

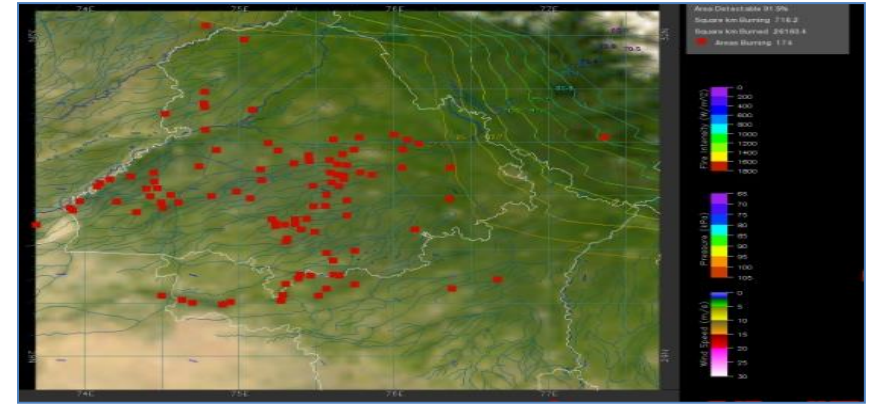
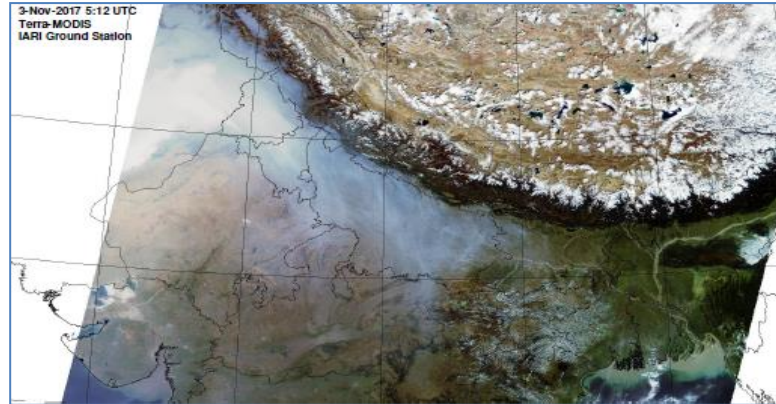


MONITORING PADDY RESIDUE BURNING IN INDIA USING SATELLITE REMOTE SENSING DURING 2025

**Bulletin
No. 18**

**Events Date:
02-Oct-2025**

**Issued on:
02-Oct-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

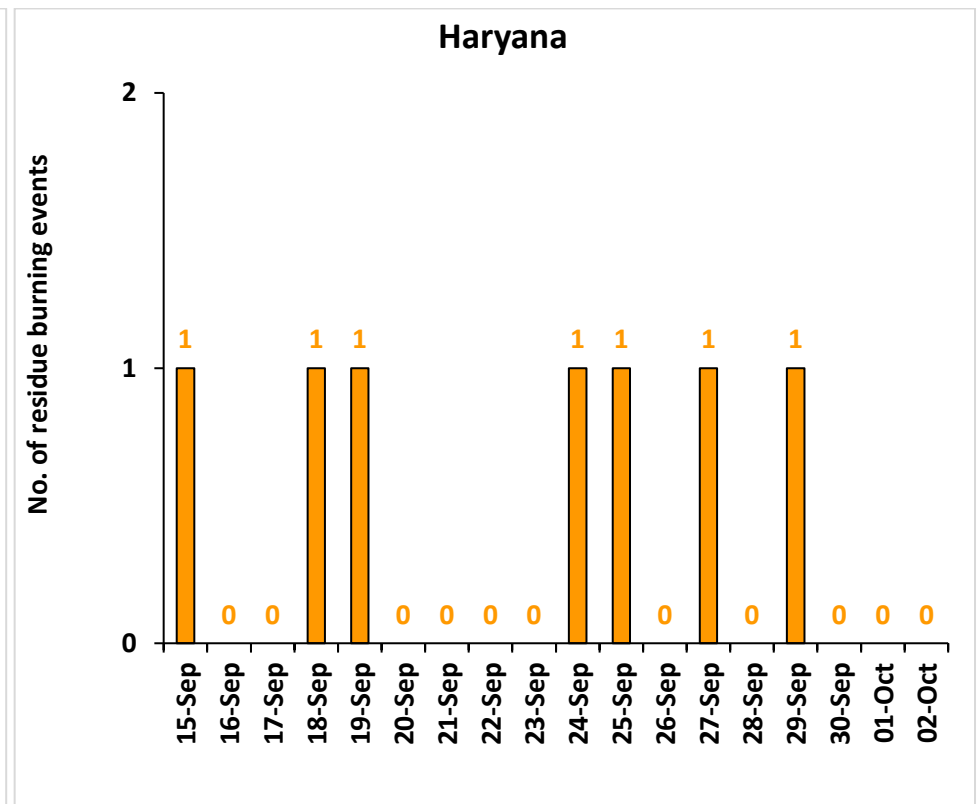
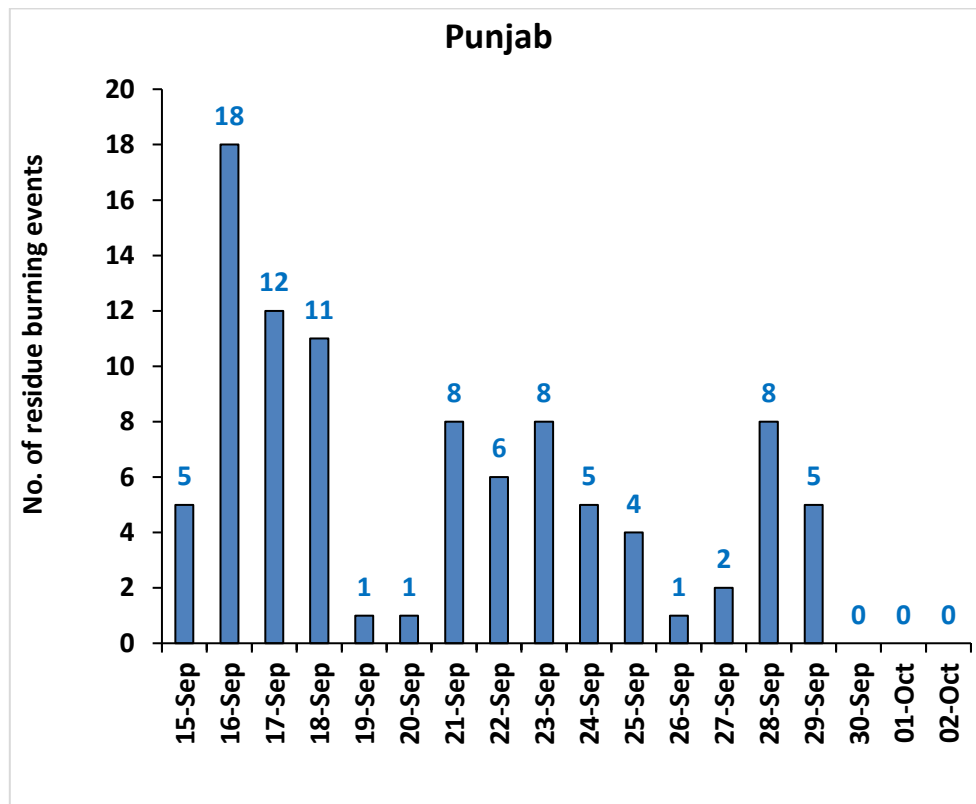
<https://creams.iari.res.in>



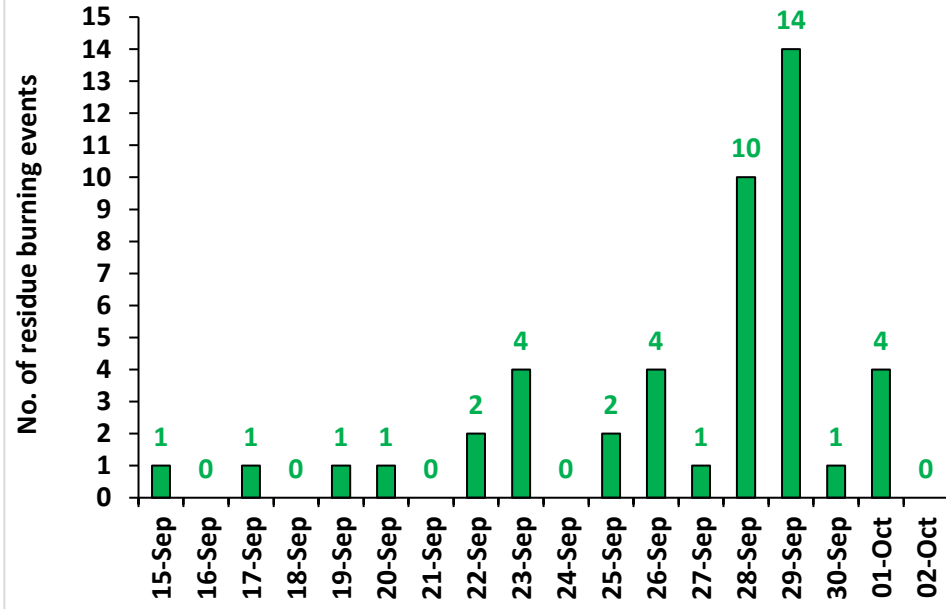
Highlights for 02-Oct-2025

- 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 **00** residue burning events in the six study States on **02-Oct-2025**.
- The state wise events detected on **02-Oct-2025** were **00** 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 Punjab, Haryana Uttar Pradesh, Rajasthan and Madhya Pradesh states.

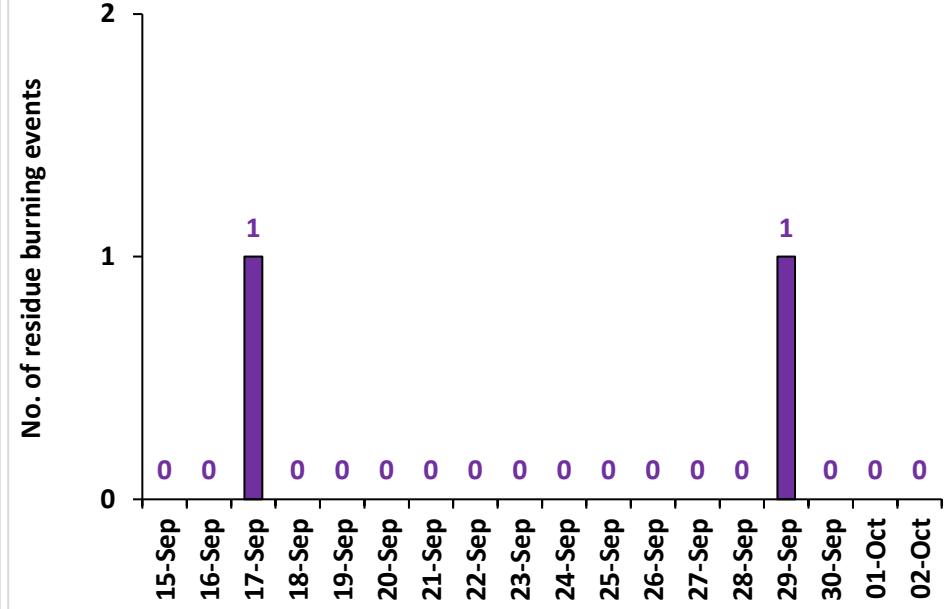
Temporal distribution of rice residue burning events for the study States in 2025



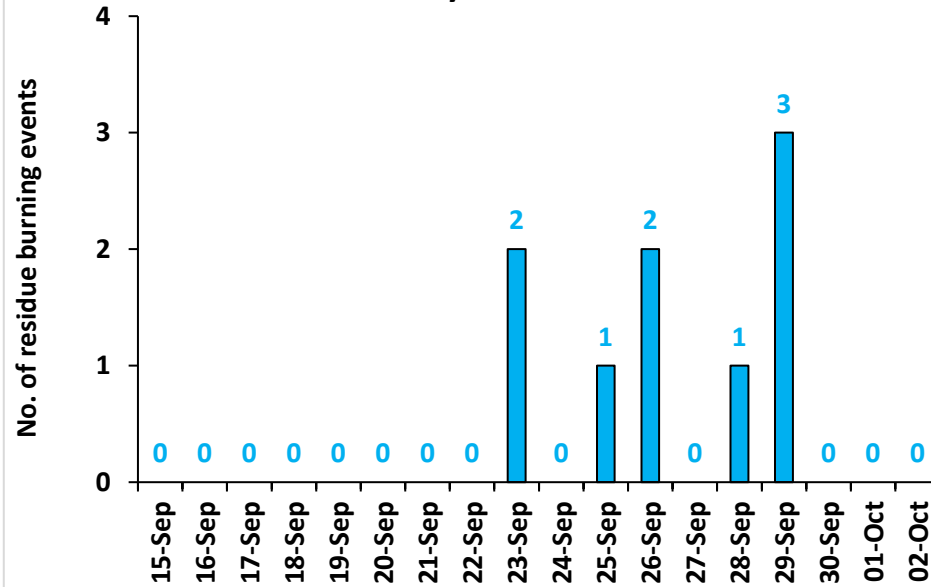
Uttar Pradesh



Rajasthan

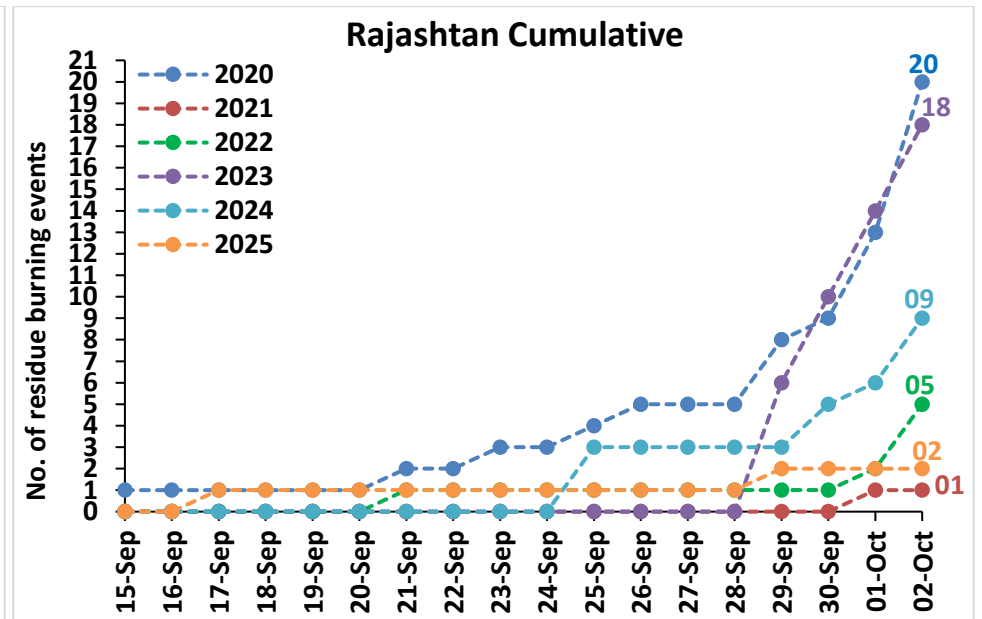
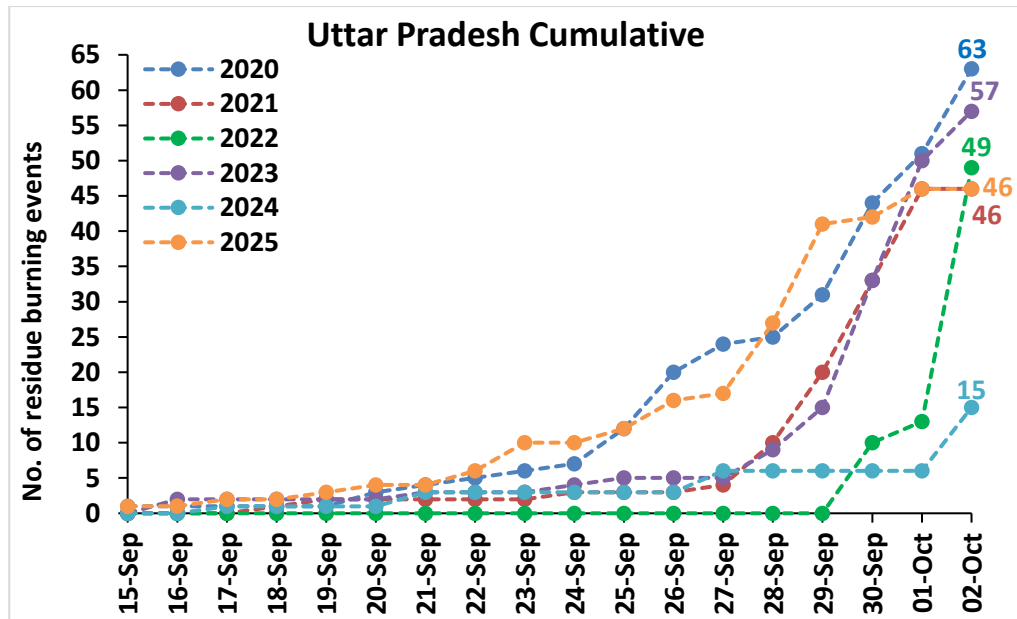
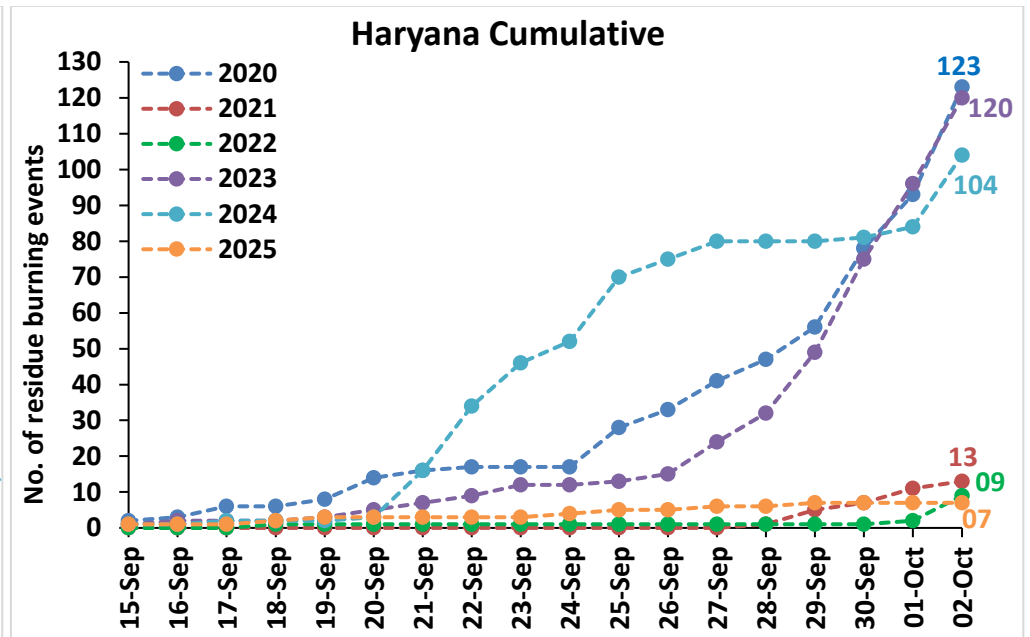
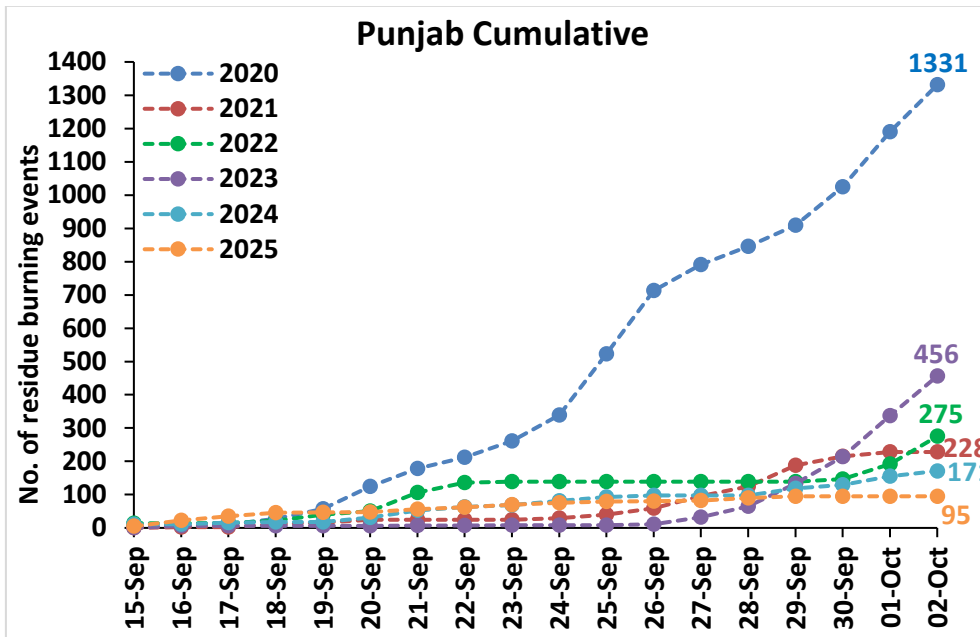


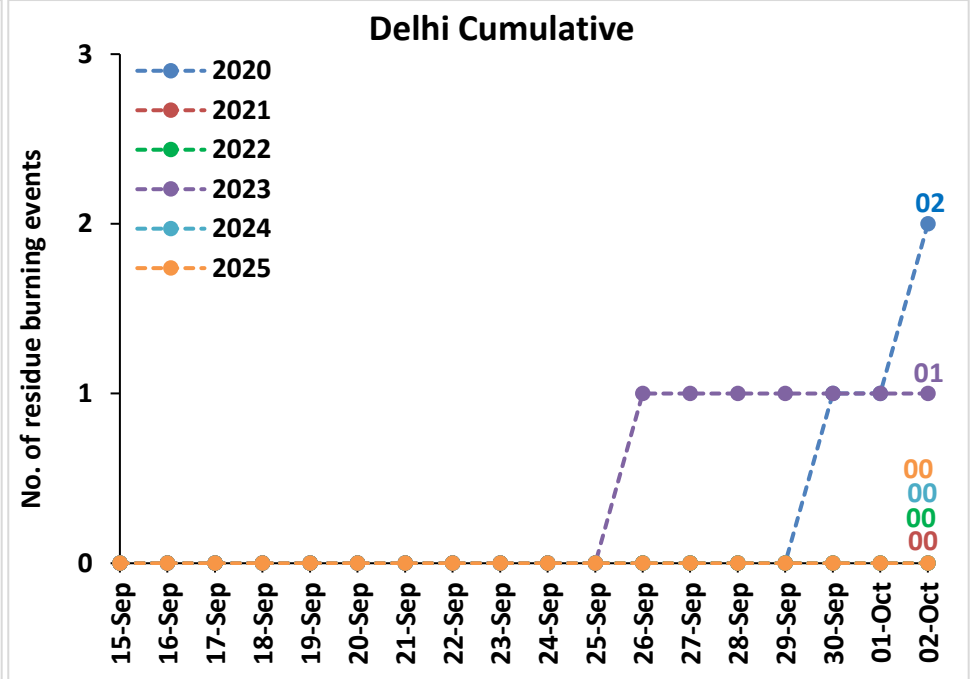
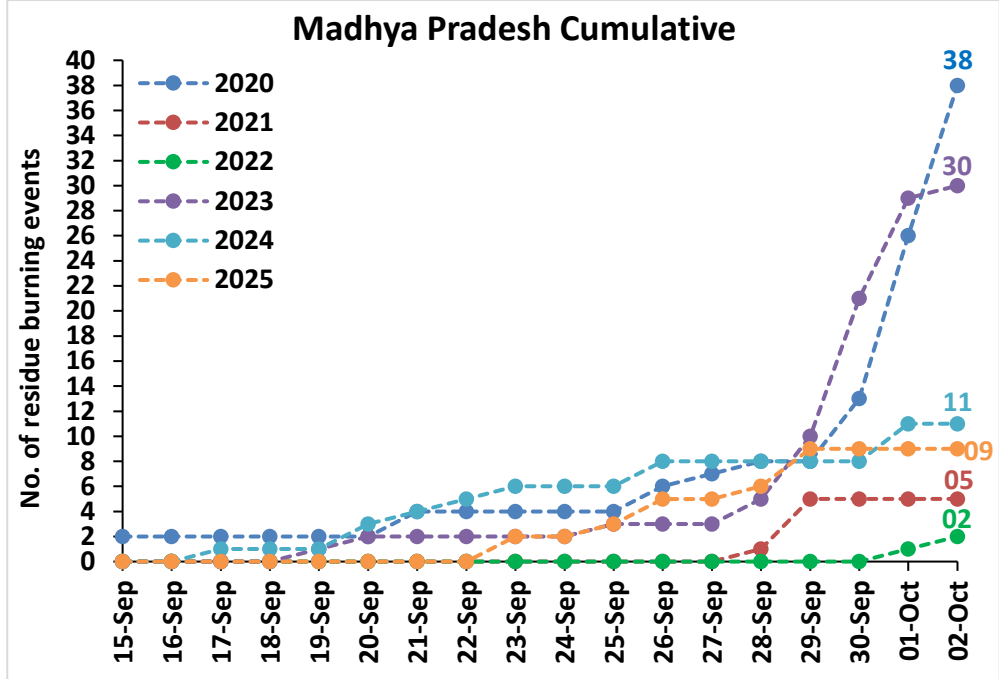
Madhya Pradesh



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

States





District-wise cumulative number of residues burning events detected in 2020, 2021, 2022, 2023, 2024 and 2025
(Period: 15 September -02 October)

(a) Punjab

District	15 Sep- 02 Oct					
	2020	2021	2022	2023	2024	2025
Amritsar	891	157	230	333	83	55
Barnala	2	0	0	1	0	3
Bathinda	0	0	0	0	0	1
Faridkot	3	9	0	2	0	1
Fatehgarh Sahib	12	0	1	4	1	0
Fazilka	0	1	0	0	1	0
Firozpur	12	3	3	5	11	1
Gurdaspur	44	4	3	5	9	0
Hoshiarpur	3	0	0	1	0	2
Jalandhar	11	1	2	6	8	1
Kapurthala	11	2	2	19	16	3
Ludhiana	30	7	0	4	2	0
Malerkotla	0	0	0	0	1	4
Mansa	1	0	0	1	0	0
Moga	7	0	0	0	0	0
Muktsar	1	0	1	0	0	0
Pathankot	0	0	0	0	0	0
Patiala	46	10	4	14	2	10
Rupnagar	1	0	0	0	1	0
Sangrur	14	3	0	3	6	2
SAS NAGAR (Mohali)	7	0	1	14	5	1
SBS Nagar	2	0	1	1	1	0
Tarn Taran	233	31	27	43	24	11
Total	1331	228	275	456	171	95

(b) Haryana

District	15 Sep- 02 Oct					
	2020	2021	2022	2023	2024	2025
AMBALA	17	0	1	19	7	0
BHIWANI	0	0	0	0	0	0
CHARKHI DADRI	0	0	0	0	0	0
FARIDABAD	0	0	0	0	8	2
FATEHABAD	12	0	1	6	5	1
GURGAON	0	0	0	0	0	0
HISAR	2	0	0	0	1	0
JHAJJAR	0	0	0	1	0	0
JIND	0	0	1	5	2	1
KAITHAL	15	2	1	5	5	0
KARNAL	35	2	3	14	33	0
KURUKSHETRA	27	8	2	28	23	1
MAHENDRAGARH	0	0	0	0	0	0
MEWAT	0	0	0	0	0	0
PALWAL	1	0	0	4	2	1
PANCHKULA	0	0	0	0	0	0
PANIPAT	6	0	0	4	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	16	8	1
YAMUNANAGAR	6	1	0	17	6	0
Total	123	13	9	120	104	7

(c) Uttar Pradesh

District	15 Sep- 02 Oct																			
	2020	2021	2022	2023	2024	2025	GAUTAMBUDHNAGAR	1	0	0	2	3	0	MUZAFARNAGAR	0	0	0	0	0	0
AGRA	0	0	0	0	0	0	GAZIPUR	0	0	0	0	0	0	PILHIBHIT	1	1	1	5	0	1
ALIGARH	4	0	0	22	3	9	GHAZIABAD	1	0	1	3	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	2	3	0	0	0	1
AMETHI	0	0	0	0	0	0	HAMIRPUR	0	0	0	0	0	0	SAMBHAL	5	0	3	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	4	2	1	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	5	36	28	8	2	2
BADAUN	0	0	0	0	0	0	JALAUN	0	0	0	0	0	0	SHAMLI	7	0	0	1	1	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	1	0	0	0	0	0
BANDA	0	0	0	0	0	0	KANPUR DEHAT	1	0	0	0	0	0	SONBHADRA	0	0	0	0	0	0
BARABANKI	0	0	0	0	0	2	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	1	3	7	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	63	46	49	57	15	46
BULANDSAHAR	1	0	2	1	2	2	LALITPUR	0	1	2	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	MAHOPA	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	2	1	0	3	0	15							
FAIZABAD	0	0	0	0	0	0	MAU	0	0	0	0	0	0							
FARRUKHABAD	0	0	0	0	0	0	MEERUT	6	0	0	0	0	0							
FATEHPUR	1	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 Sep- 02 Oct					
	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	1	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	2	0	0	1	0	0

(e) Rajasthan

District	15 Sep- 02 Oct					
	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	7	0	1	5	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	1	0	2	2	0	0
CHITTAURGARH	0	1	0	1	1	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	2	0	0
HANUMANGARH	4	0	1	1	8	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	1	6	0	0
NAGPUR	0	0	0	0	0	0
PALI	1	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	20	1	5	18	9	2

(f) Madhya Pradesh

District	15 Sep- 02 Oct													
	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	1	0	2	1	0	0	
ASHOKNAGAR	5	0	0	1	1	0	RATLAM	0	0	0	1	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	1	0	0	0	0	0	
BHIND	0	0	0	0	0	1	SEHORE	1	0	0	1	0	0	
BHOPAL	1	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	2	0	0	1	0	0	
CHHINDWARA	0	0	0	0	0	0	SHEOPUR	0	0	0	0	0	0	
DAMOH	5	0	0	2	0	1	SHIVPURI	0	0	0	0	0	0	
DATIA	0	0	0	1	0	0	SIDHI	0	0	0	0	0	0	
DEWAS	0	0	0	1	1	0	SINGRAULI	0	0	0	0	2	1	
DHAR	2	0	0	0	1	0	TIKAMGARH	0	0	0	0	0	0	
DINDORI	0	0	0	0	0	0	UJJAIN	3	0	0	1	0	0	
EAST NIMAR	0	0	0	0	0	0	UMARIA	0	0	0	0	0	0	
GUNA	4	1	0	5	0	0	VIDESHA	4	1	0	5	3	0	
GWALIOR	3	0	0	0	0	0	WEST NIMAR	0	0	0	0	0	0	
HARDA	2	1	0	1	0	0	Total	38	5	2	30	11	9	
HOSHANGABAD	0	0	0	1	0	1								
INDORE	1	0	0	2	3	0								
JABALPUR	1	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	3	0	5								
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 September -02 October)

Number of Paddy Residue Burning Events Detected

Date	Punjab						Haryana						Uttar Pradesh					
	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
23-Sep	49	0	3	1	6	8	0	0	0	3	12	0	1	0	0	0	0	4
24-Sep	78	5	0	0	12	5	0	0	0	0	6	1	1	1	0	1	0	0
25-Sep	184	11	0	0	12	4	11	0	0	1	18	1	5	0	0	1	0	2
26-Sep	190	19	0	3	5	1	5	0	0	2	5	0	8	0	0	0	0	4
27-Sep	78	37	0	21	0	2	8	0	0	9	5	1	4	1	0	0	3	1
28-Sep	55	28	0	33	0	8	6	1	0	8	0	0	1	6	0	4	0	10
29-Sep	63	64	0	68	21	5	9	4	0	17	0	1	6	10	0	6	0	14
30-Sep	116	27	8	81	10	0	22	2	0	26	1	0	13	13	10	18	0	1
01-Oct	165	13	45	123	26	0	15	4	1	21	3	0	7	13	3	17	0	4
02-Oct	141	0	83	119	16	0	30	2	7	24	20	0	12	0	36	7	9	0
Total	1331	228	275	456	171	95	123	13	9	120	104	7	63	46	49	57	15	46

Number of Paddy Residue Burning Events Detected

Date	Delhi						Rajasthan						Madhya Pradesh				
	2020	2021	2022	2023	2024	2025	2020	2021	2022	2023	2024	2025	2020	2021	2022	2023	2024

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
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
01-Oct	0	0	0	0	0	0	4	1	1	4	1	0	13	0	1	8	3	0
02-Oct	1	0	0	0	0	0	7	0	3	4	3	0	12	0	1	1	0	0
Total	2	0	0	1	0	0	20	1	5	18	9	2	38	5	2	30	11	9

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)**
