

Commission for Air Quality Management in NCR and Adjoining Areas

17th Floor, Jawahar Vyapar Bhawan,
Tolstoy Marg, New Delhi-110001

Dated: 05th December, 2022

PRESS RELEASE

Analysis of paddy stubble management in NCR States and Punjab

- During the paddy harvesting season in NCR States and Punjab from 15.09.2022 to 30.11.2022, the CAQM has been closely monitoring and analyzing the paddy residue burning events on a daily basis
- Concerted efforts of the Central Government and the State Governments towards optimal utilization of Crop Residue Management (CRM) machinery for *in-situ* management and towards a significant increase in various *ex-situ* applications like biomass power generation, feedstock for CBG and bio-ethanol production, utilization for co-firing in thermal power plants, as industrial fuel for boilers, composting and other misc. commercial applications have yielded positive results this year, lowering the overall instances of paddy stubble burning in the region
- Total paddy crop residue burning events in Punjab, Haryana, Delhi and NCR Districts of U.P. and Rajasthan, during the period from 15.09.2022 to 30.11.2022, registered a significant overall reduction of 31.5% as compared to the corresponding period in 2021
- While Haryana witnessed a reduction of 47.6%, Punjab saw a reduction of 30% as compared to the corresponding period of last year
- The NCR Districts of U. P., Rajasthan and NCT of Delhi in total also saw a reduction of 19.3% in farm fire counts this year
- Maximum reduction in active fire events in Punjab and Haryana this year reported from Ludhiana and Fatehabad districts respectively
- Maximum contribution of farm fires to PM_{2.5} levels in Delhi was 34% in current year (on 3/11/2022) as against 48% last year (on 7/11/2021)
- The Daily Average AQI for November, 2022 was recorded as 320.60 as compared to 376.50 of November, 2021, i.e., a reduction of about 56 points on a daily basis.

NEW DELHI:

Significant reduction in paddy crop residue burning events in the current year is reflective of vigorous and consistent efforts made by Central Govt. and State Governments and other stakeholders. As per the figures based on Standard ISRO Protocol for monitoring paddy crop residue burning events, the total paddy crop residue burning events during the period 15.09.2022 to 30.11.2022 in Punjab, Haryana, Delhi and NCR Districts of Uttar Pradesh (U.P.) and Rajasthan have come down from 78,550 in 2021 to 53,792 in 2022, i.e., a reduction of 31.5%. For details **Annexure** may be seen at Page 4.

The Central Government, under its CRM Scheme, has released more than Rs. 3,062 crore, to the Government of Punjab, NCR State Governments and GNCTD during the five year period from 2018-19 to 2022-23 towards effective management of stubble in the region. Of the total releases, more than Rs. 1,426 crore have been released to State Government of Punjab.

Regarding availability of machinery for crop residue management procured through the scheme so far, Punjab has about 1.20 Lakh machines; Haryana about 72,700 and U.P. (NCR) about 7,480 machines. During the period, about 38,400 Custom Hiring Centers (CHCs) have been established in Punjab, Haryana and Uttar Pradesh, of which about 24,200 CHCs are in Punjab and about 6,775 in Haryana.

Based on the Framework advised by the Commission, Action Plans were prepared by the NCR State Governments and Government of Punjab to control stubble burning. For effective monitoring and to ensure integrity of data, the Commission had also formulated a standard protocol for monitoring of paddy residue burning using satellite data with the help of ISRO, IARI and other stakeholders.

The concerted efforts of the Central Government, Government of Punjab, NCR State Governments and other Stakeholders towards better *in-situ* management of crop residue through the use of CRM machinery, use of PUSA bio-decomposers, facilitating various options for *ex-situ* utilization of paddy straw and extensive IEC activities, educational campaigns, awareness camps and publicity through print, electronic and social media have helped significantly in reducing the fire counts.

The total crop residue burning events in Haryana have come down from 6,987 in 2021 to 3,661 in 2022, i.e., a reduction of 47.60% as compared to the corresponding period of last year. Similarly, total crop residue burning events in Punjab have come down from 71,304 in 2021 to 49,922 in 2022, i.e., a reduction of 29.99%. The total crop residue burning events in NCR Districts of U. P., Rajasthan and NCT of Delhi have come down from 259 in 2021 to 209 in 2022, a reduction of 19.30% as compared to the corresponding period of last year.

Out of 23 districts of Punjab, the five hotspot districts with maximum number of crop burning events during the current year are Sangrur, Bhatinda, Firozpur, Muktsar and Moga, recording a total of 21,882 fire counts, i.e., 43.83% of total fire counts during current year. Only one district reported more than 5,000 fire counts during the current year. In comparison, in 2021, five (5) Districts of Punjab reported more than 5,000 fire counts totaling 32,053 contributing to 44.95% of fire counts.

In 2021, there were Eleven (11) Districts with a fire count of more than 3,000 contributing to 79.6% of total fire reported in Punjab. In the current year, there were only seven (7) Districts with more than 3,000 fire counts contributing to 57% of total fire counts. The single day highest fire counts in Punjab were 3,916 in 2022 as compared to 5,327 in 2021, i.e., a reduction of about 26.5%.

Ludhiana and Malerkotla reported more than 50% reduction in active fire counts in 2022 compared to 2021. Maximum reduction in active fire events in Punjab this year was reported from Ludhiana district with a reduction of 3,135 farm fire events (from 5817 to 2682).

Out of 22 districts of Haryana, the five hotspot districts with maximum number of farm fire counts this year are Fatehabad, Kaithal, Jind, Sirsa and Kurukshetra, which recorded 2,548 fire counts, i.e., 69.6% of total fire counts during current year. These five districts had reported 4,644 fire counts last year, reduction of 45.1%. The single day highest fire counts in Haryana were 250 in 2022 as compared to 363 in 2021, i.e., a reduction of about 31.1%. Hisar, Karnal, Palwal, Panipat, and Sonipat reported more than 50% reduction in active fire counts this year. Maximum reduction in active fire events in Haryana this year was reported from Fatehabad district with a reduction of 712 fire counts (from 1479 to 767).

Though there is overall reduction in the area monitored, two (02) Districts of Punjab (Bhatinda and Fazilka); one (01) NCR District of U.P. (Bulandsahar); and one (01) District of Haryana (Yamuna Nagar) have reported significantly higher number of farm fire counts as compared to the corresponding period of last year.

Maximum contribution of farm fires to the daily PM_{2.5} levels in Delhi was 34% in current year (on 3/11/2022) as against 48% last year (on 7/11/2021). The daily Average AQI of Delhi in November, 2022 registered an improvement at 320.60 as compared to 376.50 in November, 2021, i.e., a reduction of about 56 points.

Total Active Fire Counts (Kharif Season) in Punjab, Haryana, NCR-UP, NCR- Rajasthan and NCT of Delhi for 2021 and 2022				
Sl. No.	State/UT	2021	2022	Reduction (in %)
1	Punjab	71304	49922	29.99
2	Haryana	6987	3661	47.60
3	NCR – UP	252	198	21.43
4	NCR – Rajasthan	3	1	66.67
5	NCT of Delhi	4	10	No reduction
Total		78,550	53,792	31.51