



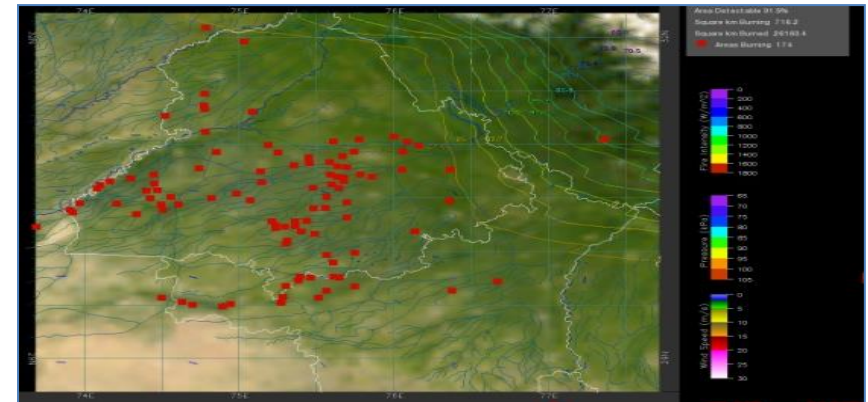
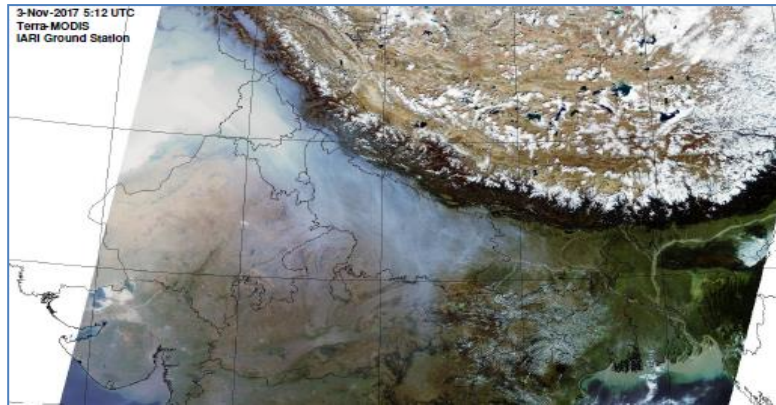
Bulletin No. 03

Events Date:
17-Sep-2025

Issued on:
23-Sep-2025



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



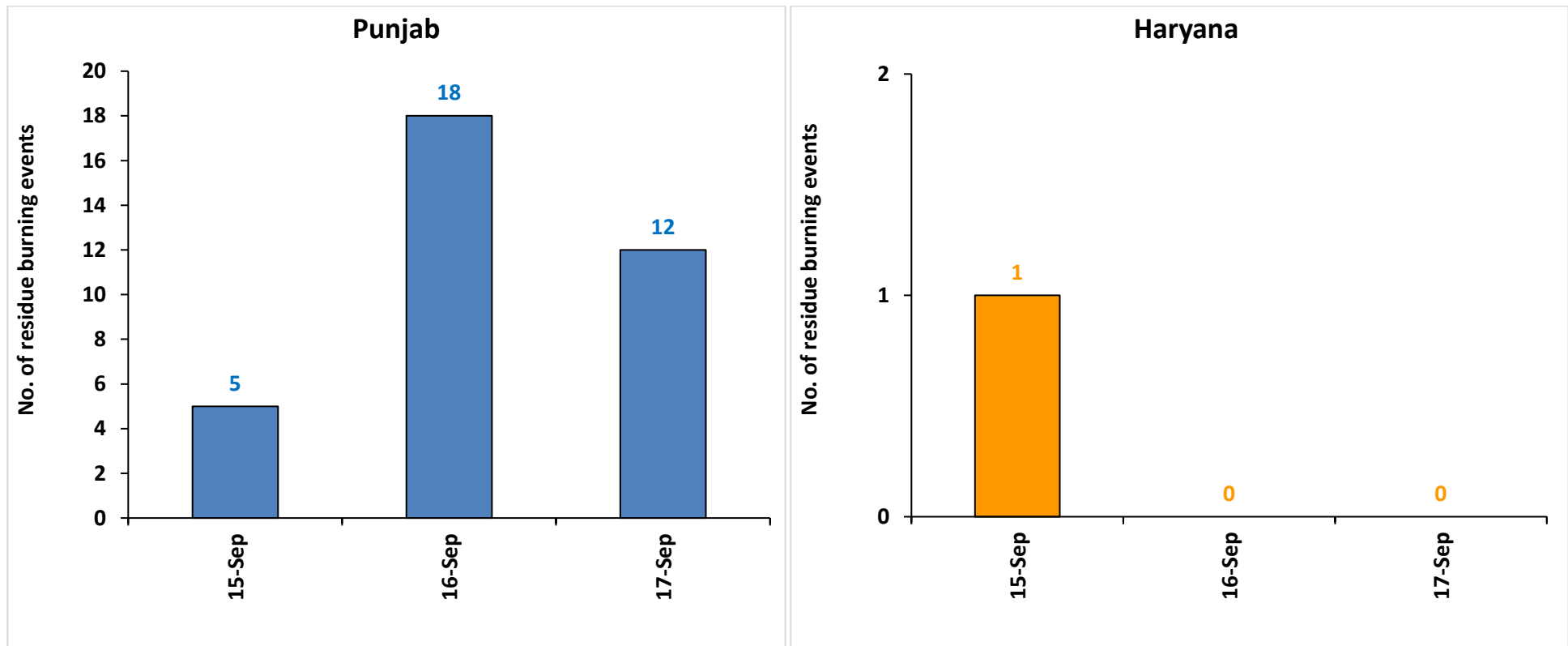
Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS)
Laboratory,
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012

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

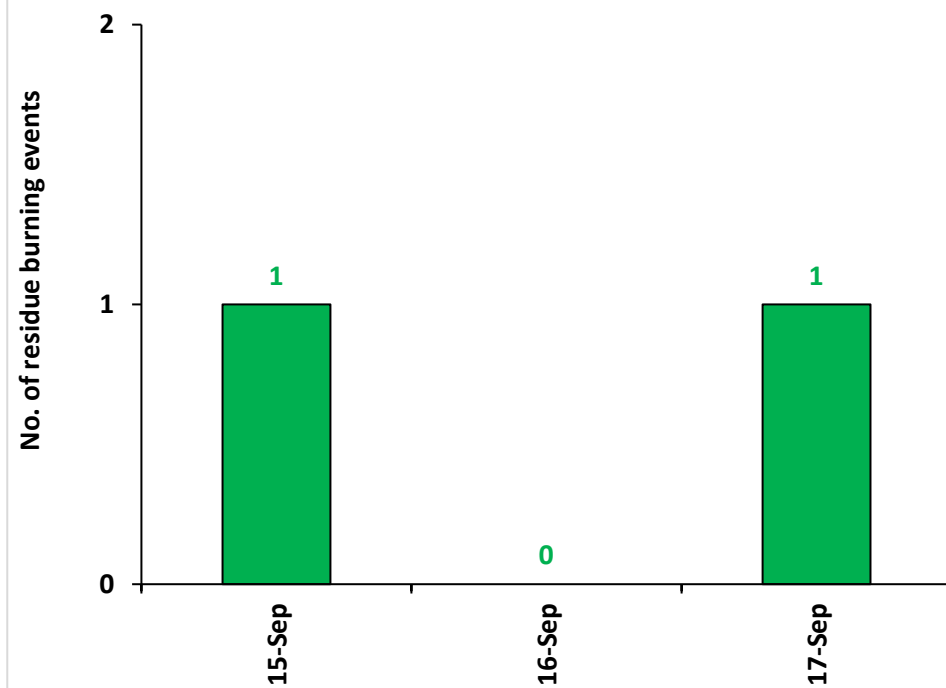
Highlights for 17-Sep-2025

- 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 **14** residue burning events in the six study States on 17-Sep-2025.
- The state wise events detected on 17-Sep-2025 were **12** in Punjab, **00** in Haryana, **01** in UP, **00** in Delhi, **01** 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.

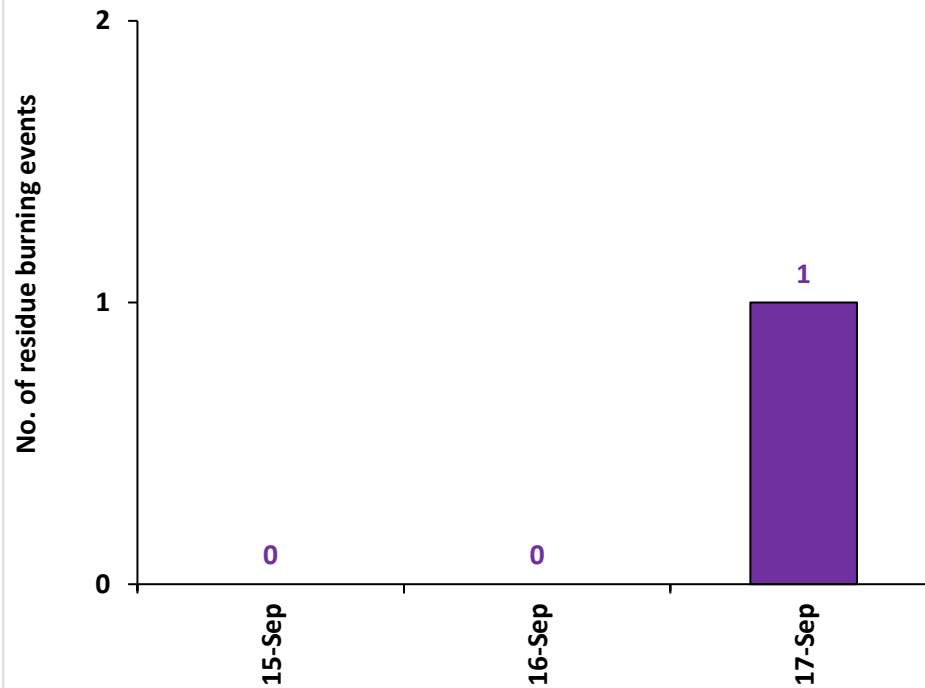
Temporal distribution of rice residue burning events for the study States in 2025



Uttar Pradesh

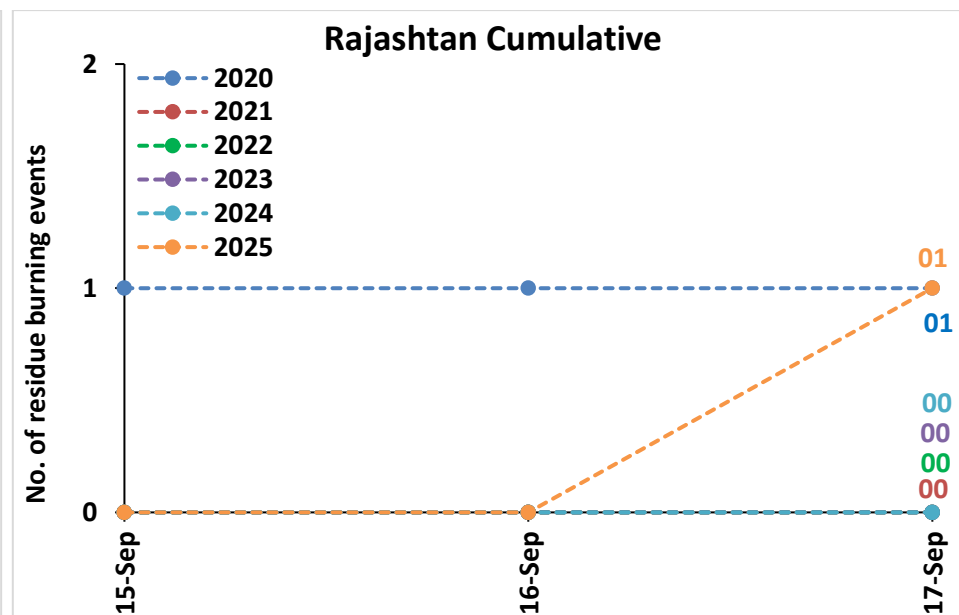
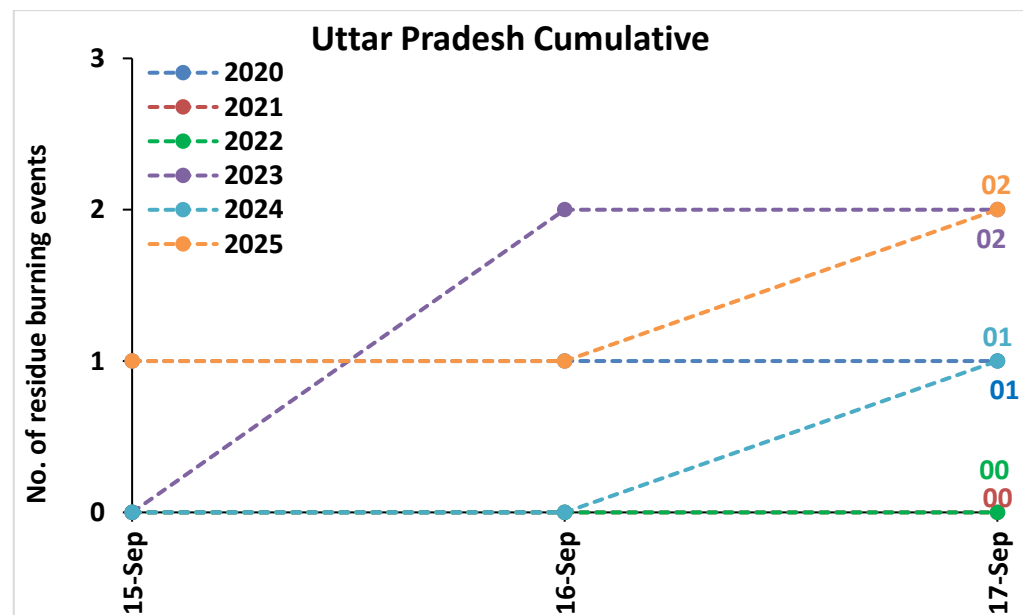
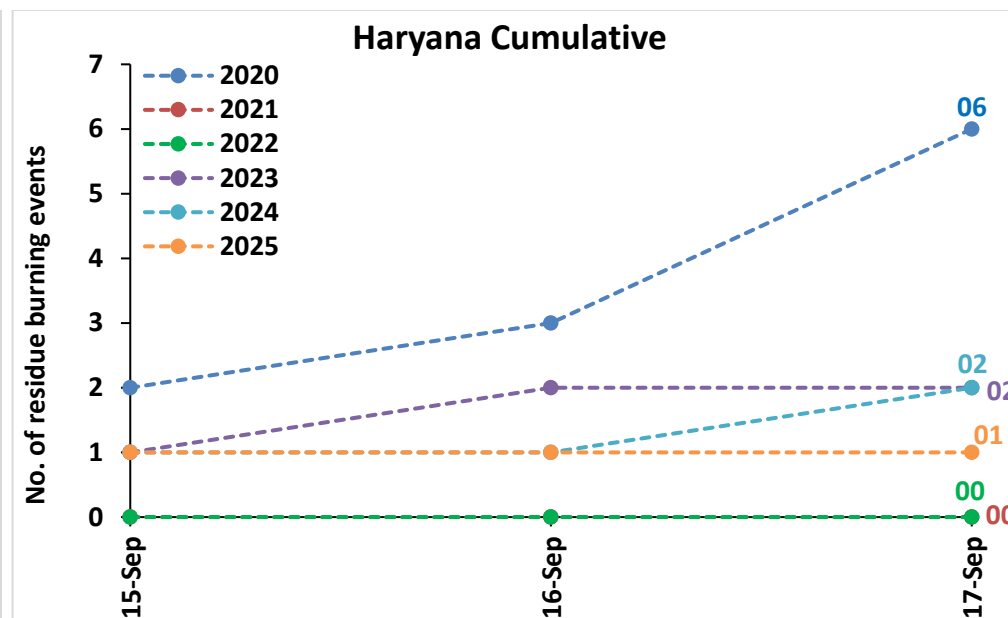
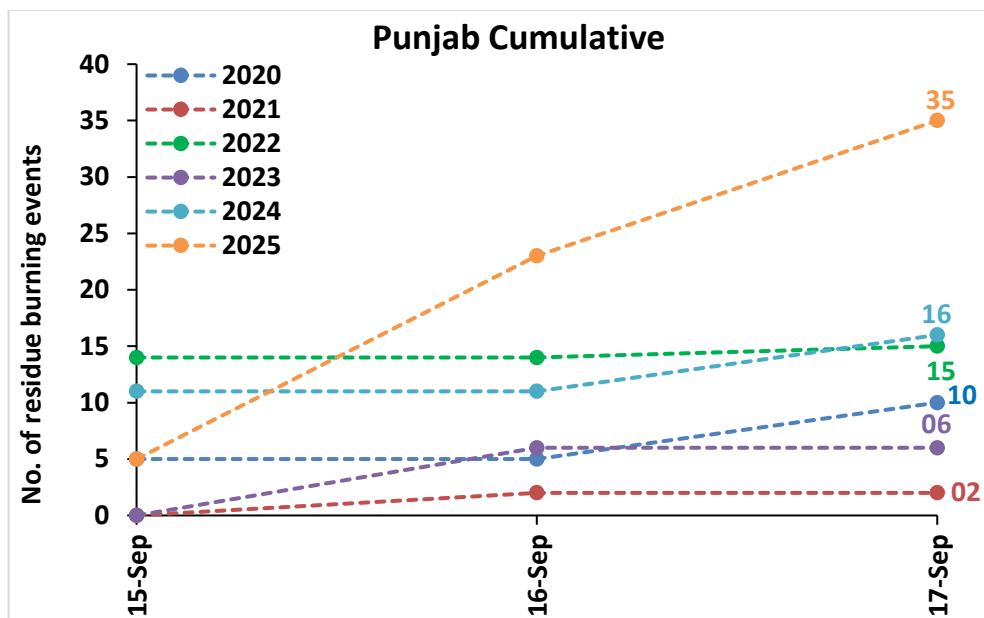


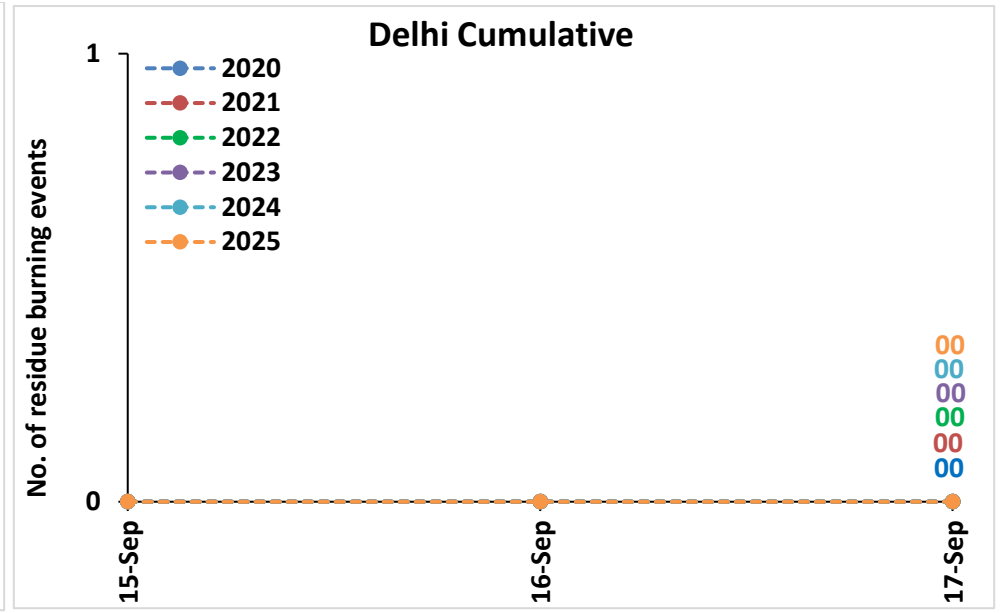
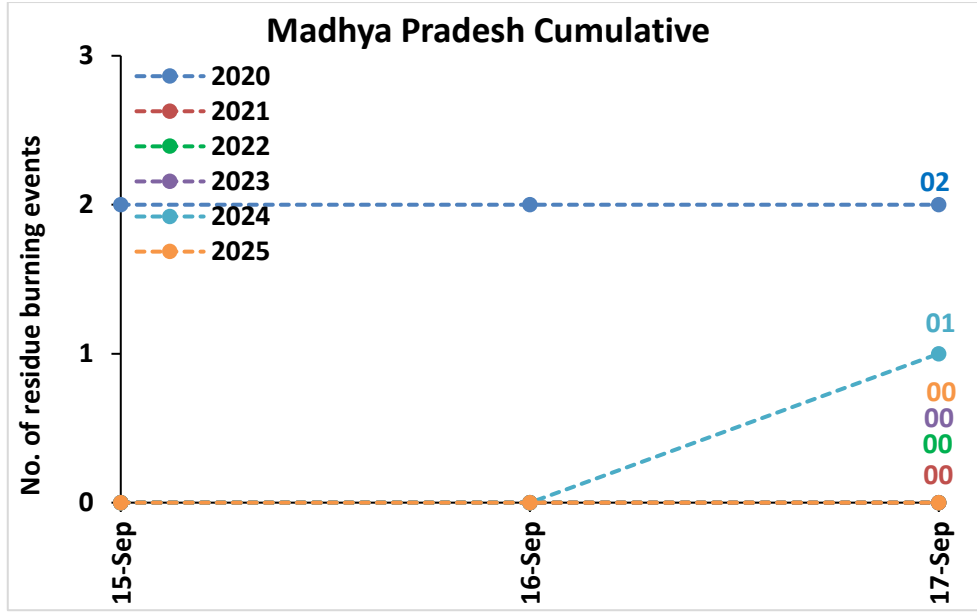
Rajasthan



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

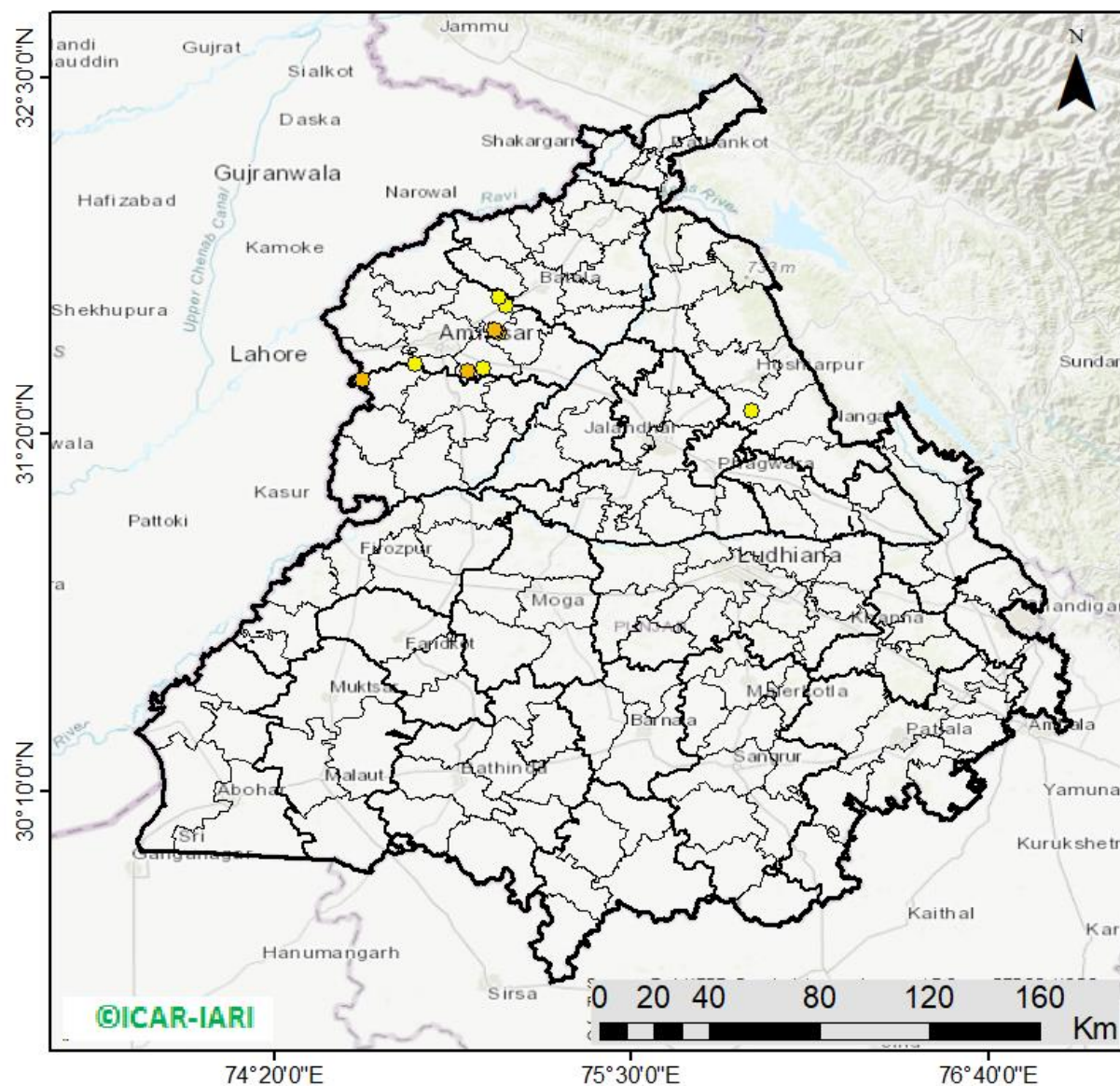
States





Punjab

RICE RESIDUE BURNING IN PUNJAB



12 burning events
detected in Punjab during
(17th Sep 2025)

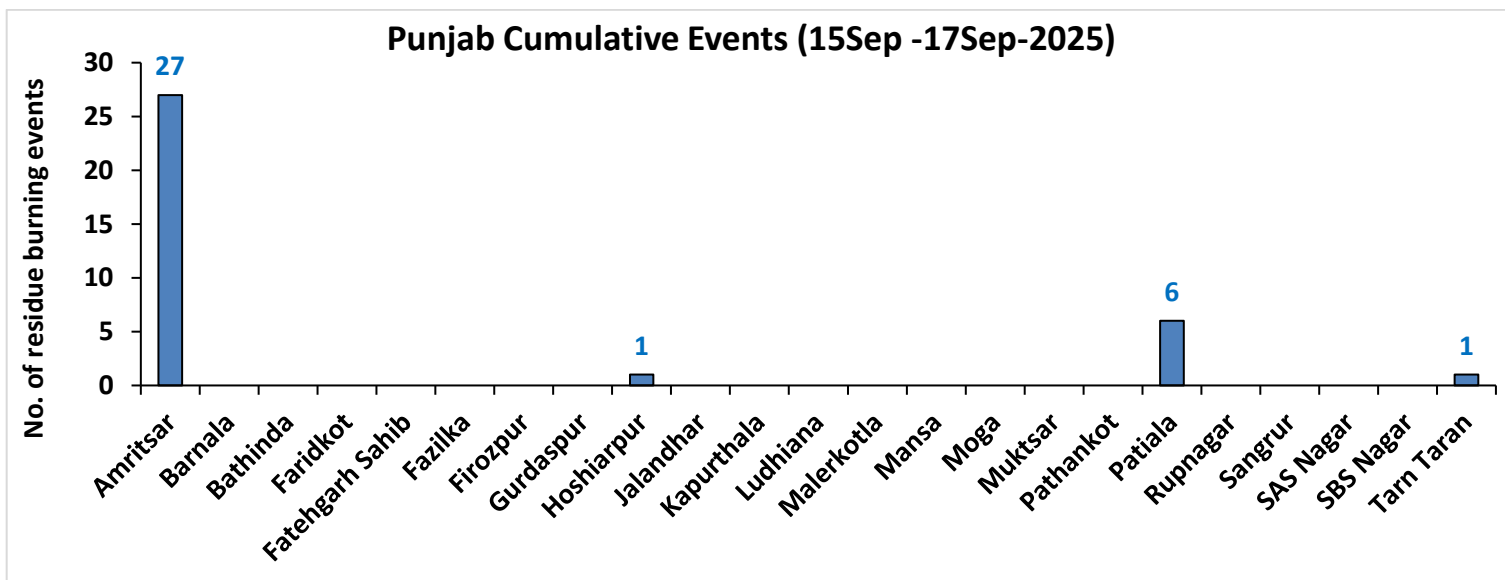
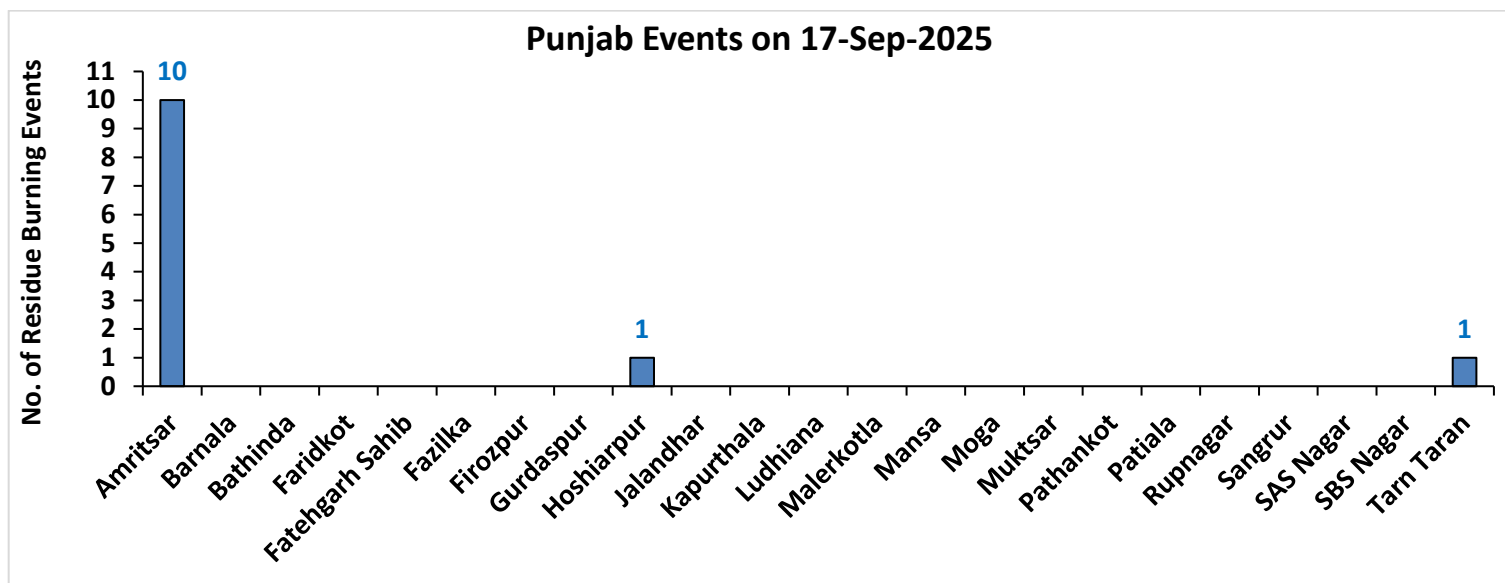
Fire Intensity (W/m²)

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



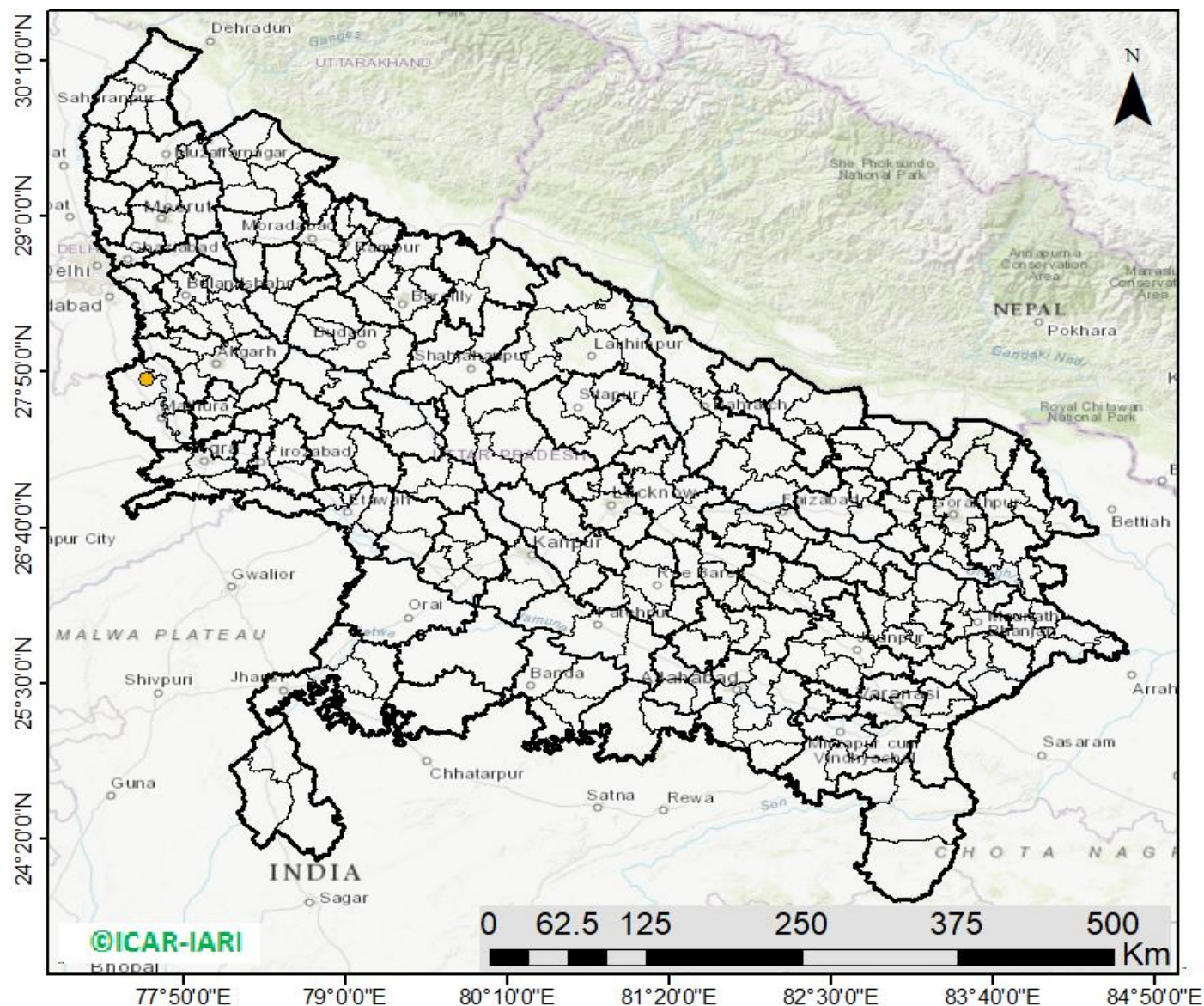
http://103.111.37.126/icar_geoportal/

District-wise cumulative number of residues burning events in Punjab (15Sep-17Sep-2025)



Uttar Pradesh

RICE RESIDUE BURNING IN UTTAR PRADESH



01 burning events
detected in Uttar Pradesh on
(17th Sep 2025)

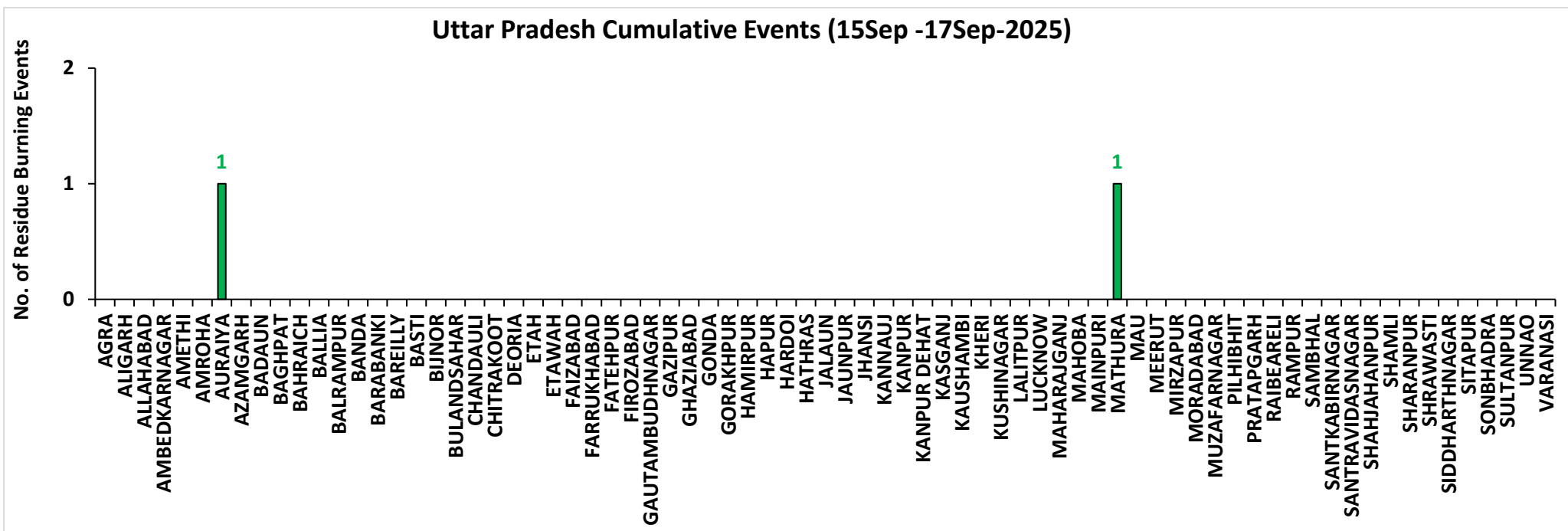
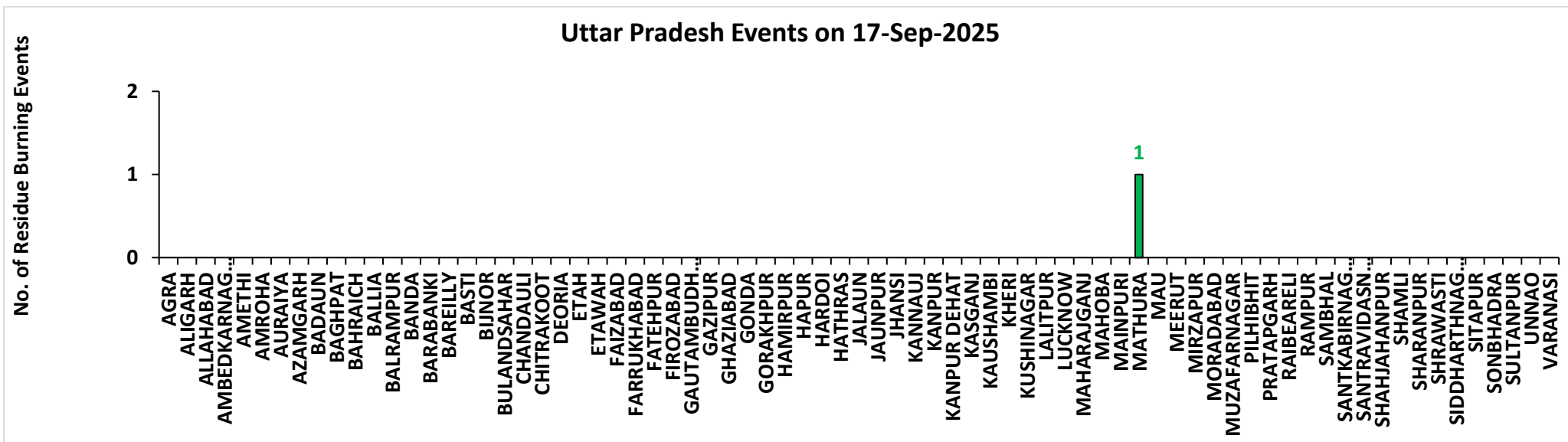
Fire Intensity (W/m²)

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



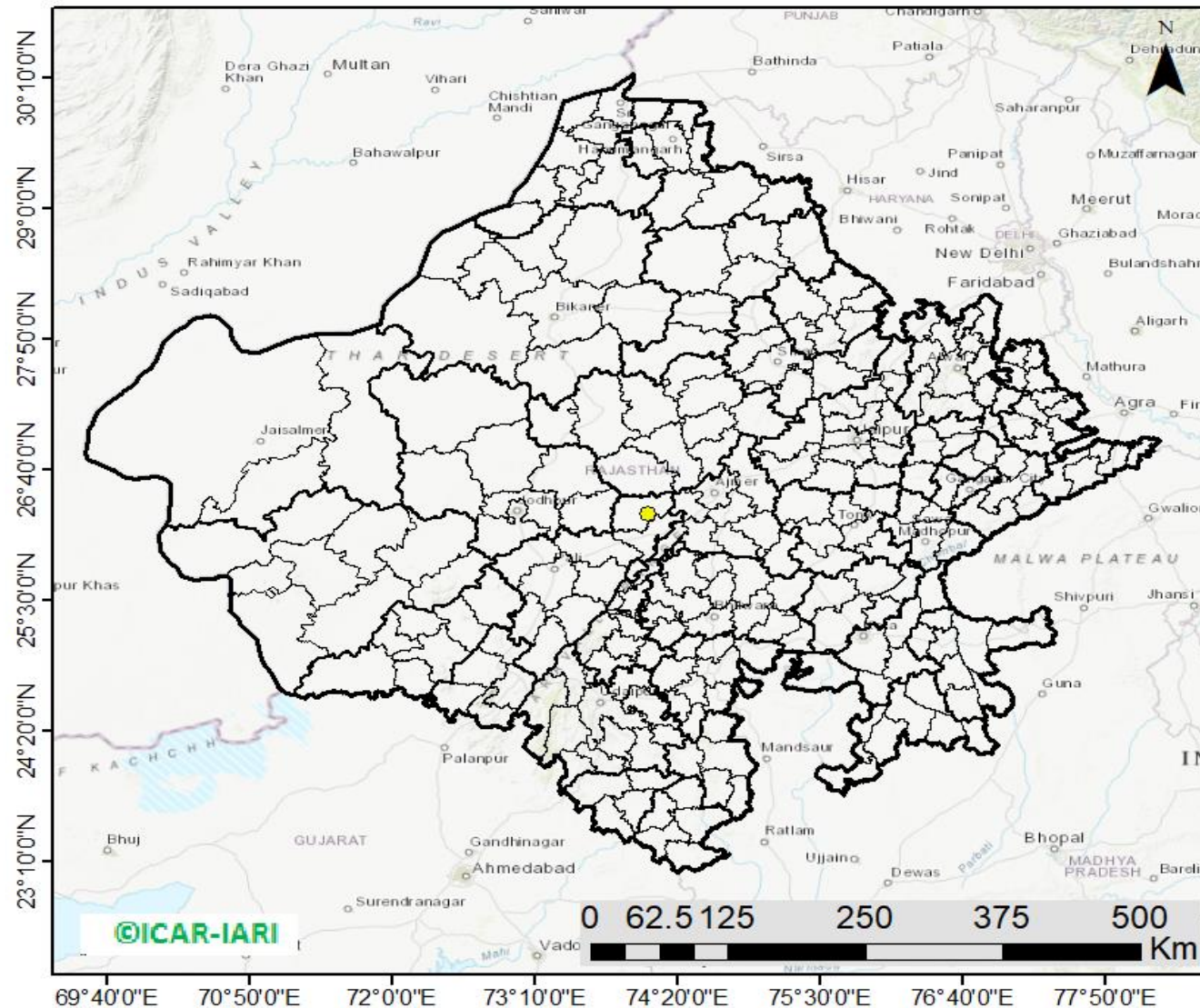
http://103.111.37.126/icar_geoportal/

District-wise cumulative number of residues burning events in Uttar Pradesh (15Sep-17Sep-2025)



Rajasthan

RICE RESIDUE BURNING IN RAJASTHAN



01 burning events
detected in Rajasthan on
(17th Sep 2025)

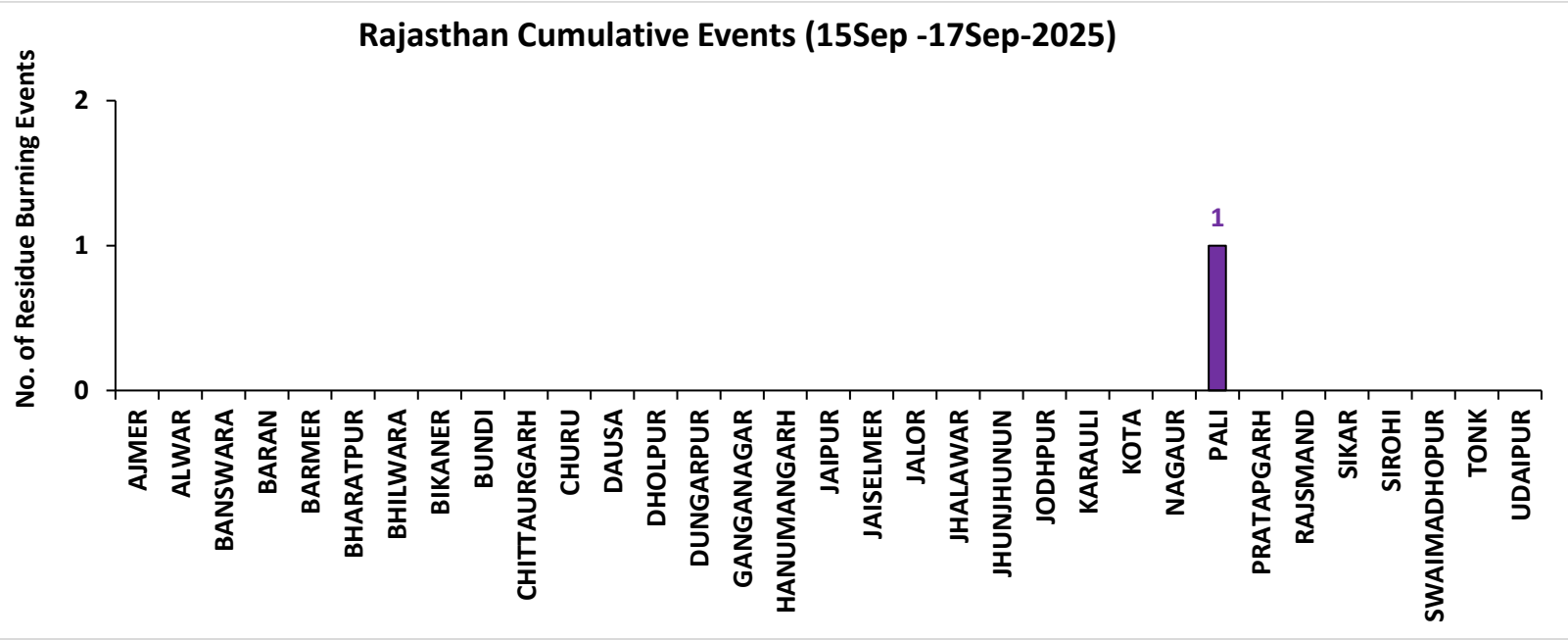
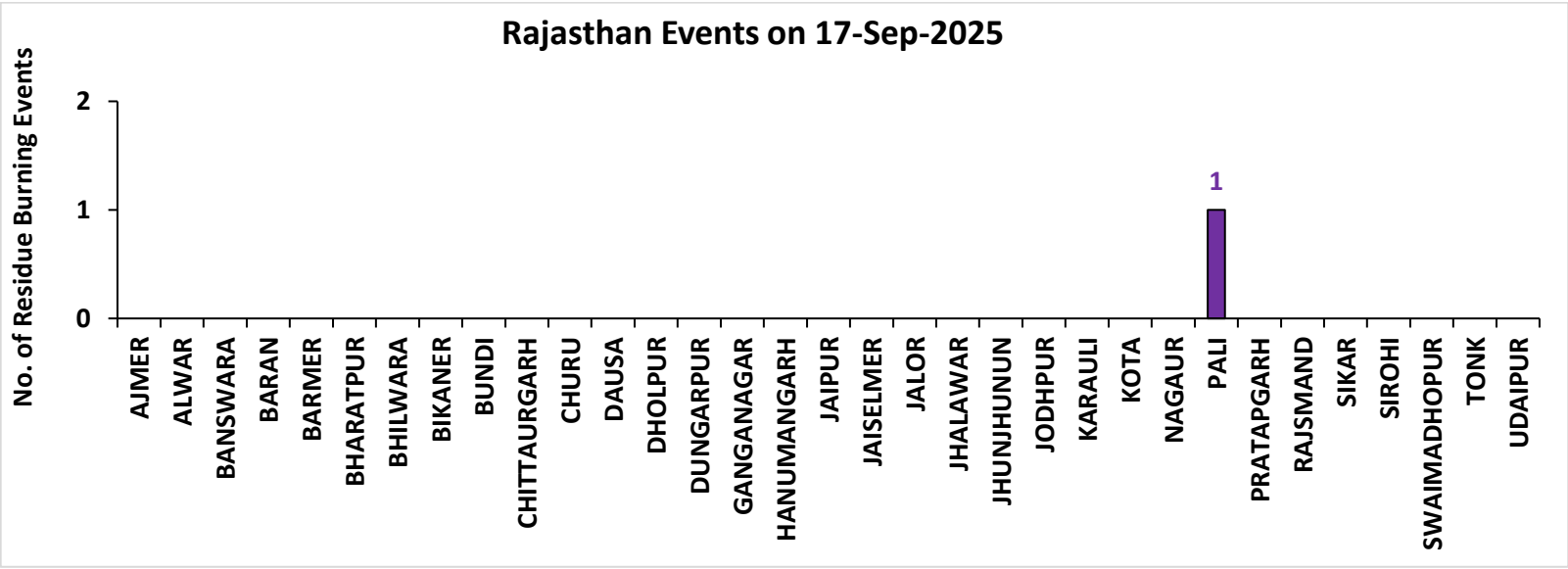
Fire Intensity (W/m²)

- 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 Rajasthan (15Sep-17Sep-2025)



District-wise cumulative number of residues burning events detected in 2020, 2021, 2022, 2023, 2024 and 2025
(Period: 15-17 September)

(a) Punjab

District	15 Sep-17Sep					
	2020	2021	2022	2023	2024	2025
Amritsar	10	2	11	6	14	27
Barnala	0	0	0	0	0	0
Bathinda	0	0	0	0	0	0
Faridkot	0	0	0	0	0	0
Fatehgarh Sahib	0	0	0	0	0	0
Fazilka	0	0	0	0	0	0
Firozpur	0	0	0	0	1	0
Gurdaspur	0	0	0	0	0	0
Hoshiarpur	0	0	0	0	0	1
Jalandhar	0	0	0	0	0	0
Kapurthala	0	0	0	0	0	0
Ludhiana	0	0	0	0	0	0
Malerkotla	0	0	0	0	0	0
Mansa	0	0	0	0	0	0
Moga	0	0	0	0	0	0
Muktsar	0	0	0	0	0	0
Pathankot	0	0	0	0	0	0
Patiala	0	0	0	0	0	6
Rupnagar	0	0	0	0	0	0
Sangrur	0	0	0	0	0	0
SAS NAGAR (Mohali)	0	0	1	0	0	0
SBS Nagar	0	0	0	0	0	0
Tarn Taran	0	0	3	0	1	1
Total	10	2	15	6	16	35

(b) Haryana

District	15 Sep-17Sep					
	2020	2021	2022	2023	2024	2025
AMBALA	0	0	0	0	0	0
BHIWANI	0	0	0	0	0	0
CHARKHI DADRI	0	0	0	0	0	0
FARIDABAD	0	0	0	0	0	1
FATEHABAD	0	0	0	0	0	0
GURGAON	0	0	0	0	0	0
HISAR	0	0	0	0	0	0
JHAJJAR	0	0	0	0	0	0
JIND	0	0	0	0	0	0
KAITHAL	0	0	0	0	0	0
KARNAL	5	0	0	0	0	0
KURUKSHETRA	0	0	0	0	0	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	0	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	1	0	0
YAMUNANAGAR	0	0	0	0	0	0
Total	6	0	0	2	2	1

(c) Uttar Pradesh

District	15 Sep-17Sep																		
	2020	2021	2022	2023	2024	2025	GAUTAMBUDHNAGAR	0	0	0	0	0	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	0	0
ALIGARH	0	0	0	0	0	0	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	0	0	0	0
AMETHI	0	0	0	0	0	0	HAMIRPUR	0	0	0	0	0	0	SAMBHAL	0	0	0	0	0
AMROHA	0	0	0	0	0	0	HAPUR	0	0	0	0	0	0	SANTKABIRNAGAR	0	0	0	0	0
AURAIYA	0	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	0
BADAUN	0	0	0	0	0	0	JALAUN	0	0	0	0	0	0	SHAMLI	0	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	0	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	1	0	0	2	1
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	MAHOBAB	0	0	0	0	0	0						
ETAH	0	0	0	0	0	0	MAINPURI	0	0	0	0	0	0						
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 Sep-17Sep					
	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 Sep-17Sep					
	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	0	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	0	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
KARALI	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	1	0	0	0	0	1

(f) Madhya Pradesh

District	15 Sep-17Sep													
	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	0	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	SHAHDOL	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	0	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	0	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	2	0	0	0	1	0	
HOSHANGABAD	0	0	0	0	0	0								
INDORE	0	0	0	0	0	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: 15-17 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	12	3	0	0	0	1	0	0	0	0	0	1	1
Total	10	2	15	6	16	35	6	0	0	2	2	1	1	0	0	2	1	2

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
Total	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	1	0

Details of residue burning events in Punjab on 17-Sep-2025

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	AMRITSAR	ATTARI	S-NPP	31.51192	74.62392	13:56:21	D	9.40
2	AMRITSAR	JANDIALA GURU	S-NPP	31.54088	74.96427	13:56:21	D	6.40
3	AMRITSAR	JANDIALA GURU	S-NPP	31.55056	75.01524	13:56:21	D	4.30
4	AMRITSAR	MAJITHA	S-NPP	31.75524	75.09050	13:56:21	D	2.00
5	AMRITSAR	MAJITHA	S-NPP	31.78243	75.06890	13:56:21	D	3.00
6	AMRITSAR	MAJITHA	S-NPP	31.78420	75.06969	13:56:21	D	4.00
7	AMRITSAR	TARSIKKA	S-NPP	31.66715	75.06561	13:56:21	D	8.40
8	AMRITSAR	TARSIKKA	S-NPP	31.67147	75.05347	13:56:21	D	4.50
9	AMRITSAR	TARSIKKA	S-NPP	31.67192	75.05782	13:56:21	D	4.50
10	AMRITSAR	TARSIKKA	S-NPP	31.67450	75.05576	13:56:21	D	5.80
11	HOSHIARPUR	HOSHIARPUR 2	S-NPP	31.41158	75.89447	13:56:21	D	3.20
12	TARN TARAN	GANDIWIND TATLA	S-NPP	31.56326	74.79388	13:56:21	D	1.20

Details of residue burning events in Uttar Pradesh on 17-Sep-2025

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	MATHURA	CHHATA	S-NPP	27.77933	77.56612	14:00:00	D	6.92

Details of residue burning events in Rajasthan on 17-Sep-2025

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	PALI	JAITARAN	S-NPP	26.25770	74.09438	20:55:00	N	0.87

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)**
