



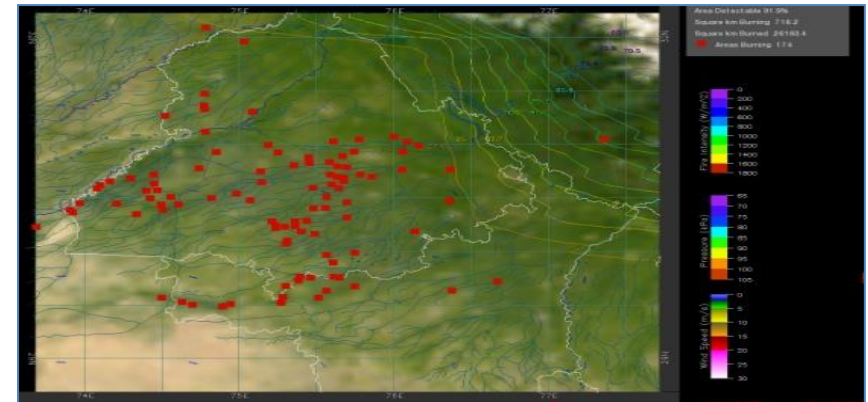
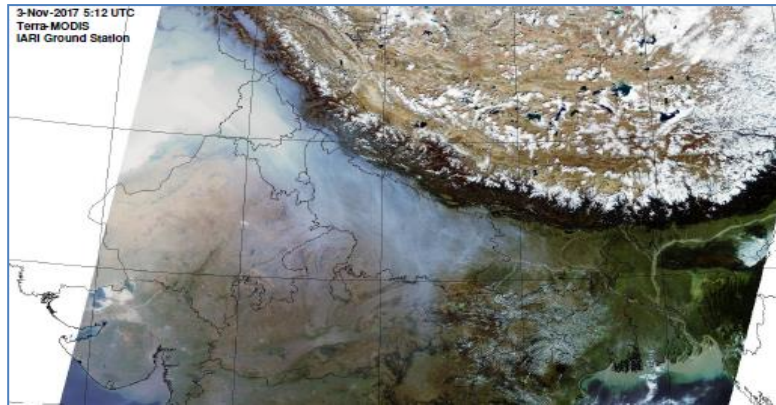
Bulletin No. 08

Events Date:
22-Sep-2025

Issued on:
22-Sep-2025



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



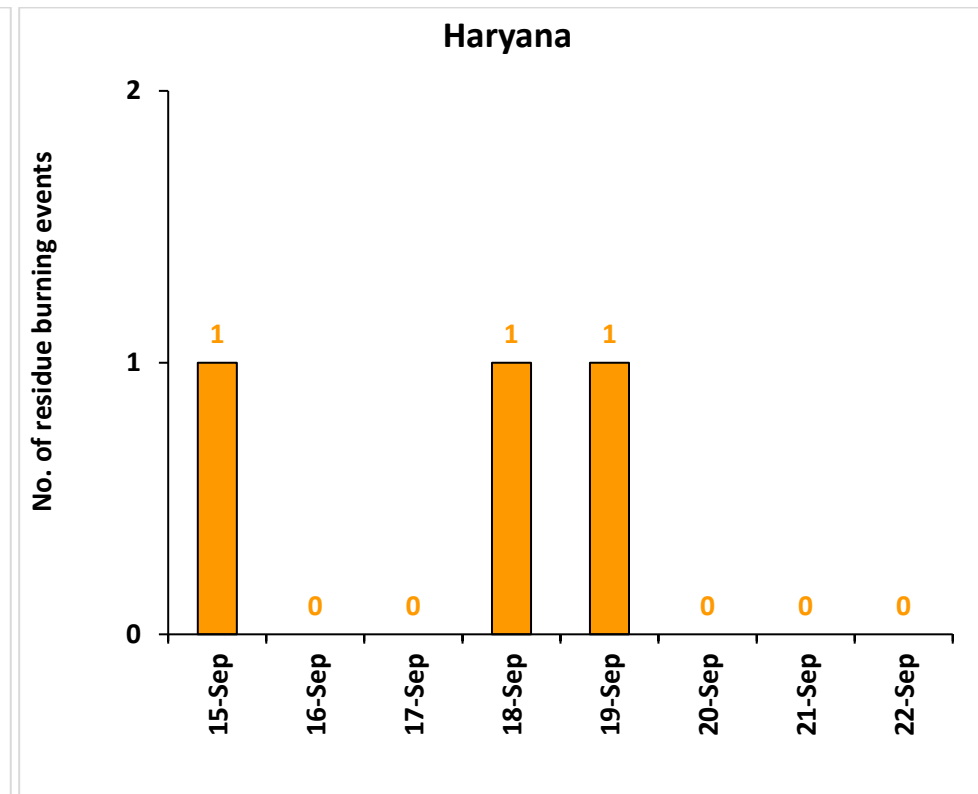
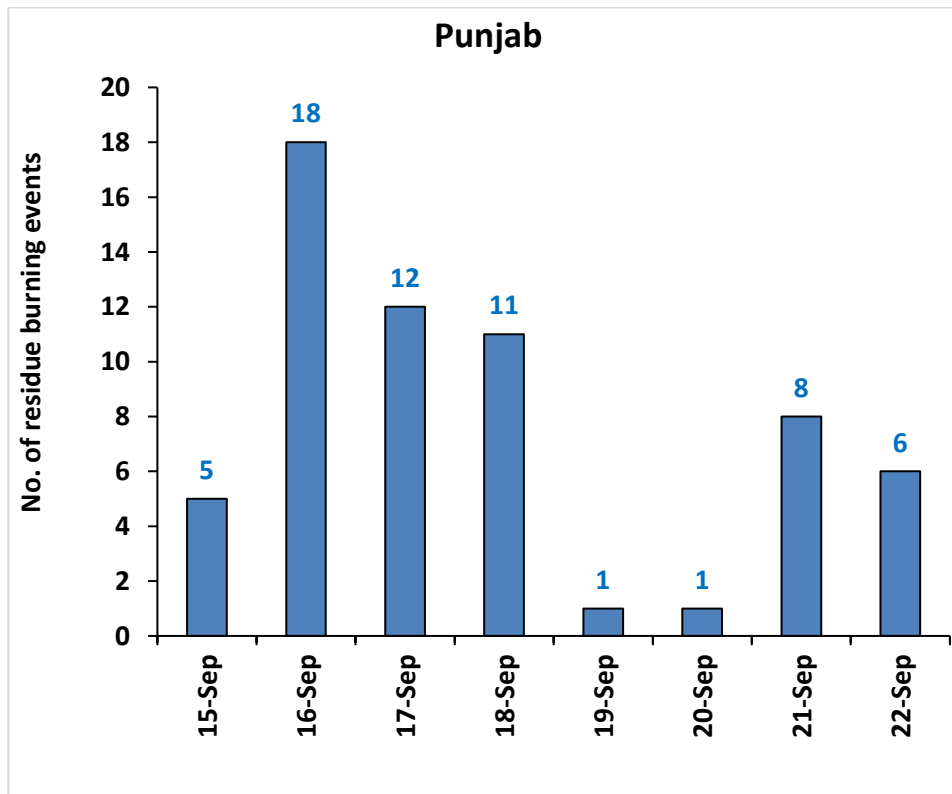
Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS)
Laboratory,
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012

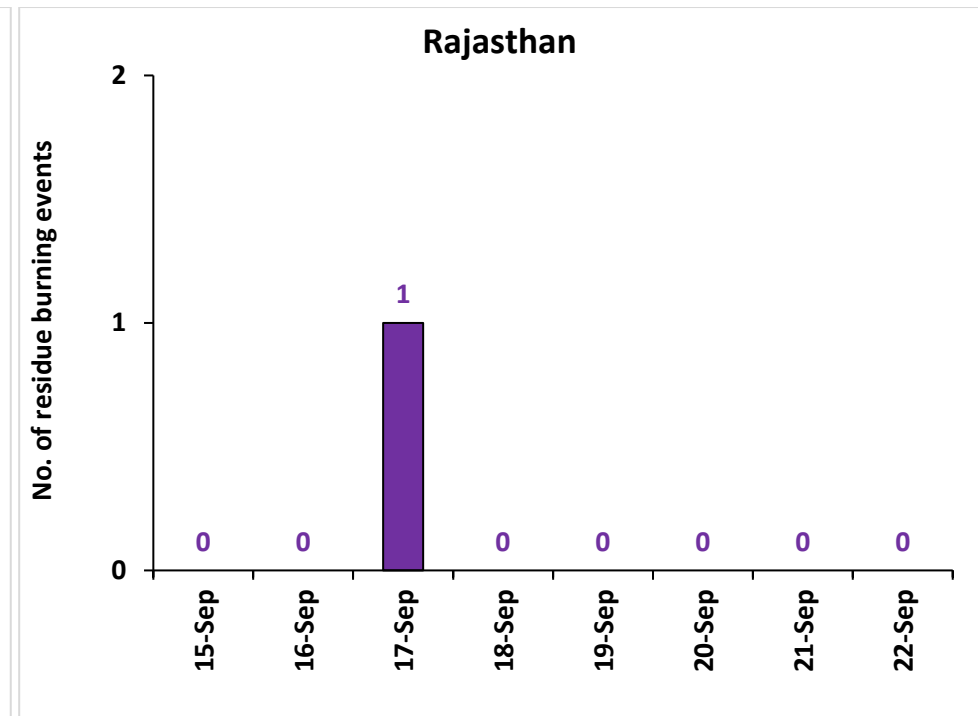
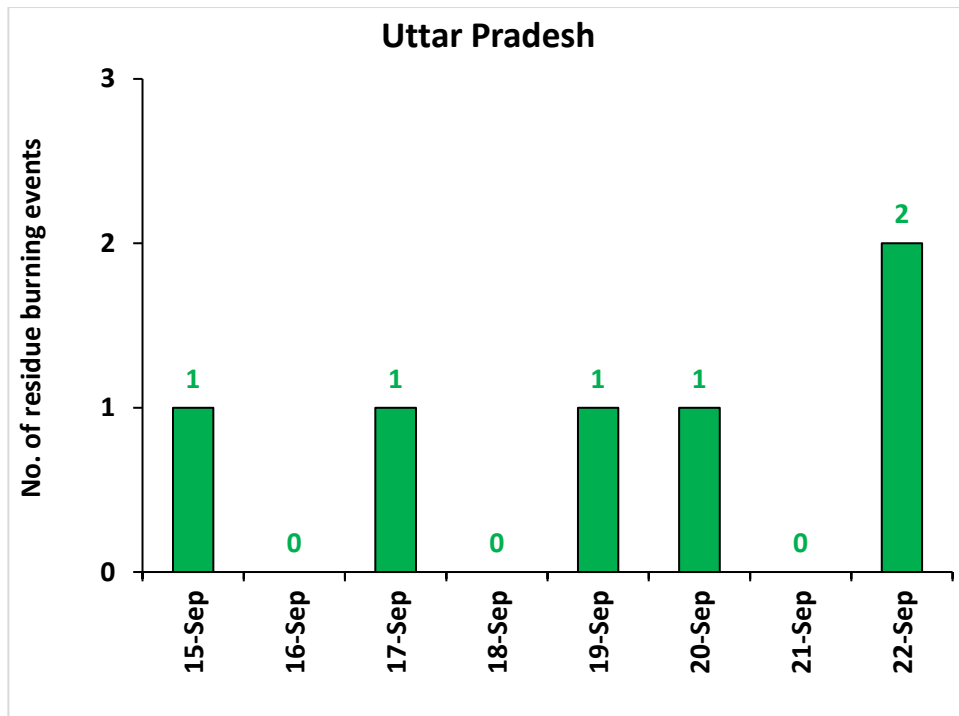
<https://creams.iari.res.in>

Highlights for 22-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 **08** residue burning events in the six study States on **22-Sep-2025**.
- The state wise events detected on **22-Sep-2025** were **06** in Punjab, **00** in Haryana, **02** 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 Uttar Pradesh and Madhya Pradesh states.

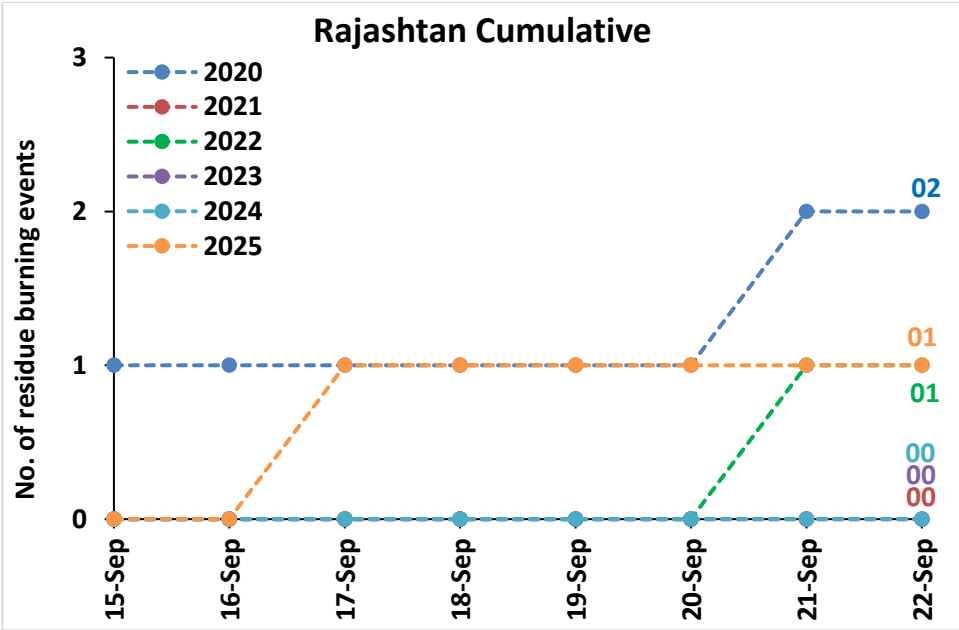
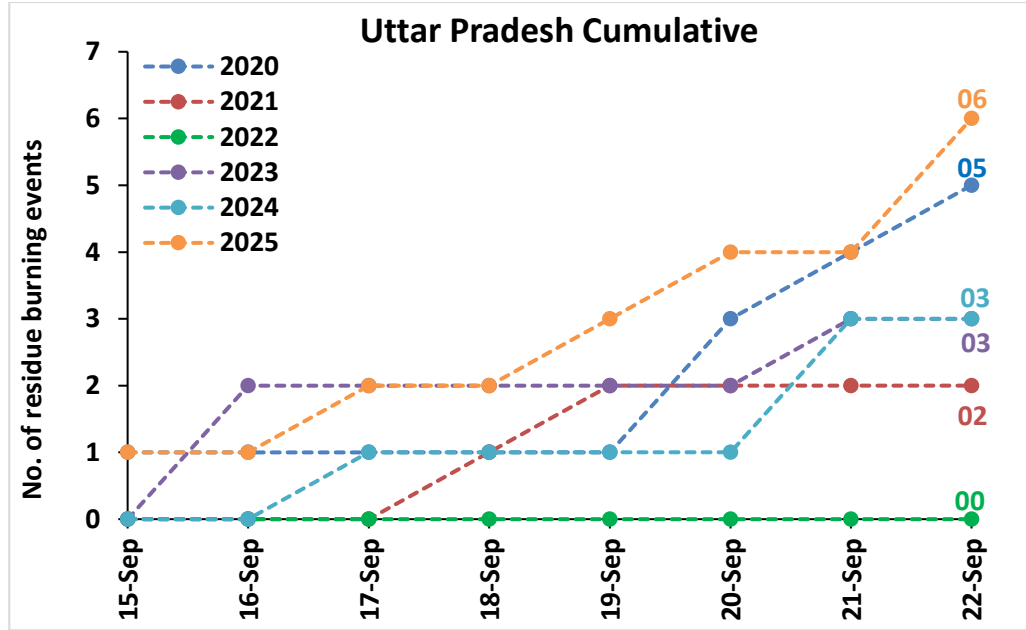
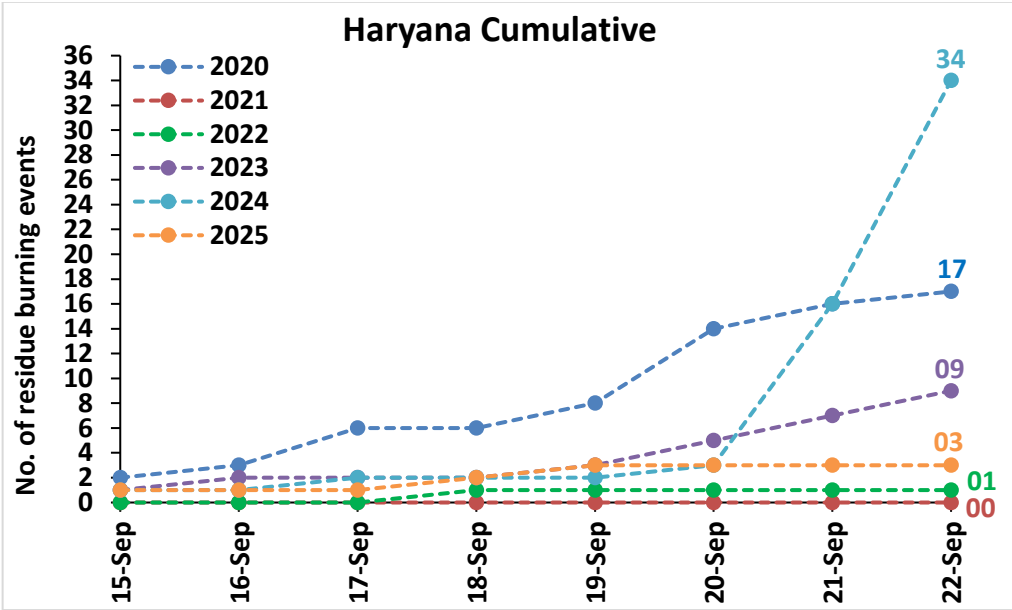
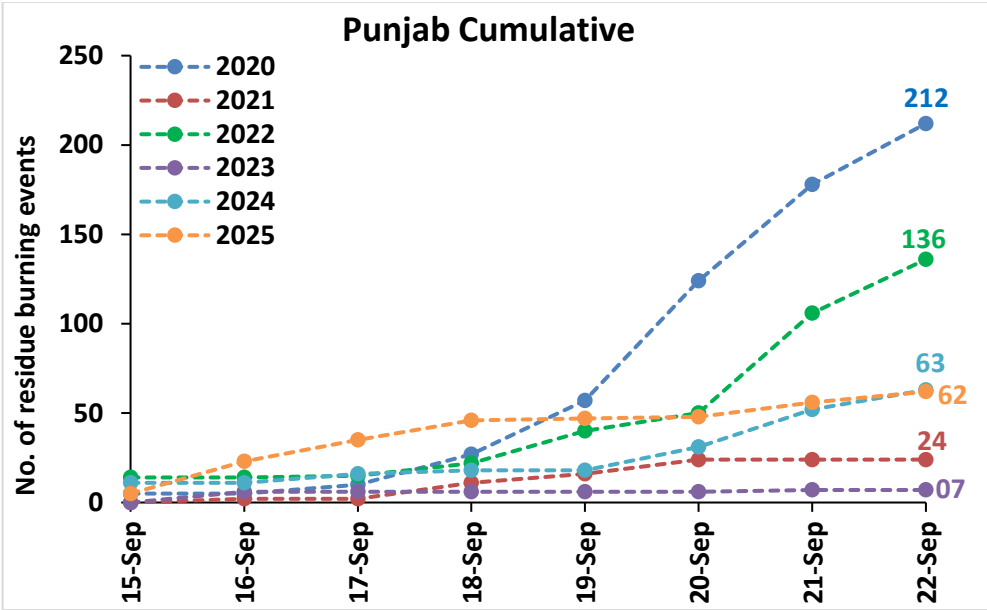
Temporal distribution of rice residue burning events for the study States in 2025

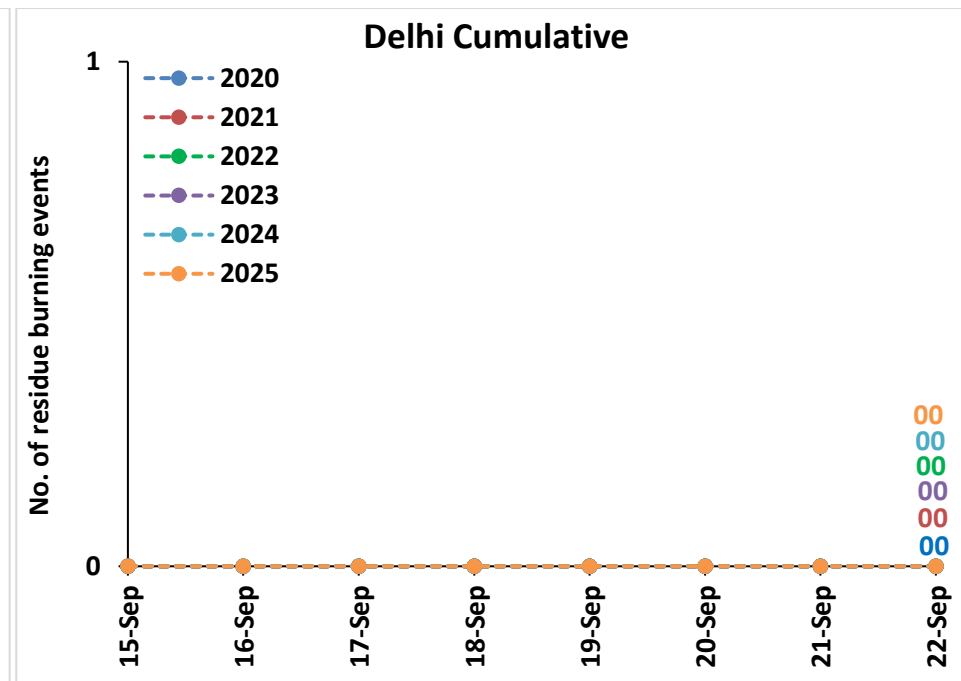
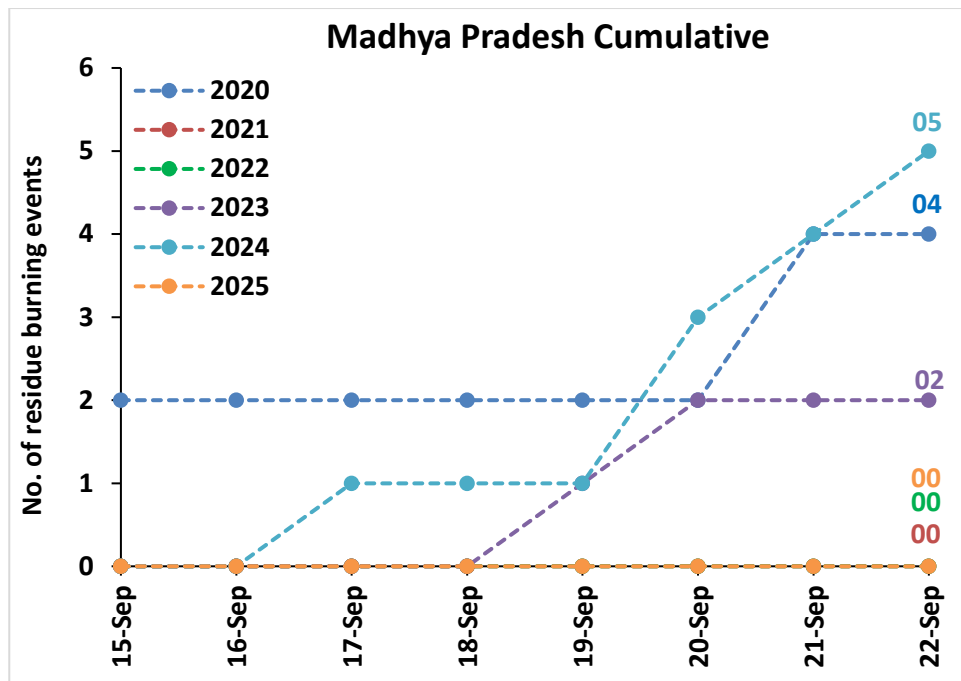




Comparison of residue burning fire power in current year (2025) with previous years (2020,2021,2022, 2023 and 2024) for the study

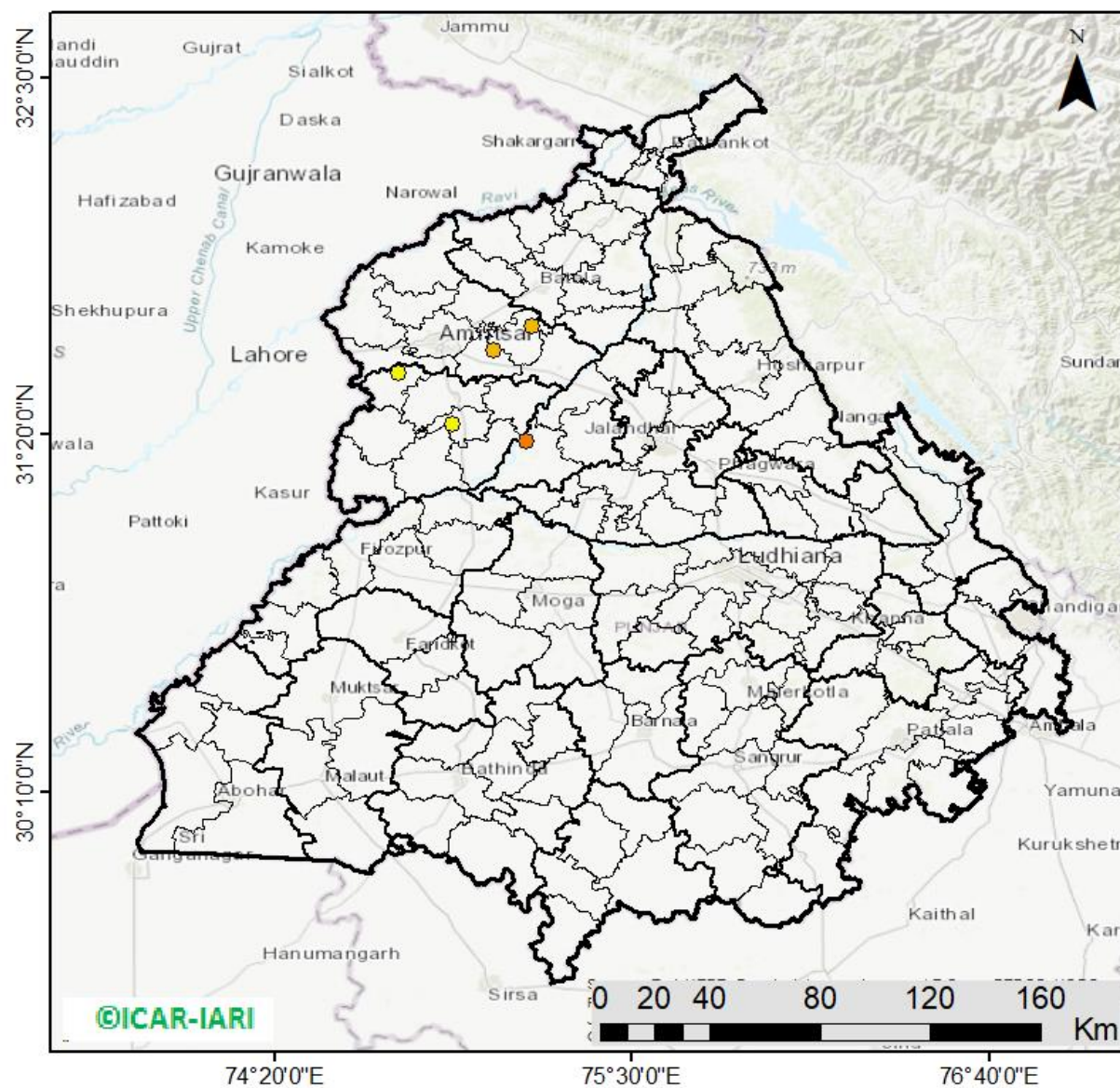
States





Punjab

RICE RESIDUE BURNING IN PUNJAB



06 burning events
detected in Punjab during
(22nd Sep 2025)

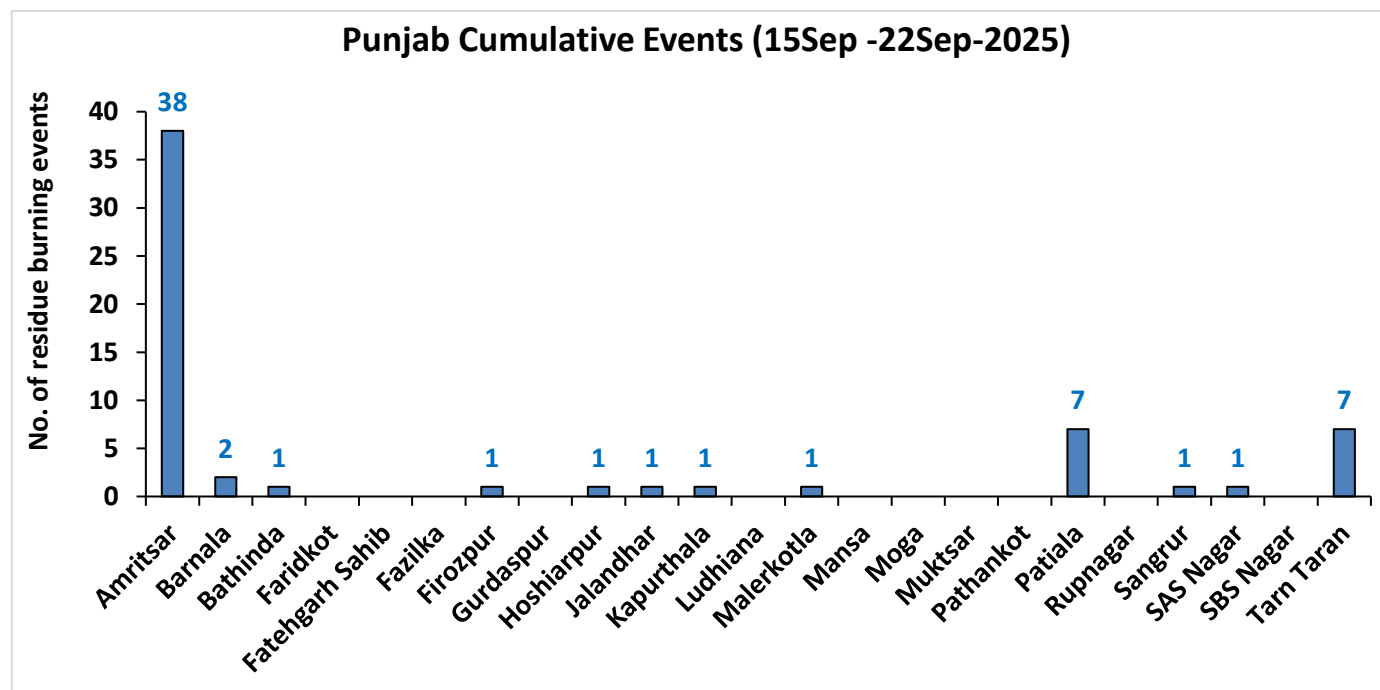
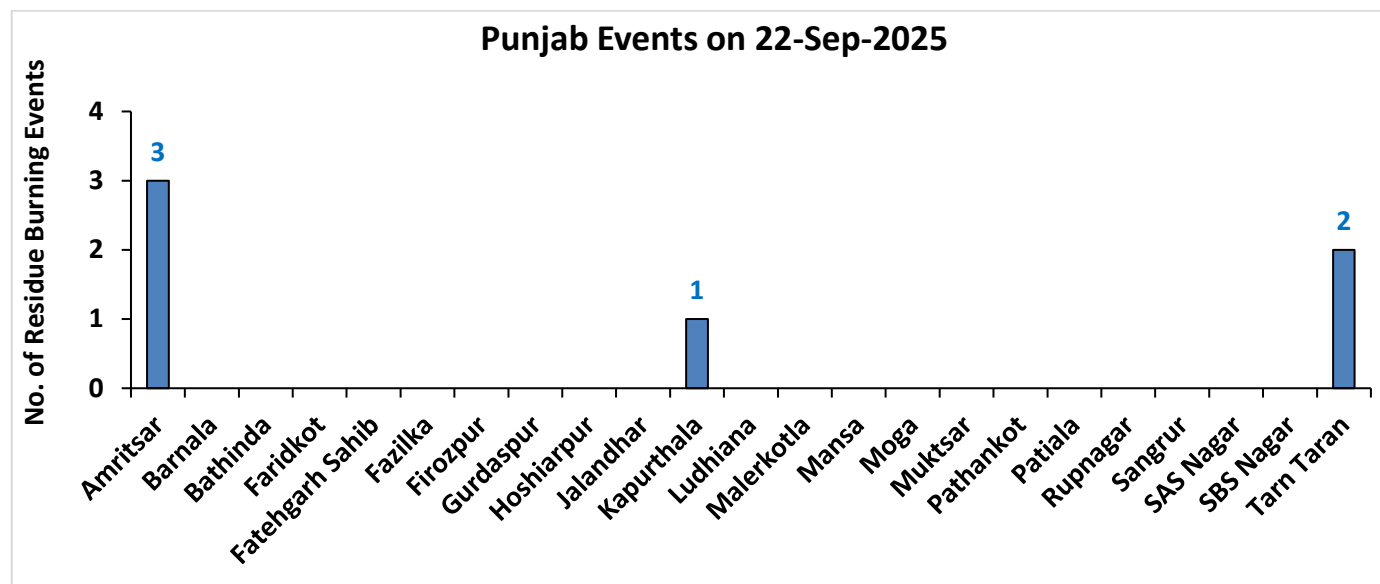
Fire Intensity (W/m²)

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



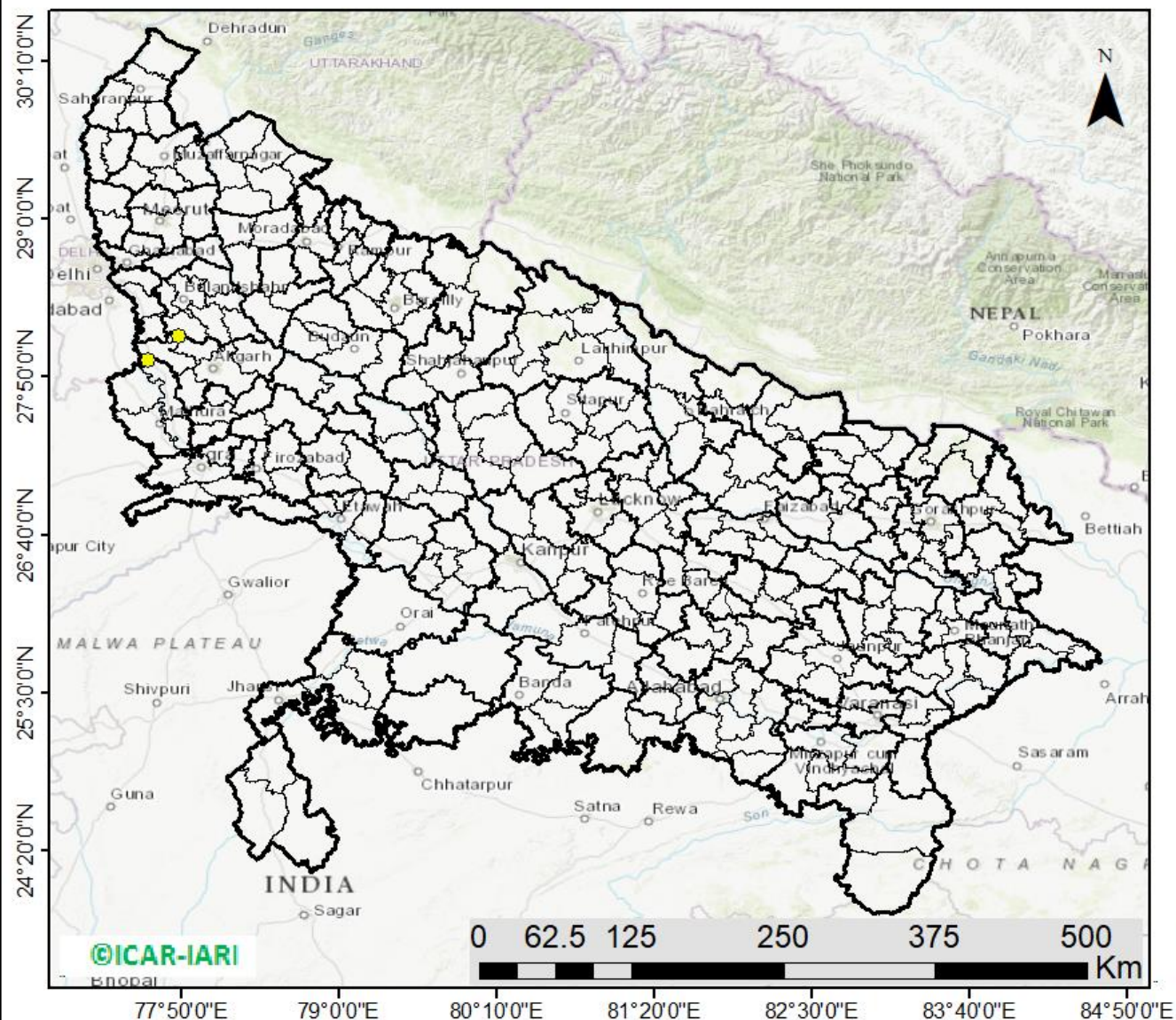
http://103.111.37.126/icar_geoportal/

District-wise cumulative number of residues burning events (15Sep-22Sep-2025)



Uttar Pradesh

RICE RESIDUE BURNING IN UTTAR PRADESH



02 burning events
detected in Uttar Pradesh on
(22nd Sep 2025)

Fire Intensity (W/m²)

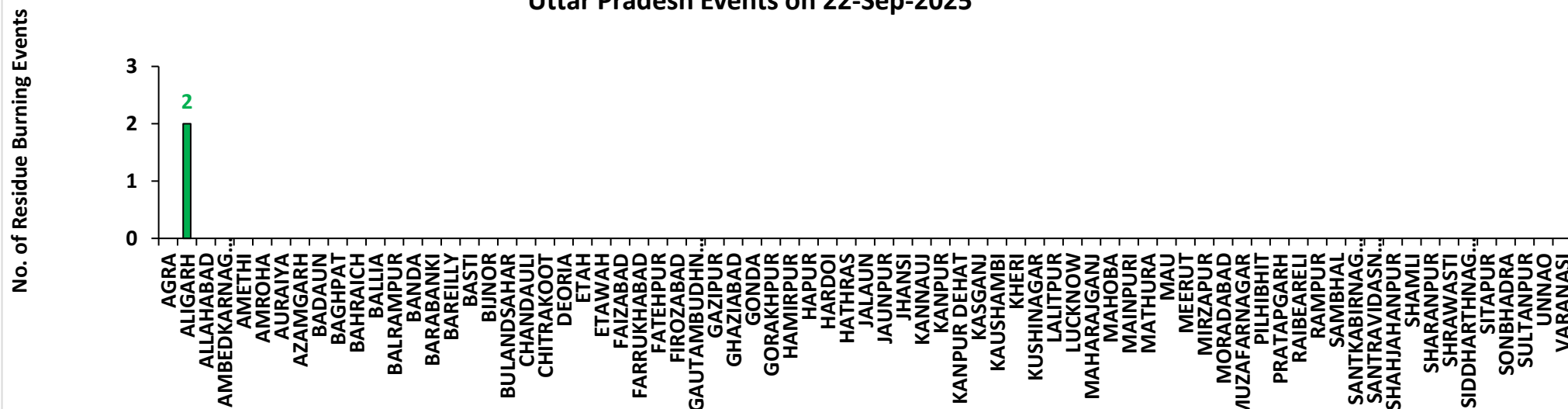
- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- >20



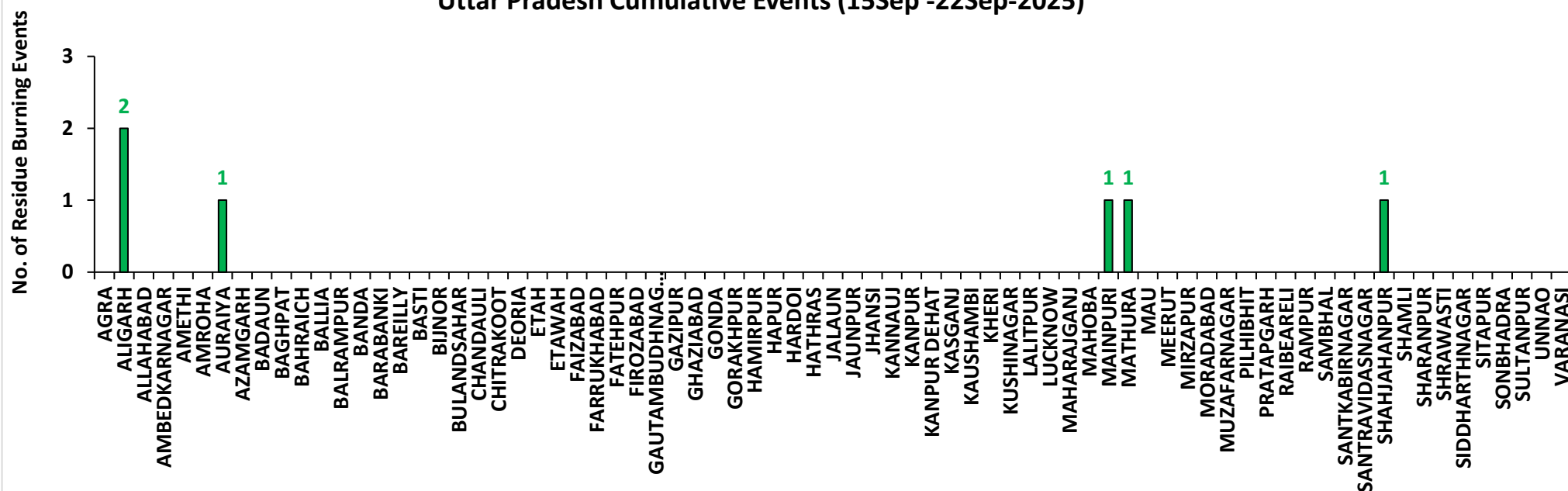
http://103.111.37.126/icar_geoportal/

District-wise cumulative number of residues burning events in Uttar Pradesh (15Sep-22Sep-2025)

Uttar Pradesh Events on 22-Sep-2025



Uttar Pradesh Cumulative Events (15Sep -22Sep-2025)



District-wise cumulative number of residues burning events detected in 2020, 2021, 2022, 2023, 2024 and 2025
(Period: 15-22 September)

(a) Punjab

District	15- 22 Sep					
	2020	2021	2022	2023	2024	2025
Amritsar	192	19	119	6	45	38
Barnala	0	0	0	0	0	2
Bathinda	0	0	0	0	0	1
Faridkot	0	1	0	0	0	0
Fatehgarh Sahib	0	0	0	0	0	0
Fazilka	0	0	0	0	0	0
Firozpur	0	0	0	0	2	1
Gurdaspur	1	0	1	0	6	0
Hoshiarpur	0	0	0	1	0	1
Jalandhar	0	0	0	0	2	1
Kapurthala	2	0	0	0	0	1
Ludhiana	3	0	0	0	0	0
Malerkotla	0	0	0	0	0	1
Mansa	1	0	0	0	0	0
Moga	0	0	0	0	0	0
Muktsar	1	0	0	0	0	0
Pathankot	0	0	0	0	0	0
Patiala	0	3	1	0	1	7
Rupnagar	0	0	0	0	0	0
Sangrur	0	0	0	0	1	1
SAS NAGAR (Mohali)	3	0	1	0	0	1
SBS Nagar	0	0	1	0	1	0
Tarn Taran	9	1	13	0	5	7
Total	212	24	136	7	63	62

(b) Haryana

District	15- 22 Sep					
	2020	2021	2022	2023	2024	2025
AMBALA	3	0	0	0	1	0
BHIWANI	0	0	0	0	0	0
CHARKHI DADRI	0	0	0	0	0	0
FARIDABAD	0	0	0	0	3	1
FATEHABAD	1	0	0	1	0	1
GURGAON	0	0	0	0	0	0
HISAR	0	0	0	0	0	0
JHAJJAR	0	0	0	0	0	0
JIND	0	0	1	1	1	0
KAITHAL	0	0	0	0	1	0
KARNAL	9	0	0	2	19	0
KURUKSHETRA	2	0	0	1	4	0
MAHENDRAGARH	0	0	0	0	0	0
MEWAT	0	0	0	0	0	0
PALWAL	0	0	0	0	0	0
PANCHKULA	0	0	0	0	0	0
PANIPAT	1	0	0	0	0	0
REWARI	0	0	0	0	0	0
ROHTAK	0	0	0	1	1	0
SIRSA	1	0	0	0	1	0
SONIPAT	0	0	0	2	0	1
YAMUNANAGAR	0	0	0	1	3	0
Total	17	0	1	9	34	3

(c) Uttar Pradesh

District	15- 22 Sep																		
	2020	2021	2022	2023	2024	2025	GAUTAMBUDHNAGAR	0	0	0	0	1	0	MUZAFARNAGAR	0	0	0	0	0
AGRA	0	0	0	0	0	0	GAZIPUR	0	0	0	0	0	0	PILHIBHIT	0	0	0	1	0
ALIGARH	0	0	0	0	0	2	GHAZIABAD	0	0	0	0	1	0	PRATAPGARH	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
AMBEDKARNAGAR	0	0	0	0	0	0	GORAKHPUR	0	0	0	0	0	0	RAMPUR	0	1	0	0	0
AMETHI	0	0	0	0	0	0	HAMIRPUR	0	0	0	0	0	0	SAMBHAL	1	0	0	0	0
AMROHA	0	0	0	0	0	0	HAPUR	1	0	0	0	0	0	SANTKABIRNAGAR	0	0	0	0	0
AURAIYA	1	0	0	0	0	1	HARDOI	0	0	0	0	0	0	SANTRAVIDASNAGAR	0	0	0	0	0
AZAMGARH	0	0	0	0	0	0	HATHRAS	0	0	0	0	0	0	SHAHJAHANPUR	0	0	0	0	1
BADAUN	0	0	0	0	0	0	JALAUN	0	0	0	0	0	0	SHAMLI	1	0	0	0	0
BAGHPAT	0	0	0	0	0	0	JAUNPUR	0	0	0	0	0	0	SHARANPUR	0	0	0	0	0
BAHRAICH	0	0	0	0	0	0	JHANSI	0	0	0	0	0	0	SHRAWASTI	0	0	0	0	0
BALLIA	0	0	0	0	0	0	KANNAUJ	0	0	0	0	0	0	SIDDHARTHANAGAR	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
BANDA	0	0	0	0	0	0	KANPUR DEHAT	0	0	0	0	0	0	SONBHADRA	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
BAREILLY	0	0	0	0	0	0	KAUSHAMBI	0	0	0	0	0	0	UNNAO	0	0	0	0	0
BASTI	0	0	0	0	0	0	KHERI	0	0	0	0	0	0	VARANASI	0	0	0	0	0
BIJNOR	0	0	0	0	0	0	KUSHINAGAR	0	0	0	0	0	0	Total	5	2	0	3	3
BULANDSAHAR	0	0	0	0	0	0	LALITPUR	0	0	0	0	0	0						
CHANDAUJI	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	MAHOBA	0	0	0	0	0	0						
ETAH	0	0	0	0	0	0	MAINPURI	0	0	0	0	0	1						
ETAWAH	0	0	0	0	0	0	MATHURA	0	0	0	0	0	1						
FAIZABAD	0	0	0	0	0	0	MAU	0	0	0	0	0	0						
FARRUKHABAD	0	0	0	0	0	0	MEERUT	0	0	0	0	0	0						
FATEHPUR	0	0	0	0	0	0	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- 22 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	0	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	0	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	0	0	0	0	0	0

(e) Rajasthan

District	15- 22 Sep					
	2020	2021	2022	2023	2024	2025
AJMER	0	0	0	0	0	0
ALWAR	0	0	0	0	0	0
BANSWARA	0	0	0	0	0	0
BARAN	0	0	0	0	0	0
BARMER	0	0	0	0	0	0
BHARATPUR	0	0	0	0	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	0	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	0	0	0	0	0	0
HANUMANGARH	0	0	0	0	0	0
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	0	0	0	0	0	0
KARAUJI	0	0	0	0	0	0
KOTA	0	0	0	0	0	0
NAGPUR	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	2	0	1	0	0	1

(f) Madhya Pradesh

District	15- 22 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	0	0	0	
ASHOKNAGAR	0	0	0	0	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	0	0	0	0	0	
BETUL	0	0	0	0	0	0	SATNA	0	0	0	0	0	0	
BHIND	0	0	0	0	0	0	SEHORE	0	0	0	0	0	0	
BHOPAL	0	0	0	0	0	0	SEONI	0	0	0	0	0	0	
BURHANPUR	0	0	0	0	0	0	SHAHNOL	0	0	0	0	0	0	
CHHATARPUR	0	0	0	0	0	0	SHAJAPUR	0	0	0	0	0	0	
CHHINDWARA	0	0	0	0	0	0	SHEOPUR	0	0	0	0	0	0	
DAMOH	0	0	0	1	0	0	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	0	0	0	SINGRAULI	0	0	0	0	1	0	
DHAR	0	0	0	0	1	0	TIKAMGARH	0	0	0	0	0	0	
DINDORI	0	0	0	0	0	0	UJJAIN	0	0	0	0	0	0	
EAST NIMAR	0	0	0	0	0	0	UMARIA	0	0	0	0	0	0	
GUNA	0	0	0	0	0	0	VIDESHA	0	0	0	0	0	0	
GWALIOR	0	0	0	0	0	0	WEST NIMAR	0	0	0	0	0	0	
HARDA	2	0	0	0	0	0	Total	4	0	0	2	5	0	
HOSHANGABAD	0	0	0	1	0	0								
INDORE	0	0	0	0	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	0								
NARSHIMAPURA	0	0	0	0	0	0								
NIMACH	0	0	0	0	0	0								

State-wise and date-wise number of paddy residue burning events detected in 2020 ,2021 ,2022, 2023, 2024 and 2025

(Period: 15-22 September)

Number of Paddy Residue Burning Events Detected

Punjab							Haryana						Uttar Pradesh					
Date	2020	2021	2022	2023	2024	2025	2020	2021	2022	2023	2024	2025	2020	2021	2022	2023	2024	2025
15-Sep	5	0	14	0	11	5	2	0	0	1	1	1	1	0	0	0	0	1
16-Sep	0	2	0	6	0	18	1	0	0	1	0	0	0	0	0	2	0	0
17-Sep	5	0	1	0	5	11	3	0	0	0	1	0	0	0	0	0	1	0
18-Sep	17	9	7	0	2	12	0	0	1	0	0	1	0	1	0	0	0	1
19-Sep	30	5	18	0	0	1	2	0	0	1	0	1	0	1	0	0	0	1
20-Sep	67	8	10	0	13	1	6	0	0	2	1	0	2	0	0	0	0	1
21-Sep	54	0	56	1	21	8	2	0	0	2	13	0	1	0	0	1	2	0
22-Sep	34	0	30	0	11	6	1	0	0	2	18	0	1	0	0	0	0	2
Total	212	24	136	7	63	62	17	0	1	9	34	3	5	2	0	3	3	6

Number of Paddy Residue Burning Events Detected

Delhi							Rajasthan						Madhya Pradesh					
Date	2020	2021	2022	2023	2024	2025	2020	2021	2022	2023	2024	2025	2020	2021	2022	2023	2024	2025
15-Sep	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0
16-Sep	0	0	0	0	0	0	0	0	0	0	0	0	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
Total	0	0	0	0	0	0	2	0	1	0	0	1	4	0	0	2	5	0

Details of residue burning events in Punjab on 22-Sep-2025

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	AMRITSAR	JANDIALA GURU	S-NPP	31.61073	75.04720	14:02:44	D	6.00
2	AMRITSAR	TARSIKKA	S-NPP	31.69133	75.17680	14:02:44	D	10.70
3	AMRITSAR	TARSIKKA	S-NPP	31.69189	75.17433	14:02:44	D	7.00
4	KAPURTHALA	SULTANPUR LODHI	S-NPP	31.31549	75.15566	14:02:44	D	14.10
5	TARN TARAN	GANDIWIND TATLA	S-NPP	31.53429	74.73939	14:02:44	D	1.80
6	TARN TARAN	NAUSHERA PANNUAN	S-NPP	31.36772	74.91553	14:02:44	D	2.20

Details of residue burning events in Uttar Pradesh on 22-Sep-2025

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	ALIGARH	GABHANA	S-NPP	28.13173	77.81506	14:05:00	D	1.68
2	ALIGARH	KHAIR	S-NPP	27.95414	77.59086	14:05:00	D	1.82

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**

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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)**
