

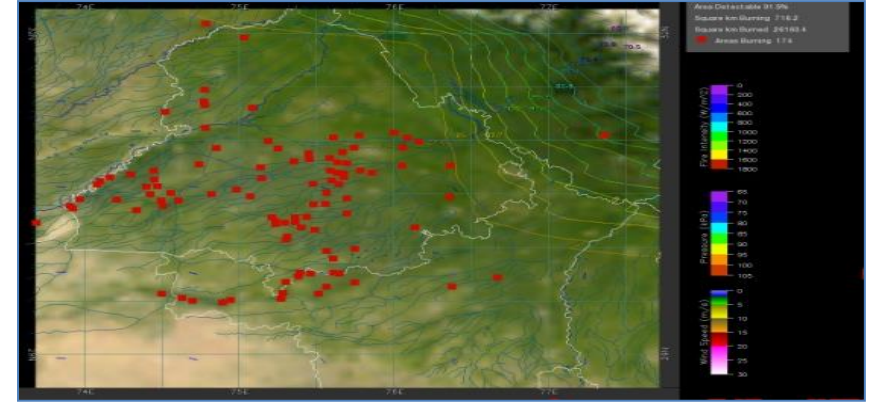
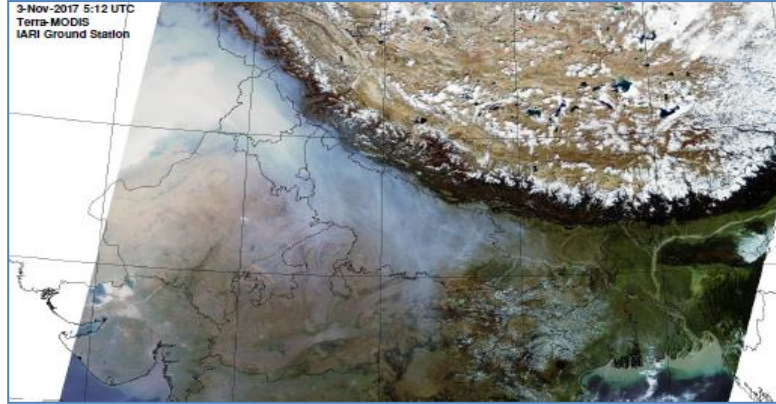


MONITORING PADDY RESIDUE BURNING IN INDIA USING SATELLITE REMOTE SENSING DURING 2025

Bulletin
No. 16

Events Date:
30-Sep-2025

Issued on:
30-Sep-2025



Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS)
Laboratory,

Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012

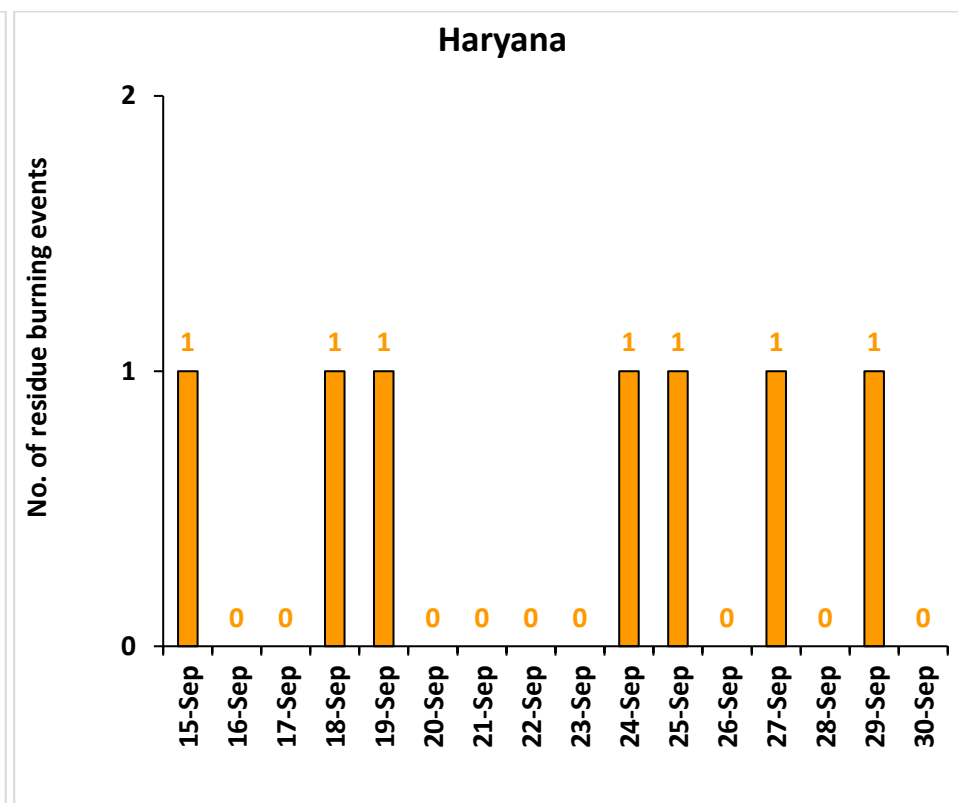
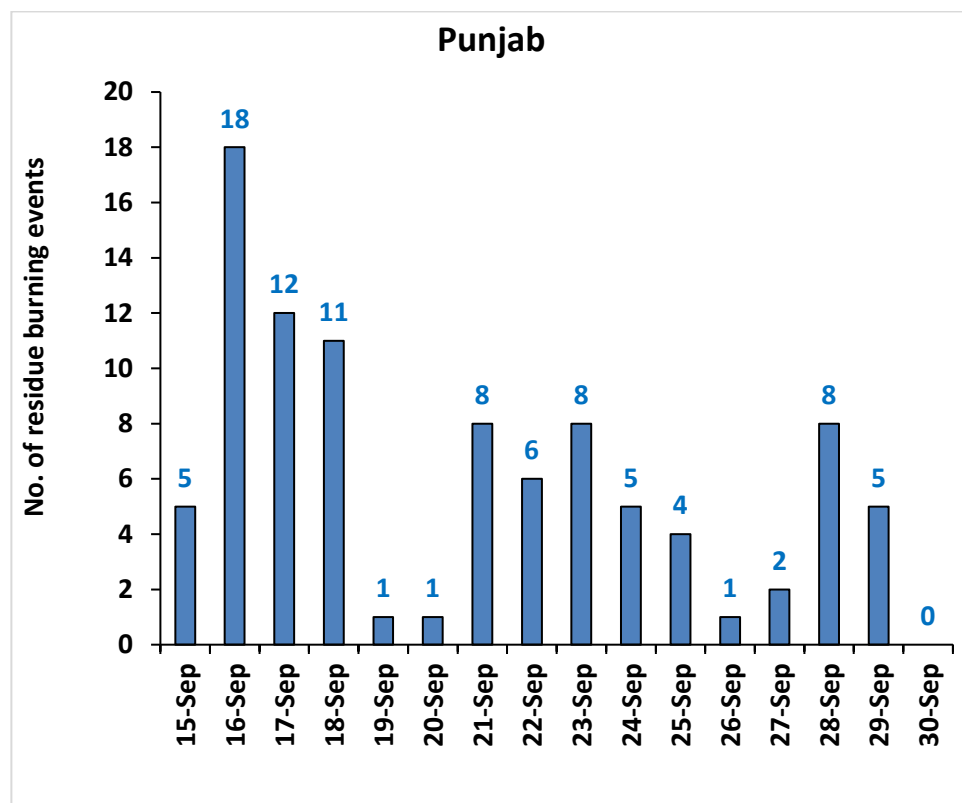
<https://creams.iari.res.in>



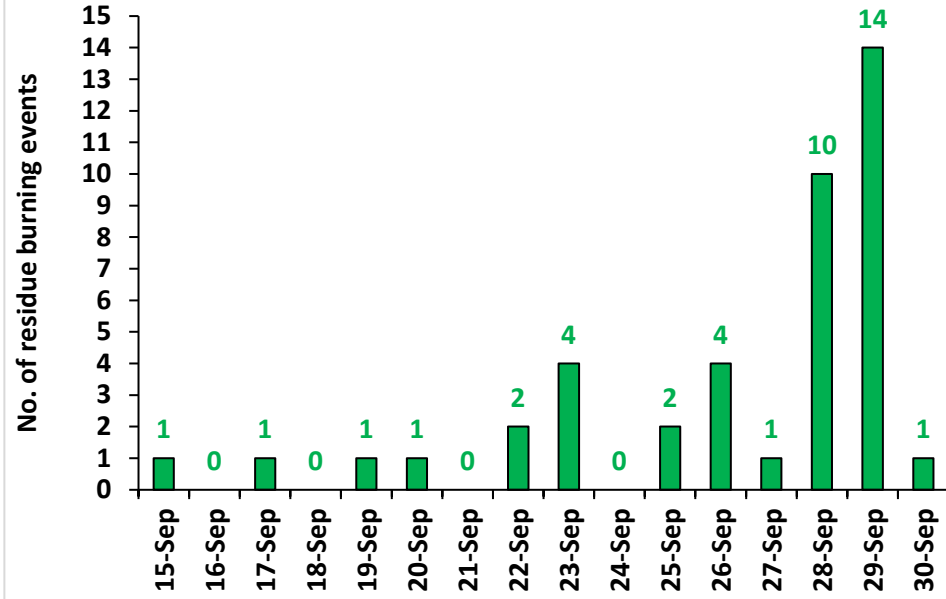
Highlights for 30-Sep-2025

- The active fire events due to rice residue burning were monitored using satellite remote sensing, following the "Standard Protocol for Estimation of Crop Residue Burning Fire Events using Satellite Data".
- Satellites detected **01** residue burning events in the six study States on **30-Sep-2025**.
- The state wise events detected on **30-Sep-2025** were **00** in Punjab, **00** in Haryana, **01** in UP, **00** in Delhi, **00** in Rajasthan and **00** in MP.
- Detection of residue burning events was hampered by the presence of clouds over Punjab, Haryana Uttar Pradesh, Rajasthan and Madhya Pradesh states.

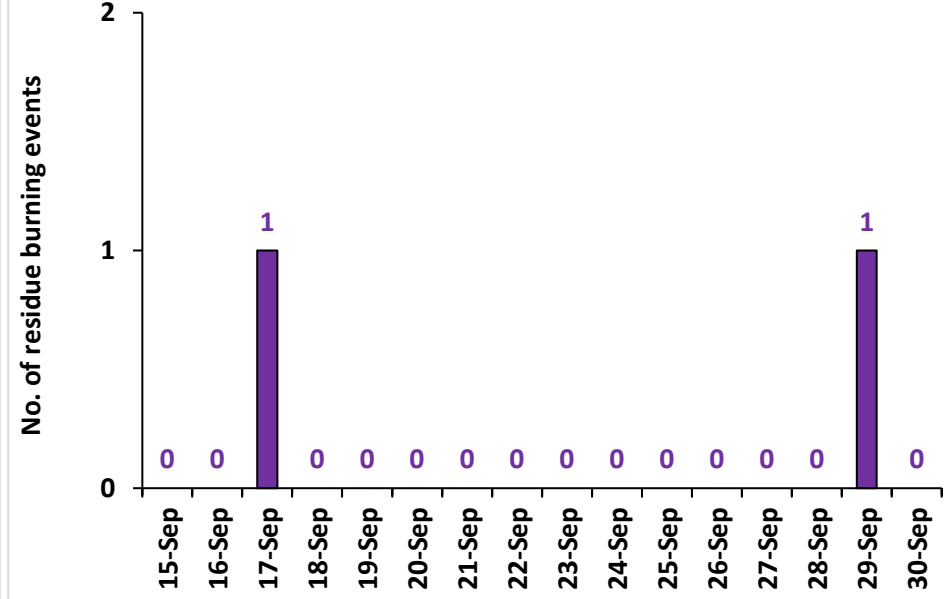
Temporal distribution of rice residue burning events for the study States in 2025



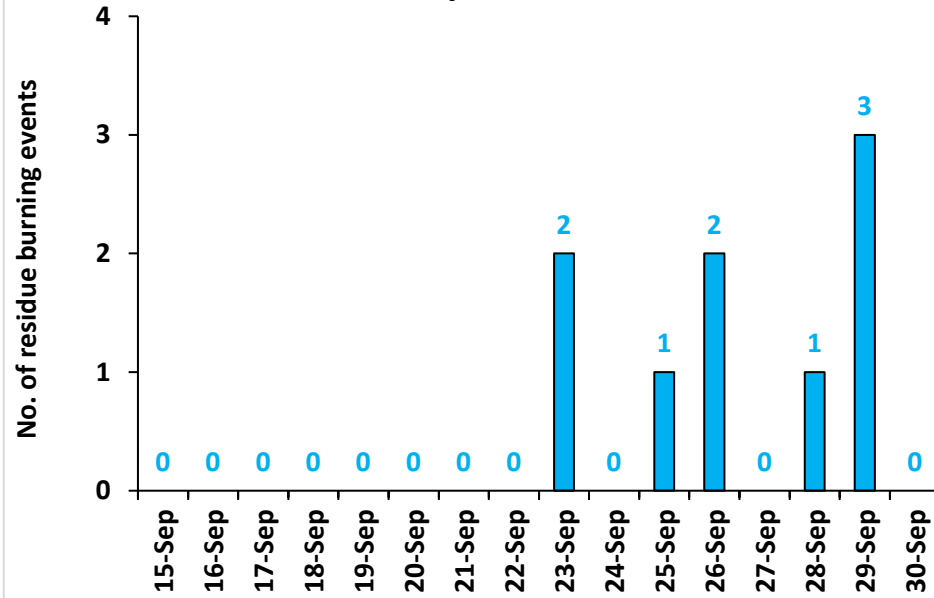
Uttar Pradesh



Rajasthan

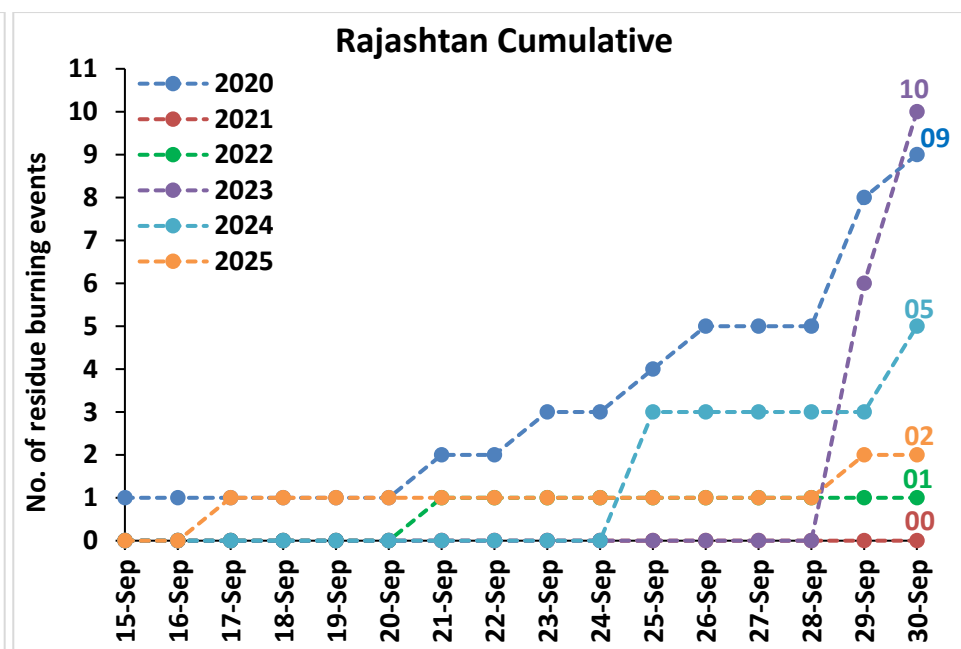
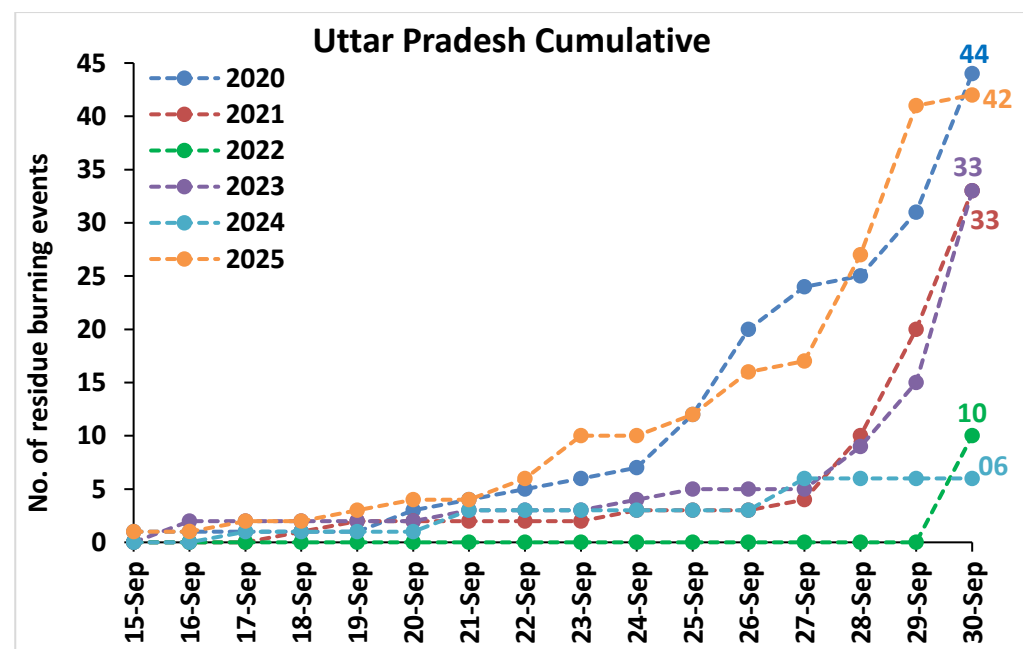
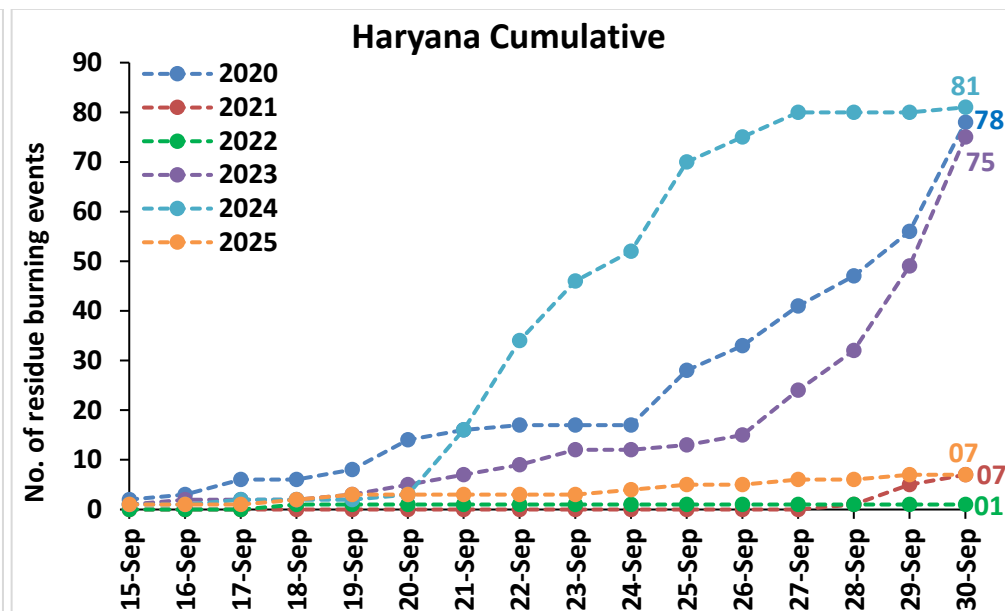
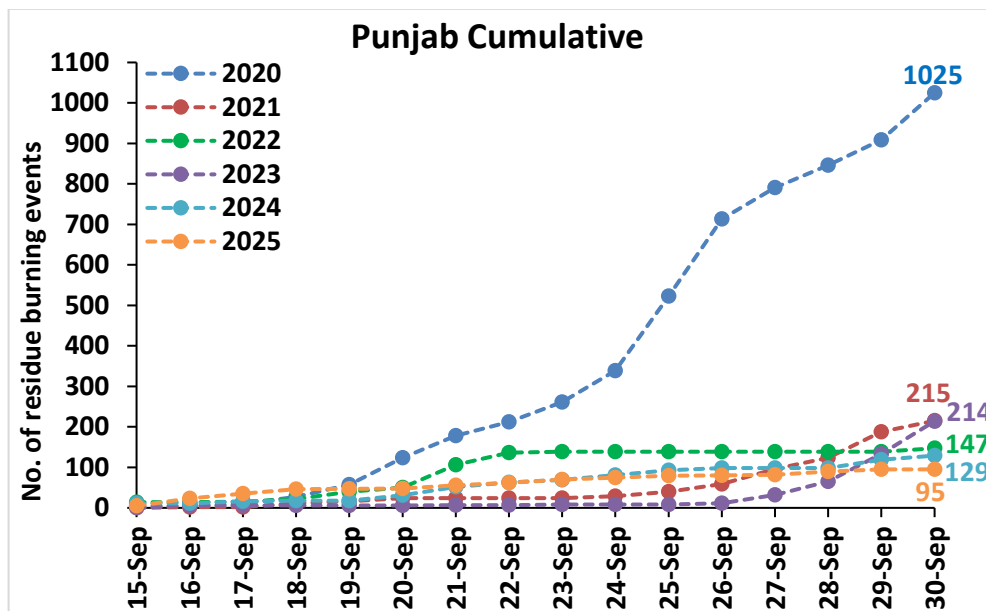


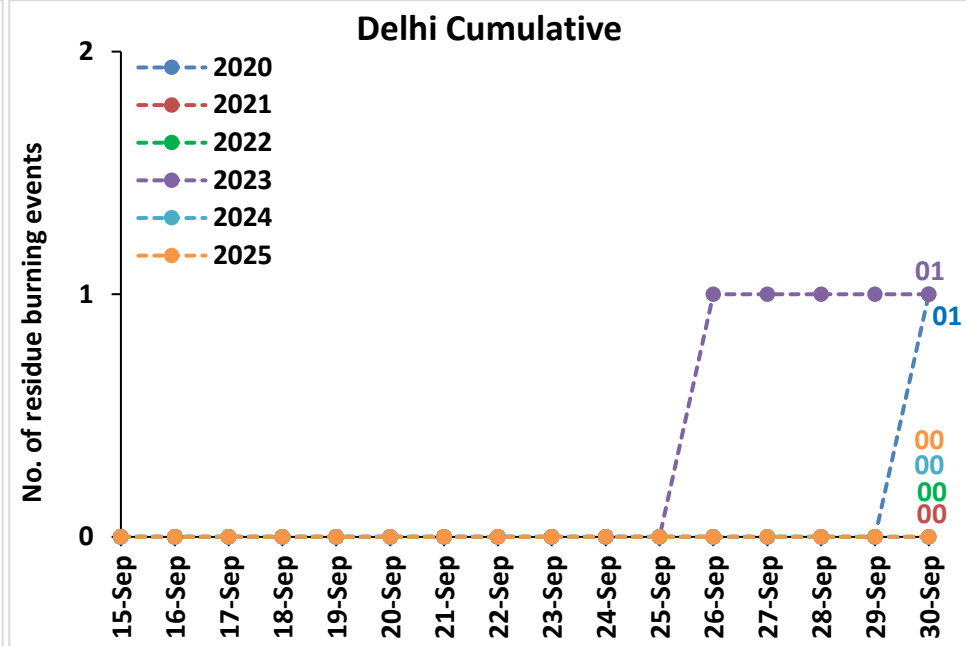
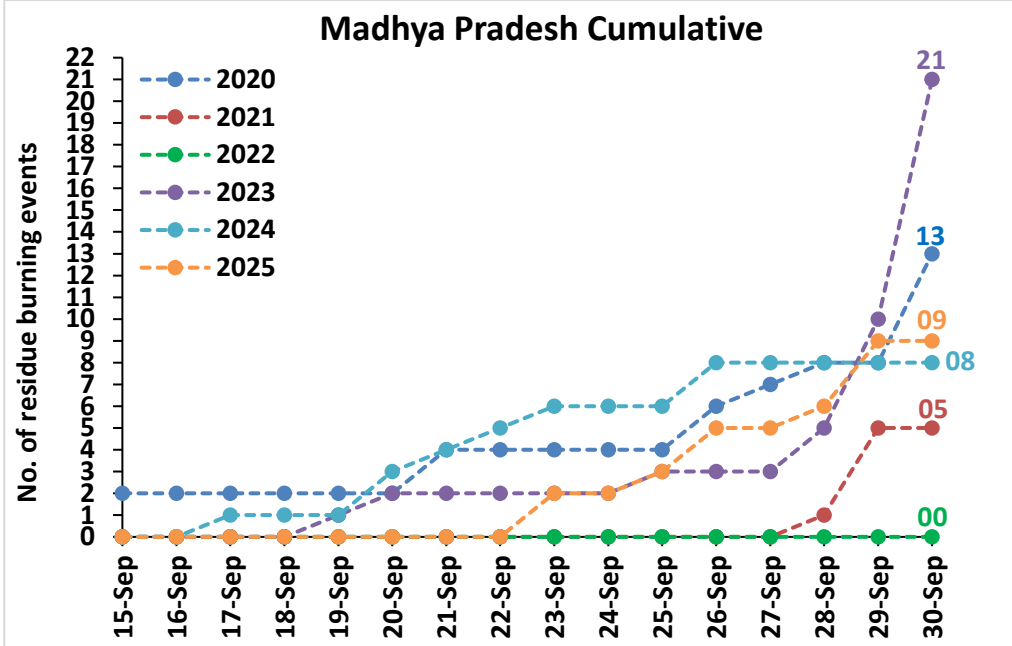
Madhya Pradesh



Comparison of residue burning fire power in current year (2025) with previous years (2020,2021,2022, 2023 and 2024) for the study

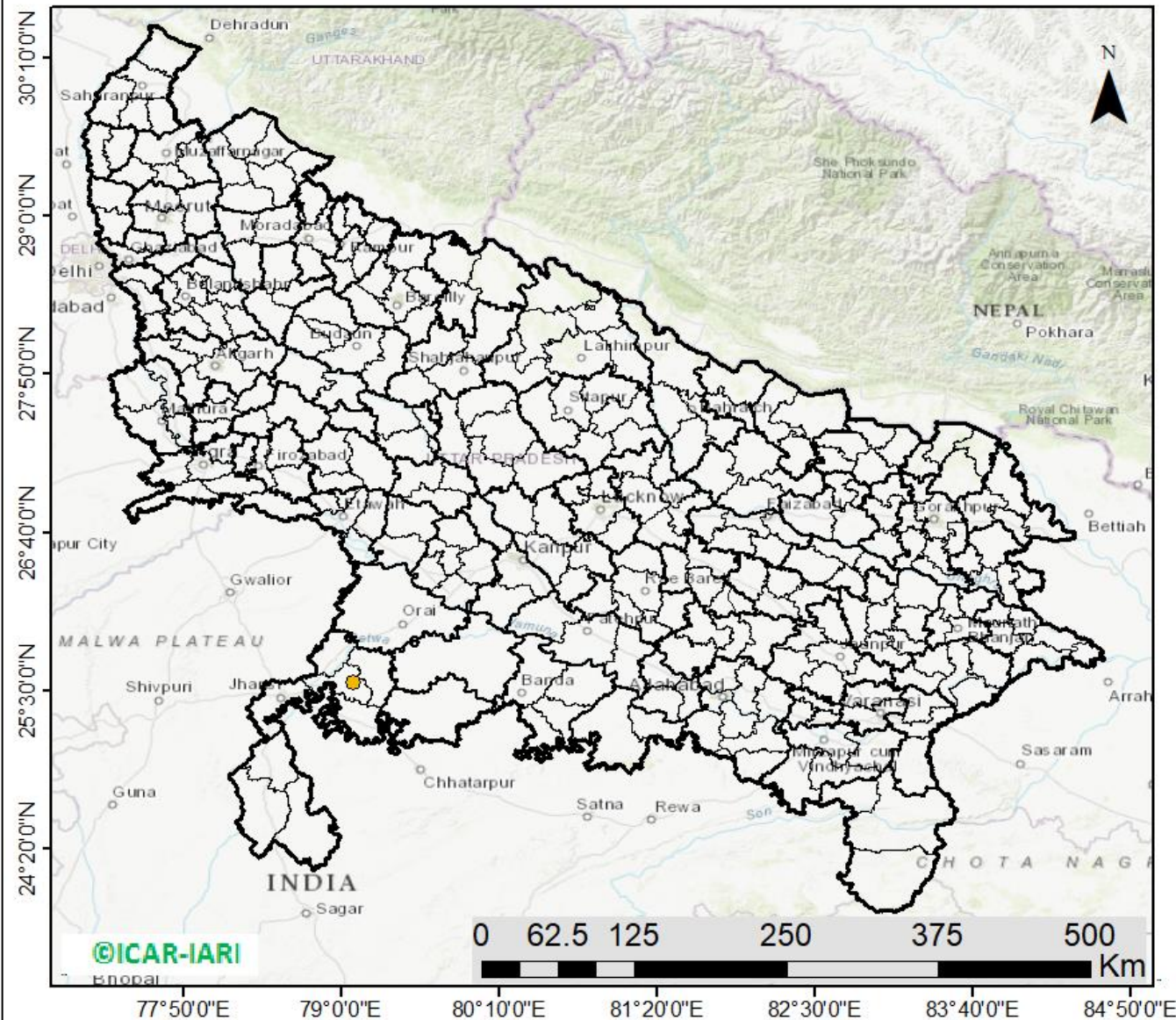
States





Uttar Pradesh

RICE RESIDUE BURNING IN UTTAR PRADESH



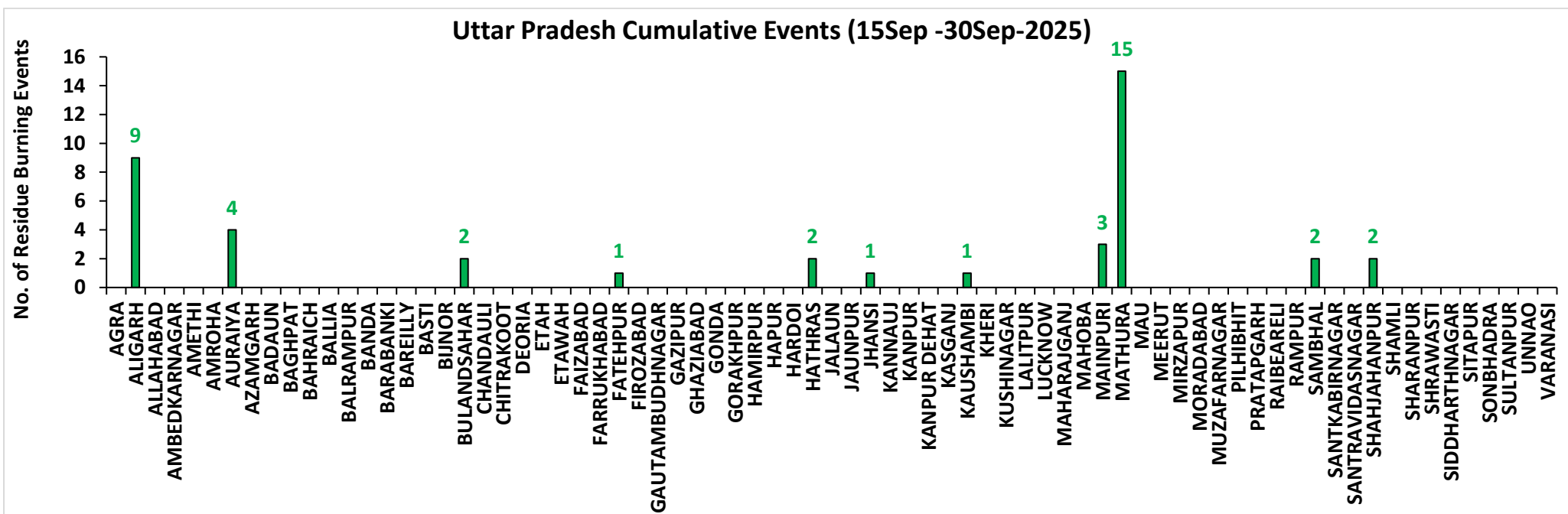
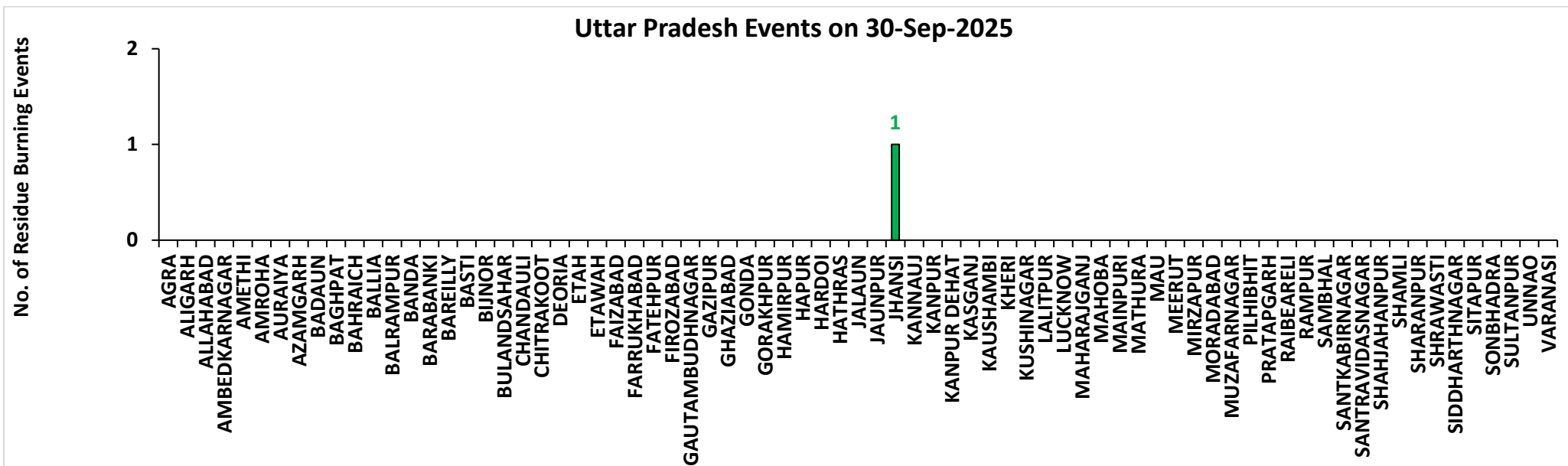
01 burning events
detected in Uttar Pradesh on
(30th Sep 2025)

Fire Intensity (W/m²)

- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- >20



District-wise cumulative number of residues burning events in Uttar Pradesh (15Sep-30Sep-2025)



District-wise cumulative number of residues burning events detected in 2020, 2021, 2022, 2023, 2024 and 2025
(Period: 15-30 September)

(a) Punjab

District	15- 30 Sep					
	2020	2021	2022	2023	2024	2025
Amritsar	749	153	127	174	75	55
Barnala	2	0	0	0	0	3
Bathinda	0	0	0	0	0	1
Faridkot	1	8	0	1	0	1
Fatehgarh Sahib	3	0	0	0	1	0
Fazilka	0	1	0	0	0	0
Firozpur	5	2	0	3	7	1
Gurdaspur	27	4	1	3	7	0
Hoshiarpur	1	0	0	1	0	2
Jalandhar	4	1	1	2	5	1
Kapurthala	9	1	0	3	11	3
Ludhiana	16	7	0	2	1	0
Malerkotla	0	0	0	0	1	4
Mansa	1	0	0	0	0	0
Moga	5	0	0	0	0	0
Muktsar	1	0	0	0	0	0
Pathankot	0	0	0	0	0	0
Patiala	25	10	1	3	1	10
Rupnagar	1	0	0	0	1	0
Sangrur	6	3	0	2	4	2
SAS NAGAR (Mohali)	5	0	1	6	5	1
SBS Nagar	1	0	1	1	1	0
Tarn Taran	163	25	15	13	9	11
Total	1025	215	147	214	129	95

(b) Haryana

District	15- 30 Sep					
	2020	2021	2022	2023	2024	2025
AMBALA	9	0	0	11	6	0
BHIWANI	0	0	0	0	0	0
CHARKHI DADRI	0	0	0	0	0	0
FARIDABAD	0	0	0	0	8	2
FATEHABAD	8	0	0	5	4	1
GURGAON	0	0	0	0	0	0
HISAR	2	0	0	0	0	0
JHAJJAR	0	0	0	0	0	0
JIND	0	0	1	3	1	1
KAITHAL	10	0	0	1	2	0
KARNAL	24	2	0	13	31	0
KURUKSHETRA	14	4	0	17	18	1
MAHENDRAGARH	0	0	0	0	0	0
MEWAT	0	0	0	0	0	0
PALWAL	1	0	0	2	0	1
PANCHKULA	0	0	0	0	0	0
PANIPAT	3	0	0	3	0	0
REWARI	0	0	0	0	0	0
ROHTAK	0	0	0	1	3	0
SIRSA	1	0	0	0	1	0
SONIPAT	1	0	0	12	1	1
YAMUNANAGAR	5	1	0	7	6	0
Total	78	7	1	75	81	7

(c) Uttar Pradesh

District	15- 30 Sep																			
	2020	2021	2022	2023	2024	2025	GAUTAMBUDHNAGAR	0	0	0	2	1	0	MUZAFARNAGAR	0	0	0	0	0	
AGRA	0	0	0	0	0	0	GAZIPUR	0	0	0	0	0	0	PILHIBHIT	1	1	0	3	0	0
ALIGARH	2	0	0	13	1	9	GHAZIABAD	1	0	0	0	2	0	PRATAPGARH	0	0	0	0	0	0
ALLAHABAD	0	0	0	0	0	0	GONDA	0	0	0	0	0	0	RAIBEARELI	1	0	0	0	0	0
AMBEDKARNAGAR	0	0	0	0	0	0	GORAKHPUR	0	0	0	0	0	0	RAMPUR	0	3	0	0	0	0
AMETHI	0	0	0	0	0	0	HAMIRPUR	0	0	0	0	0	0	SAMBHAL	4	0	0	3	0	2
AMROHA	0	0	0	1	0	0	HAPUR	1	0	0	0	0	0	SANTKABIRNAGAR	0	0	0	0	0	0
AURAIYA	10	0	3	2	0	4	HARDOI	0	0	0	1	0	0	SANTRAVIDASNAGAR	0	0	0	0	0	0
AZAMGARH	0	0	0	0	0	0	HATHRAS	0	0	0	2	0	2	SHAHJAHANPUR	3	25	5	2	1	2
BADAUN	0	0	0	0	0	0	JALAUN	0	0	0	0	0	0	SHAMLI	6	0	0	0	0	0
BAGHPAT	1	0	0	0	0	0	JAUNPUR	0	0	0	0	0	0	SHARANPUR	3	0	0	0	0	0
BAHRAICH	0	0	0	0	0	0	JHANSI	2	0	0	0	0	1	SHRAWASTI	0	0	0	0	0	0
BALLIA	0	0	0	0	0	0	KANNAUJ	1	0	0	0	0	0	SIDDHARTHANAGAR	0	0	0	0	0	0
BALRAMPUR	0	0	0	0	0	0	KANPUR	0	1	0	0	0	0	SITAPUR	0	0	0	0	0	0
BANDA	0	0	0	0	0	0	KANPUR DEHAT	0	0	0	0	0	0	SONBHADRA	0	0	0	0	0	0
BARABANKI	0	0	0	0	0	0	KASGANJ	0	0	0	0	0	0	SULTANPUR	0	0	0	0	0	0
BAREILLY	0	0	0	0	0	0	KAUSHAMBI	1	0	0	1	0	1	UNNAO	2	0	0	0	0	0
BASTI	0	0	0	0	0	0	KHERI	0	1	0	0	0	0	VARANASI	0	0	0	0	0	0
BIJNOR	1	0	1	0	1	0	KUSHINAGAR	0	0	0	0	0	0	Total	44	33	10	33	6	42
BULANDSAHAR	0	0	1	1	0	2	LALITPUR	0	1	0	0	0	0							
CHANDAULI	0	0	0	0	0	0	LUCKNOW	0	0	0	0	0	0							
CHITRAKOOT	0	0	0	0	0	0	MAHARAJGANJ	0	0	0	0	0	0							
DEORIA	0	0	0	2	0	0	MAHOBAB	0	0	0	0	0	0							
ETAH	1	0	0	0	0	0	MAINPURI	0	0	0	0	0	3							
ETAWAH	0	0	0	0	0	0	MATHURA	0	1	0	0	0	15							
FAIZABAD	0	0	0	0	0	0	MAU	0	0	0	0	0	0							
FARRUKHABAD	0	0	0	0	0	0	MEERUT	3	0	0	0	0	0							
FATEHPUR	0	0	0	0	0	1	MIRZAPUR	0	0	0	0	0	0							
FIROZABAD	0	0	0	0	0	0	MORADABAD	0	0	0	0	0	0							

(d) Delhi

District	15- 30 Sep					
	2020	2021	2022	2023	2024	2025
CENTRAL	0	0	0	0	0	0
EAST	0	0	0	0	0	0
NEW DELHI	0	0	0	0	0	0
NORTH	0	0	0	1	0	0
NORTH EAST	0	0	0	0	0	0
NORTH WEST DELHI	0	0	0	0	0	0
SHAHADRA	0	0	0	0	0	0
SOUTH	1	0	0	0	0	0
SOUTH EAST	0	0	0	0	0	0
SOUTH WEST DELHI	0	0	0	0	0	0
WEST DELHI	0	0	0	0	0	0
Total	1	0	0	1	0	0

(e) Rajasthan

District	15- 30 Sep					
	2020	2021	2022	2023	2024	2025
AJMER	0	0	0	0	0	0
ALWAR	1	0	0	0	0	0
BANSWARA	0	0	0	0	0	0
BARAN	2	0	0	3	0	0
BARMER	2	0	0	0	0	0
BHARATPUR	0	0	0	1	0	0
BHILWARA	1	0	0	0	0	0
BIKANER	0	0	0	0	0	0
BUNDI	0	0	1	0	0	0
CHITTAURGARH	0	0	0	1	0	0
CHURU	0	0	0	0	0	0
DAUSA	0	0	0	0	0	0
DHOLPUR	0	0	0	0	0	0
DUNGARPUR	0	0	0	0	0	0
GANGANAGAR	1	0	0	0	0	0
HANUMANGARH	0	0	0	1	5	1
JAIPUR	0	0	0	0	0	0
JAISELMER	1	0	0	0	0	0
JALOR	0	0	0	0	0	0
JHALAWAR	0	0	0	0	0	0
JHUNJHUNUN	0	0	0	0	0	0
JODHPUR	1	0	0	0	0	0
KARALI	0	0	0	0	0	0
KOTA	0	0	0	4	0	0
NAGOUR	0	0	0	0	0	0
PALI	0	0	0	0	0	1
PRATAPGARH	0	0	0	0	0	0
RAJSMAND	0	0	0	0	0	0
SIKAR	0	0	0	0	0	0
SIROHI	0	0	0	0	0	0
SWAIMADHOPUR	0	0	0	0	0	0
TONK	0	0	0	0	0	0
UDAIPUR	0	0	0	0	0	0
Total	9	0	1	10	5	2

(f) Madhya Pradesh

District	15- 30 Sep													
	2020	2021	2022	2023	2024	2025	PANNA	0	0	0	0	0	0	
ALIRAJPUR	0	0	0	0	0	0	RAISEN	0	0	0	0	0	0	
ANUPPUR	0	0	0	0	0	0	RAJGARH	0	0	0	1	0	0	
ASHOKNAGAR	3	0	0	1	0	0	RATLAM	0	0	0	0	0	0	
BALAGHAT	0	0	0	0	0	0	REWA	0	0	0	0	0	0	
BARWANI	0	0	0	0	0	0	SAGAR	2	2	0	2	0	0	
BETUL	0	0	0	0	0	0	SATNA	0	0	0	0	0	0	
BHIND	0	0	0	0	0	1	SEHORE	0	0	0	1	0	0	
BHOPAL	0	0	0	0	0	0	SEONI	0	0	0	0	0	0	
BURHANPUR	0	0	0	0	0	0	SHAHDOL	0	0	0	0	0	0	
CHHATARPUR	0	0	0	1	0	0	SHAJAPUR	0	0	0	1	0	0	
CHHINDWARA	0	0	0	0	0	0	SHEOPUR	0	0	0	0	0	0	
DAMOH	0	0	0	2	0	1	SHIVPURI	0	0	0	0	0	0	
DATIA	0	0	0	0	0	0	SIDHI	0	0	0	0	0	0	
DEWAS	0	0	0	1	0	0	SINGRAULI	0	0	0	0	2	1	
DHAR	0	0	0	0	1	0	TIKAMGARH	0	0	0	0	0	0	
DINDORI	0	0	0	0	0	0	UJJAIN	2	0	0	1	0	0	
EAST NIMAR	0	0	0	0	0	0	UMARIA	0	0	0	0	0	0	
GUNA	2	1	0	3	0	0	VIDESHA	0	1	0	4	2	0	
GWALIOR	2	0	0	0	0	0	WEST NIMAR	0	0	0	0	0	0	
HARDA	2	1	0	1	0	0	Total	13	5	0	21	8	9	
HOSHANGABAD	0	0	0	1	0	1								
INDORE	0	0	0	1	3	0								
JABALPUR	0	0	0	0	0	0								
JHABUA	0	0	0	0	0	0								
KATNI	0	0	0	0	0	0								
MANDLA	0	0	0	0	0	0								
MANDSAUR	0	0	0	0	0	0								
MORENA	0	0	0	0	0	5								
NARSHIMAPURA	0	0	0	0	0	0								
NIMACH	0	0	0	0	0	0								

17-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
18-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
20-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
21-Sep	0	0	0	0	0	0	1	0	1	0	0	0	2	0	0	0	1	0
22-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
23-Sep	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2
24-Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Sep	0	0	0	0	0	0	1	0	0	0	3	0	0	0	0	1	0	1
26-Sep	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	2
27-Sep	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
28-Sep	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	1
29-Sep	0	0	0	0	0	0	3	0	0	6	0	1	0	4	0	5	0	3
30-Sep	1	0	0	0	0	0	1	0	0	4	2	0	5	0	0	11	0	0
Total	1	0	0	1	0	0	9	0	1	10	5	2	13	5	0	21	8	9

Details of residue burning events in Uttar Pradesh on 30-Sep-2025

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	JHANSI	TAHRAULI	S-NPP	25.55855	79.09146	13:16:00	D	6.13

The study used data received from following Satellites at NRSC Ground Station/ NASA FIRMS

S. No.	Satellite Name	Sensor	Resolution (meter)	Day / Night Passes
1.	Suomi NPP	VIIRS	375 / 750	Both
2.	Terra	MODIS	1000	Both
3.	Aqua	MODIS	1000	Both

**The rice mask for the Punjab and Haryana were provided by MNCFC, MoA&FW, Govt of India
The kharif crop mask for Delhi, Uttar Pradesh, Rajasthan and Madhya Pradesh were provided by NRSC**

Study Team

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**GIS Maps of fire events can be visualized online on ICAR KRISHI Geoportal website <https://creams.iari.res.in/geokrishi/>
(Part of KRISHI Portal initiative)**
