



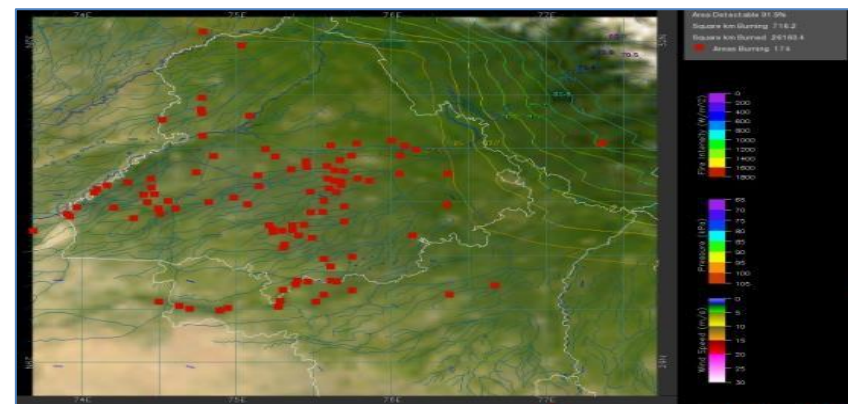
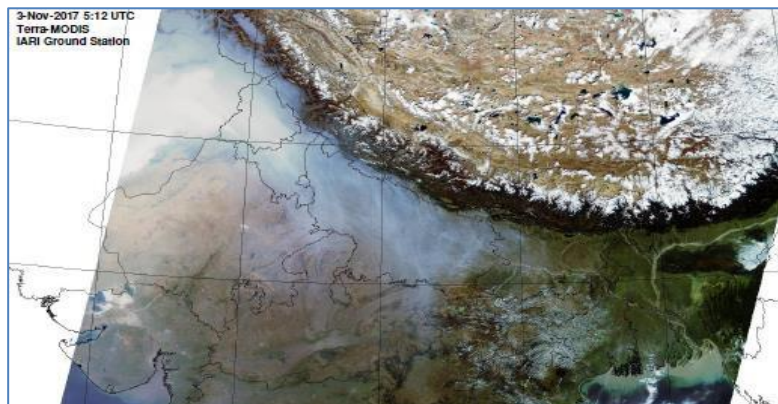
Bulletin No. 02

Events Date:
16-Sep-2025

Issued on:
23-Sep-2025



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



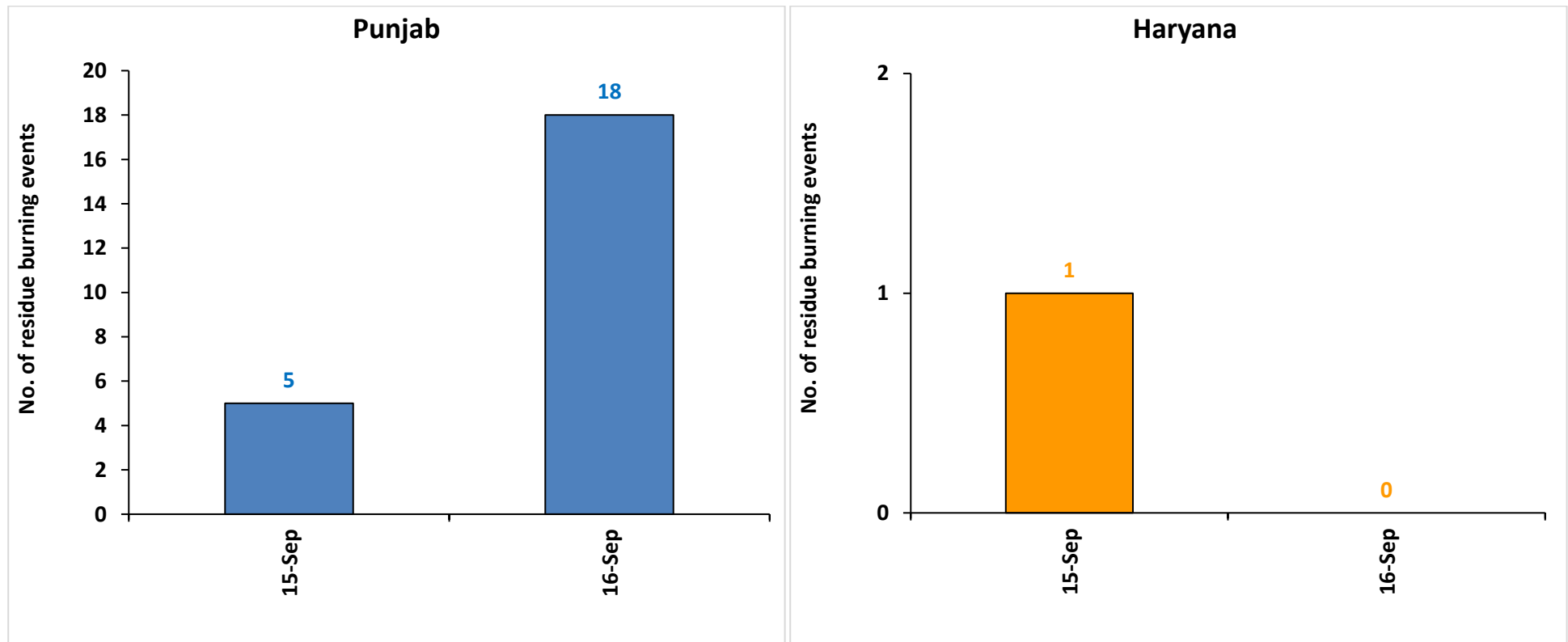
Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS)
Laboratory,
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012

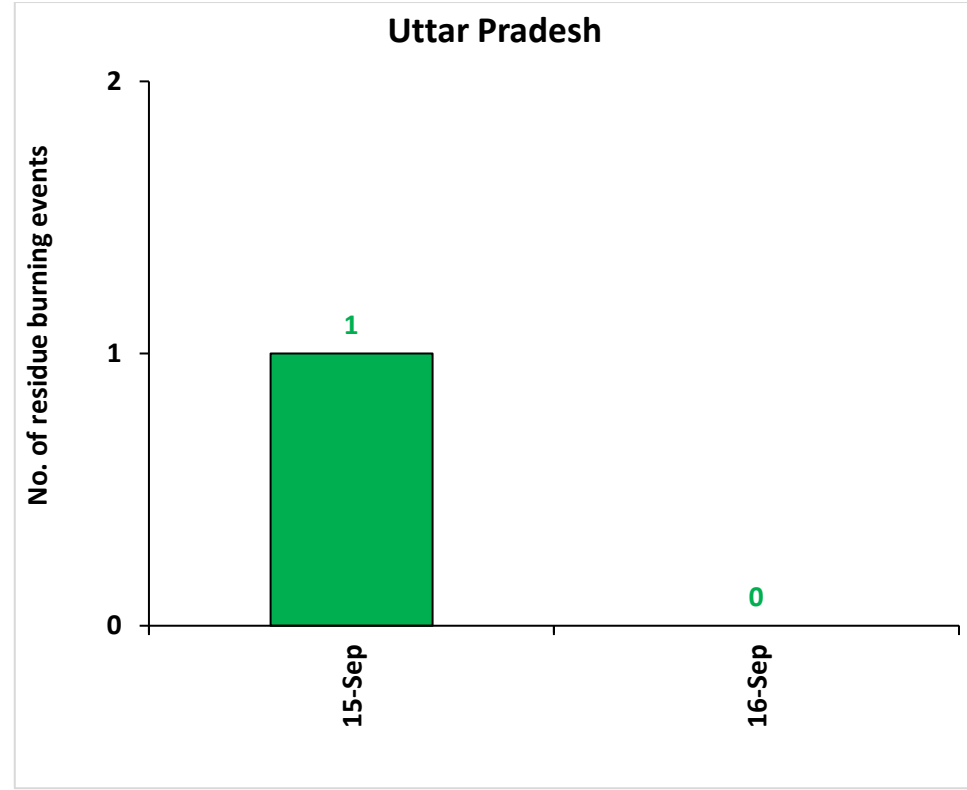
<https://creams.iari.res.in>

Highlights for 16-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 **18** residue burning events in the six study States on 16-Sep-2025.
- The state wise events detected on 16-Sep-2025 were **18** in Punjab, **00** in Haryana, **00** 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.

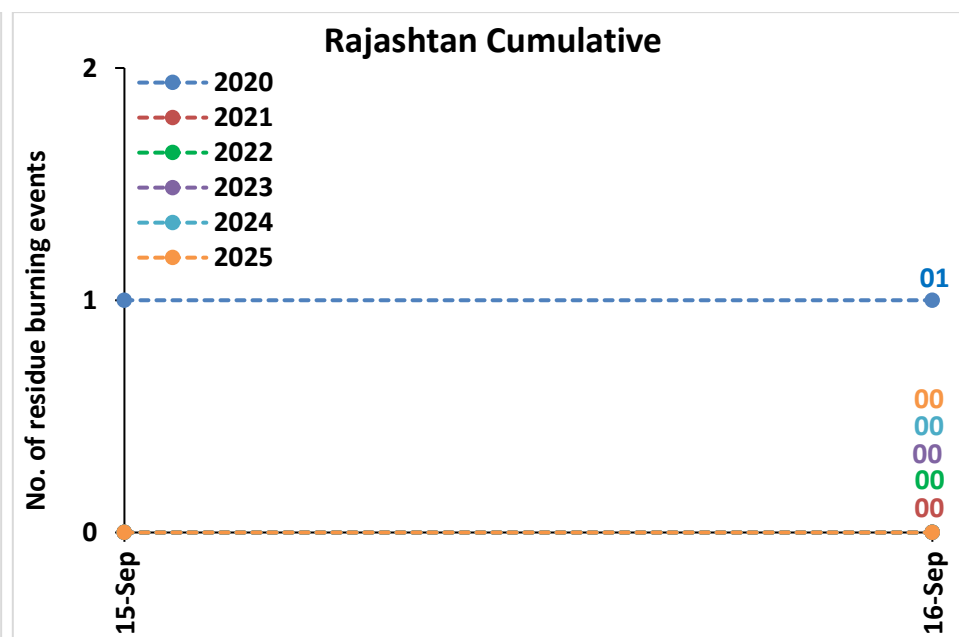
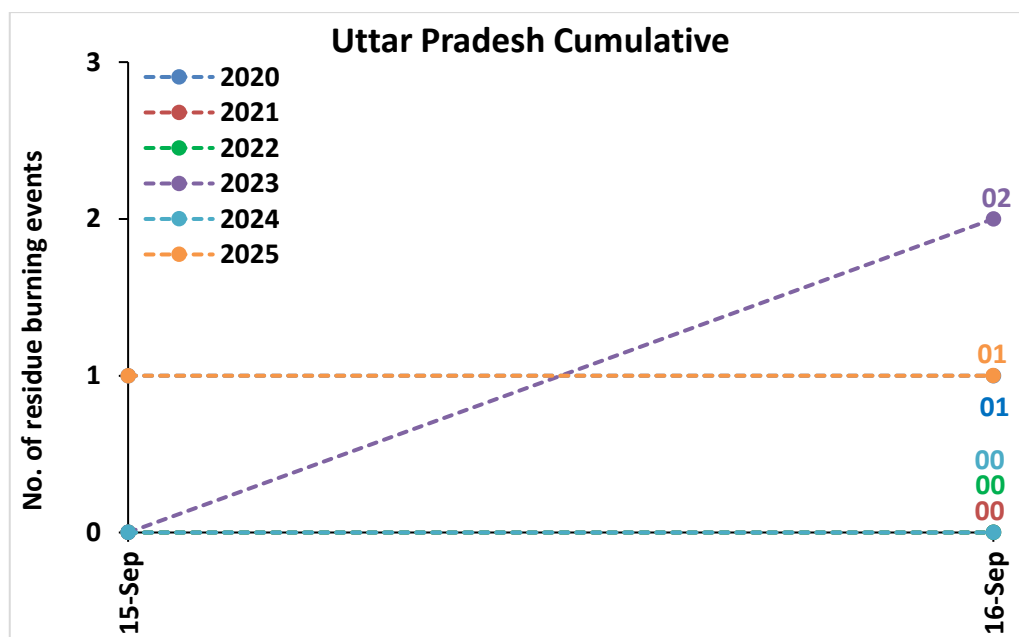
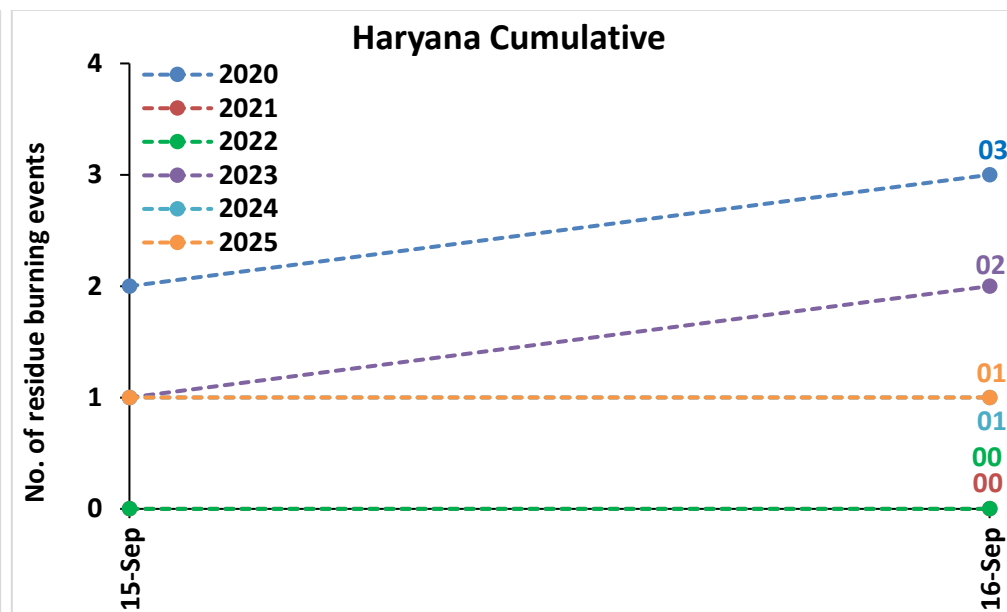
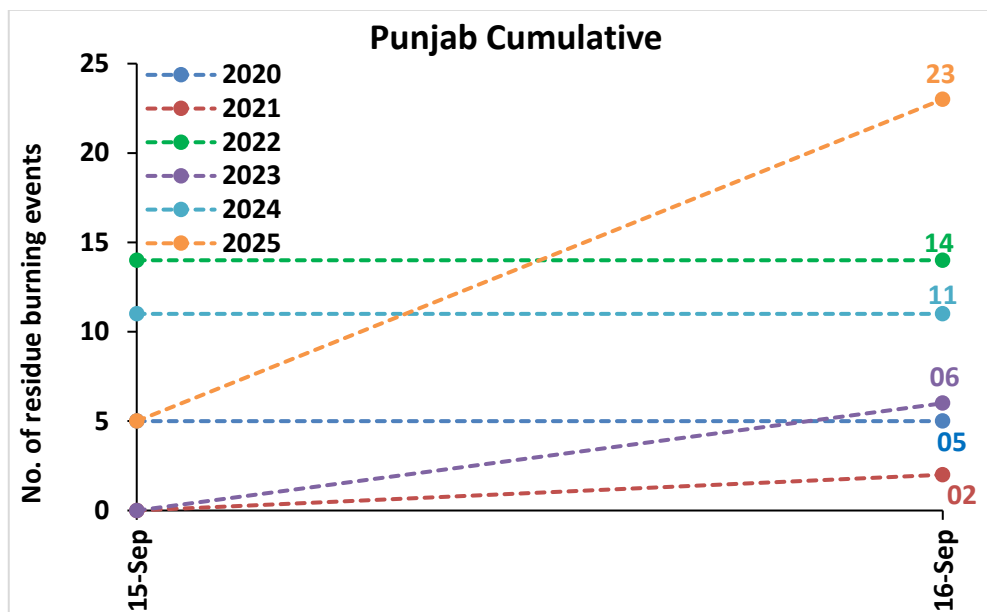
Temporal distribution of rice residue burning events for the study States in 2025

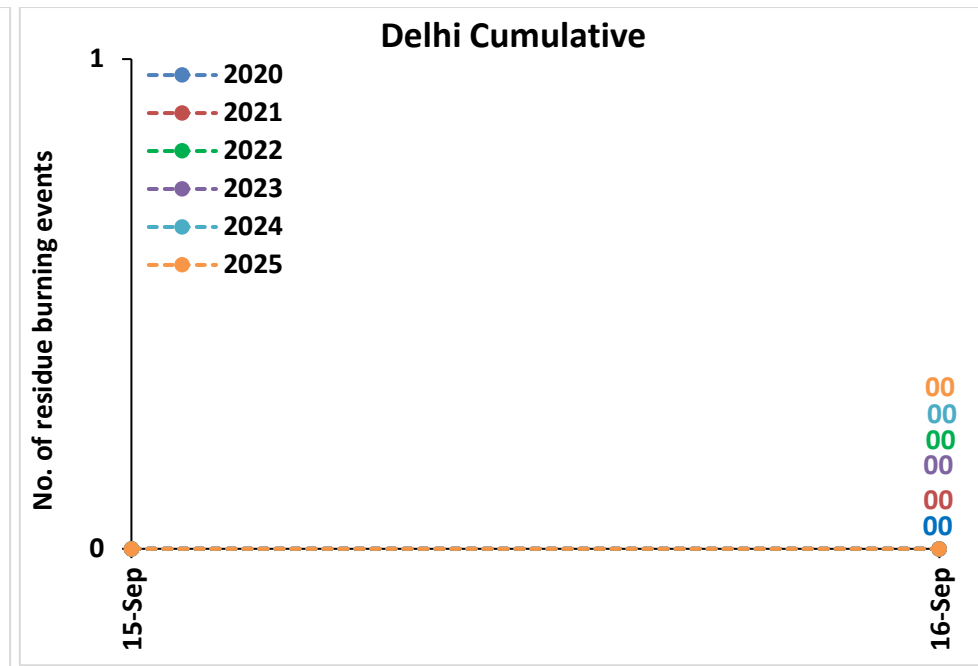
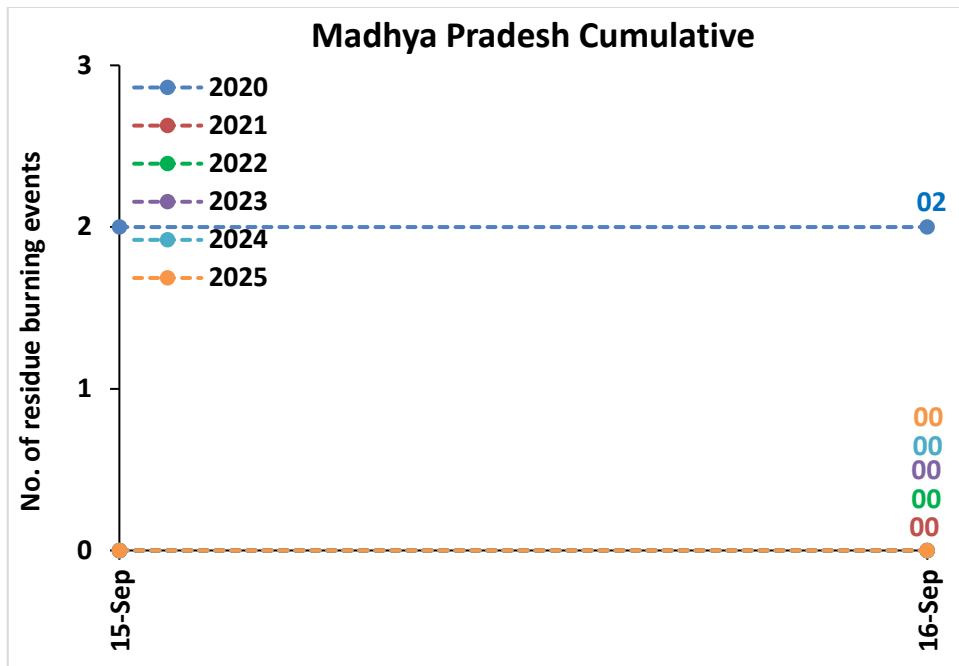




Comparison of residue burning fire power in current year (2025) with previous years (2020,2021,2022, 2023 and 2024) for the study

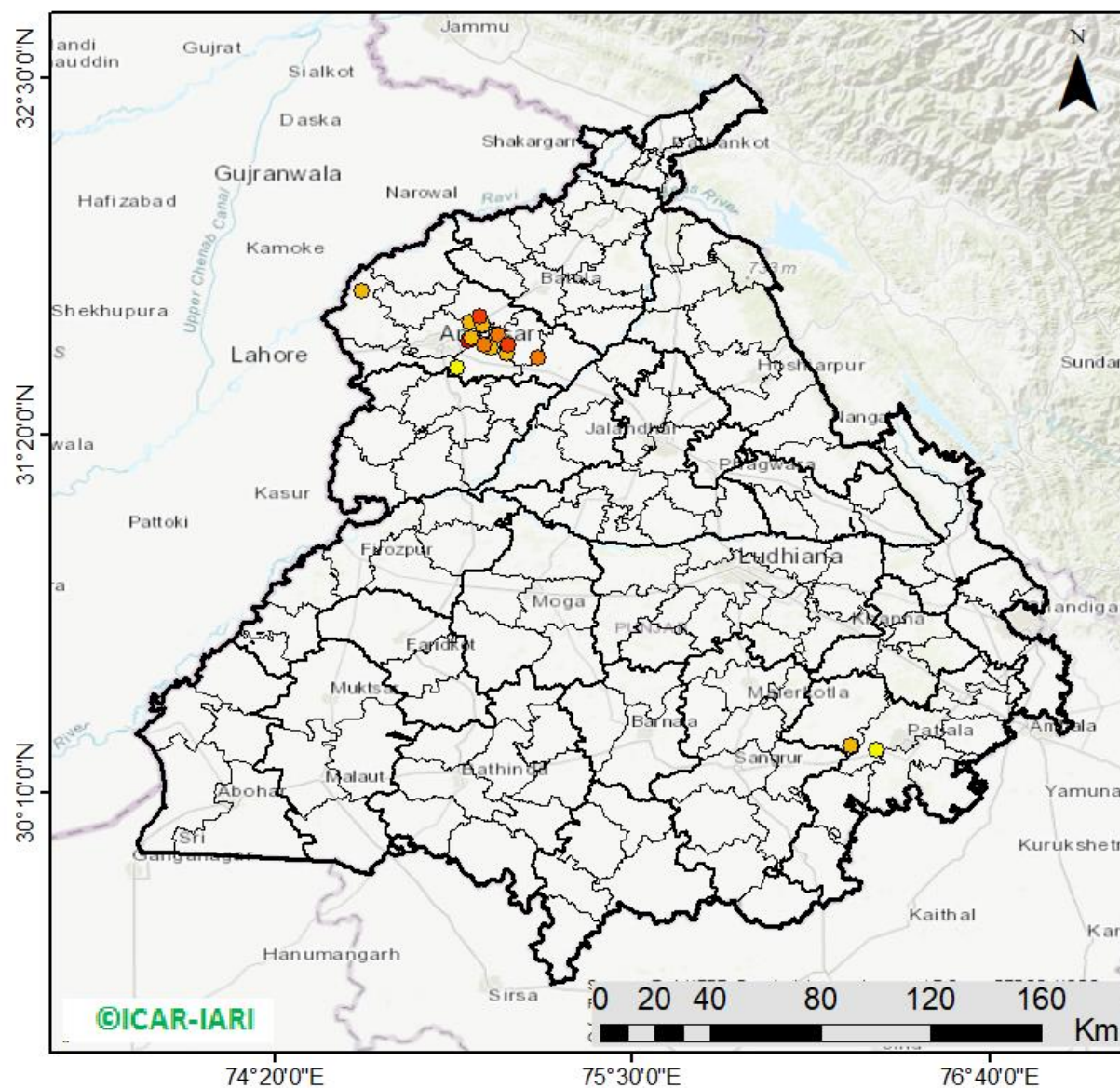
States





Punjab

RICE RESIDUE BURNING IN PUNJAB



18 burning events
detected in Punjab during
(16th Sep 2025)

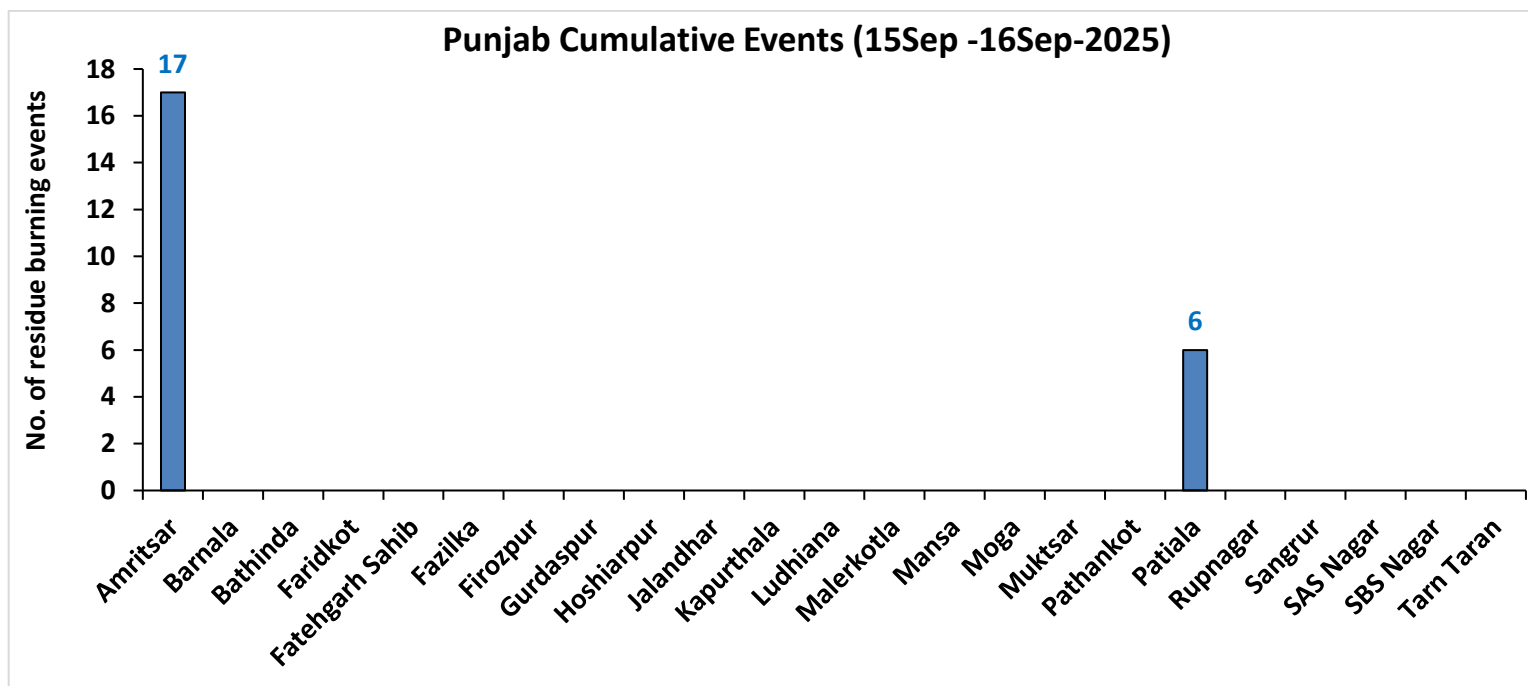
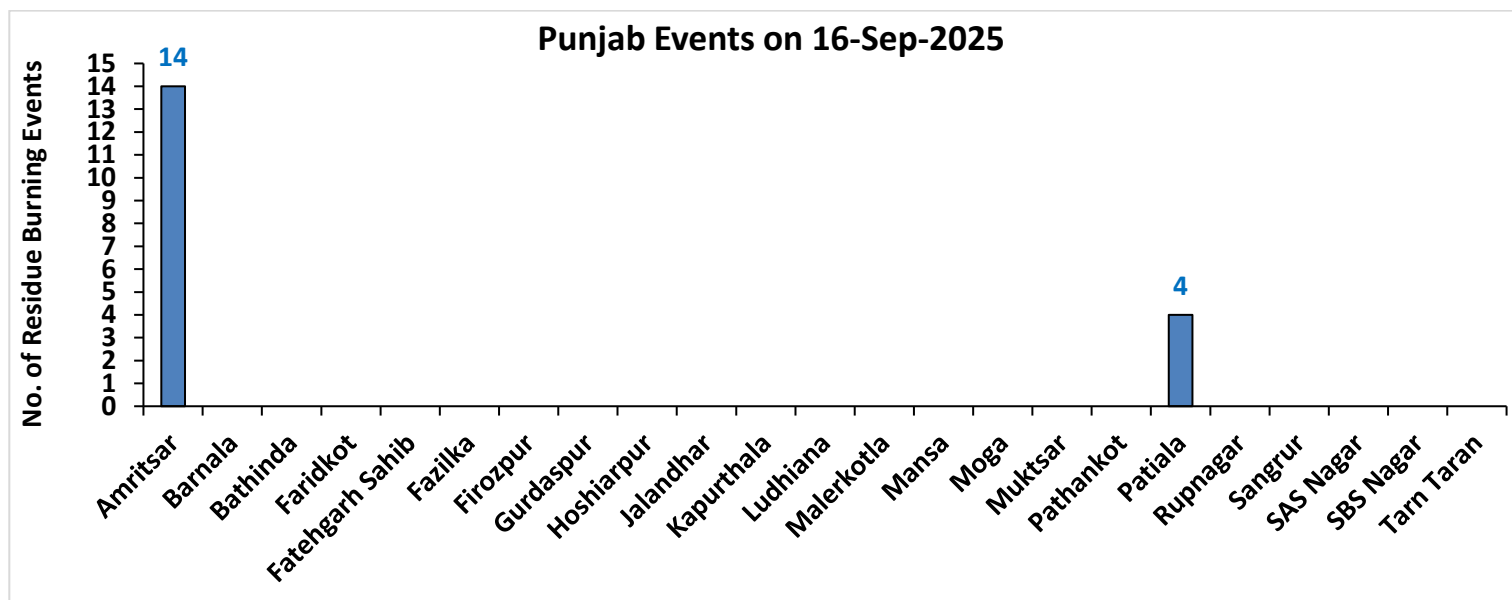
Fire Intensity (W/m²)

- 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-16Sep-2025)



District-wise cumulative number of residues burning events detected in 2020, 2021, 2022, 2023, 2024 and 2025
(Period: 15-16 September)

(a) Punjab

District	15 Sep-16Sep					
	2020	2021	2022	2023	2024	2025
Amritsar	5	2	11	6	9	17
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	0
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	0	0	0	0
SBS Nagar	0	0	0	0	0	0
Tarn Taran	0	0	3	0	1	0
Total	5	2	14	6	11	23

(b) Haryana

District	15 Sep-16Sep					
	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	2	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	0	0
SIRSA	1	0	0	0	1	0
SONIPAT	0	0	0	1	0	0
YAMUNANAGAR	0	0	0	0	0	0
Total	3	0	0	2	1	1

(c) Uttar Pradesh

District	15 Sep-16Sep																		
	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	0	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	0
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	0						
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-16Sep					
	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-16Sep					
	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	0
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	0

(f) Madhya Pradesh

District	15 Sep-16Sep													
	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	0	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	0	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: 15-16 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
Total	5	2	14	6	11	23	3	0	0	2	1	1	1	0	0	2	0	1

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

Details of residue burning events in Punjab on 16-Sep-2025

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	AMRITSAR	ATTARI	S-NPP	31.55703	74.92754	14:15:16	D	2.10
2	AMRITSAR	CHOGAWAN	AQUA	31.80600	74.61600	15:04:51	D	5.80
3	AMRITSAR	JANDIALA GURU	S-NPP	31.60160	75.08960	14:15:16	D	5.30
4	AMRITSAR	JANDIALA GURU	S-NPP	31.62035	75.04192	14:15:16	D	6.10
5	AMRITSAR	JANDIALA GURU	S-NPP	31.62043	75.04211	14:15:16	D	5.40
6	AMRITSAR	JANDIALA GURU	AQUA	31.62900	75.01700	15:04:51	D	10.90
7	AMRITSAR	JANDIALA GURU	AQUA	31.65200	74.97300	15:04:51	D	6.40
8	AMRITSAR	JANDIALA GURU	AQUA	31.69400	75.01000	15:04:51	D	6.90
9	AMRITSAR	MAJITHA	AQUA	31.72000	75.00500	15:04:51	D	17.60
10	AMRITSAR	TARSIKKA	S-NPP	31.58651	75.19241	14:15:16	D	11.10
11	AMRITSAR	TARSIKKA	AQUA	31.63000	75.09400	15:04:51	D	15.40
12	AMRITSAR	TARSIKKA	S-NPP	31.66065	75.06362	14:15:16	D	12.30
13	AMRITSAR	VERKA	AQUA	31.64200	74.96400	15:04:51	D	23.80
14	AMRITSAR	VERKA	S-NPP	31.70382	74.97166	12:34:59	D	7.90
15	PATIALA	NABHA	S-NPP	30.31953	76.21228	14:15:16	D	6.40
16	PATIALA	NABHA	S-NPP	30.31982	76.21696	14:15:16	D	9.40
17	PATIALA	NABHA	S-NPP	30.32058	76.21604	14:15:16	D	9.40
18	PATIALA	PATIALA	S-NPP	30.30844	76.29749	14:15:16	D	2.40

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)**
