195.12	40.39 (20.7%)	146.87	58.13 (39.6%)	143.88	63.40 (44.1%)
Telangana	138.91	30.49 (21.9%)	152.17	34.07 (22.4%)	158.21	30.23 (19.1%)
Uttar Pradesh	356.16	91.61 (25.7%)	363.78	105.96 (29.1%)	389.37	115.09 (29.6%)
West Bengal	231.90	88.50 (38.2%)	233.92	92.06 (39.4%)	177.11	69.38 (39.2%)