

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UN-STARRED QUESTION NO. 69
TO BE ANSWERED ON 25.11.2024

Air Pollution caused by Stubble Burning

69. SHRI GADDIGOUDAR PARVATAGOUDA CHANDANAGOUDA:
DR. KIRSAN NAMDEO

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

- (a) whether the practice of burning paddy stubble/crop residue in various States continue unabated leading to high air pollution level in cities and metros resulting in increasing level of pollution in the Delhi and NCR;
- (b) if so, whether the Government has directed all States to formulate a comprehensive policy for providing incentives, new technologies and infrastructural assistance to farmers to stop them and if so, the details and the response of the State Governments thereto;
- (c) whether the Government has convened meeting of various States to work out a clear mechanism on transportation, use of stubble as fuel in power plants and pollution check, if so, the details and outcomes thereof;
- (d) the details of the schemes/facilities provided by the Government to the State Governments for management of stubble;
- (e) whether the Government is assisting the State Governments to set up paddy straw pellet units in various areas including in thermal plants, if so, the details thereof; and
- (f) the details of corrective steps taken/proposed to be taken to prevent/ban burning of paddy stubble/crop residue and control air pollution?

ANSWER

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

(a) :

Air pollution in Delhi and NCR is a collective result of multiple factors including high level of anthropogenic activities in the high-density populated areas in NCR, arising from various sectors viz. Vehicular Pollution, Industrial Pollution, Dust from Construction and Demolition activities, Road and Open Areas Dust, Biomass Burning, Municipal Solid Waste burning, Fires in Landfills and air pollution from dispersed sources, etc. During post-monsoon and winter months, lower temperature, lower mixing heights, inversion conditions and stagnant winds lead to trapping of the

pollutants resulting in high pollution in the region. This is further aggravated due to the emissions from episodic events like stubble burning, firecrackers, etc.

Incidences of paddy stubble burning in the northern states of Punjab, Haryana, NCR districts of UP and other areas in NCR are a matter of concern and impact the air quality in the NCR, particularly in the period between October and November.

Indian Space Research Organization (ISRO) developed a standard protocols, in consultation with major stake holders including Indian Council of Agricultural Research (ICAR), for recording and monitoring of crop residue burning events and paddy burnt area estimation, to avoid a diverse assessment of fire events/counts. As recorded through the standard ISRO protocol, the number of such incidents of paddy stubble burning, have witnessed a significant decline on year-to-year basis as evident from the following:

Paddy Residue Burning events (Period: 15th September- 18th November)

Punjab			Haryana			Uttar Pradesh (NCR)		
2022	2023	2024	2022	2023	2024	2022	2023	2024
48489	33719	9655	3380	2052	1118	72	108	192

(b) to (f):

The Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM) from time to time has appropriately communicated and issued directives & advisories to various stakeholders including the 11 Thermal Power Plants (TPPs) located within 300 km of Delhi, State Governments of Punjab, Haryana and Uttar Pradesh on “*Ex-Situ Stubble Management*” and to establish an ecosystem and robust supply chain mechanism to boost ex-situ utilisation of straw for tackling the problem of stubble burning. CAQM has also directed coal based TPPs including co-generating Captive TPPs situated in NCR to (i) initiate immediate steps to co-fire biomass-based pellets (with focus on paddy straw utilization) with coal through a continuous and uninterrupted supply chain targeting at least 5% co-firing of biomass pellets. (ii) TPPs to strictly comply with the standards of emissions, at all times and with immediate effect, as stipulated vide MoEFCC’s Notification S.O. 3305(E), dated 07.12.2015 and its amendments from, time to time.

Further, as per revised model contract for use of biomass in TPPs, issued by Ministry of Power, these power plants shall use minimum 50% of raw material as stubble/ straw/crop residue of rice paddy sourced from Punjab, Haryana or NCR. Further, emission standards for power plants have been notified and these are to be enforced by State Pollution Control Boards (SPCBs). As per last co-firing status obtained from MoP till October, 2024, out of targeted 22.64 LMT for FY 2024-25, 11 TPPs within 300 Km of Delhi co-fired 6.04 LMT till October, 2024 (~28%), compared to 2.58 LMT (~14 %) against targeted 18.03 LMT in FY 2023-24.

Ministry of Petroleum and Natural Gas (MoPNG) has launched a scheme to provide financial assistance to Compressed Bio-gas producers for procurement of biomass aggregation equipment for ex-situ management of paddy straw.

Further, Ministry of Agriculture & Farmers Welfare (MoA&FW) in 2018 launched scheme for providing subsidy for purchase of crop residue management machinery and establishment of custom hiring centres (CHCs) in NCT of Delhi and the States of Punjab, Haryana and Uttar Pradesh for in-situ management of paddy straw. During the period from 2018 to 2024-25 (till 15.11.2024), a total of Rs. 3623.45 crores have been released (Punjab - Rs. 1681.45 crores, Haryana - Rs. 1081.71 crores, Uttar Pradesh - Rs. 763.67 crores, NCT of Delhi - Rs. 6.05 Crores and ICAR-Rs. 83.35 crores). The states have distributed more than 3.00 lakh machines to the individual farmers and to more than 40000 CHCs in these 4 States, which also include more than 4500 Balers & Rakes which are used for collection of straw in the form of bales for further ex-situ utilization. MoA&FW in 2023 revised guidelines under the scheme to support establishment of crop residue/paddy straw supply chain, by providing financial assistance on the capital cost of machinery and equipment.

Based on the deliberations and discussions held in series of meetings with the State Governments of Punjab, Haryana, UP, Rajasthan, Government of NCT of Delhi, State Pollution Control Boards of NCR States and Delhi Pollution Control Committee (DPCC) and various other stakeholders viz. ISRO, ICAR, Indian Agricultural Research Institute (IARI), CAQM has provided a Framework to the states concerned for control / elimination of crop residue burning and directed these to draw up detailed state-specific action plans based on the major contours of the framework.

Based on the framework advised by CAQM through Direction dated 10.06.2021 to the concerned State Governments of Punjab, Haryana, Uttar Pradesh, Rajasthan and Government of NCT of Delhi to prepare state specific detailed, monitorable action plans based on learnings from the years 2021, 2022 and 2023. Action plans were reviewed, updated and finalised by the all concerned State Governments for the year 2024. Accordingly, a statutory direction for strict implementation of the framework and revised action plan for prevention and control of paddy stubble burning during the year 2024, to eliminate the practice through strict enforcement was issued to the respective States on 12.04.2024. The Action Plans, inter-alia, comprises of following components: -

- i. In-situ Crop Residue Management:
 - a) Availability and allocation of CRM machinery
 - b) High yield and short duration paddy varieties, as substitute of PUSA- 44.
 - c) Harvesting schedule staggered to improve machine utilization
 - d) Super SMS mandated with Combine harvester
 - e) Extensive use of Bio-decomposer developed by IARI
- ii. Ex-situ Crop Residue Management

CAQM, vide Direction dated 12.04.2024, has also asked the States concerned for effective implementation of revised action plan for control / elimination of crop residue burning. Further, to ensure effective enforcement mechanism for implementation of the plans of action for prevention and control of Paddy Stubble Burning, CAQM, in exercise of the powers conferred under Section 14(2), vide Direction dated 10.10.2024 has authorised the Deputy Commissioners / District Collectors / District Magistrates in the States of Punjab, Haryana, NCR areas of Rajasthan and Uttar Pradesh and in the NCT of Delhi to file a complaint/ prosecution before jurisdictional judicial magistrate, in case of inaction in respect of officials, including nodal officers and supervisory officers at various levels and Station House Officers, responsible for effective

enforcement towards ensuring elimination of paddy stubble burning in their respective jurisdiction.

Various other corrective measures have been taken by the Government to tackle air pollution from stubble burning, which include:

- i. Central Pollution Control Board (CPCB) has framed Guidelines for grant of one-time financial support under Environment Protection Charge funds for establishment of pelletization and Torrefaction plants to promote utilisation of paddy straw. In case of setting up of palletisation plant, Rs. 28 lakhs per tonne per hour (TPH), or 40% of the capital cost considered for plant and machinery of a 01 TPH plant, whichever is lower, is provided as one-time financial assistance with a maximum total financial support of Rs. 1.4 crore per proposal. In case of setting up of torrefaction plants, Rs. 56 lakhs per TPH, or 40% of the capital cost considered for plant and machinery of a 01 TPH plant, whichever is lower, is provided as one-time financial assistance with a maximum total financial support of Rs. 2.8 crore per proposal.
- ii. A total of 17 applications for establishment of pelletization and Torrefaction plants under the above mentioned CPCB Guidelines have been sanctioned so far, out of which 02 plants are not coming up. Pellet production capacity of 15 sanctioned plants is 2.07 lakh tonne/annum. These plants are expected to utilize 2.70 lakh tonne of paddy straw per annum.
- iii. CPCB has deployed 26 teams (in 16 districts of Punjab and 10 districts of Haryana) for the period 01st October - 30th November, 2024 to intensify monitoring and enforcement actions regarding stubble burning. These teams are coordinating with concerned authorities/officers deployed at the district level by the State Govt. and reporting to CAQM.
- iv. MoA&FW had deputed 31 Central Teams, which have conducted Quality Survey work w.e.f. 1-15th September, 2024 in the States of Punjab, Haryana and Utatr Pradesh and the Teams had visited 275 manufacturers and conducted quality audit of 910 agricultural machines. Further, 10 Central Teams have conducted survey on utilization of machines in States of Punjab and Haryana during 15th October-31st October 2024. A Team comprising members from DA&FW, CAQM and ICAR and other stakeholders had visited to the State of Punjab to witness the activities of paddy straw management on 14th November, 2024.
