

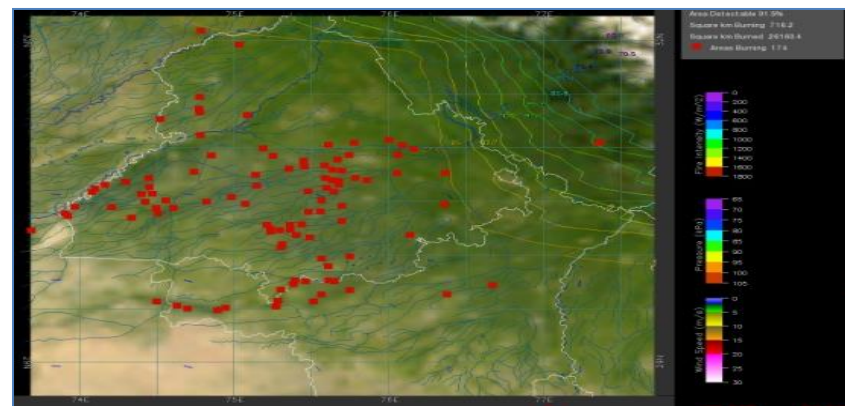
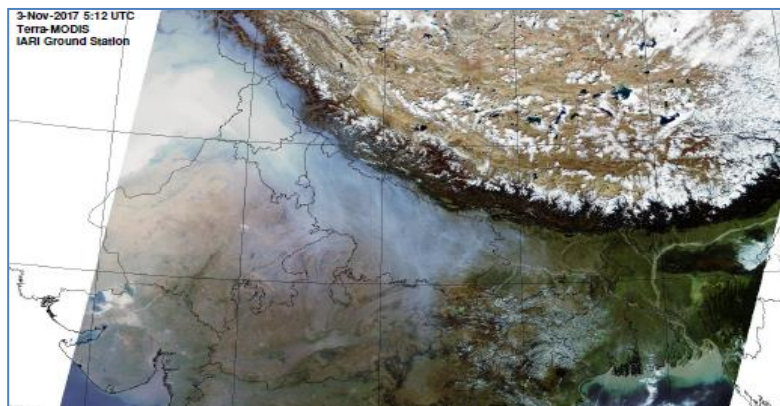


MONITORING PADDY RESIDUE BURNING IN INDIA USING SATELLITE REMOTE SENSING DURING 2023

Bulletin
No. 44

Events Date:
28-Oct-2023

Issued on:
28-Oct-2023



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

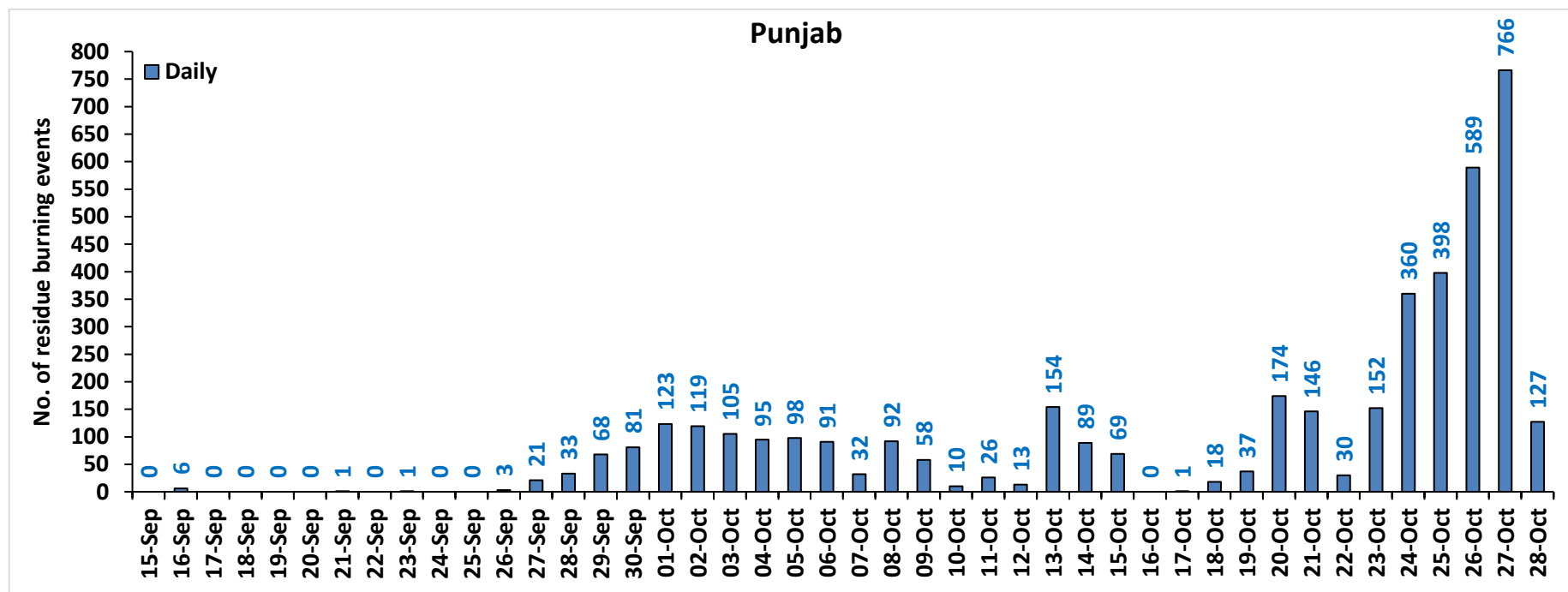
<http://creams.iari.res.in>



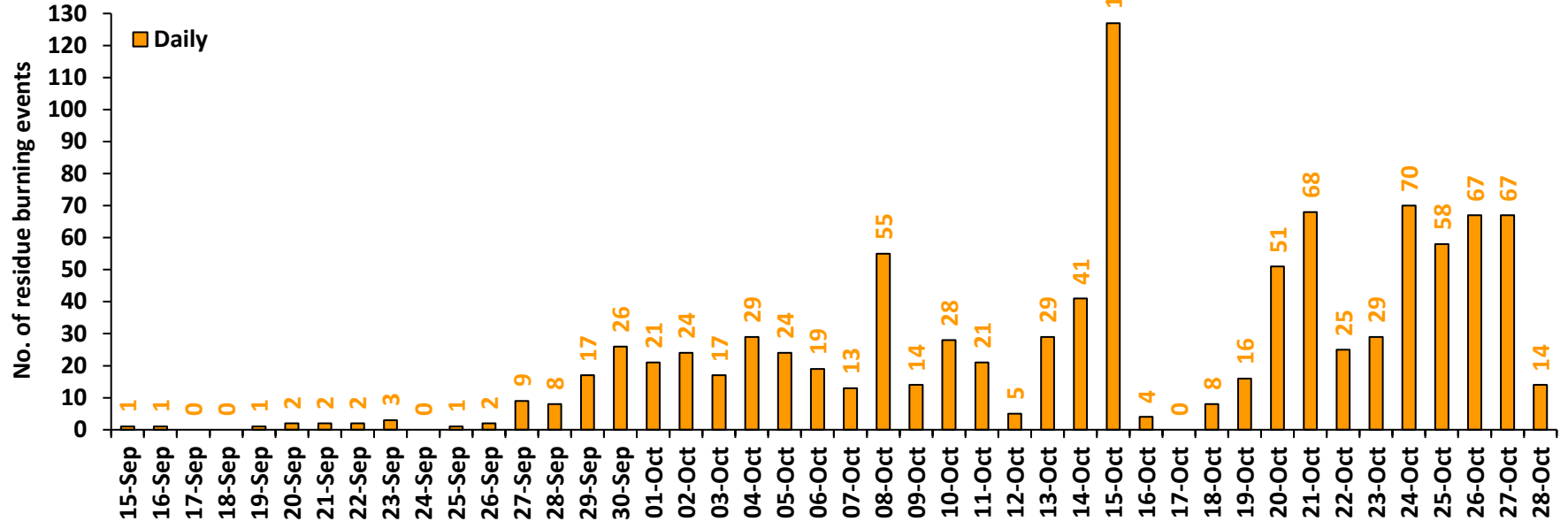
Highlights for 28-Oct-2023

- 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 **391** residue burning events in the six study States on 28-Oct-2023.
- The state wise events detected on 28-Oct-2023 were **127** in Punjab, **14** in Haryana, **36** in UP, **00** in Delhi, **12** in Rajasthan and **202** in MP.
- Total **8786** burning events were detected in the six states between 15-Sept-2023 and 28-Oct-2023, which are distributed as **4186**, **1019**, **839**, **02**, **701** and **2039** in Punjab, Haryana, UP, Delhi, Rajasthan and MP, respectively.
- Detection of residue burning events was hampered by the presence of clouds over Punjab, Haryana, Delhi, central Uttar Pradesh, Rajasthan and western Madhya Pradesh states.

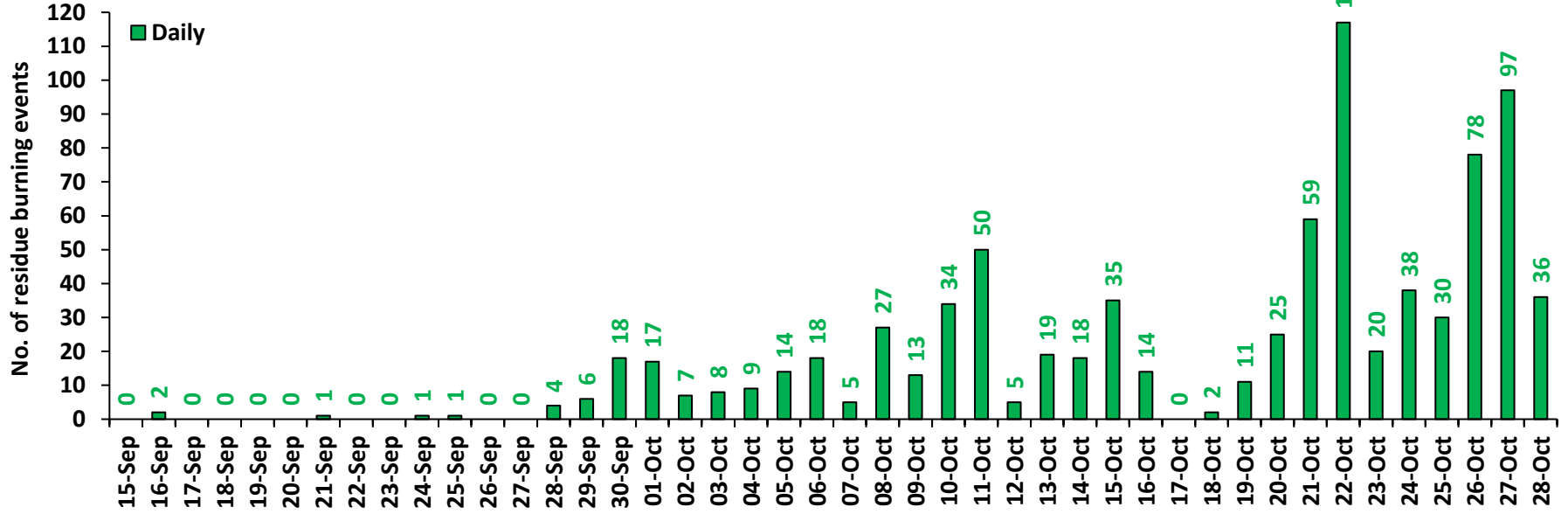
Temporal distribution of rice residue burning events for the study States in 2023



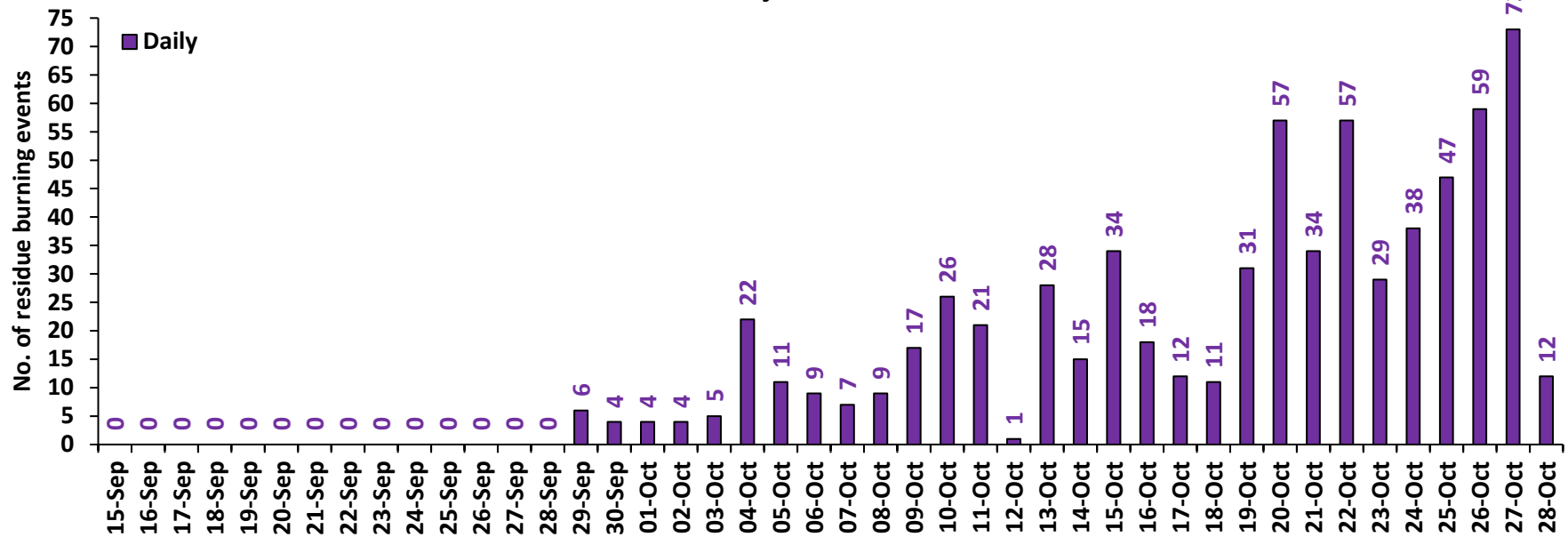
Haryana



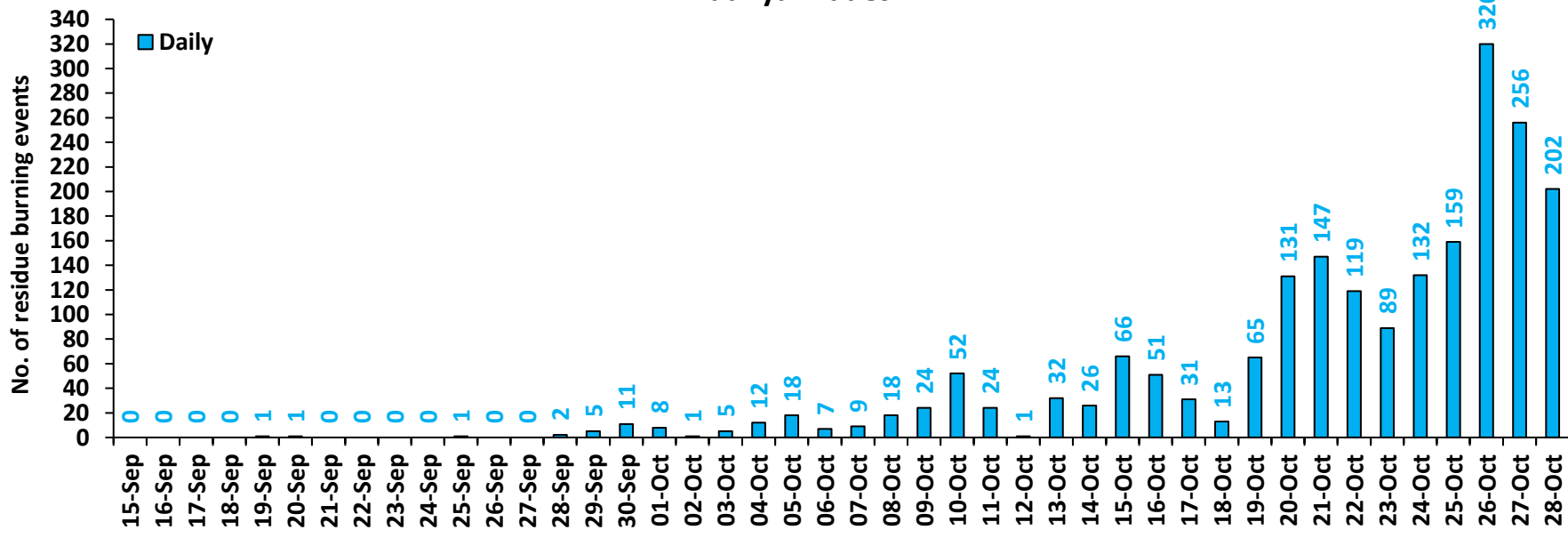
Uttar Pradesh



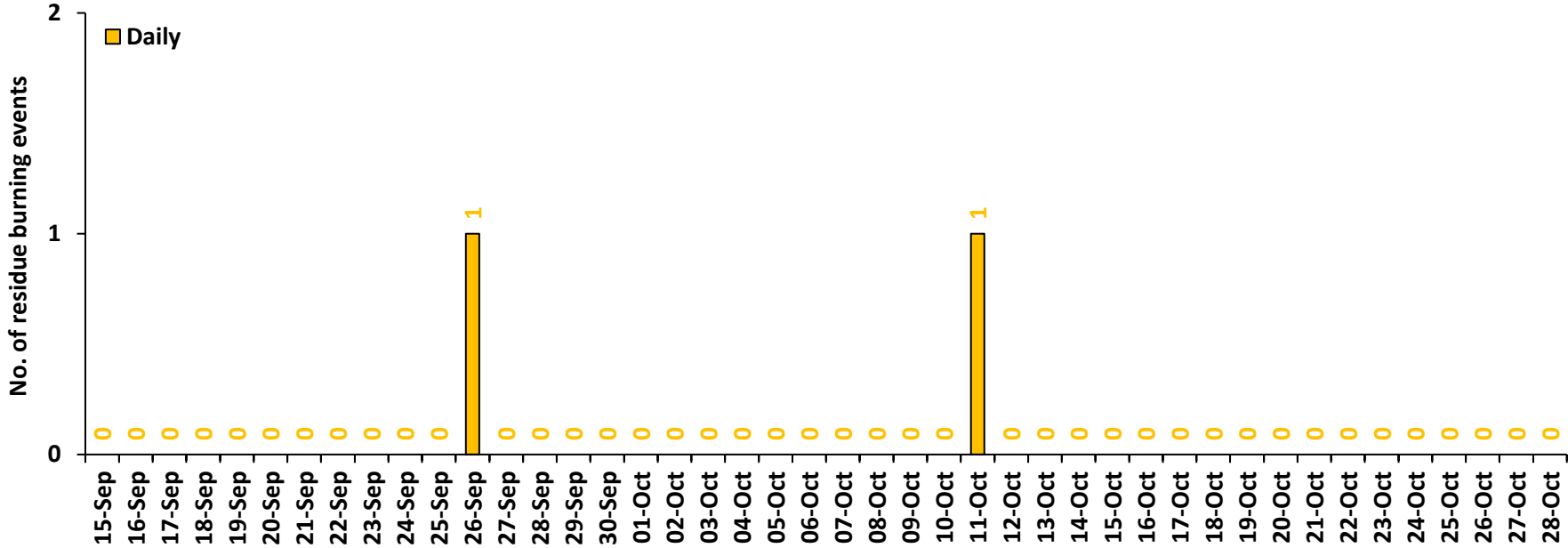
Rajasthan



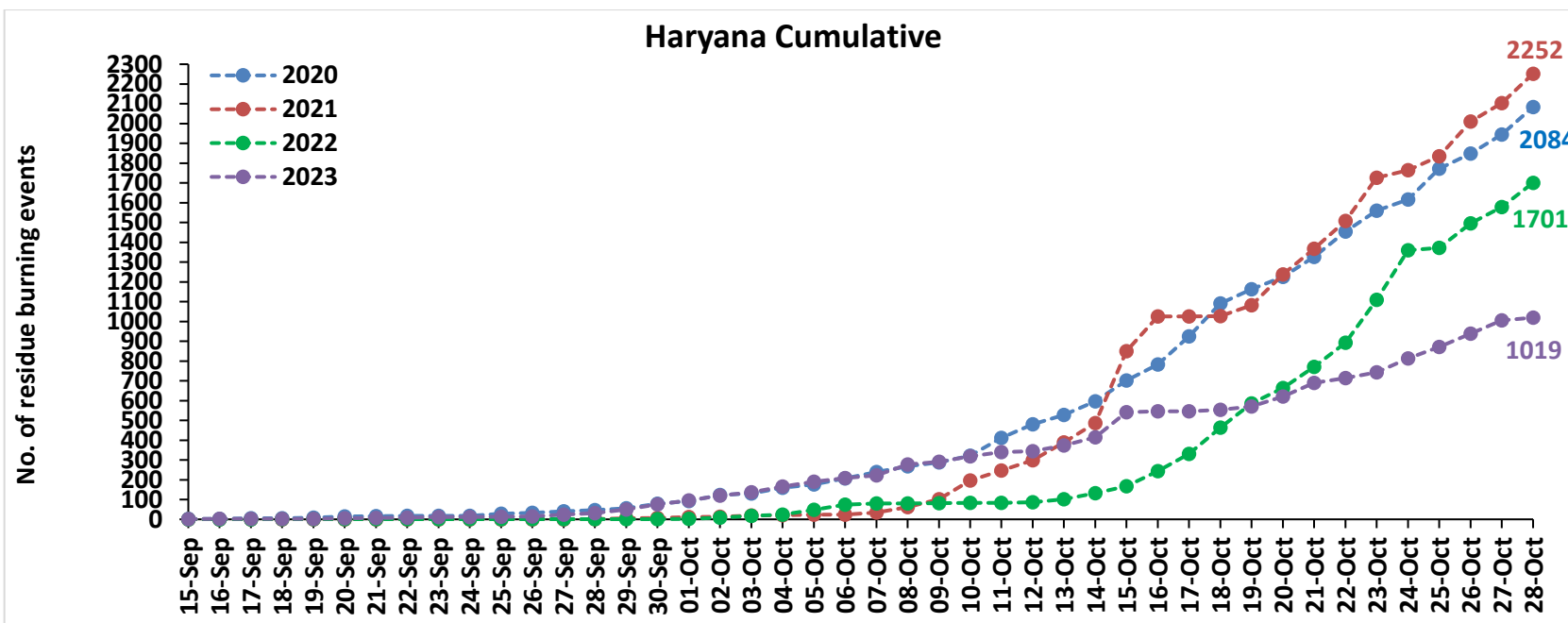
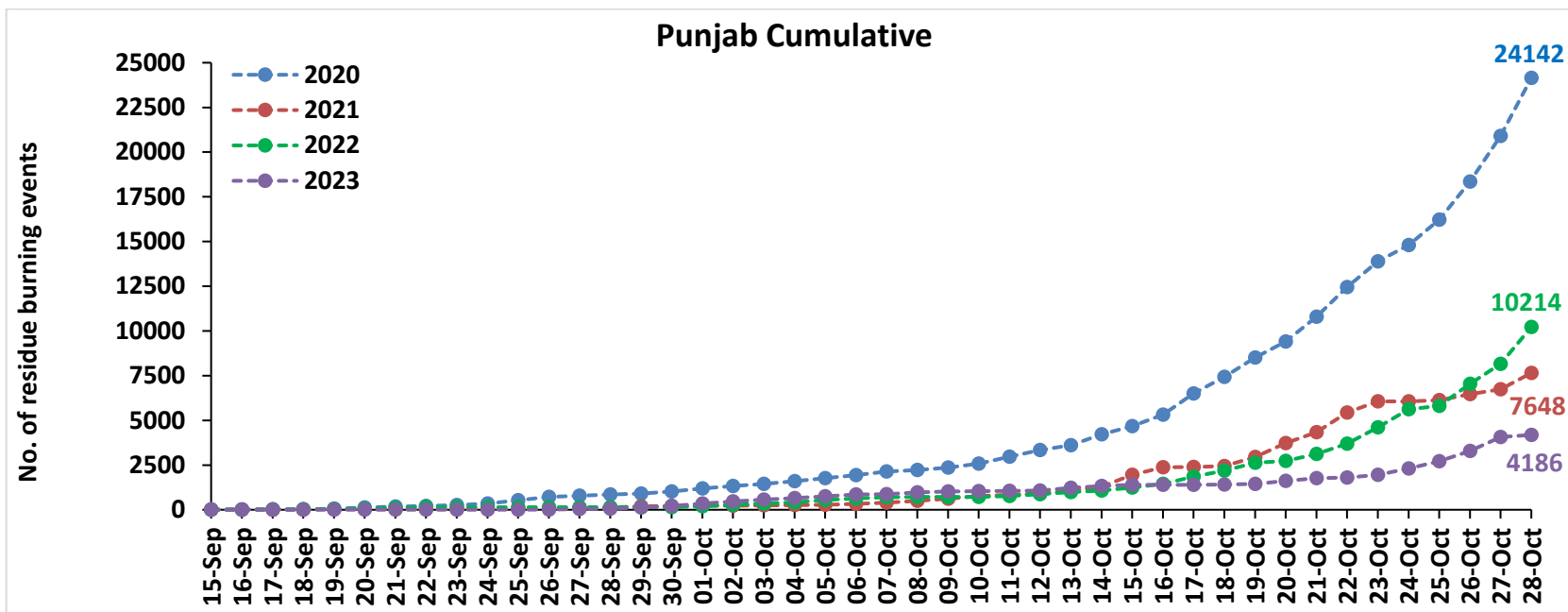
Madhya Pradesh

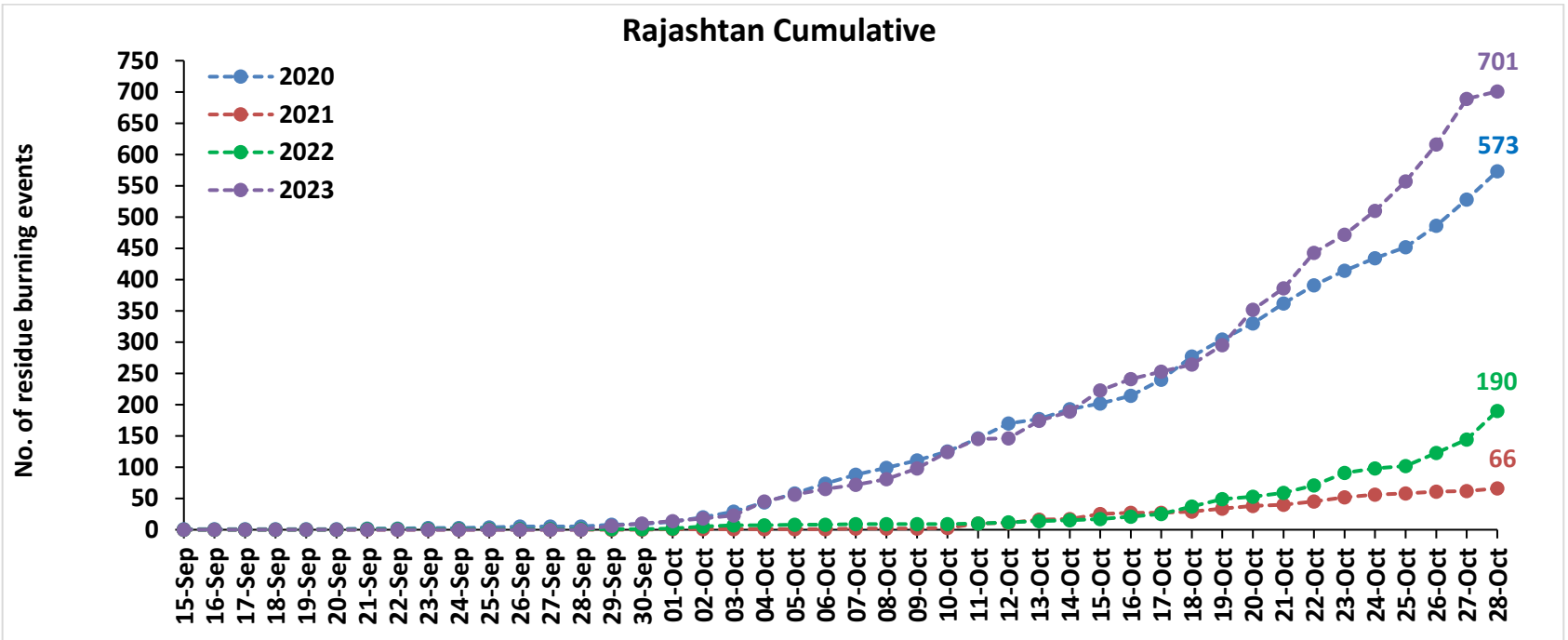
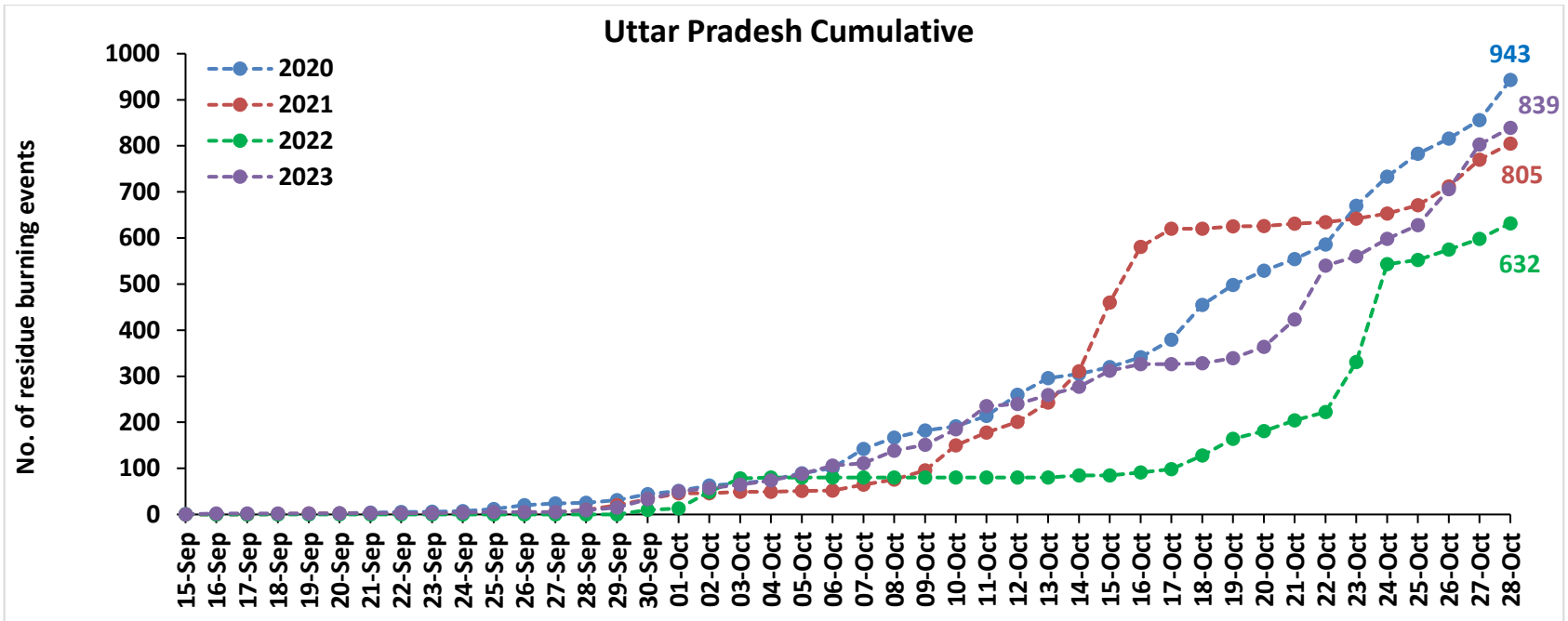


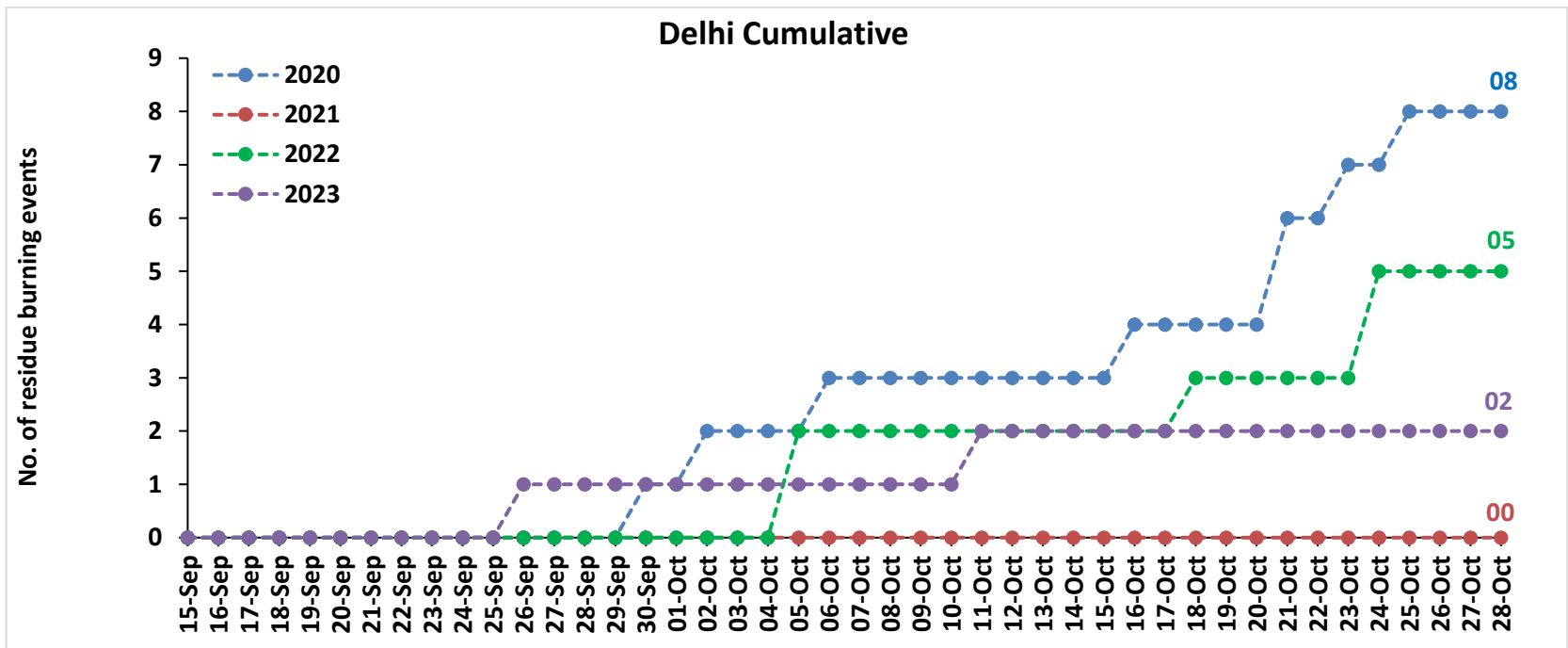
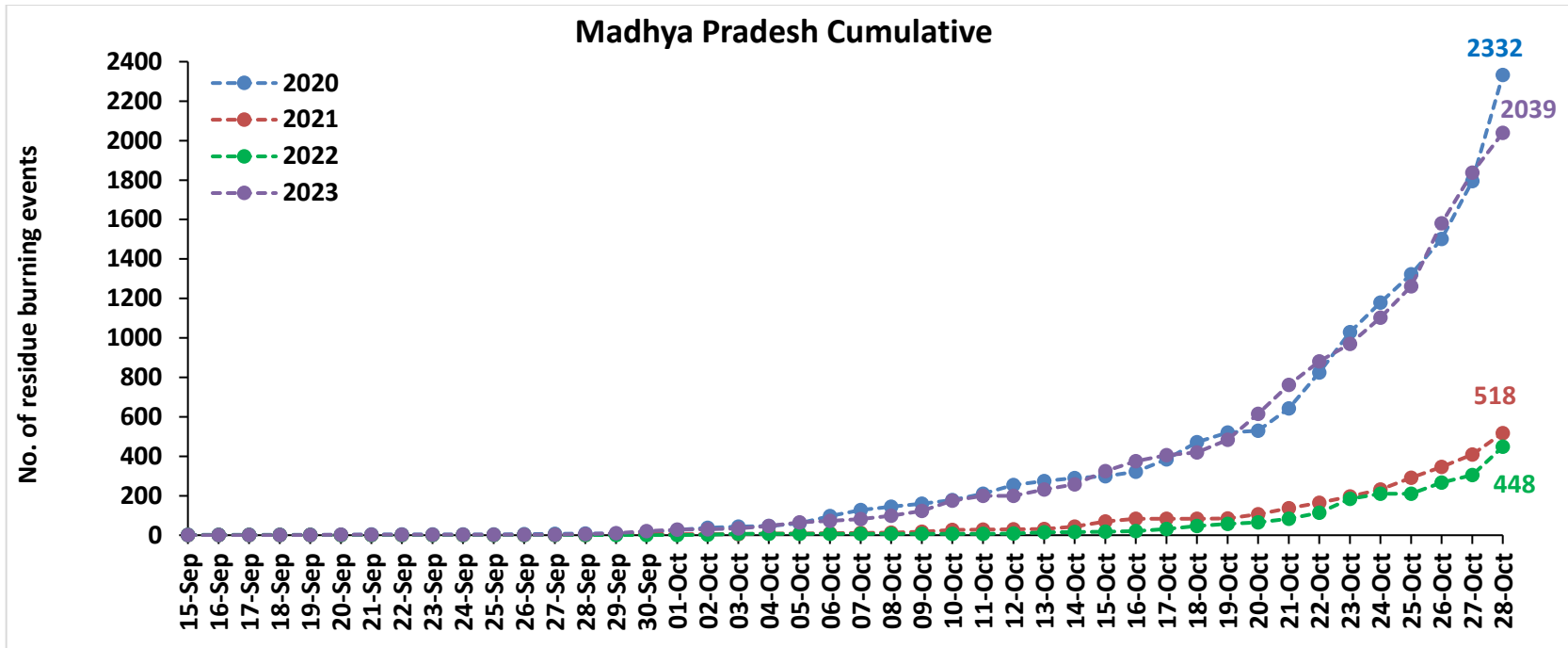
Delhi



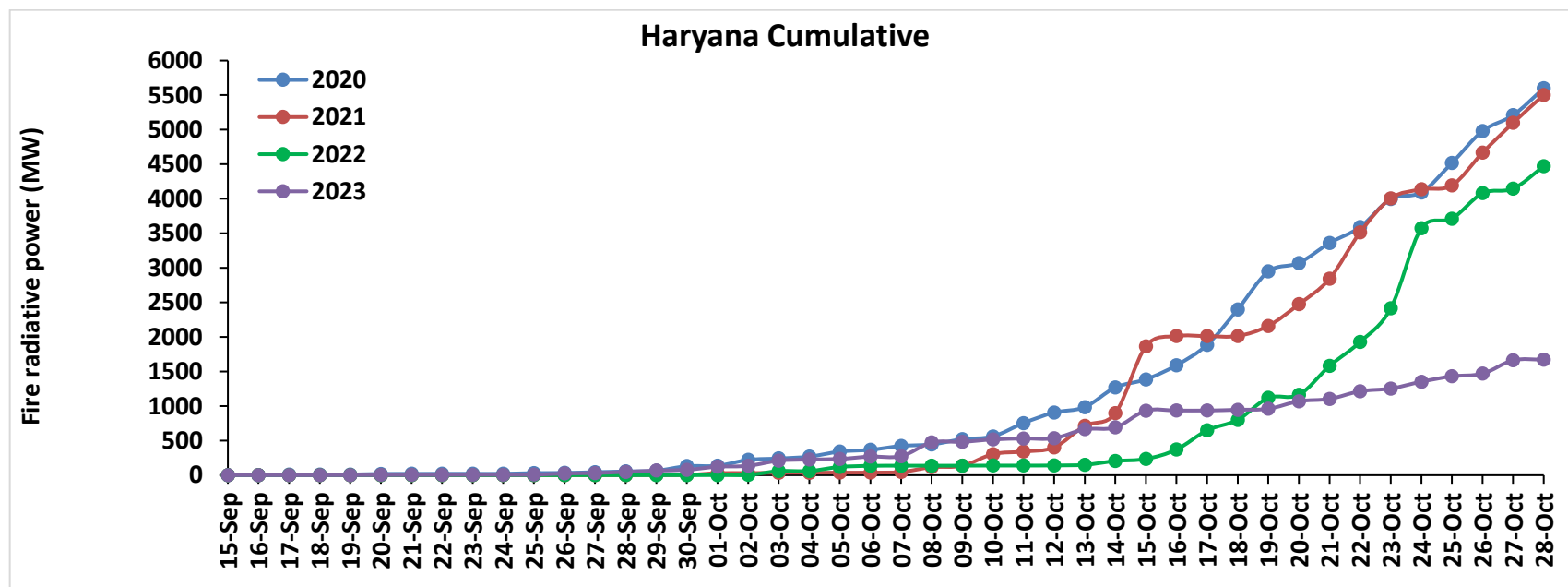
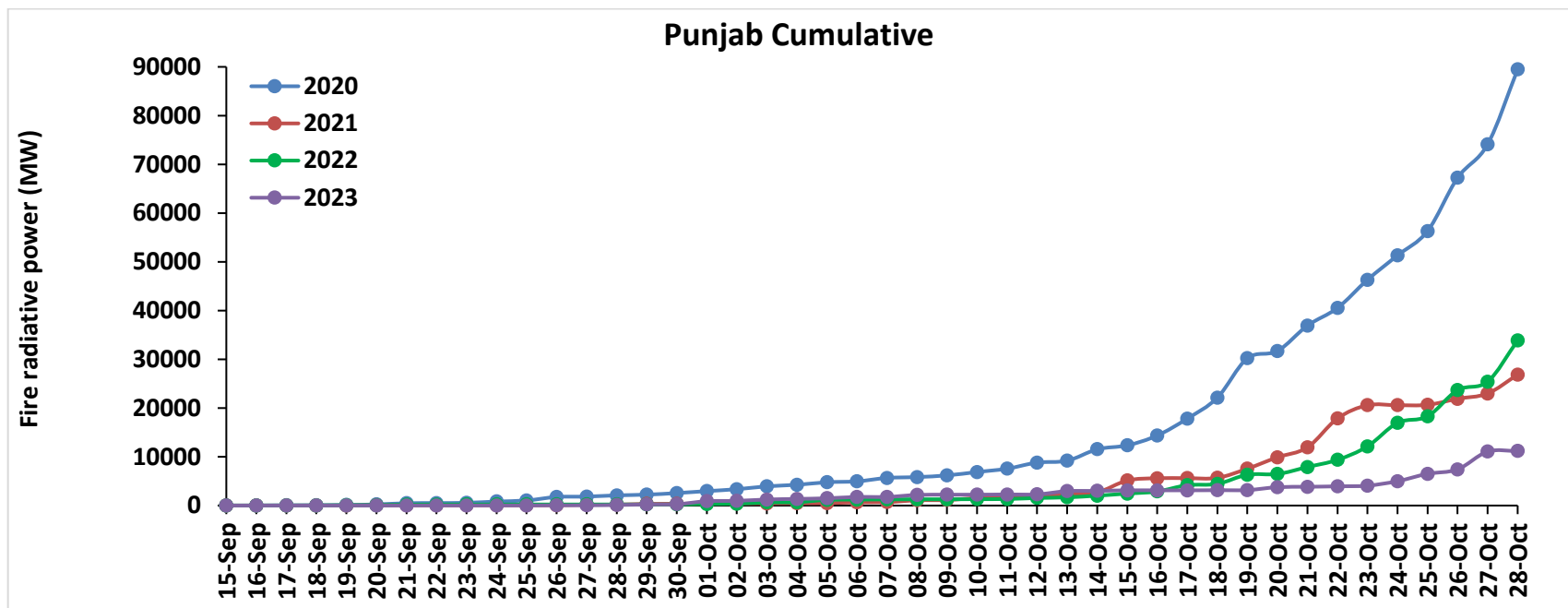
Comparison of residue burning events in current year (2023) with previous years (2020, 2021 and 2022) for the study State

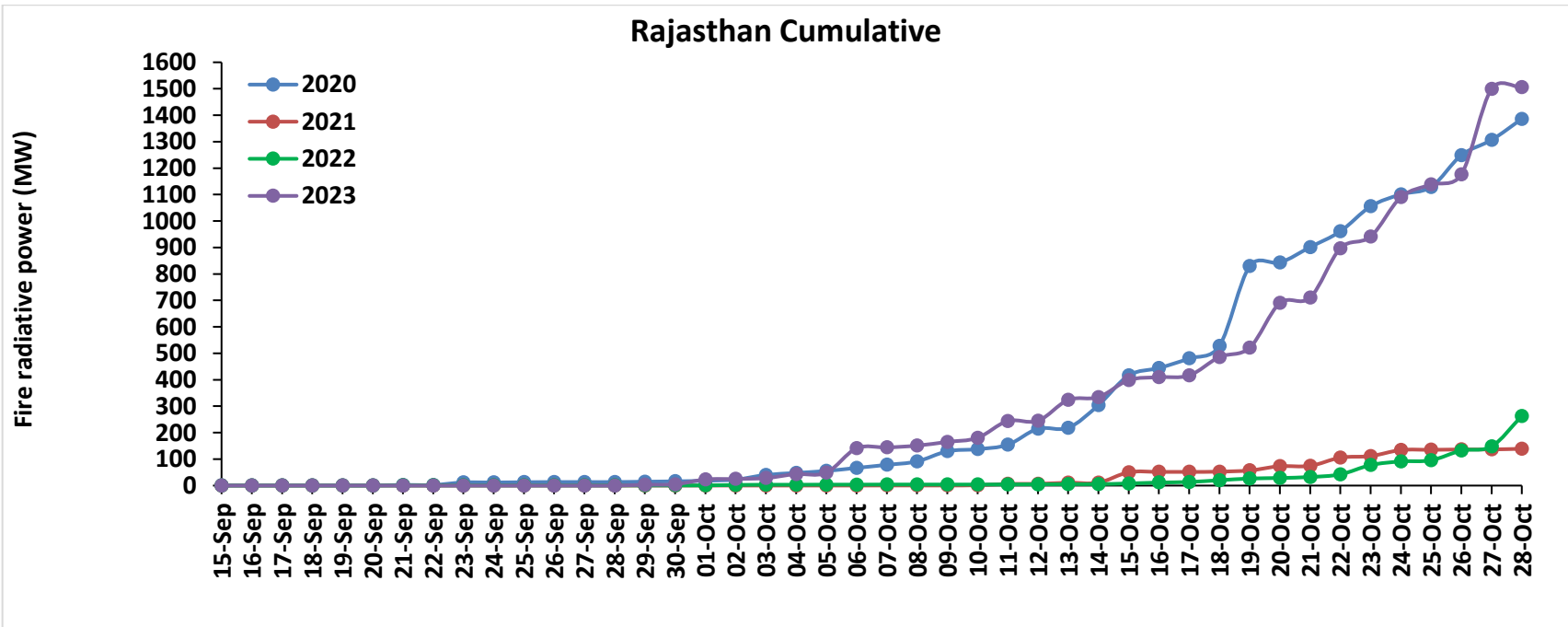
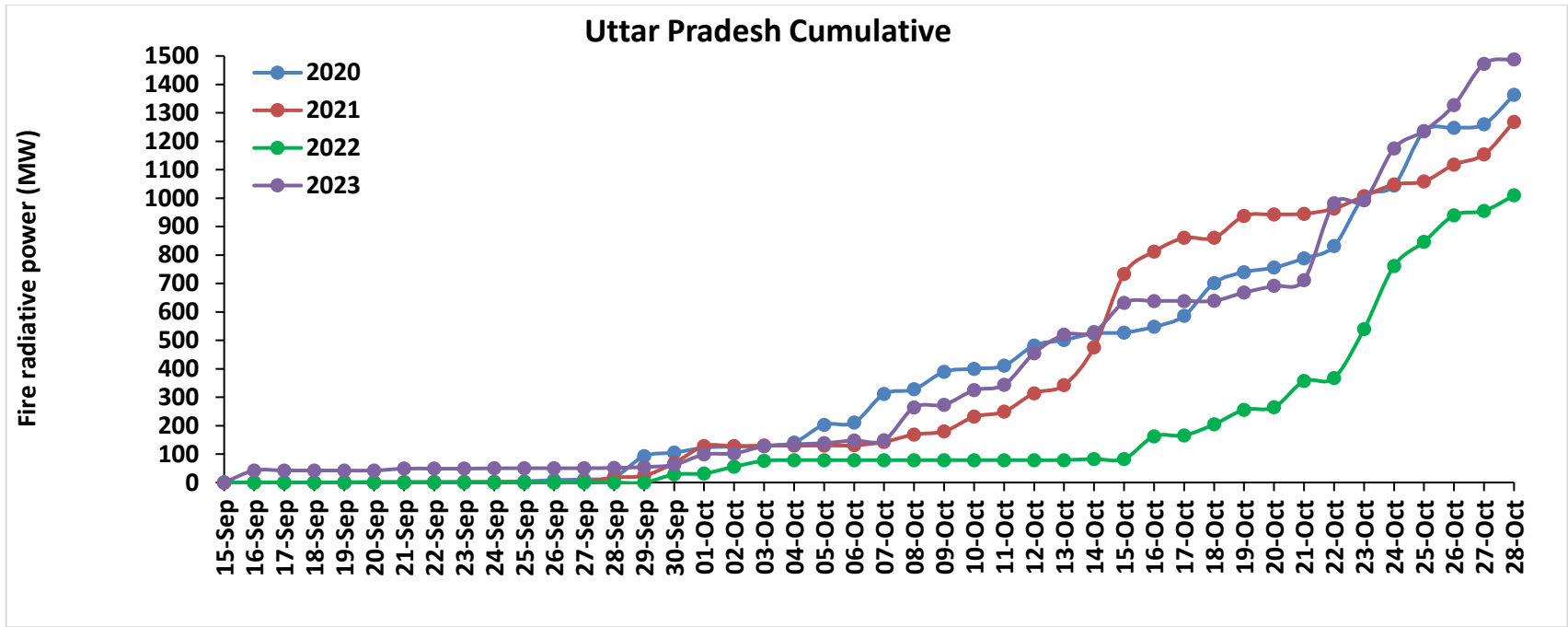




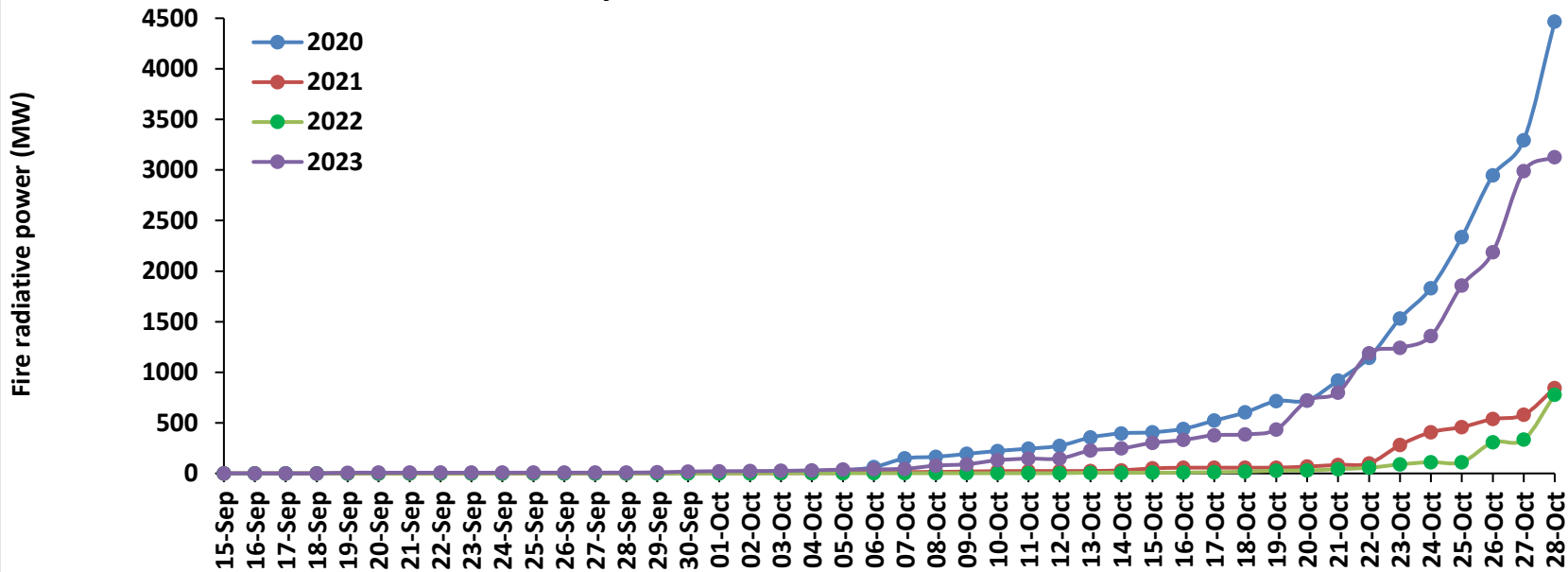


Comparison of residue burning fire power in current year (2023) with previous years (2020, 2021 and 2022) for the study States

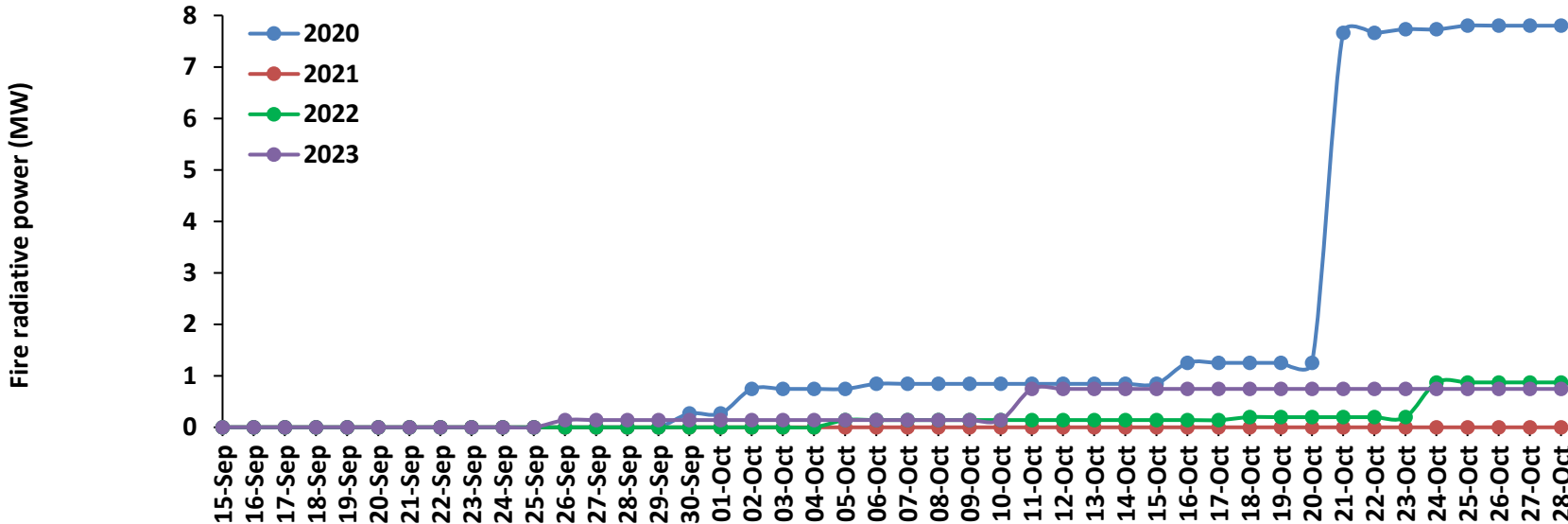




Madhya Pradesh Cumulative

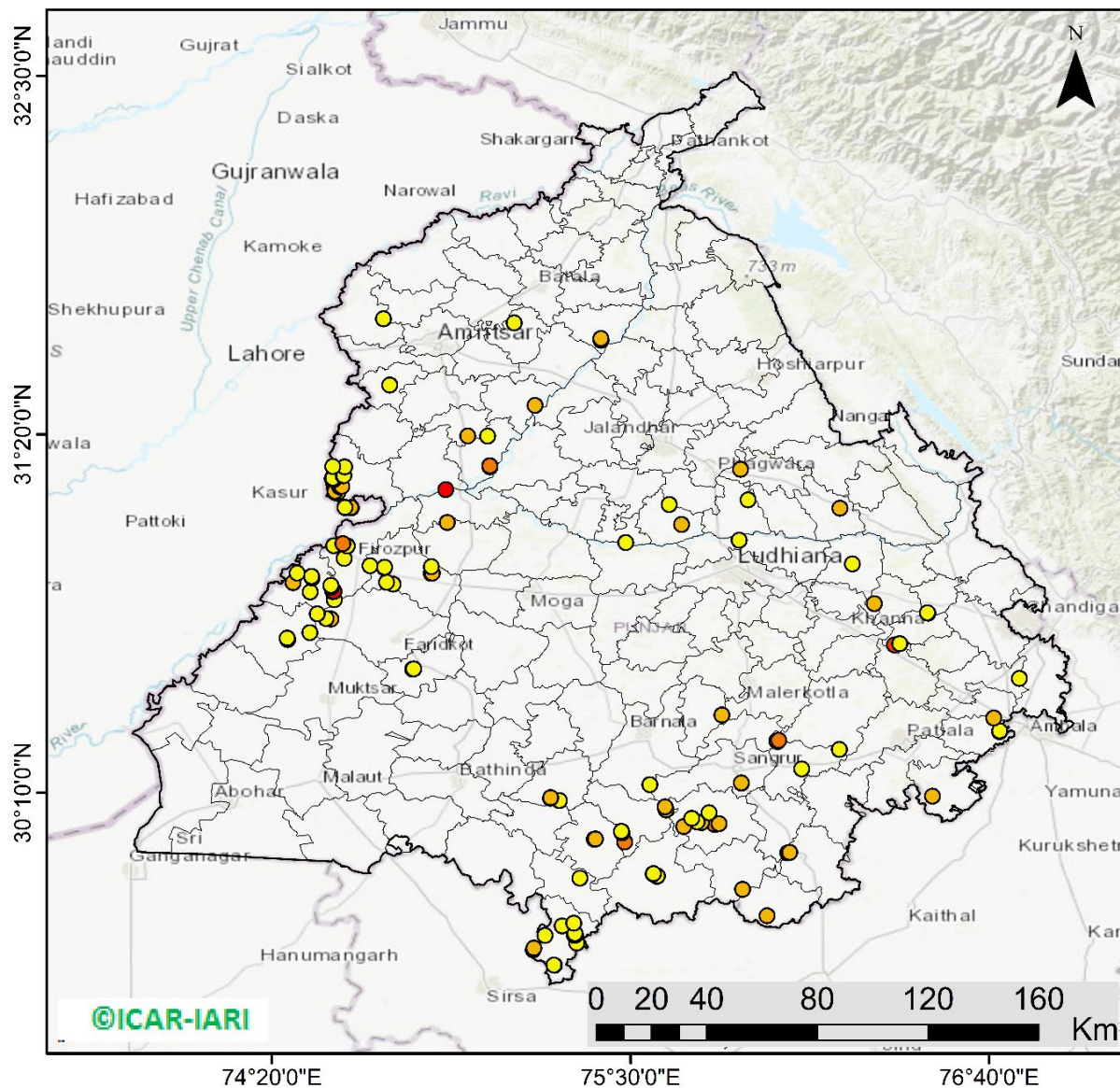


Delhi Cumulative



Punjab

RICE RESIDUE BURNING IN PUNJAB



127 burning events detected in Punjab during (28th Oct 2023)

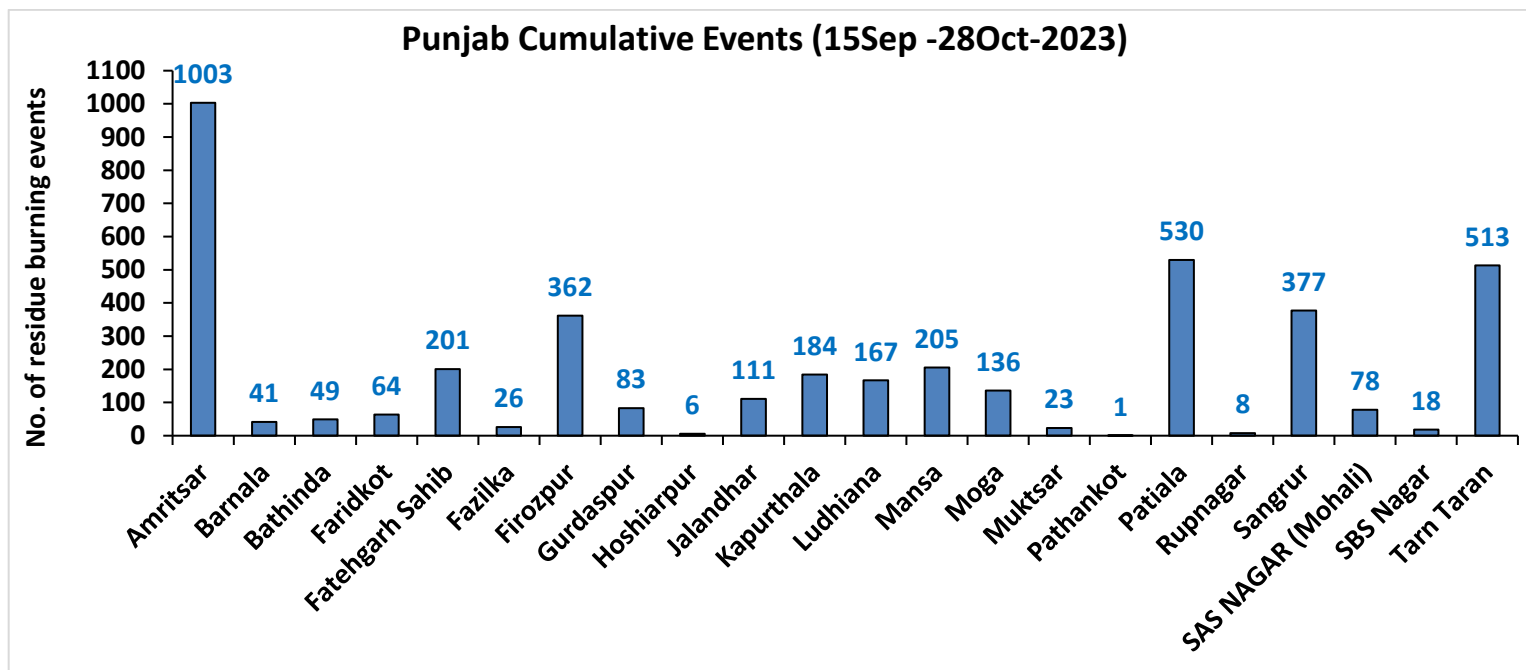
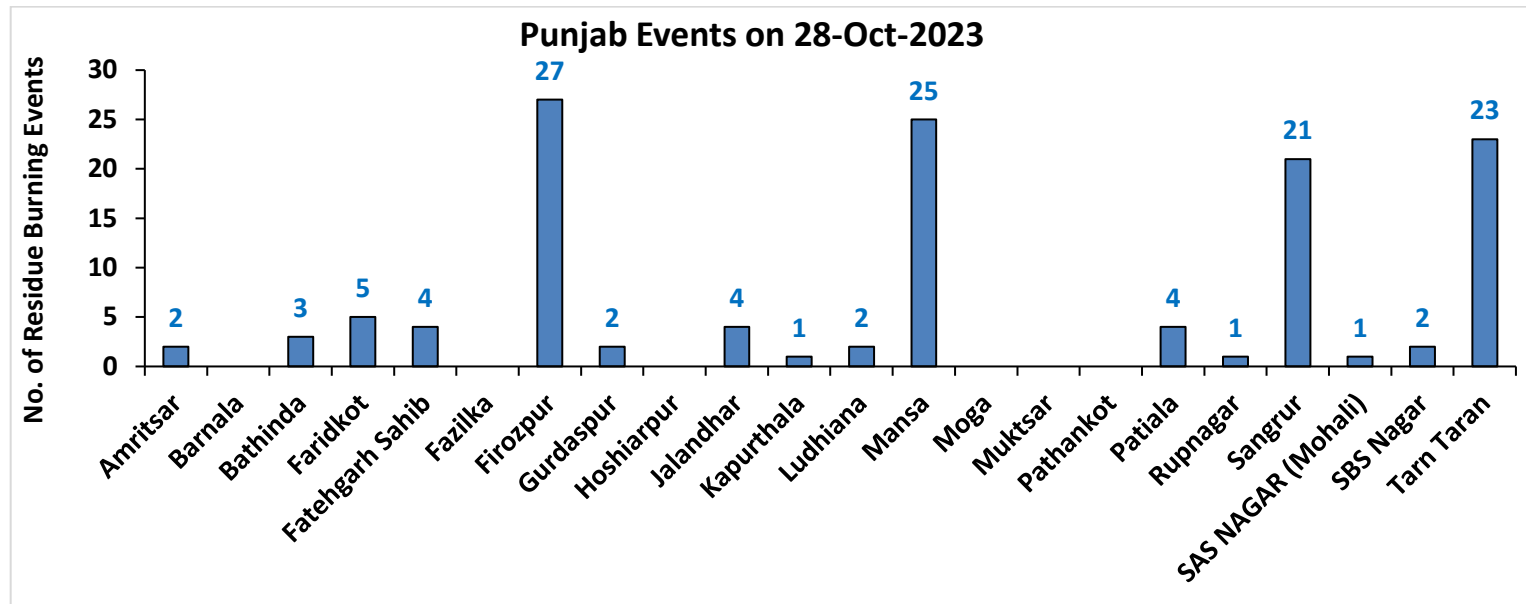
Fire Intensity (W/m²)

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



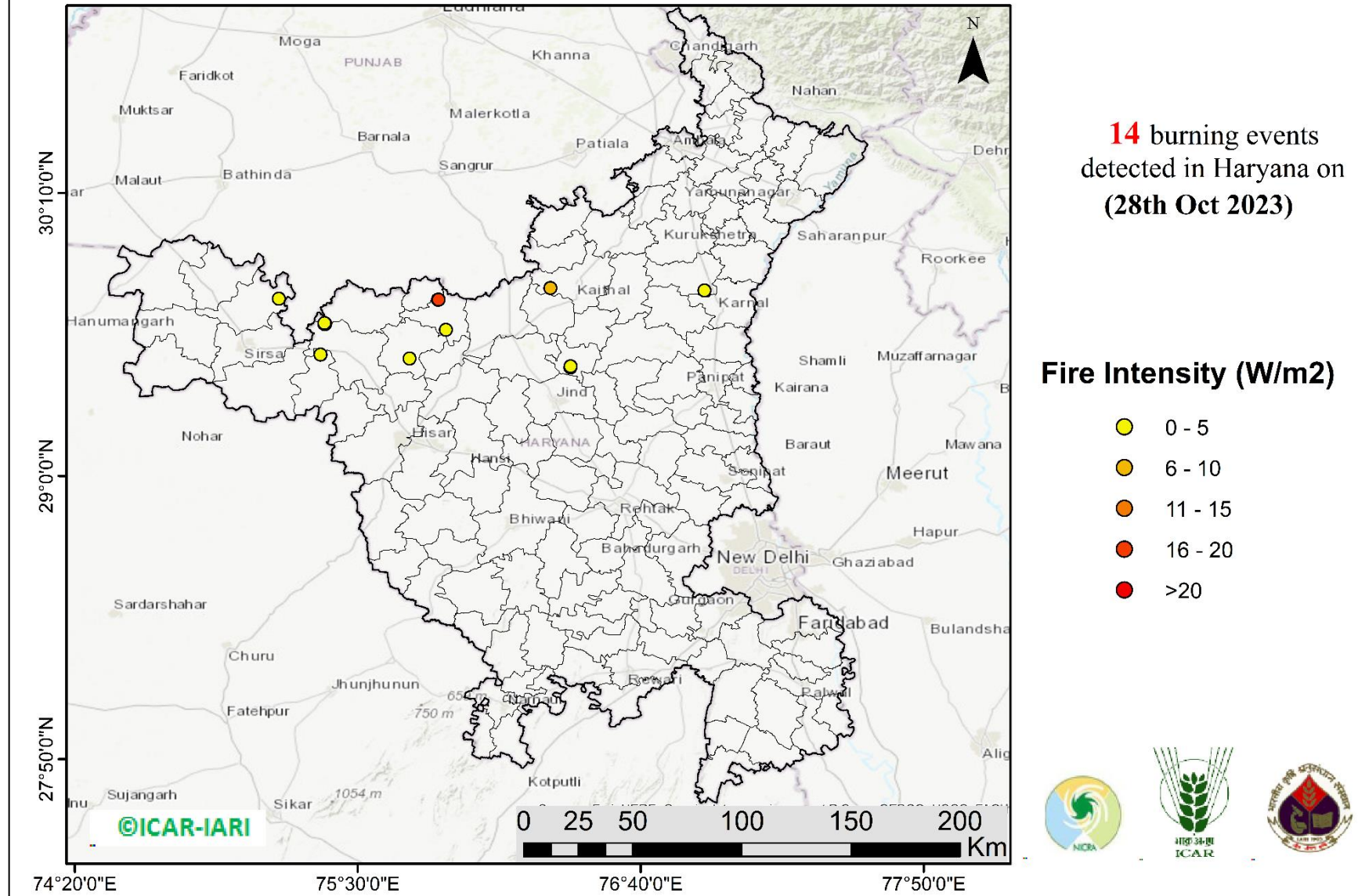
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residues burning events in Punjab (15Sep- 28Oct-2023)



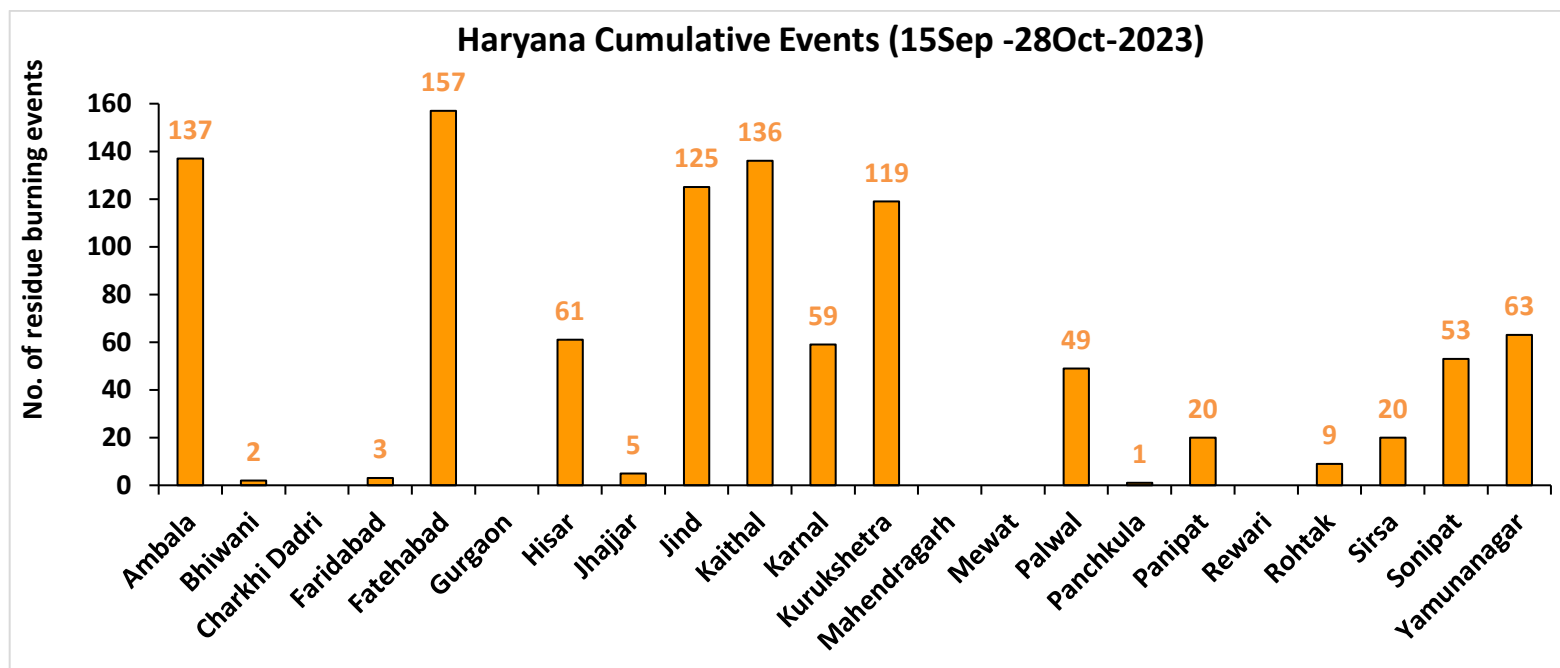
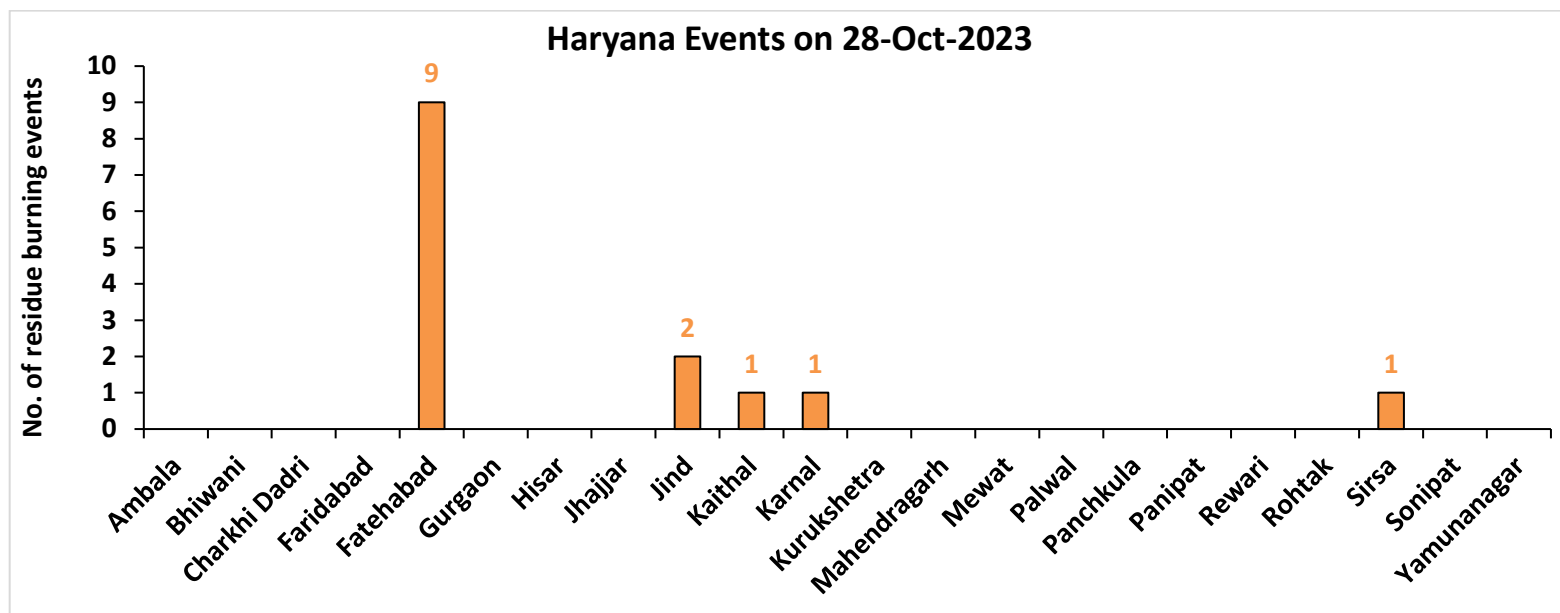
Haryana

RICE RESIDUE BURNING IN HARYANA



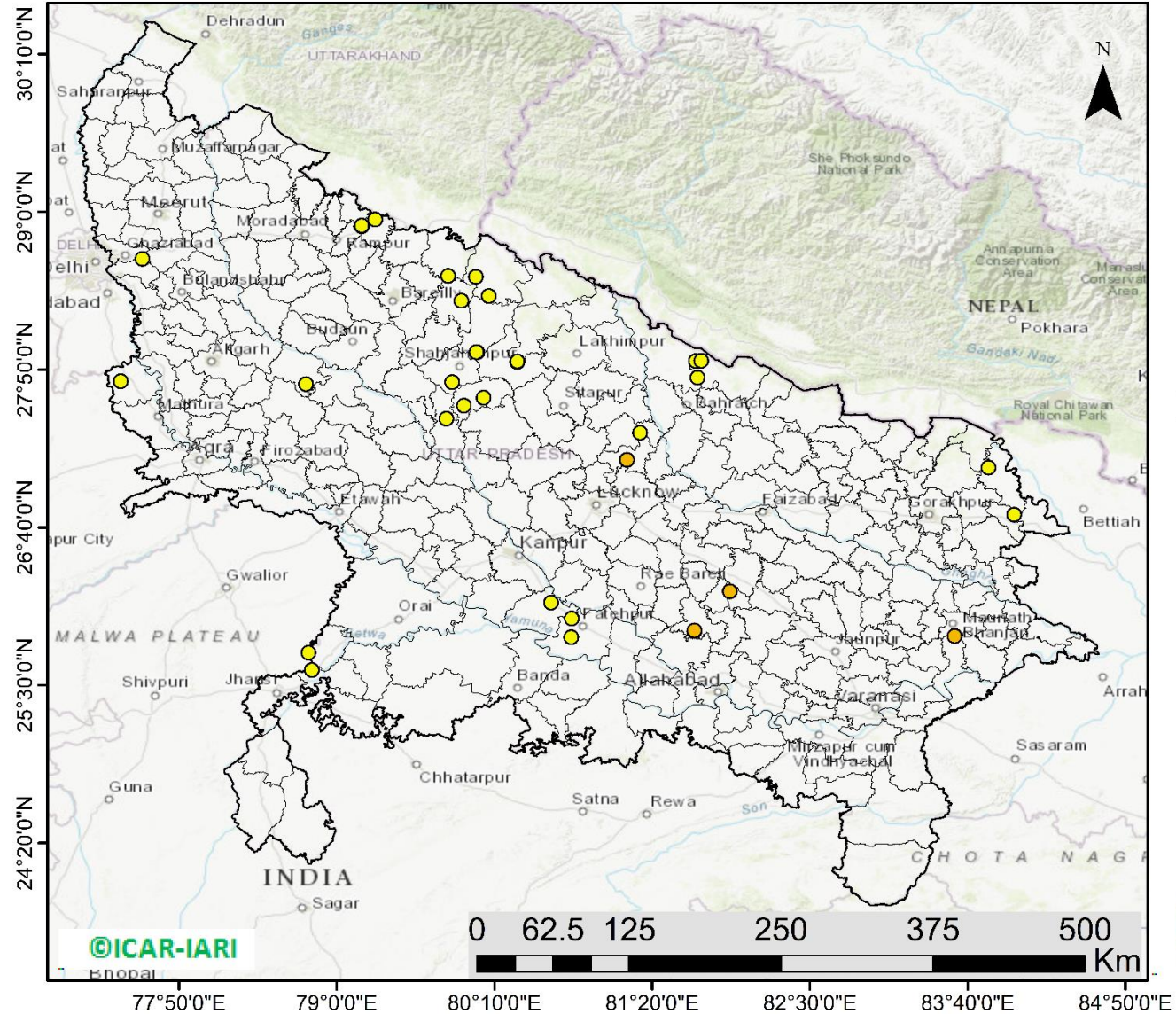
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residues burning events in Haryana (15Sep-28Oct -2023)



Uttar Pradesh

RICE RESIDUE BURNING IN UTTAR PRADESH



36 burning events detected in Uttar Pradesh on (28th Oct 2023)

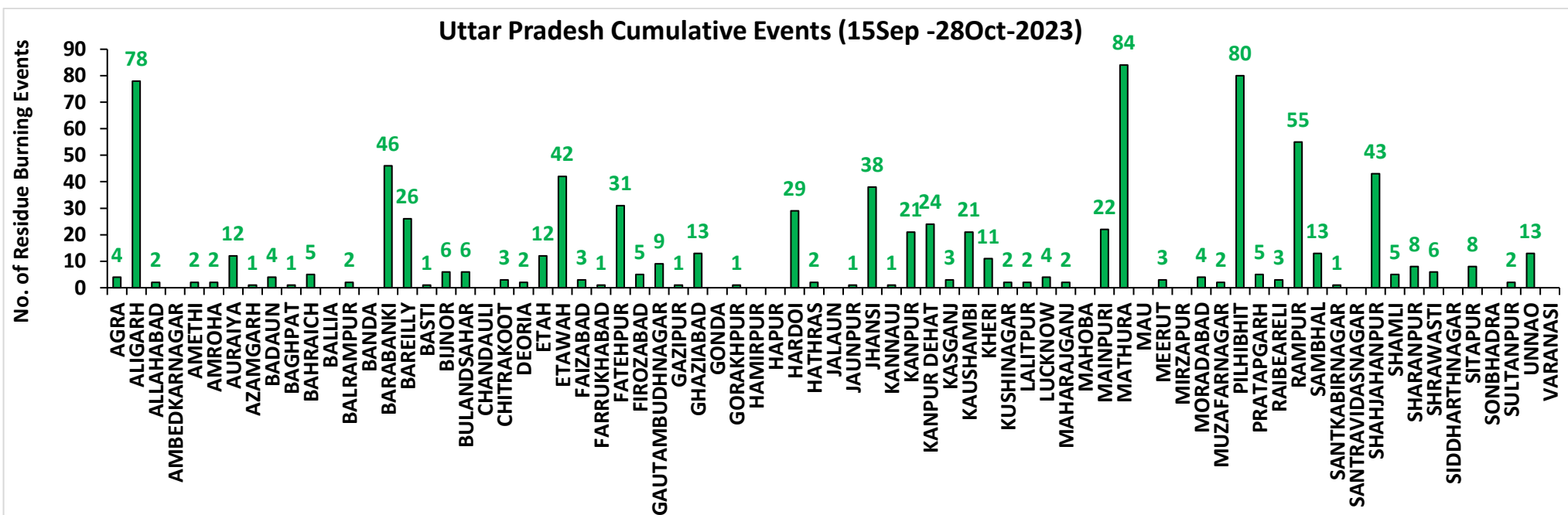
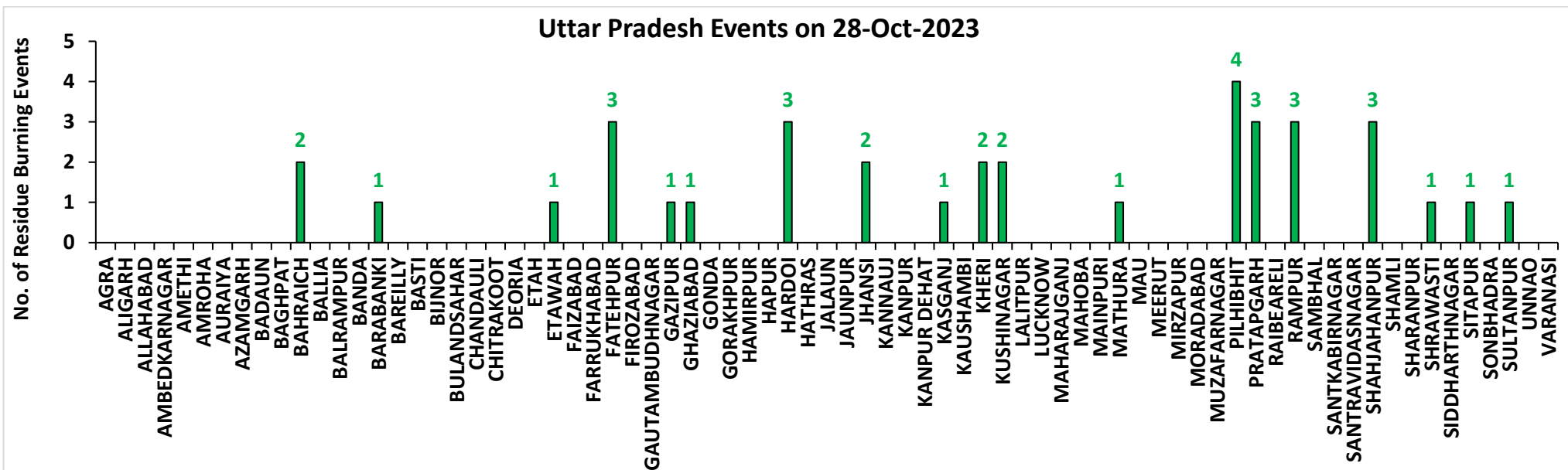
Fire Intensity (W/m²)

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



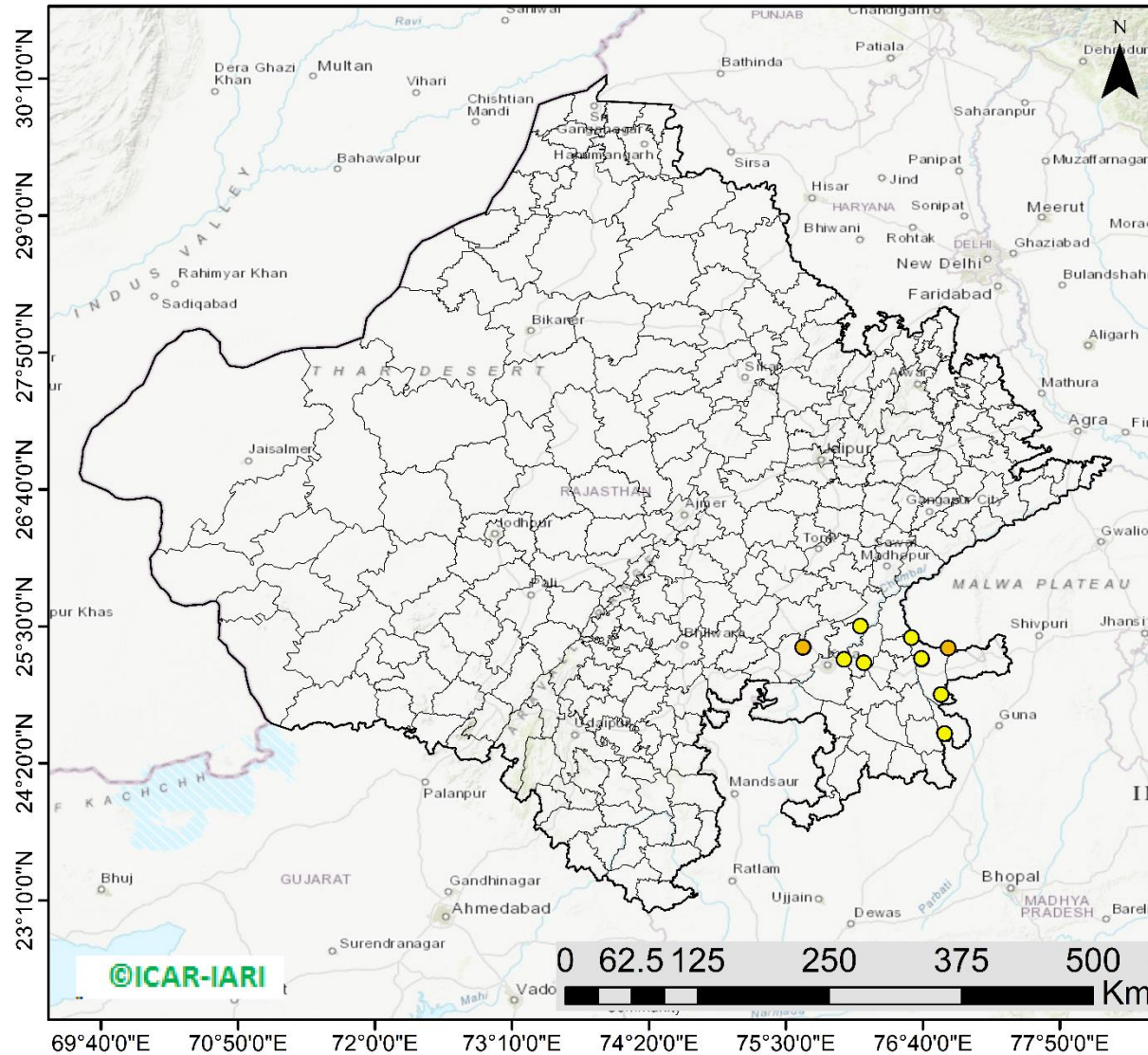
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residues burning events in Uttar Pradesh (15Sep-28Oct -2023)



Rajasthan

RICE RESIDUE BURNING IN RAJASTHAN



12 burning events
detected in Rajasthan on
(28th Oct 2023)

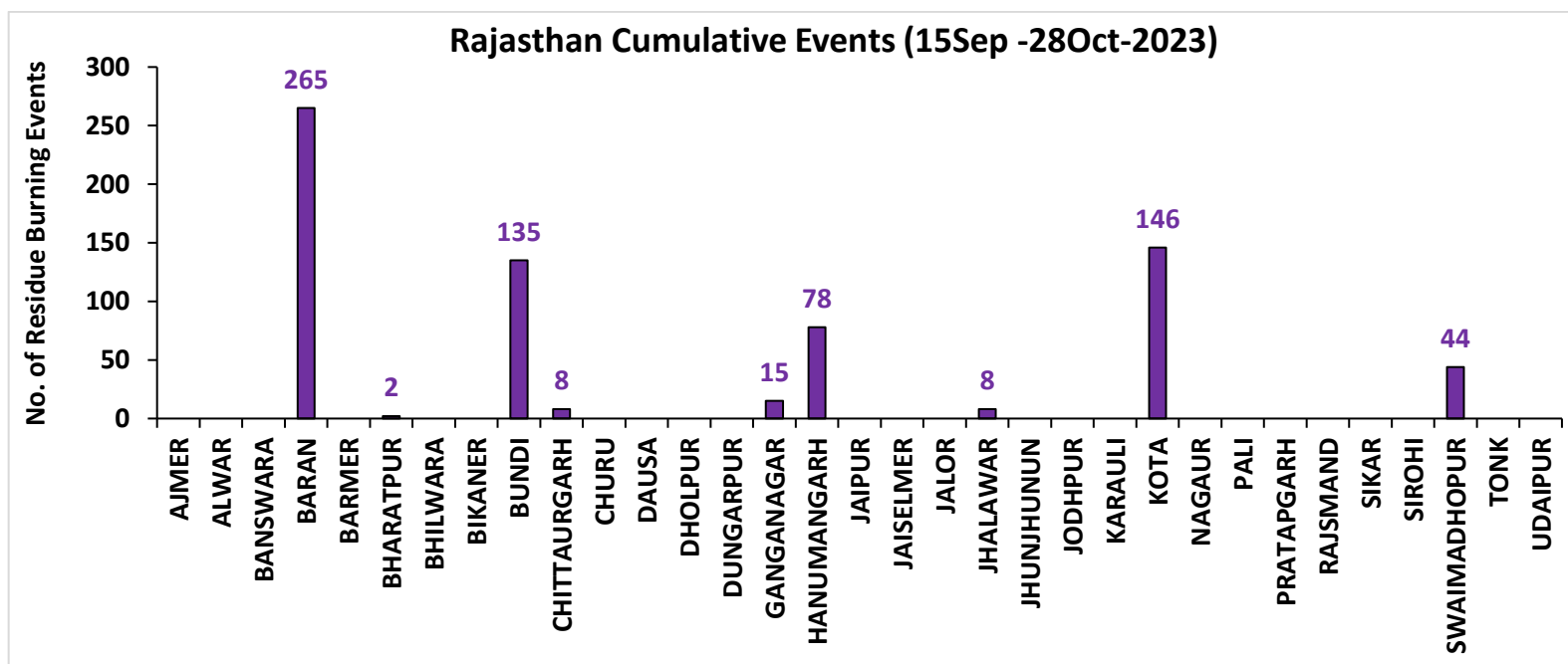
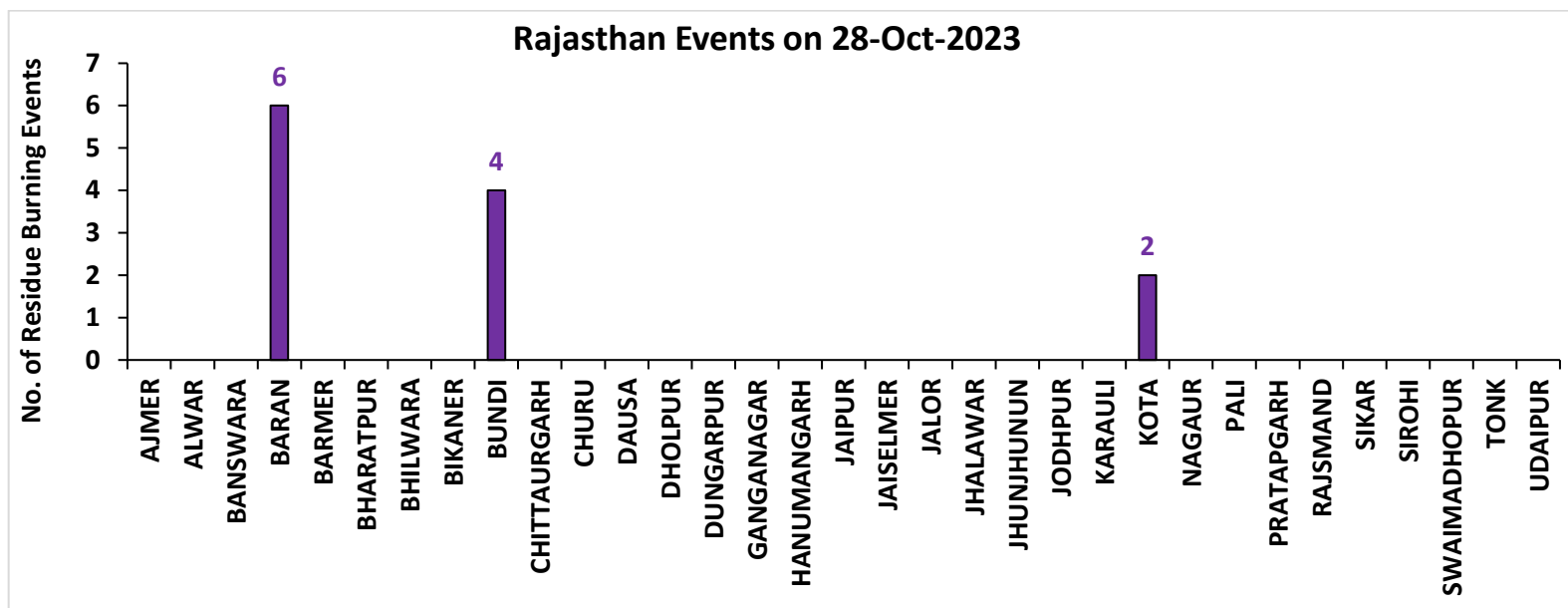
Fire Intensity (W/m²)

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



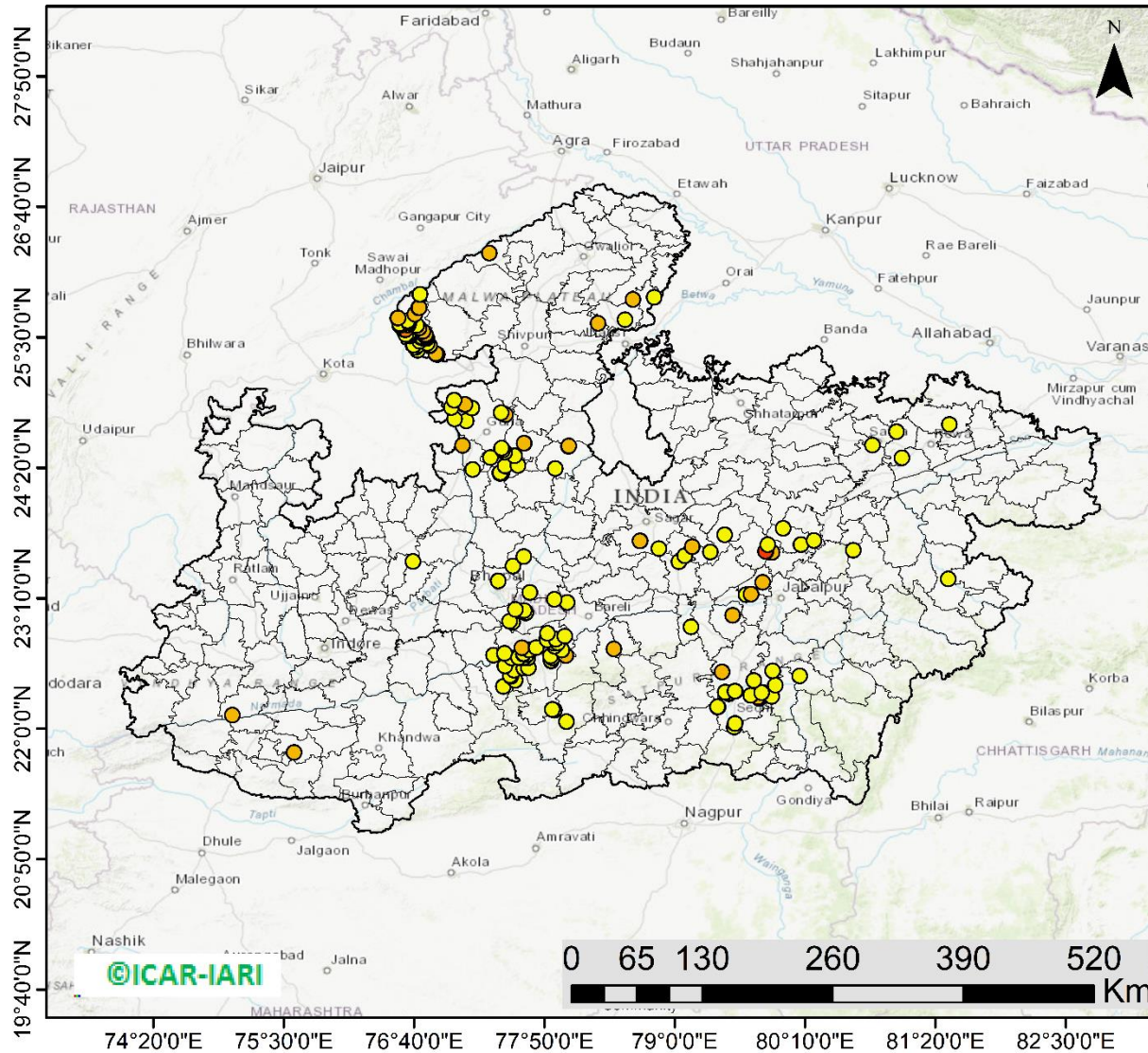
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residues burning events in Rajasthan (15Sep-28Oct -2023)



Madhya Pradesh

RICE RESIDUE BURNING IN MADHYA PRADESH



202 burning events detected in MP on (28th Oct 2023)

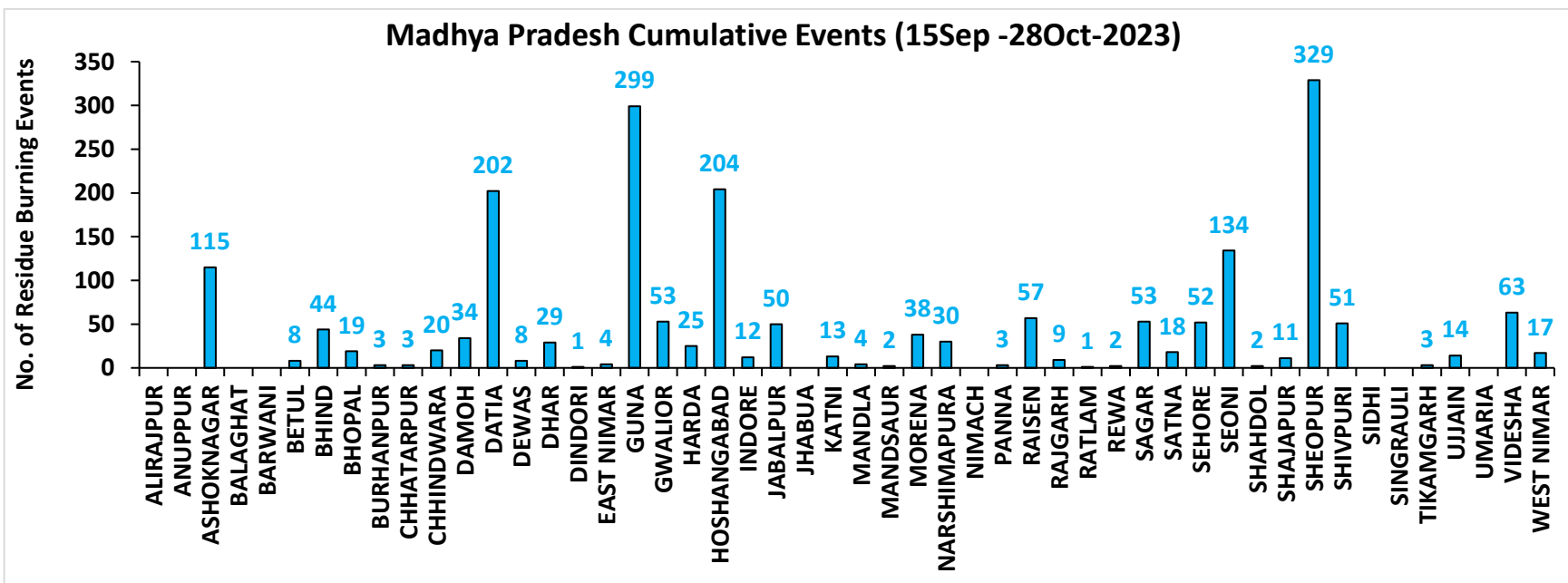
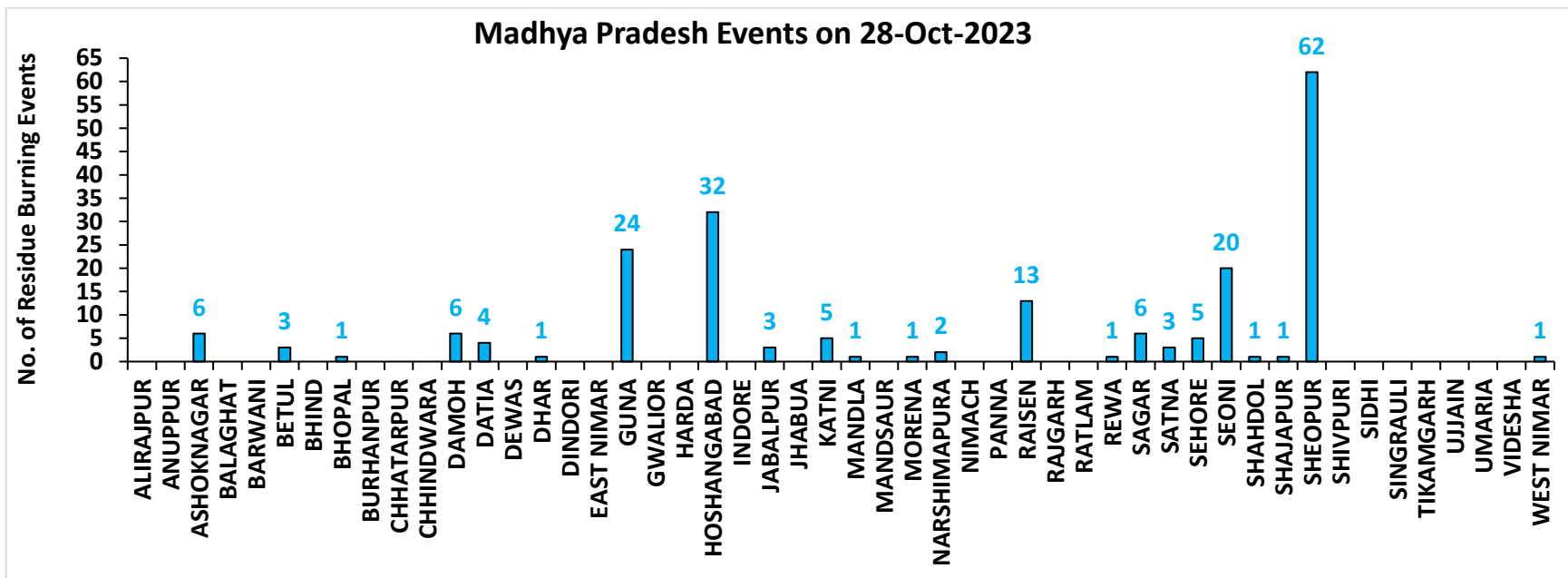
Fire Intensity (W/m²)

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



<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residues burning events in Madhya Pradesh (15Sep-28Oct -2023)



District-wise cumulative number of residues burning events detected in 2020, 2021, 2022 and 2023
(Period: 15 September-28 October)

(a) Punjab

District	15 Sep-28 Oct			
	2020	2021	2022	2023
Amritsar	2581	991	1245	1003
Barnala	367	142	198	41
Bathinda	533	172	320	49
Faridkot	1197	452	130	64
Fatehgarh Sahib	792	288	440	201
Fazilka	322	107	102	26
Firozpur	3253	522	626	362
Gurdaspur	1729	395	732	83
Hoshiarpur	292	75	117	6
Jalandhar	664	314	510	111
Kapurthala	1202	484	687	184
Ludhiana	876	482	453	167
Mansa	379	66	171	205
Moga	628	254	244	136
Muktsar	692	194	116	23
Pathankot	8	0	0	1
Patiala	2367	711	1093	530
Rupnagar	102	46	98	8
Sangrur	1675	238	844	377
SAS NAGAR (Mohali)	102	56	65	78
SBS Nagar	54	36	27	18
Tarn Taran	4327	1623	1996	513
Total	24142	7648	10214	4186

(b) Haryana

District	15 Sep-28 Oct			
	2020	2021	2022	2023
AMBALA	280	123	133	137
BHIWANI	0	0	0	2
CHARKHI DADRI	0	0	0	0
FARIDABAD	1	2	1	3
FATEHABAD	176	186	221	157
GURGAON	0	0	0	0
HISAR	11	9	29	61
JHAJJAR	3	0	0	5
JIND	69	110	161	125
KAITHAL	467	622	464	136
KARNAL	481	635	234	59
KURUKSHETRA	366	396	269	119
MAHENDRAGARH	0	0	0	0
MEWAT	0	0	0	0
PALWAL	34	33	22	49
PANCHKULA	0	0	0	1
PANIPAT	16	27	24	20
REWARI	0	0	0	0
ROHTAK	6	0	0	9
SIRSA	47	23	36	20
SONIPAT	18	8	13	53
YAMUNANAGAR	109	78	94	63
Total	2084	2252	1701	1019

(c) Uttar Pradesh

District	15 Sep-28 Oct													
	2020	2021	2022	2023	GAUTAMBUDHNAGAR	6	9	8	9	MUZAFARNAGAR	3	3	1	2
AGRA	2	0	0	4	GAZIPUR	0	0	0	1	PILHIBHIT	10	113	87	80
ALIGARH	72	25	26	78	GHAZIABAD	6	3	2	13	PRATAPGARH	4	0	1	5
ALLAHABAD	0	2	2	2	GONDA	0	0	0	0	RAIBEARELI	1	1	2	3
AMBEDKARNAGAR	0	0	0	0	GORAKHPUR	1	0	0	1	RAMPUR	72	55	46	55
AMETHI	2	2	4	2	HAMIRPUR	1	0	0	0	SAMBHAL	7	7	7	13
AMROHA	3	0	0	2	HAPUR	7	3	1	0	SANTKABIRNAGAR	0	0	1	1
AURAIYA	19	10	7	12	HARDOI	22	7	9	29	SANTRAVIDASNAGAR	0	0	0	0
AZAMGARH	0	0	0	1	HATHRAS	0	0	0	2	SHAHJAHANPUR	55	199	200	43
BADAUN	2	6	0	4	JALAUN	2	0	0	0	SHAMLI	24	17	6	5
BAGHPAT	5	1	1	1	JAUNPUR	1	1	0	1	SHARANPUR	56	29	8	8
BAHRAICH	36	8	5	5	JHANSI	35	7	1	38	SHRAWASTI	14	3	0	6
BALLIA	1	0	0	0	KANNAUJ	12	2	0	1	SIDDHARTHANAGAR	0	0	0	0
BALRAMPUR	8	3	1	2	KANPUR	6	7	10	21	SITAPUR	26	19	5	8
BANDA	0	0	0	0	KANPUR DEHAT	20	2	1	24	SONBHADRA	0	0	0	0
BARABANKI	23	24	23	46	KASGANJ	2	2	0	3	SULTANPUR	1	1	0	2
BAREILLY	26	18	11	26	KAUSHAMBI	19	11	3	21	UNNAO	7	1	0	13
BASTI	5	1	0	1	KHERI	56	67	75	11	VARANASI	1	0	0	0
BIJNOR	8	5	2	6	KUSHINAGAR	0	0	0	2	Total	943	805	632	839
BULANDSAHAR	25	2	7	6	LALITPUR	0	1	3	2					
CHANDAULI	0	0	0	0	LUCKNOW	4	5	1	4					
CHITRAKOOT	0	3	2	3	MAHARAJGANJ	0	0	1	2					
DEORIA	3	0	1	2	MAHOBA	12	0	0	0					
ETAH	13	6	1	12	MAINPURI	18	10	11	22					
ETAWAH	13	8	6	42	MATHURA	81	64	16	84					
FAIZABAD	3	0	0	3	MAU	0	0	0	0					
FARRUKHABAD	2	0	0	1	MEERUT	16	5	4	3					
FATEHPUR	36	14	21	31	MIRZAPUR	6	5	2	0					
FIROZABAD	14	5	0	5	MORADABAD	8	3	0	4					

(d) Delhi

District	15 Sep-28 Oct			
	2020	2021	2022	2023
CENTRAL	0	0	0	0
EAST	0	0	0	0
NEW DELHI	0	0	0	0
NORTH	2	0	5	2
NORTH EAST	0	0	0	0
NORTH WEST DELHI	3	0	0	0
SHAHADRA	0	0	0	0
SOUTH	1	0	0	0
SOUTH EAST	0	0	0	0
SOUTH WEST DELHI	0	0	0	0
WEST DELHI	2	0	0	0
Total	8	0	5	2

(e) Rajasthan

District	15 Sep-28 Oct			
	2020	2021	2022	2023
AJMER	2	0	0	0
ALWAR	4	0	0	0
BANSWARA	0	0	0	0
BARAN	122	0	26	265
BARMER	3	0	0	0
BHARATPUR	2	0	0	2
BHILWARA	5	0	0	0
BIKANER	1	0	0	0
BUNDI	45	5	70	135
CHITTAURGARH	0	4	2	8
CHURU	0	0	0	0
DAUSA	0	0	0	0
DHOLPUR	0	0	0	0
DUNGARPUR	0	0	0	0
GANGANAGAR	9	2	9	15
HANUMANGARH	270	52	29	78
JAIPUR	2	0	0	0
JAISELMER	3	0	0	0
JALOR	0	0	0	0
JHALAWAR	2	0	2	8
JHUNJHUNUN	1	0	0	0
JODHPUR	2	0	0	0
KARAULI	1	0	0	0
KOTA	62	3	36	146
NAGAU	0	0	0	0
PALI	2	0	0	0
PRATAPGARH	5	0	0	0
RAJSMAND	0	0	0	0
SIKAR	0	0	0	0
SIROHI	1	0	0	0
SWAIMADHOPUR	26	0	16	44
TONK	3	0	0	0
UDAIPUR	0	0	0	0
Total	573	66	190	701

(f) Madhya Pradesh

District	15 Sep-28 Oct								
	2020	2021	2022	2023					
					PANNA	12	1	0	3
ALIRAJPUR	0	0	0	0	RAISEN	125	5	14	57
ANUPPUR	0	0	0	0	RAJGARH	9	1	3	9
ASHOKNAGAR	63	2	12	115	RATLAM	0	0	0	1
BALAGHAT	0	0	0	0	REWA	27	2	2	2
BARWANI	0	0	0	0	SAGAR	22	18	20	53
BETUL	10	3	1	8	SATNA	77	12	2	18
BHIND	43	1	14	44	SEHORE	37	17	34	52
BHOPAL	25	6	7	19	SEONI	363	225	68	134
BURHANPUR	0	0	0	3	SHAHDOL	0	0	0	2
CHHATARPUR	4	0	0	3	SHAJAPUR	7	0	0	11
CHHINDWARA	30	15	10	20	SHEOPUR	144	2	29	329
DAMOH	48	18	16	34	SHIVPURI	53	2	11	51
DATIA	228	10	20	202	SIDHI	0	0	0	0
DEWAS	4	0	0	8	SINGRAULI	0	0	1	0
DHAR	26	0	0	29	TIKAMGARH	3	0	0	3
DINDORI	0	0	0	1	UJJAIN	5	0	0	14
EAST NIMAR	13	5	5	4	UMARIA	0	0	0	0
GUNA	39	2	36	299	VIDESHA	86	15	23	63
GWALIOR	273	4	5	53	WEST NIMAR	26	1	2	17
HARDA	12	18	7	25	Total	2332	518	448	2039
HOSHANGABAD	330	76	63	204					
INDORE	3	0	0	12					
JABALPUR	63	18	12	50					
JHABUA	0	0	0	0					
KATNI	36	1	0	13					
MANDLA	6	15	4	4					
MANDSAUR	6	0	0	2					
MORENA	37	5	3	38					
NARSHIMAPURA	37	18	24	30					
NIMACH	0	0	0	0					

State-wise and date-wise number of paddy residue burning events detected in 2020, 2021, 2022 and 2023
(Period: 15 September-28 October)

Number of Paddy Residue Burning Events Detected

Date	Punjab				Haryana				Uttar Pradesh			
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023
15-Sep	5	0	14	0	2	0	0	1	1	0	0	0
16-Sep	0	2	0	6	1	0	0	1	0	0	0	2
17-Sep	5	0	1	0	3	0	0	0	0	0	0	0
18-Sep	17	9	7	0	0	0	1	0	0	1	0	0
19-Sep	30	5	18	0	2	0	0	1	0	1	0	0
20-Sep	67	8	10	0	6	0	0	2	2	0	0	0
21-Sep	54	0	56	1	2	0	0	2	1	0	0	1
22-Sep	34	0	30	0	1	0	0	2	1	0	0	0
23-Sep	49	0	3	1	0	0	0	3	1	0	0	0
24-Sep	78	5	0	0	0	0	0	0	1	1	0	1
25-Sep	184	11	0	0	11	0	0	1	5	0	0	1
26-Sep	190	19	0	3	5	0	0	2	8	0	0	0
27-Sep	78	37	0	21	8	0	0	9	4	1	0	0
28-Sep	55	28	0	33	6	1	0	8	1	6	0	4
29-Sep	63	64	0	68	9	4	0	17	6	10	0	6
30-Sep	116	27	8	81	22	2	0	26	13	13	10	18
01-Oct	165	13	45	123	15	4	1	21	7	13	3	17
02-Oct	141	0	83	119	30	2	7	24	12	0	36	7
03-Oct	110	9	75	105	8	6	8	17	4	3	29	8
04-Oct	162	23	65	95	29	2	7	29	8	0	2	9
05-Oct	161	18	130	98	17	3	24	24	14	2	0	14
06-Oct	171	42	85	91	30	0	26	19	12	1	0	18
07-Oct	197	72	62	32	32	11	6	13	41	13	0	5
08-Oct	95	108	19	92	29	27	0	55	25	11	0	27
09-Oct	121	114	3	58	20	39	1	14	15	20	0	13
10-Oct	232	150	4	10	33	95	2	28	9	54	0	34
11-Oct	377	64	45	26	90	51	0	21	23	28	0	50

25-Sep	0	0	0	0	1	0	0	0	0	0	0	1
26-Sep	0	0	0	1	1	0	0	0	2	0	0	0
27-Sep	0	0	0	0	0	0	0	0	1	0	0	0
28-Sep	0	0	0	0	0	0	0	0	1	1	0	2
29-Sep	0	0	0	0	3	0	0	6	0	4	0	5
30-Sep	1	0	0	0	1	0	0	4	5	0	0	11
01-Oct	0	0	0	0	4	1	1	4	13	0	1	8
02-Oct	1	0	0	0	7	0	3	4	12	0	1	1
03-Oct	0	0	0	0	9	0	2	5	5	1	5	5
04-Oct	0	0	0	0	15	0	0	22	4	2	0	12
05-Oct	0	0	2	0	14	0	1	11	13	1	0	18
06-Oct	1	0	0	0	16	0	0	9	37	1	0	7
07-Oct	0	0	0	0	14	1	1	7	31	1	0	9
08-Oct	0	0	0	0	11	0	0	9	17	2	0	18
09-Oct	0	0	0	0	12	0	0	17	15	4	0	24
10-Oct	0	0	0	0	14	1	0	26	18	10	0	52
11-Oct	0	0	0	1	21	7	1	21	32	2	0	24
12-Oct	0	0	0	0	24	1	2	1	44	1	1	1
13-Oct	0	0	0	0	7	5	2	28	21	2	7	32
14-Oct	0	0	0	0	16	1	1	15	15	11	1	26
15-Oct	0	0	0	0	9	8	2	34	8	27	2	66
16-Oct	1	0	0	0	12	2	4	18	23	13	2	51
17-Oct	0	0	0	0	26	0	4	12	63	1	11	31
18-Oct	0	0	1	0	37	2	12	11	88	0	15	13
19-Oct	0	0	0	0	27	5	12	31	49	1	12	65
20-Oct	0	0	0	0	26	4	4	57	9	21	7	131
21-Oct	2	0	0	0	32	2	6	34	112	30	18	147
22-Oct	0	0	0	0	29	5	12	57	183	29	31	119
23-Oct	1	0	0	0	23	7	20	29	204	32	70	89
24-Oct	0	0	2	0	20	4	7	38	150	34	26	132
25-Oct	1	0	0	0	18	2	4	47	144	60	0	159
26-Oct	0	0	0	0	34	3	21	59	178	55	57	320
27-Oct	0	0	0	0	42	1	21	73	294	62	38	256
28-Oct	0	0	0	0	45	4	46	12	537	110	143	202
Total	8	0	5	2	573	66	190	701	2332	518	448	2039

Details of residue burning events in Punjab on 28-Oct-2023

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	AMRITSAR	CHOGAWAN	S-NPP	31.70889	74.69659	12:51:44	D	2.90
2	AMRITSAR	TARSIKKA	S-NPP	31.69582	75.12180	14:32:01	D	4.70
3	BATHINDA	MAUR	S-NPP	30.14816	75.24003	12:51:44	D	7.10
4	BATHINDA	MAUR	S-NPP	30.15042	75.24043	12:51:44	D	5.80
5	BATHINDA	RAMPURA	S-NPP	30.14091	75.26879	12:51:44	D	2.90
6	FARIDKOT	FARIDKOT	S-NPP	30.73176	74.52586	12:51:44	D	8.50
7	FARIDKOT	FARIDKOT	S-NPP	30.73345	74.50969	12:51:44	D	4.60
8	FARIDKOT	FARIDKOT	S-NPP	30.74881	74.48120	12:51:44	D	2.20
9	FARIDKOT	KOT KAPURA	S-NPP	30.56885	74.79121	12:51:44	D	2.20
10	FARIDKOT	KOT KAPURA	S-NPP	30.56969	74.79473	12:51:44	D	3.10
11	FATEHGARH SAHIB	BASSI PATHANAN	S-NPP	30.64764	76.35882	12:51:44	D	19.20
12	FATEHGARH SAHIB	BASSI PATHANAN	S-NPP	30.75072	76.46767	12:51:44	D	3.20
13	FATEHGARH SAHIB	KHAMANON	S-NPP	30.78227	76.29347	12:51:44	D	5.40
14	FATEHGARH SAHIB	SIRHIND	S-NPP	30.65150	76.37598	12:51:44	D	3.80
15	FIROZPUR	FIROZPUR	S-NPP	30.82081	74.53197	12:51:44	D	25.40
16	FIROZPUR	FIROZPUR	S-NPP	30.82168	74.53559	12:51:44	D	23.00
17	FIROZPUR	FIROZPUR	S-NPP	30.90541	74.65273	12:51:44	D	1.70
18	FIROZPUR	FIROZPUR	S-NPP	30.92900	74.56856	12:51:44	D	3.00
19	FIROZPUR	FIROZPUR	S-NPP	30.96975	74.57874	12:51:44	D	2.30
20	FIROZPUR	FIROZPUR	S-NPP	30.97041	74.53487	12:51:44	D	1.80
21	FIROZPUR	FIROZPUR	S-NPP	30.97738	74.56474	12:51:44	D	14.00
22	FIROZPUR	GHALL KHURD	S-NPP	30.84553	74.72764	12:51:44	D	2.50
23	FIROZPUR	GHALL KHURD	S-NPP	30.85147	74.70680	12:51:44	D	4.10
24	FIROZPUR	GHALL KHURD	S-NPP	30.88041	74.85178	12:51:44	D	5.50
25	FIROZPUR	GHALL KHURD	S-NPP	30.88124	74.85524	12:51:44	D	5.50
26	FIROZPUR	GHALL KHURD	S-NPP	30.89871	74.69944	12:51:44	D	2.50
27	FIROZPUR	GHALL KHURD	S-NPP	30.90043	74.69995	12:51:44	D	2.70
28	FIROZPUR	GHALL KHURD	S-NPP	30.90213	74.85238	12:51:44	D	1.20
29	FIROZPUR	GURUHAR SAHAI	S-NPP	30.66485	74.38496	12:51:44	D	4.10
30	FIROZPUR	GURUHAR SAHAI	S-NPP	30.67003	74.38333	12:51:44	D	4.10

31	FIROZPUR	GURUHAR SAHAI	S-NPP	30.68775	74.45724	12:51:44	D	2.70
32	FIROZPUR	MAKHU	AQUA	31.15300	74.89900	14:40:49	D	27.50
33	FIROZPUR	MAKHU	S-NPP	31.04603	74.90385	12:51:44	D	5.30
34	FIROZPUR	MAMDOT	S-NPP	30.79436	74.53650	12:51:44	D	4.00
35	FIROZPUR	MAMDOT	S-NPP	30.81973	74.45795	12:51:44	D	4.60
36	FIROZPUR	MAMDOT	S-NPP	30.83617	74.52710	12:51:44	D	1.60
37	FIROZPUR	MAMDOT	S-NPP	30.84129	74.52547	12:51:44	D	3.80
38	FIROZPUR	MAMDOT	S-NPP	30.85003	74.40263	14:32:01	D	5.50
39	FIROZPUR	MAMDOT	S-NPP	30.86543	74.46436	12:51:44	D	3.50
40	FIROZPUR	MAMDOT	S-NPP	30.87056	74.46272	12:51:44	D	1.60
41	FIROZPUR	MAMDOT	S-NPP	30.88142	74.41602	12:51:44	D	2.70
42	GURDASPUR	SRI HARGOBINDPUR	S-NPP	31.63928	75.40430	14:32:01	D	6.00
43	GURDASPUR	SRI HARGOBINDPUR	S-NPP	31.64494	75.40376	14:32:01	D	7.00
44	JALANDHAR	MEHATPUR	S-NPP	30.98091	75.48467	12:51:44	D	3.20
45	JALANDHAR	NUR MAHAL	S-NPP	31.03939	75.66625	12:51:44	D	6.30
46	JALANDHAR	NUR MAHAL	S-NPP	31.10466	75.62623	12:51:44	D	3.70
47	JALANDHAR	PHILLAUR	S-NPP	31.11948	75.88250	12:51:44	D	2.60
48	KAPURTHALA	DHILWAN	S-NPP	31.42724	75.18959	14:32:01	D	5.10
49	LUDHIANA	LUDHIANA-2	S-NPP	30.98808	75.85359	12:51:44	D	4.20
50	LUDHIANA	MACHHIWARA	S-NPP	30.91129	76.22189	12:51:44	D	2.60
51	MANSA	BHIKHI	S-NPP	30.00625	75.48119	12:51:44	D	13.00
52	MANSA	BHIKHI	S-NPP	30.11053	75.61581	12:51:44	D	6.60
53	MANSA	BHIKHI	S-NPP	30.11102	75.61560	12:51:44	D	7.60
54	MANSA	BHIKHI	S-NPP	30.12033	75.61286	12:51:44	D	6.70
55	MANSA	BHIKHI	S-NPP	30.12082	75.61265	12:51:44	D	8.60
56	MANSA	BUDHLADA	S-NPP	29.89415	75.58658	12:51:44	D	3.50
57	MANSA	BUDHLADA	S-NPP	29.89563	75.58762	12:51:44	D	3.70
58	MANSA	BUDHLADA	S-NPP	29.90172	75.57381	12:51:44	D	3.70
59	MANSA	BUDHLADA	S-NPP	29.90326	75.57480	12:51:44	D	2.70
60	MANSA	JHUNIR	S-NPP	29.88853	75.33542	12:51:44	D	2.20
61	MANSA	MANSA	S-NPP	30.01509	75.38245	12:51:44	D	7.50
62	MANSA	MANSA	S-NPP	30.01587	75.38580	12:51:44	D	7.50
63	MANSA	MANSA	S-NPP	30.03594	75.47223	12:51:44	D	2.20
64	MANSA	MANSA	S-NPP	30.04089	75.47073	12:51:44	D	2.50

65	MANSA	SARDULGARH	S-NPP	29.60487	75.25273	12:51:44	D	3.30
66	MANSA	SARDULGARH	S-NPP	29.60567	75.25100	12:51:44	D	2.80
67	MANSA	SARDULGARH	S-NPP	29.65499	75.18391	12:51:44	D	6.10
68	MANSA	SARDULGARH	S-NPP	29.66087	75.18585	12:51:44	D	8.70
69	MANSA	SARDULGARH	S-NPP	29.67715	75.32525	12:51:44	D	4.20
70	MANSA	SARDULGARH	S-NPP	29.70174	75.22183	12:51:44	D	2.50
71	MANSA	SARDULGARH	S-NPP	29.70229	75.31762	12:51:44	D	3.20
72	MANSA	SARDULGARH	S-NPP	29.70308	75.32104	12:51:44	D	4.40
73	MANSA	SARDULGARH	S-NPP	29.70811	75.31953	12:51:44	D	5.00
74	MANSA	SARDULGARH	S-NPP	29.73317	75.27789	12:51:44	D	1.50
75	MANSA	SARDULGARH	S-NPP	29.74204	75.31548	12:51:44	D	2.60
76	PATIALA	BHUNARHERI	S-NPP	30.15553	76.48254	12:51:44	D	6.20
77	PATIALA	GHANAUR	S-NPP	30.36504	76.70095	12:51:44	D	3.70
78	PATIALA	GHANAUR	S-NPP	30.36788	76.70122	12:51:44	D	3.70
79	PATIALA	GHANAUR	S-NPP	30.40965	76.68211	12:51:44	D	8.70
80	RUPNAGAR	MORINDA	S-NPP	30.75205	76.46622	12:51:44	D	4.20
81	SANGRUR	ANDANA	S-NPP	29.76622	75.94469	14:32:01	D	8.90
82	SANGRUR	BHAWANIGARH	S-NPP	30.24393	76.05728	12:51:44	D	4.40
83	SANGRUR	BHAWANIGARH	S-NPP	30.30717	76.17947	12:51:44	D	2.30
84	SANGRUR	BHAWANIGARH	S-NPP	30.33315	75.97868	12:51:44	D	11.60
85	SANGRUR	BHAWANIGARH	S-NPP	30.33566	75.97620	12:51:44	D	10.30
86	SANGRUR	BHAWANIGARH	S-NPP	30.33706	75.98229	12:51:44	D	10.30
87	SANGRUR	DIRBA	S-NPP	29.97085	76.01177	12:51:44	D	5.90
88	SANGRUR	DIRBA	S-NPP	29.97224	76.01792	12:51:44	D	5.90
89	SANGRUR	LEHRA GAGA	S-NPP	29.85198	75.86492	14:32:01	D	8.50
90	SANGRUR	SANGRUR	S-NPP	30.19278	75.56335	12:51:44	D	4.80
91	SANGRUR	SANGRUR	S-NPP	30.19762	75.86120	12:51:44	D	11.00
92	SANGRUR	SANGRUR	S-NPP	30.19875	75.86069	12:51:44	D	5.40
93	SANGRUR	SHER PUR	S-NPP	30.41960	75.79749	12:51:44	D	5.40
94	SANGRUR	SUNAM	S-NPP	30.05627	75.67345	12:51:44	D	5.40
95	SANGRUR	SUNAM	S-NPP	30.06315	75.77531	12:51:44	D	10.20
96	SANGRUR	SUNAM	S-NPP	30.06384	75.77356	12:51:44	D	11.60
97	SANGRUR	SUNAM	S-NPP	30.06600	75.78801	12:51:44	D	5.20
98	SANGRUR	SUNAM	S-NPP	30.06961	75.73107	12:51:44	D	8.30

99	SANGRUR	SUNAM	S-NPP	30.07154	75.71686	12:51:44	D	3.10
100	SANGRUR	SUNAM	S-NPP	30.08322	75.69967	12:51:44	D	4.70
101	SANGRUR	SUNAM	S-NPP	30.10128	75.75558	12:51:44	D	4.20
102	SAS NAGAR (MOHALI)	DERABASSI	S-NPP	30.53825	76.76544	12:51:44	D	4.00
103	SBS NAGAR	BANGA	S-NPP	31.21921	75.85816	12:51:44	D	5.90
104	SBS NAGAR	NAWAN SHAHR	S-NPP	31.09235	76.18161	12:51:44	D	8.60
105	TARN TARAN	CHOHLA SAHIB	S-NPP	31.22705	75.04294	14:32:01	D	8.60
106	TARN TARAN	CHOHLA SAHIB	S-NPP	31.23078	75.04254	14:32:01	D	11.60
107	TARN TARAN	CHOHLA SAHIB	S-NPP	31.32710	75.03527	12:51:44	D	3.80
108	TARN TARAN	GANDIWIND TATLA	S-NPP	31.49326	74.71684	12:51:44	D	3.60
109	TARN TARAN	NAUSHERA PANNUAN	S-NPP	31.32772	74.97076	12:51:44	D	6.80
110	TARN TARAN	VALTOHA	S-NPP	31.09344	74.59180	12:51:44	D	5.80
111	TARN TARAN	VALTOHA	S-NPP	31.09432	74.57238	12:51:44	D	2.40
112	TARN TARAN	VALTOHA	S-NPP	31.09455	74.59055	12:51:44	D	6.20
113	TARN TARAN	VALTOHA	S-NPP	31.09533	74.57121	12:51:44	D	2.50
114	TARN TARAN	VALTOHA	S-NPP	31.14271	74.54095	12:51:44	D	6.50
115	TARN TARAN	VALTOHA	S-NPP	31.14441	74.54808	12:51:44	D	3.60
116	TARN TARAN	VALTOHA	S-NPP	31.14778	74.53934	12:51:44	D	6.50
117	TARN TARAN	VALTOHA	S-NPP	31.16216	74.55389	12:51:44	D	6.40
118	TARN TARAN	VALTOHA	S-NPP	31.16300	74.55743	12:51:44	D	7.50
119	TARN TARAN	VALTOHA	S-NPP	31.16385	74.56100	12:51:44	D	7.50
120	TARN TARAN	VALTOHA	S-NPP	31.18529	74.53387	12:51:44	D	4.10
121	TARN TARAN	VALTOHA	S-NPP	31.18922	74.52985	12:51:44	D	5.40
122	TARN TARAN	VALTOHA	S-NPP	31.19006	74.53342	12:51:44	D	7.30
123	TARN TARAN	VALTOHA	S-NPP	31.19036	74.53226	12:51:44	D	4.10
124	TARN TARAN	VALTOHA	S-NPP	31.19761	74.56546	12:51:44	D	3.60
125	TARN TARAN	VALTOHA	S-NPP	31.19897	74.56776	12:51:44	D	4.00
126	TARN TARAN	VALTOHA	S-NPP	31.22684	74.57030	12:51:44	D	1.60
127	TARN TARAN	VALTOHA	S-NPP	31.22845	74.53162	12:51:44	D	2.50

Details of residue burning events in Haryana on 28-Oct-2023

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m ²)
1	FATEHABAD	BHATTU KALAN	S-NPP	29.50007	75.34633	12:51:44	D	3.60
2	FATEHABAD	BHUNA	S-NPP	29.48388	75.71347	12:51:44	D	1.60
3	FATEHABAD	FATEHABAD	S-NPP	29.62515	75.36443	12:51:44	D	2.70
4	FATEHABAD	FATEHABAD	S-NPP	29.62666	75.36240	12:51:44	D	3.80
5	FATEHABAD	FATEHABAD	S-NPP	29.62746	75.36580	12:51:44	D	5.40
6	FATEHABAD	FATEHABAD	S-NPP	29.63018	75.36293	12:51:44	D	2.40
7	FATEHABAD	TOHANA	S-NPP	29.60243	75.86323	12:51:44	D	4.80
8	FATEHABAD	TOHANA	S-NPP	29.72620	75.83145	12:51:44	D	11.50
9	FATEHABAD	TOHANA	S-NPP	29.72664	75.83334	12:51:44	D	16.20
10	JIND	ALEWA	S-NPP	29.44717	76.37685	01:41:44	N	1.40
11	JIND	ALEWA	S-NPP	29.45181	76.37746	01:41:44	N	0.90
12	KAITHAL	KAITHAL	S-NPP	29.77418	76.29422	12:51:44	D	7.30
13	KARNAL	NILOKHERI	S-NPP	29.76453	76.92959	12:51:44	D	4.40
14	SIRSA	BARAGUNDA	S-NPP	29.73054	75.17496	12:51:44	D	3.60

Details of residue burning events in Uttar Pradesh on 28-Oct-2023

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	BAHRAICH	NANPARA	S-NPP	27.89630	81.65704	01:41:44	N	0.80
2	BAHRAICH	NANPARA	S-NPP	27.89792	81.69619	01:41:44	N	1.00
3	BARABANKI	FATEHPUR	S-NPP	27.16489	81.14790	12:51:44	D	5.60
4	ETAWAH	BHARTHNA	S-NPP	26.69344	79.11110	01:41:44	N	0.20
5	FATEHPUR	BINKI	S-NPP	26.10929	80.58615	12:51:44	D	2.90
6	FATEHPUR	FATEHPUR	S-NPP	25.85305	80.73534	12:51:44	D	2.40
7	FATEHPUR	FATEHPUR	S-NPP	25.99177	80.73891	12:51:44	D	2.60
8	GAZIPUR	GAZIPUR	S-NPP	25.86195	83.57150	12:51:44	D	5.70
9	GHAZIABAD	GHAZIABAD	S-NPP	28.65177	77.56353	01:41:44	N	0.60
10	HARDOI	SHAHABAD	S-NPP	27.56613	79.94169	12:51:44	D	3.40
11	HARDOI	SHAHABAD	S-NPP	27.62422	80.08646	12:51:44	D	2.30
12	HARDOI	SIWAIJPUR	S-NPP	27.46961	79.81151	12:51:44	D	3.60
13	JHANSI	MOTH	S-NPP	25.73882	78.79208	12:51:44	D	3.90
14	JHANSI	TAHRAULI	S-NPP	25.61076	78.81655	12:51:44	D	4.10
15	KASGANJ	KASGANJ	S-NPP	27.72471	78.77303	12:51:44	D	1.30
16	KHERI	GOLA	S-NPP	27.88960	80.33612	01:41:44	N	1.70
17	KHERI	GOLA	S-NPP	27.89322	80.33672	01:41:44	N	0.60
18	KUSHINAGAR	KASAYA	S-NPP	26.76019	84.01066	12:51:44	D	3.40
19	KUSHINAGAR	PADRAUNA	S-NPP	27.10756	83.82167	12:51:44	D	2.60
20	MATHURA	CHHATA	S-NPP	27.74610	77.40303	12:51:44	D	3.90
21	PILHIBHIT	BISALPUR	S-NPP	28.34152	79.92255	01:41:44	N	0.60
22	PILHIBHIT	BISALPUR	S-NPP	28.52548	79.82519	01:41:44	N	0.70
23	PILHIBHIT	PURANPUR	S-NPP	28.37652	80.12542	01:41:44	N	0.40
24	PILHIBHIT	PURANPUR	S-NPP	28.51867	80.02942	01:41:44	N	0.70
25	PRATAPGARH	LALGANJ	S-NPP	25.89851	81.64746	12:51:44	D	8.30
26	PRATAPGARH	LALGANJ	S-NPP	25.89991	81.64444	12:51:44	D	16.30
27	PRATAPGARH	LALGANJ	S-NPP	25.90230	81.64661	12:51:44	D	8.30
28	RAMPUR	BILASPUR	S-NPP	28.89256	79.18674	12:51:44	D	2.80
29	RAMPUR	BILASPUR	S-NPP	28.94220	79.28486	12:51:44	D	1.70
30	RAMPUR	SUAR	S-NPP	28.89667	79.18568	12:51:44	D	3.00
31	SHAHJAHANPUR	PUWANYA	S-NPP	27.96133	80.03931	01:41:44	N	1.50
32	SHAHJAHANPUR	PUWANYA	S-NPP	27.96195	80.03444	01:41:44	N	1.50

33	SHAHJAHANPUR	SHAHJAHANPUR	S-NPP	27.73968	79.85439	01:41:44	N	0.50
34	SHRAWASTI	BHINGA	S-NPP	27.77306	81.66911	12:51:44	D	1.90
35	SITAPUR	MAHMUDABAD	S-NPP	27.36575	81.24447	12:51:44	D	4.70
36	SULTANPUR	AMETHI	S-NPP	26.19302	81.90927	12:51:44	D	6.20

Details of residue burning events in Rajasthan on 28-Oct-2023

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m ²)
1	BARAN	CHHABRA	S-NPP	24.58651	76.85259	12:51:44	D	1.80
2	BARAN	KISHANGUNJ	S-NPP	24.91900	76.82319	12:51:44	D	1.40
3	BARAN	KISHANGUNJ	S-NPP	25.22074	76.65674	12:51:44	D	1.50
4	BARAN	KISHANGUNJ	S-NPP	25.22588	76.65537	12:51:44	D	2.20
5	BARAN	KISHANGUNJ	S-NPP	25.31481	76.88319	12:51:44	D	9.50
6	BARAN	MANGROL	S-NPP	25.40348	76.57039	12:51:44	D	1.90
7	BUNDI	BUNDI	S-NPP	25.32091	75.64518	12:51:44	D	6.00
8	BUNDI	BUNDI	S-NPP	25.32183	75.64910	12:51:44	D	6.10
9	BUNDI	BUNDI	S-NPP	25.32196	75.64539	12:51:44	D	5.20
10	BUNDI	INDRAGARH	S-NPP	25.50209	76.13551	12:51:44	D	3.60
11	KOTA	DIGOD	S-NPP	25.18894	76.16508	01:41:44	N	0.70
12	KOTA	LADPURA	S-NPP	25.21791	75.99606	12:51:44	D	2.60

Details of residue burning events in Madhya Pradesh on 28-Oct-2023

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m ²)
1	ASHOKNAGAR	ASHOKNAGAR	S-NPP	24.43947	77.56653	12:51:44	D	1.10
2	ASHOKNAGAR	ASHOKNAGAR	S-NPP	24.55205	77.65372	12:51:44	D	5.20
3	ASHOKNAGAR	ASHOKNAGAR	S-NPP	24.55223	77.65186	12:51:44	D	6.30
4	ASHOKNAGAR	MUNGAOLI	S-NPP	24.32612	77.93077	12:51:44	D	3.40
5	ASHOKNAGAR	MUNGAOLI	S-NPP	24.52456	78.04993	12:51:44	D	5.10
6	ASHOKNAGAR	MUNGAOLI	S-NPP	24.52739	78.05154	12:51:44	D	6.50
7	BETUL	BETUL	S-NPP	22.06317	78.03180	12:51:44	D	3.50
8	BETUL	SHAHPUR	S-NPP	22.16464	77.92378	12:51:44	D	2.20
9	BETUL	SHAHPUR	S-NPP	22.17132	77.90492	12:51:44	D	4.30
10	BHOPAL	HUZUR	S-NPP	23.32083	77.42106	12:51:44	D	4.80
11	DAMOH	DAMOH	S-NPP	23.57896	79.31931	12:51:44	D	4.60
12	DAMOH	DAMOH	S-NPP	23.73298	79.44819	12:51:44	D	3.20
13	DAMOH	JABERA	S-NPP	23.57605	79.87201	12:51:44	D	6.80
14	DAMOH	JABERA	S-NPP	23.58344	79.81642	12:51:44	D	9.20
15	DAMOH	JABERA	S-NPP	23.58551	79.81262	12:51:44	D	19.90
16	DAMOH	JABERA	S-NPP	23.64489	79.83329	12:51:44	D	2.10
17	DATIA	BHANDER	S-NPP	25.83709	78.62621	12:51:44	D	5.20
18	DATIA	BHANDER	S-NPP	25.85744	78.81674	12:51:44	D	2.90
19	DATIA	DATIA	S-NPP	25.62483	78.31470	12:51:44	D	5.60
20	DATIA	DATIA	S-NPP	25.65642	78.55630	12:51:44	D	2.40
21	DHAR	MANAWAR	S-NPP	22.12147	75.04060	14:32:01	D	8.00
22	GUNA	ARON	S-NPP	24.28236	77.43684	12:51:44	D	2.10
23	GUNA	ARON	S-NPP	24.28305	77.44004	12:51:44	D	3.40
24	GUNA	ARON	S-NPP	24.28579	77.45280	12:51:44	D	2.50
25	GUNA	ARON	S-NPP	24.28632	77.43768	12:51:44	D	7.20
26	GUNA	ARON	S-NPP	24.28738	77.43559	12:51:44	D	2.10
27	GUNA	ARON	S-NPP	24.28806	77.43879	12:51:44	D	3.40
28	GUNA	ARON	S-NPP	24.34883	77.48199	12:51:44	D	3.40
29	GUNA	ARON	S-NPP	24.35299	77.59721	12:51:44	D	2.40
30	GUNA	ARON	S-NPP	24.42354	77.35001	12:51:44	D	3.60

31	GUNA	ARON	S-NPP	24.47263	77.47833	12:51:44	D	4.00
32	GUNA	ARON	S-NPP	24.48983	77.46068	12:51:44	D	2.40
33	GUNA	ARON	S-NPP	24.50786	77.45100	12:51:44	D	2.40
34	GUNA	GUNA	S-NPP	24.75206	77.13350	12:51:44	D	4.10
35	GUNA	GUNA	S-NPP	24.76835	77.02953	12:51:44	D	4.60
36	GUNA	GUNA	S-NPP	24.80744	77.48588	12:51:44	D	5.60
37	GUNA	GUNA	S-NPP	24.82512	77.44687	12:51:44	D	3.30
38	GUNA	GUNA	S-NPP	24.86670	77.18498	12:51:44	D	3.20
39	GUNA	GUNA	S-NPP	24.87174	77.00131	12:51:44	D	4.60
40	GUNA	GUNA	S-NPP	24.89748	77.11683	12:51:44	D	2.60
41	GUNA	GUNA	S-NPP	24.89821	77.12010	12:51:44	D	8.30
42	GUNA	GUNA	S-NPP	24.89894	77.12338	12:51:44	D	8.30
43	GUNA	GUNA	S-NPP	24.93636	77.02677	12:51:44	D	3.40
44	GUNA	RAGHOGARH	S-NPP	24.31742	77.19145	12:51:44	D	2.40
45	GUNA	RAGHOGARH	S-NPP	24.53201	77.10102	12:51:44	D	6.50
46	HOSHANGABAD	BABAI	S-NPP	22.65317	78.02364	12:51:44	D	4.20
47	HOSHANGABAD	BABAI	S-NPP	22.65384	78.02679	12:51:44	D	7.60
48	HOSHANGABAD	BABAI	S-NPP	22.70266	77.98988	12:51:44	D	2.10
49	HOSHANGABAD	BABAI	S-NPP	22.73631	77.92499	12:51:44	D	3.90
50	HOSHANGABAD	BABAI	S-NPP	22.76576	77.91431	12:51:44	D	1.50
51	HOSHANGABAD	BABAI	S-NPP	22.76636	77.95234	12:51:44	D	1.40
52	HOSHANGABAD	BABAI	S-NPP	22.79370	77.85857	12:51:44	D	4.10
53	HOSHANGABAD	BABAI	S-NPP	22.85246	77.86082	12:51:44	D	1.70
54	HOSHANGABAD	BANKHERI	S-NPP	22.71295	78.45565	12:51:44	D	10.00
55	HOSHANGABAD	HOSHANGABAD	S-NPP	22.63144	77.68471	12:51:44	D	2.90
56	HOSHANGABAD	HOSHANGABAD	S-NPP	22.63256	77.54015	12:51:44	D	1.90
57	HOSHANGABAD	HOSHANGABAD	S-NPP	22.63519	77.65234	12:51:44	D	1.90
58	HOSHANGABAD	HOSHANGABAD	S-NPP	22.63535	77.60317	12:51:44	D	1.80
59	HOSHANGABAD	HOSHANGABAD	S-NPP	22.66210	77.67719	12:51:44	D	1.80
60	HOSHANGABAD	HOSHANGABAD	S-NPP	22.66590	77.64478	12:51:44	D	5.30
61	HOSHANGABAD	HOSHANGABAD	S-NPP	22.67173	77.64682	12:51:44	D	1.80
62	HOSHANGABAD	HOSHANGABAD	S-NPP	22.70342	77.69460	12:51:44	D	2.70
63	HOSHANGABAD	HOSHANGABAD	S-NPP	22.72336	77.63239	12:51:44	D	5.60
64	HOSHANGABAD	HOSHANGABAD	S-NPP	22.72443	77.76017	12:51:44	D	2.30
65	HOSHANGABAD	ITARSI	S-NPP	22.54133	77.64906	12:51:44	D	1.10

66	HOSHANGABAD	ITARSI	S-NPP	22.54484	77.69032	12:51:44	D	1.70
67	HOSHANGABAD	ITARSI	S-NPP	22.60479	77.89512	12:51:44	D	4.10
68	HOSHANGABAD	ITARSI	S-NPP	22.60983	77.89384	12:51:44	D	4.10
69	HOSHANGABAD	ITARSI	S-NPP	22.63337	77.90477	12:51:44	D	1.50
70	HOSHANGABAD	ITARSI	S-NPP	22.64915	77.88914	12:51:44	D	1.90
71	HOSHANGABAD	SEONI MALWA	S-NPP	22.37688	77.46655	12:51:44	D	2.20
72	HOSHANGABAD	SEONI MALWA	S-NPP	22.43237	77.57155	12:51:44	D	2.90
73	HOSHANGABAD	SEONI MALWA	S-NPP	22.46716	77.53262	12:51:44	D	2.20
74	HOSHANGABAD	SEONI MALWA	S-NPP	22.47675	77.52664	12:51:44	D	2.20
75	HOSHANGABAD	SEONI MALWA	S-NPP	22.52249	77.56174	12:51:44	D	3.70
76	HOSHANGABAD	SEONI MALWA	S-NPP	22.55949	77.47974	12:51:44	D	2.10
77	HOSHANGABAD	SEONI MALWA	S-NPP	22.55955	77.48083	12:51:44	D	2.10
78	JABALPUR	PATAN	S-NPP	23.20211	79.68359	12:51:44	D	9.50
79	JABALPUR	PATAN	S-NPP	23.30902	79.78768	12:51:44	D	5.10
80	JABALPUR	SAHPURA	S-NPP	23.19781	79.63865	12:51:44	D	2.90
81	KATNI	BAHURIBAND	S-NPP	23.64479	80.12944	12:51:44	D	2.80
82	KATNI	BAHURIBAND	S-NPP	23.64556	80.13046	12:51:44	D	4.30
83	KATNI	BAHURIBAND	S-NPP	23.68258	80.24743	12:51:44	D	3.20
84	KATNI	BAHURIBAND	S-NPP	23.79095	79.97146	12:51:44	D	2.10
85	KATNI	DHIMERKHEDA	S-NPP	23.59580	80.59922	12:51:44	D	1.80
86	MANDLA	NAINPUR	S-NPP	22.47119	80.11905	12:51:44	D	3.80
87	MORENA	SABALGARH	S-NPP	26.25220	77.34137	12:51:44	D	5.40
88	NARSHIMAPURA	GOTECAON	S-NPP	23.01310	79.51929	12:51:44	D	8.00
89	NARSHIMAPURA	KARELI	S-NPP	22.90993	79.14680	12:51:44	D	3.20
90	RAISEN	BARELI	S-NPP	23.12783	78.03559	12:51:44	D	4.40
91	RAISEN	BARELI	S-NPP	23.12821	78.03725	12:51:44	D	2.80
92	RAISEN	GOHARGANJ	S-NPP	22.95028	77.54905	12:51:44	D	3.40
93	RAISEN	GOHARGANJ	S-NPP	22.96061	77.52196	12:51:44	D	2.80
94	RAISEN	GOHARGANJ	S-NPP	23.03451	77.66664	12:51:44	D	6.20
95	RAISEN	GOHARGANJ	S-NPP	23.03659	77.66470	12:51:44	D	3.10
96	RAISEN	GOHARGANJ	S-NPP	23.03731	77.66796	12:51:44	D	3.10
97	RAISEN	GOHARGANJ	S-NPP	23.05544	77.65311	12:51:44	D	2.20
98	RAISEN	GOHARGANJ	S-NPP	23.06517	77.57458	12:51:44	D	1.20
99	RAISEN	GOHARGANJ	S-NPP	23.15593	77.92290	12:51:44	D	2.40
100	RAISEN	RAISEN	S-NPP	23.21755	77.70311	12:51:44	D	1.60

101	RAISEN	RAISEN	S-NPP	23.45385	77.55232	12:51:44	D	1.30
102	RAISEN	RAISEN	S-NPP	23.53882	77.64977	12:51:44	D	1.20
103	REWA	SIRMAUR	S-NPP	24.71985	81.45844	12:51:44	D	4.40
104	SAGAR	DEVRI	S-NPP	23.49297	79.03821	12:51:44	D	4.60
105	SAGAR	REHLI	S-NPP	23.54549	79.09026	12:51:44	D	3.30
106	SAGAR	REHLI	S-NPP	23.62673	79.15714	12:51:44	D	5.40
107	SAGAR	SAGAR	S-NPP	23.60939	78.85868	12:51:44	D	2.30
108	SAGAR	SAGAR	S-NPP	23.67889	78.69140	12:51:44	D	4.60
109	SAGAR	SAGAR	S-NPP	23.67909	78.68885	12:51:44	D	5.60
110	SATNA	R>MPURBAGHLEAN	S-NPP	24.42146	81.03484	12:51:44	D	3.70
111	SATNA	R>MPURBAGHLEAN	S-NPP	24.65528	80.98627	12:51:44	D	3.90
112	SATNA	UCHAHAR	S-NPP	24.53480	80.77128	12:51:44	D	1.60
113	SEHORE	BUDHNI	S-NPP	22.67267	77.47523	12:51:44	D	1.80
114	SEHORE	BUDHNI	S-NPP	22.67327	77.47649	12:51:44	D	1.80
115	SEHORE	BUDHNI	S-NPP	22.80004	77.93727	12:51:44	D	2.90
116	SEHORE	BUDHNI	S-NPP	22.82756	78.01657	12:51:44	D	1.80
117	SEHORE	NASRULLAHGANJ	S-NPP	22.65676	77.37822	12:51:44	D	4.80
118	SEONI	GHANSAUR	S-NPP	22.43096	79.70924	12:51:44	D	3.00
119	SEONI	GHANSAUR	S-NPP	22.51698	79.87683	12:51:44	D	3.20
120	SEONI	KEWLARI	S-NPP	22.28787	79.86864	12:51:44	D	3.30
121	SEONI	KEWLARI	S-NPP	22.38833	79.90147	12:51:44	D	1.90
122	SEONI	LAKHNADOU	S-NPP	22.31967	79.48378	12:51:44	D	3.60
123	SEONI	LAKHNADOU	S-NPP	22.33487	79.54174	12:51:44	D	3.20
124	SEONI	LAKHNADOU	S-NPP	22.33548	79.53904	12:51:44	D	3.00
125	SEONI	LAKHNADOU	S-NPP	22.50622	79.42467	12:51:44	D	5.80
126	SEONI	SEONI	S-NPP	22.01509	79.53206	12:51:44	D	3.60
127	SEONI	SEONI	S-NPP	22.04594	79.54120	12:51:44	D	4.70
128	SEONI	SEONI	S-NPP	22.19270	79.38306	12:51:44	D	6.40
129	SEONI	SEONI	S-NPP	22.19378	79.38828	12:51:44	D	6.40
130	SEONI	SEONI	S-NPP	22.19604	79.38375	12:51:44	D	3.10
131	SEONI	SEONI	S-NPP	22.26924	79.75443	12:51:44	D	4.10
132	SEONI	SEONI	S-NPP	22.26993	79.75606	12:51:44	D	2.50
133	SEONI	SEONI	S-NPP	22.28183	79.74644	12:51:44	D	6.00
134	SEONI	SEONI	S-NPP	22.29701	79.68082	12:51:44	D	3.10
135	SEONI	SEONI	S-NPP	22.31046	79.48589	12:51:44	D	4.00

136	SEONI	SEONI	S-NPP	22.32154	79.77883	12:51:44	D	2.70
137	SEONI	SEONI	S-NPP	22.32612	79.45238	01:41:44	N	3.10
138	SHAHDOL	SOHAGPUR	S-NPP	23.33893	81.44873	12:51:44	D	3.70
139	SHAJAPUR	SUJALPUR	S-NPP	23.49513	76.65776	12:51:44	D	0.80
140	SHEOPUR	KARAHAL	S-NPP	25.34517	76.87502	12:51:44	D	2.90
141	SHEOPUR	KARAHAL	S-NPP	25.34803	76.86369	12:51:44	D	9.00
142	SHEOPUR	KARAHAL	S-NPP	25.35310	76.86234	12:51:44	D	9.00
143	SHEOPUR	KARAHAL	S-NPP	25.42276	76.80652	12:51:44	D	3.40
144	SHEOPUR	KARAHAL	S-NPP	25.42783	76.80512	12:51:44	D	3.40
145	SHEOPUR	KARAHAL	S-NPP	25.44514	76.78614	12:51:44	D	2.90
146	SHEOPUR	KARAHAL	S-NPP	25.48835	76.75360	12:51:44	D	20.40
147	SHEOPUR	KARAHAL	S-NPP	25.48856	76.77853	12:51:44	D	2.50
148	SHEOPUR	KARAHAL	S-NPP	25.48911	76.75697	12:51:44	D	20.40
149	SHEOPUR	KARAHAL	S-NPP	25.49268	76.74888	12:51:44	D	9.90
150	SHEOPUR	KARAHAL	S-NPP	25.49344	76.75226	12:51:44	D	20.40
151	SHEOPUR	KARAHAL	S-NPP	25.49419	76.75562	12:51:44	D	20.40
152	SHEOPUR	KARAHAL	S-NPP	25.49438	76.78052	12:51:44	D	2.10
153	SHEOPUR	KARAHAL	S-NPP	25.49494	76.75899	12:51:44	D	39.20
154	SHEOPUR	KARAHAL	S-NPP	25.49701	76.74413	12:51:44	D	2.40
155	SHEOPUR	KARAHAL	S-NPP	25.49776	76.74751	12:51:44	D	2.40
156	SHEOPUR	KARAHAL	S-NPP	25.49832	76.72587	12:51:44	D	11.50
157	SHEOPUR	KARAHAL	S-NPP	25.49907	76.72925	12:51:44	D	11.00
158	SHEOPUR	KARAHAL	S-NPP	25.50058	76.73600	12:51:44	D	3.60
159	SHEOPUR	KARAHAL	S-NPP	25.50153	76.76434	12:51:44	D	11.20
160	SHEOPUR	KARAHAL	S-NPP	25.50228	76.76772	12:51:44	D	11.20
161	SHEOPUR	KARAHAL	S-NPP	25.50303	76.77107	12:51:44	D	16.90
162	SHEOPUR	KARAHAL	S-NPP	25.51243	76.76498	12:51:44	D	2.20
163	SHEOPUR	KARAHAL	S-NPP	25.52405	76.76888	12:51:44	D	5.20
164	SHEOPUR	SHEOPUR	S-NPP	25.38260	76.69879	12:51:44	D	1.30
165	SHEOPUR	SHEOPUR	S-NPP	25.40770	76.67825	01:41:44	N	1.00
166	SHEOPUR	SHEOPUR	S-NPP	25.40853	76.68024	01:41:44	N	0.90
167	SHEOPUR	SHEOPUR	S-NPP	25.42648	76.70141	12:51:44	D	3.00
168	SHEOPUR	SHEOPUR	S-NPP	25.43046	76.66483	12:51:44	D	2.70
169	SHEOPUR	SHEOPUR	S-NPP	25.46396	76.71711	12:51:44	D	3.80
170	SHEOPUR	SHEOPUR	S-NPP	25.50492	76.73125	12:51:44	D	4.00

171	SHEOPUR	SHEOPUR	S-NPP	25.51002	76.63264	12:51:44	D	8.30
172	SHEOPUR	SHEOPUR	S-NPP	25.51287	76.62101	12:51:44	D	9.10
173	SHEOPUR	SHEOPUR	S-NPP	25.51875	76.62309	12:51:44	D	4.60
174	SHEOPUR	SHEOPUR	S-NPP	25.51951	76.62651	12:51:44	D	4.60
175	SHEOPUR	SHEOPUR	S-NPP	25.52160	76.61143	12:51:44	D	3.10
176	SHEOPUR	SHEOPUR	S-NPP	25.52241	76.61330	12:51:44	D	2.30
177	SHEOPUR	SHEOPUR	S-NPP	25.52295	76.59292	12:51:44	D	3.10
178	SHEOPUR	SHEOPUR	S-NPP	25.55152	76.74717	12:51:44	D	4.80
179	SHEOPUR	SHEOPUR	S-NPP	25.55244	76.74523	12:51:44	D	5.10
180	SHEOPUR	SHEOPUR	S-NPP	25.56542	76.58726	12:51:44	D	12.80
181	SHEOPUR	SHEOPUR	S-NPP	25.56619	76.59070	12:51:44	D	12.80
182	SHEOPUR	SHEOPUR	S-NPP	25.58269	76.71213	12:51:44	D	8.80
183	SHEOPUR	SHEOPUR	S-NPP	25.60389	76.54040	12:51:44	D	2.80
184	SHEOPUR	SHEOPUR	S-NPP	25.60510	76.69183	12:51:44	D	4.60
185	SHEOPUR	SHEOPUR	S-NPP	25.60891	76.61185	12:51:44	D	5.90
186	SHEOPUR	SHEOPUR	S-NPP	25.60967	76.61527	12:51:44	D	5.90
187	SHEOPUR	SHEOPUR	S-NPP	25.62055	76.53834	12:51:44	D	2.80
188	SHEOPUR	SHEOPUR	S-NPP	25.62724	76.62123	12:51:44	D	2.60
189	SHEOPUR	SHEOPUR	S-NPP	25.63896	76.62532	12:51:44	D	2.30
190	SHEOPUR	SHEOPUR	S-NPP	25.64004	76.62379	12:51:44	D	4.40
191	SHEOPUR	SHEOPUR	S-NPP	25.64282	76.61222	12:51:44	D	3.70
192	SHEOPUR	SHEOPUR	S-NPP	25.64618	76.60893	12:51:44	D	4.10
193	SHEOPUR	SHEOPUR	S-NPP	25.67110	76.52107	12:51:44	D	6.00
194	SHEOPUR	SHEOPUR	S-NPP	25.67188	76.52453	12:51:44	D	6.00
195	SHEOPUR	SHEOPUR	S-NPP	25.70541	76.67403	12:51:44	D	9.20
196	SHEOPUR	SHEOPUR	S-NPP	25.76148	76.70853	12:51:44	D	9.10
197	SHEOPUR	SHEOPUR	S-NPP	25.76221	76.71187	12:51:44	D	16.40
198	SHEOPUR	SHEOPUR	S-NPP	25.76339	76.70999	12:51:44	D	8.70
199	SHEOPUR	SHEOPUR	S-NPP	25.76414	76.71333	12:51:44	D	8.70
200	SHEOPUR	SHEOPUR	S-NPP	25.88065	76.71914	12:51:44	D	3.80
201	SHEOPUR	SHEOPUR	S-NPP	25.88355	76.71976	12:51:44	D	2.40
202	WEST NIMAR	KHARGON	S-NPP	21.78717	75.59316	14:32:01	D	5.10

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

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 (ISRO)**

Study Team

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GIS Maps of fire events can be visualized online on ICAR KRISHI Geoportal website: <http://geoportal.icar.gov.in:8080/geoexplorer/composer/>
(Part of KRISHI Portal: <https://krishi.icar.gov.in> initiative)

The DASHBOARD for paddy residue burning events is available at weblink: [CREAMS Fire Dashboard](#)
