

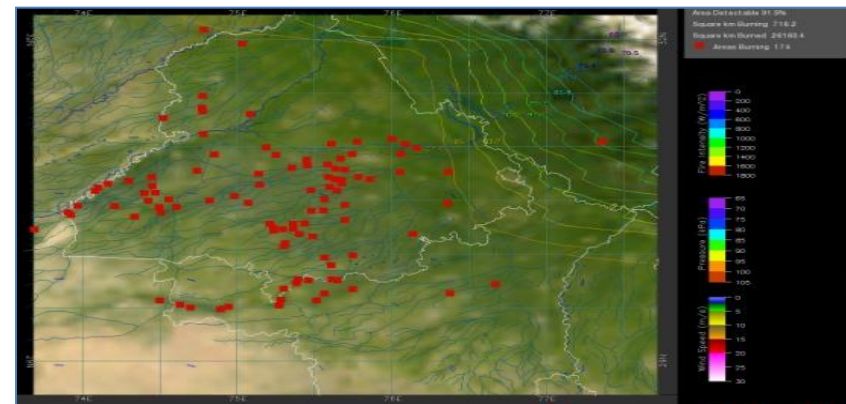
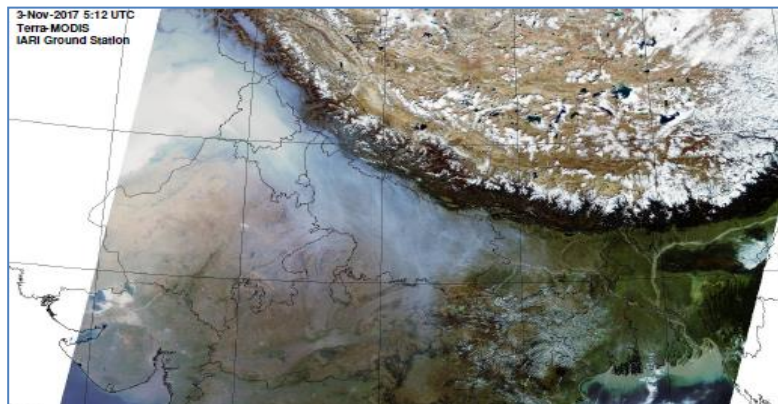


MONITORING PADDY RESIDUE BURNING IN INDIA USING SATELLITE REMOTE SENSING DURING 2023

**Bulletin
No. 72**

**Events Date:
25-Nov-2023**

**Issued on:
25-Nov-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**

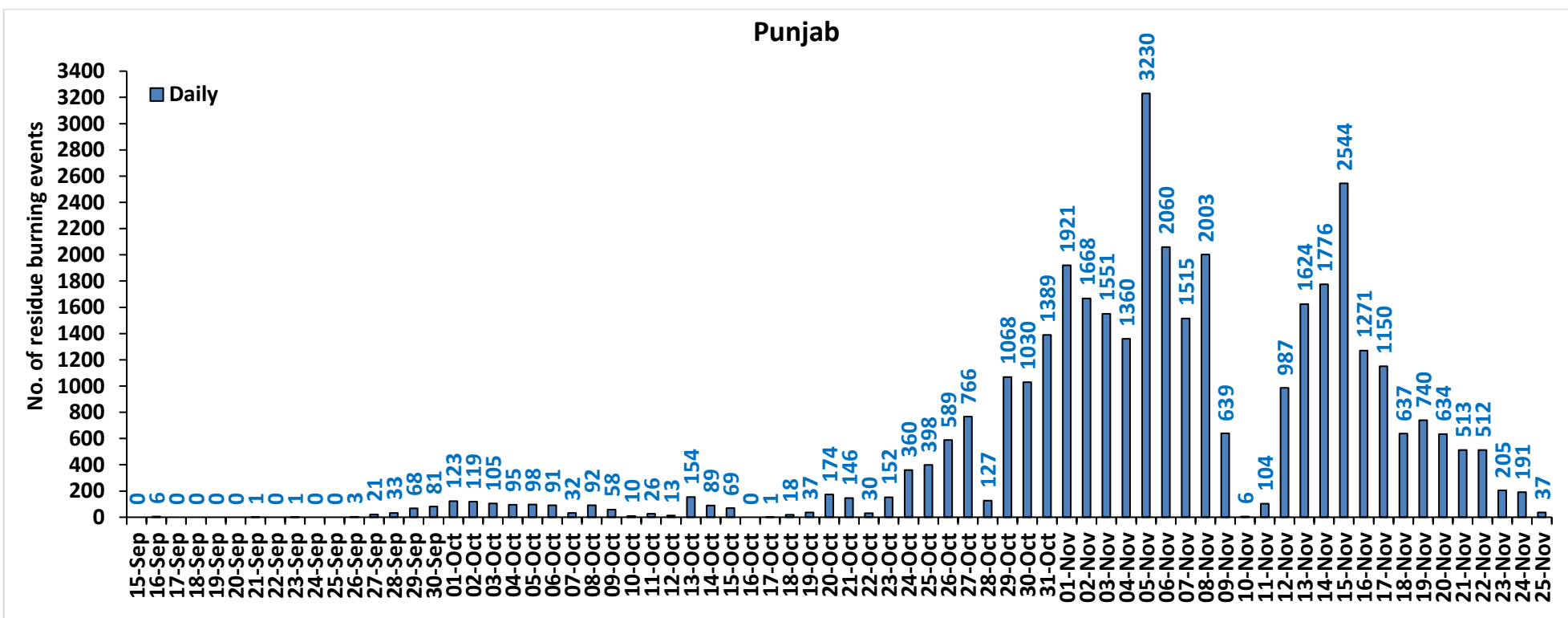
<http://creams.iari.res.in>



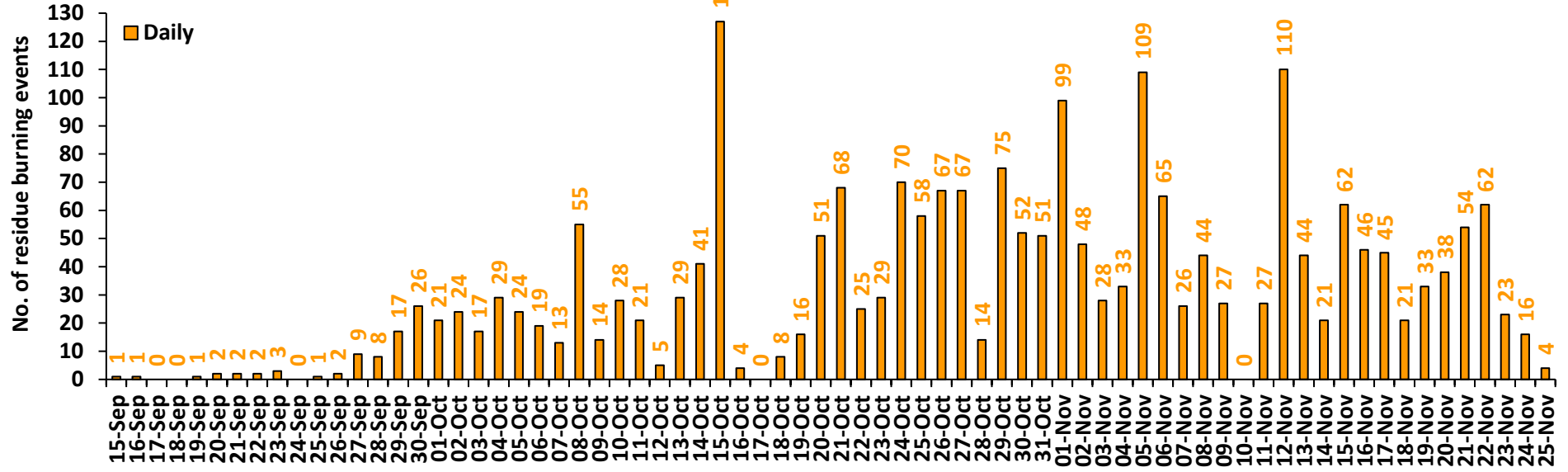
Highlights for 25-Nov-2023

- 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 **359** residue burning events in the six study States on 25-Nov-2023.
- The state wise events detected on 25-Nov-2023 were **37** in Punjab, **04** in Haryana, **74** in UP, **00** in Delhi, **16** in Rajasthan and **228** in MP.
- Total **56724** burning events were detected in the six states between 15-Sept-2023 and 25-Nov-2023, which are distributed as **36551**, **2282**, **3637**, **05**, **1769** and **12480** in Punjab, Haryana, UP, Delhi, Rajasthan and MP, respectively.

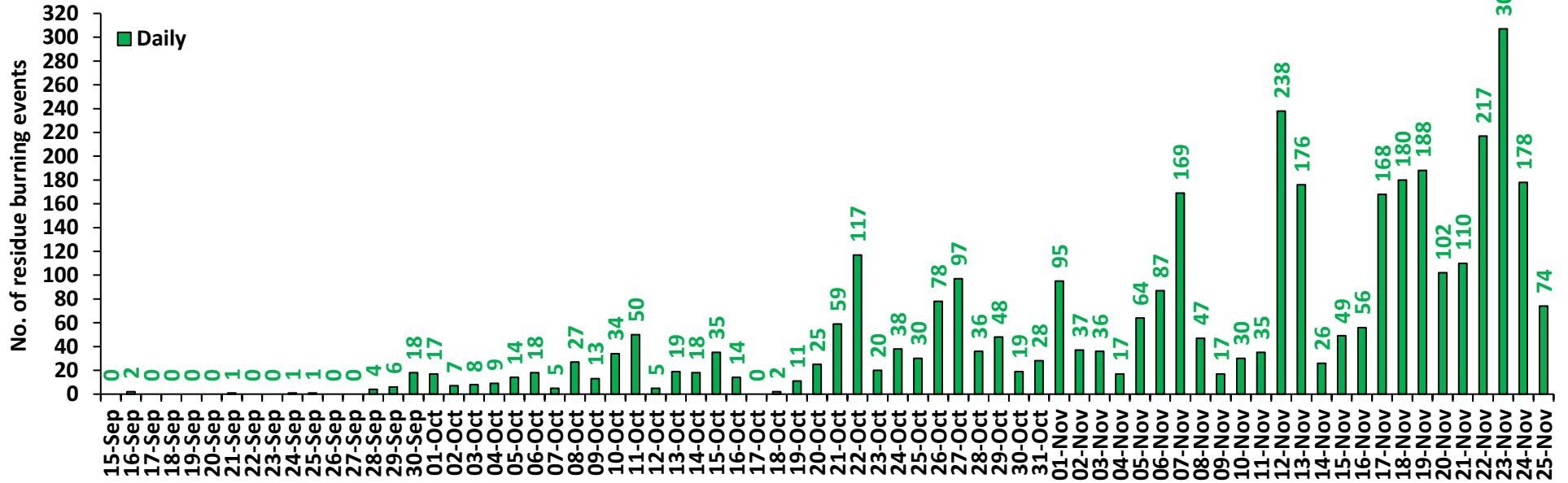
Temporal distribution of rice residue burning events for the study States in 2023



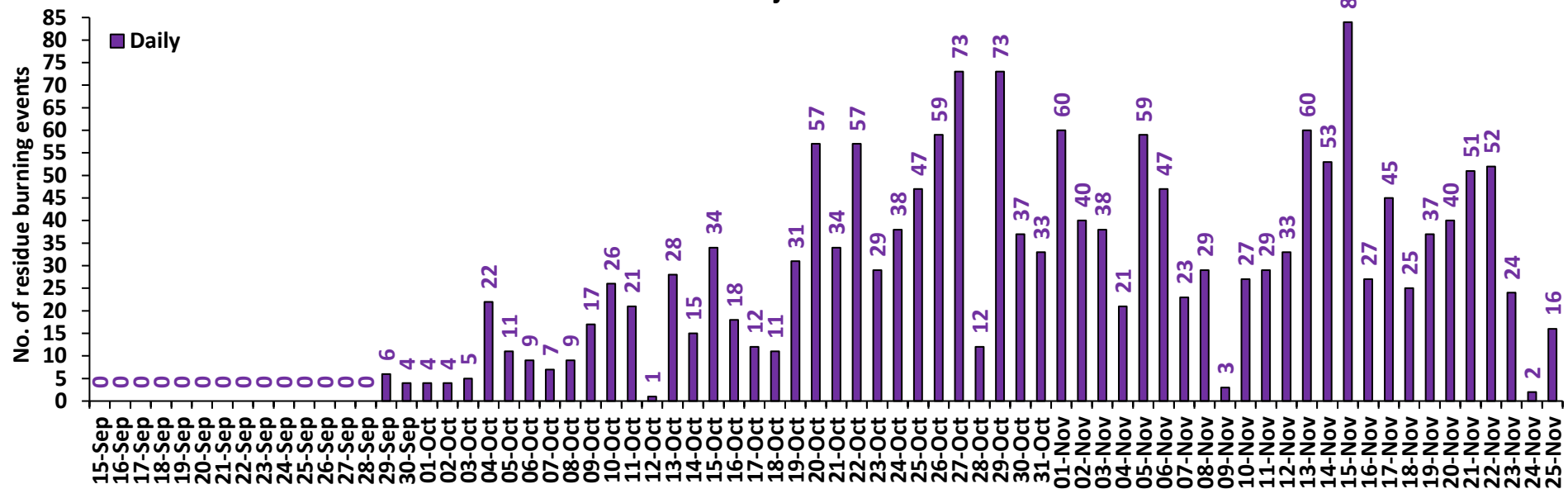
Haryana



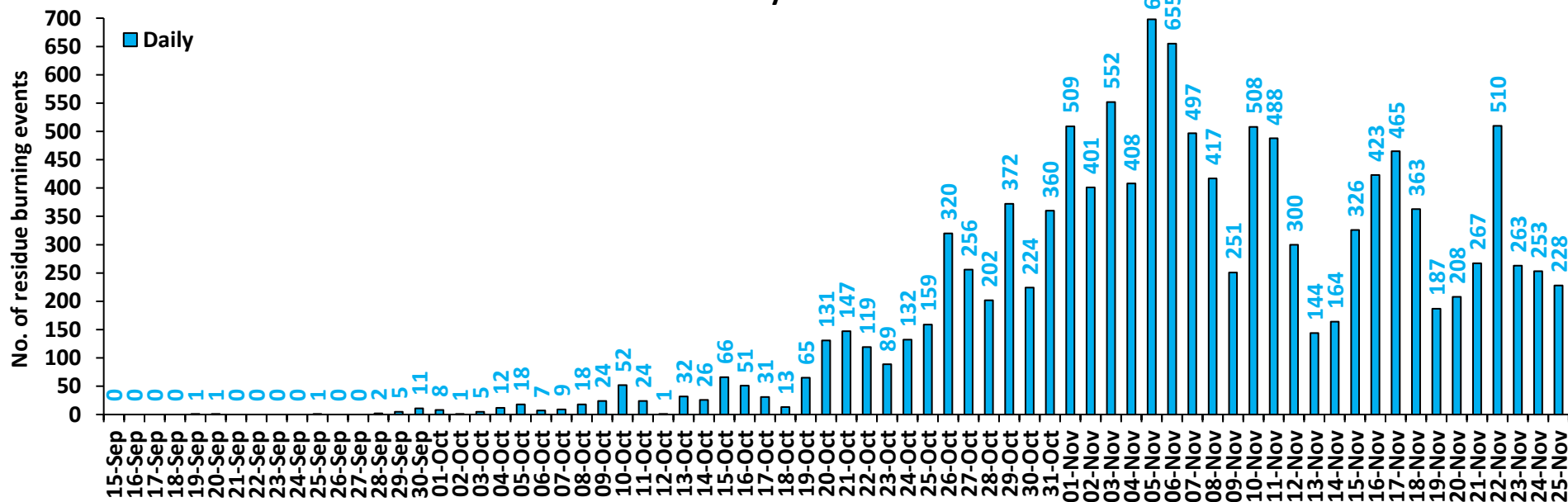
Uttar Pradesh



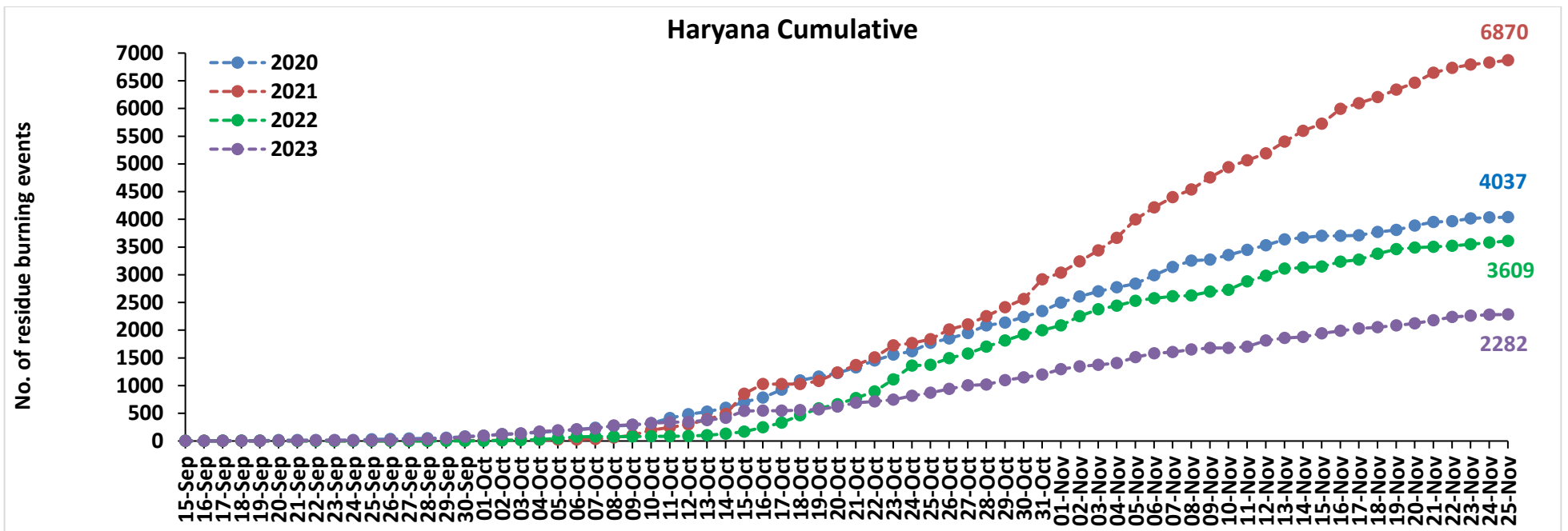
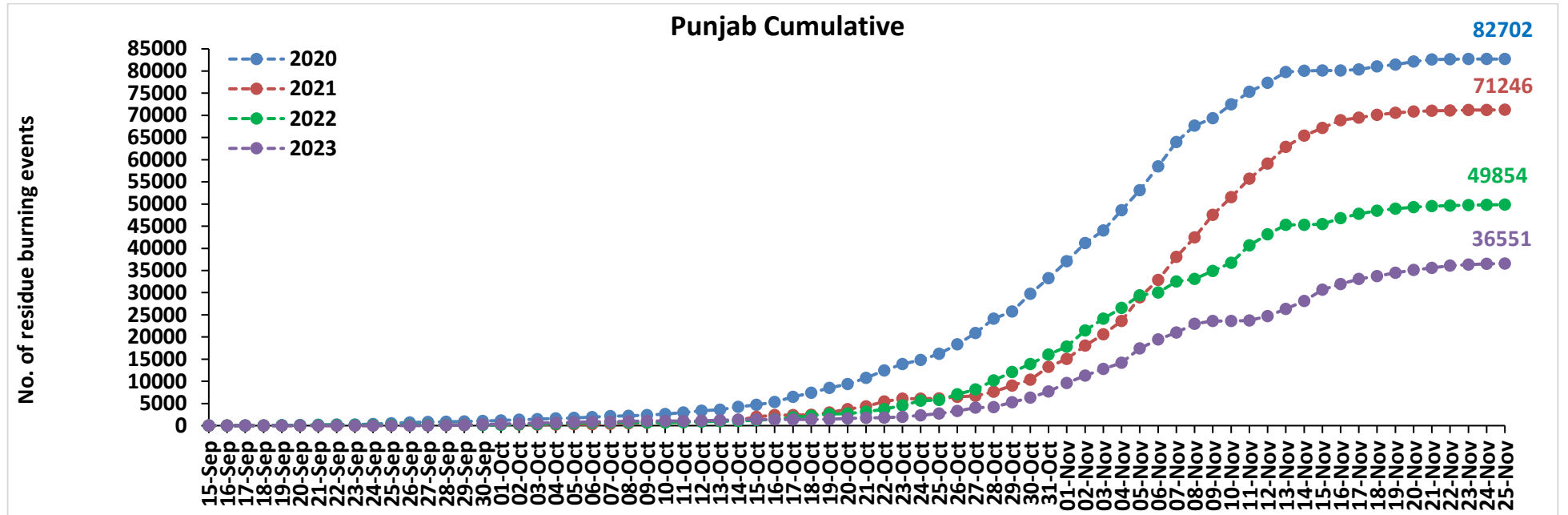
Rajasthan

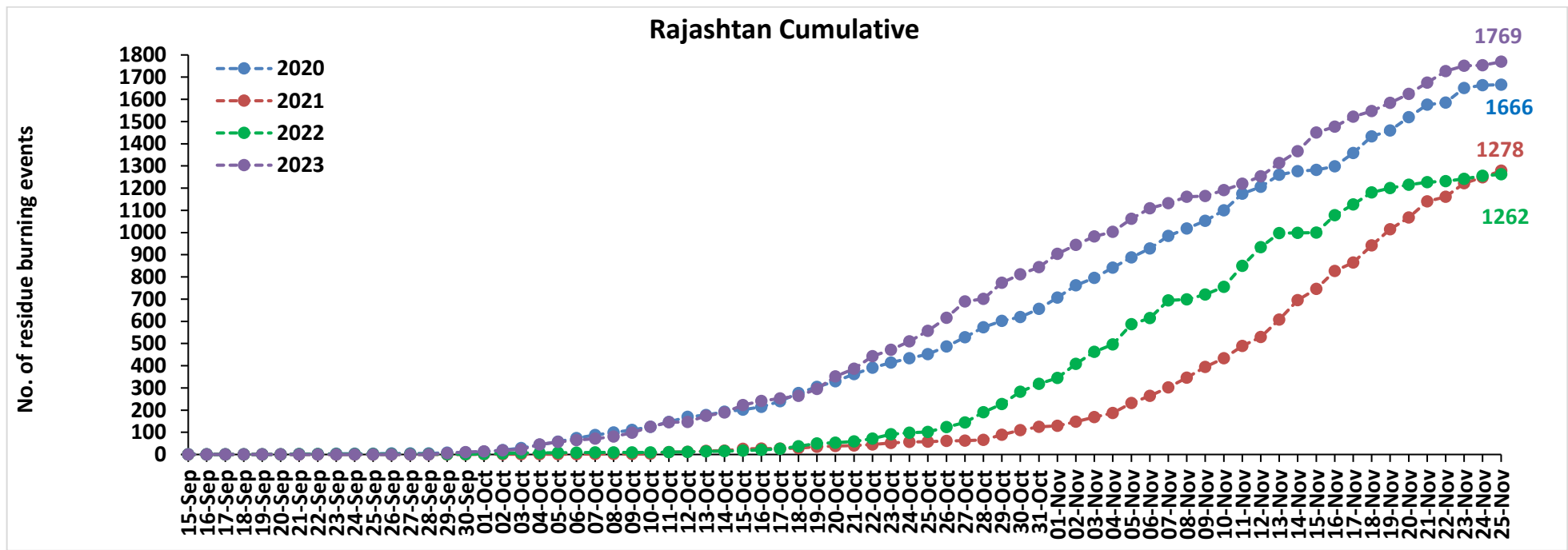
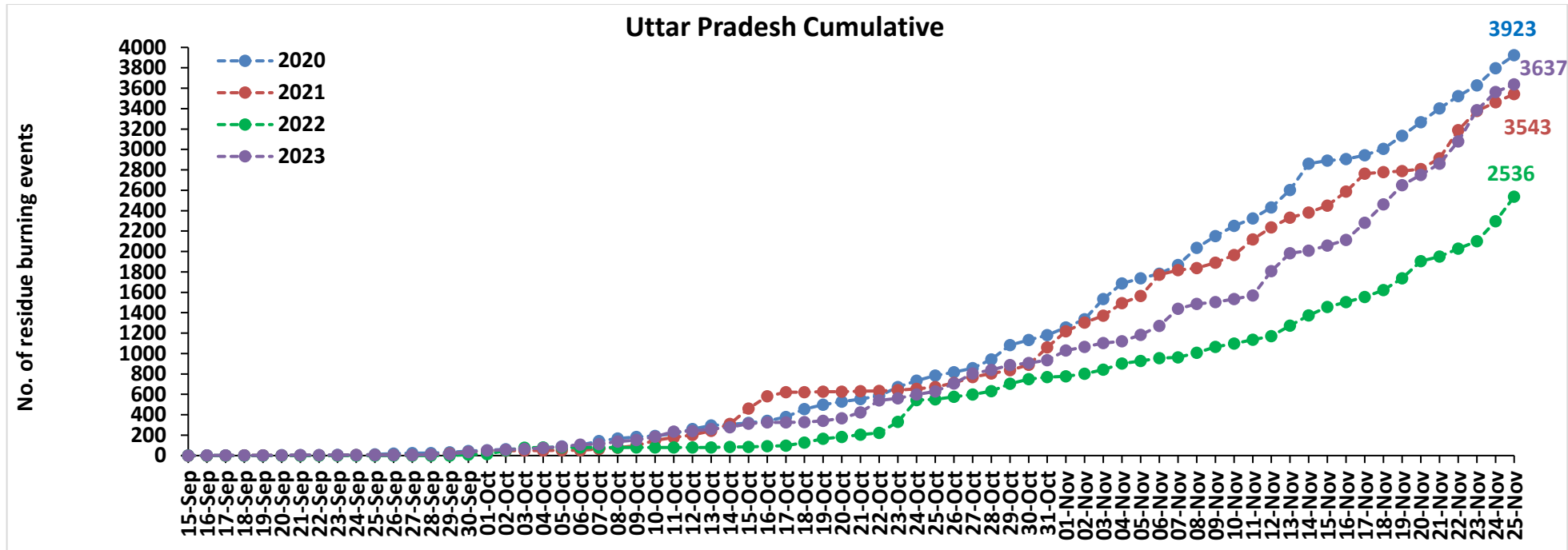


Madhya Pradesh

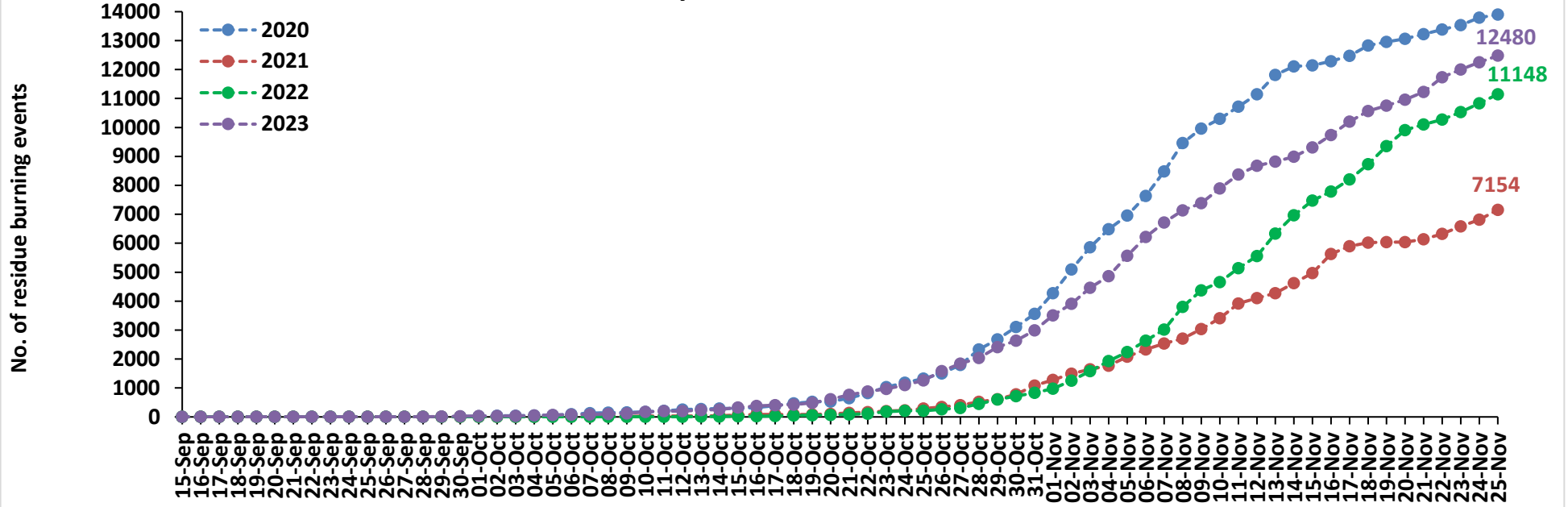


Comparison of residue burning events in current year (2023) with previous years (2020, 2021 and 2022) for the study State

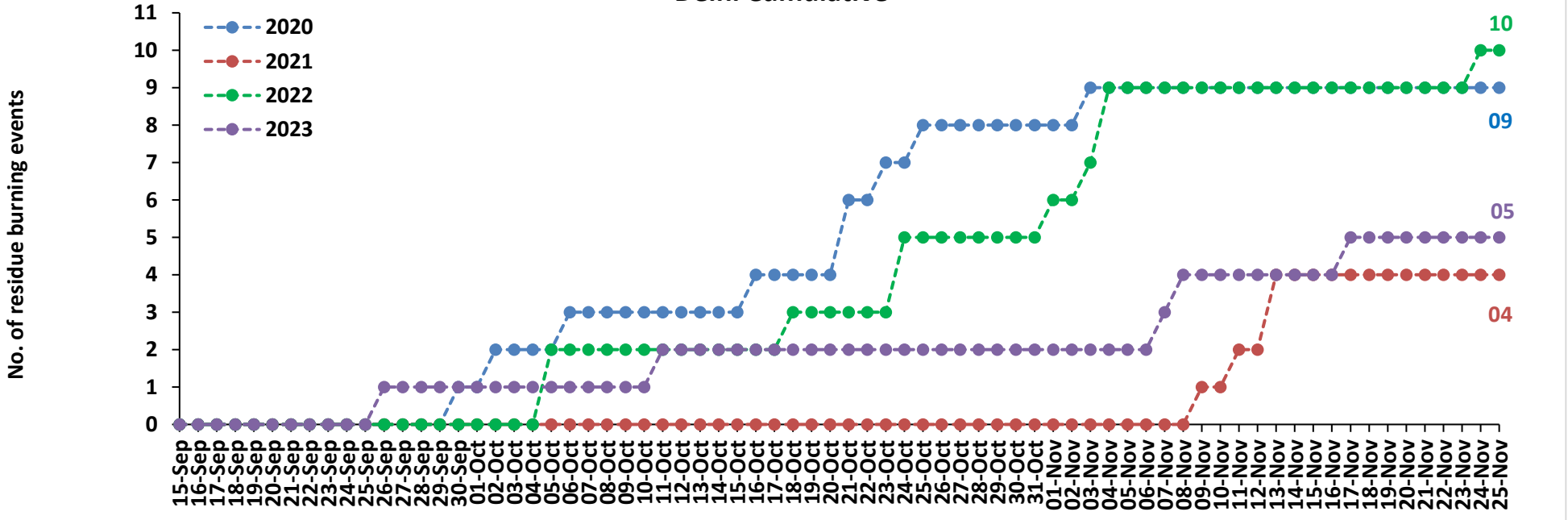




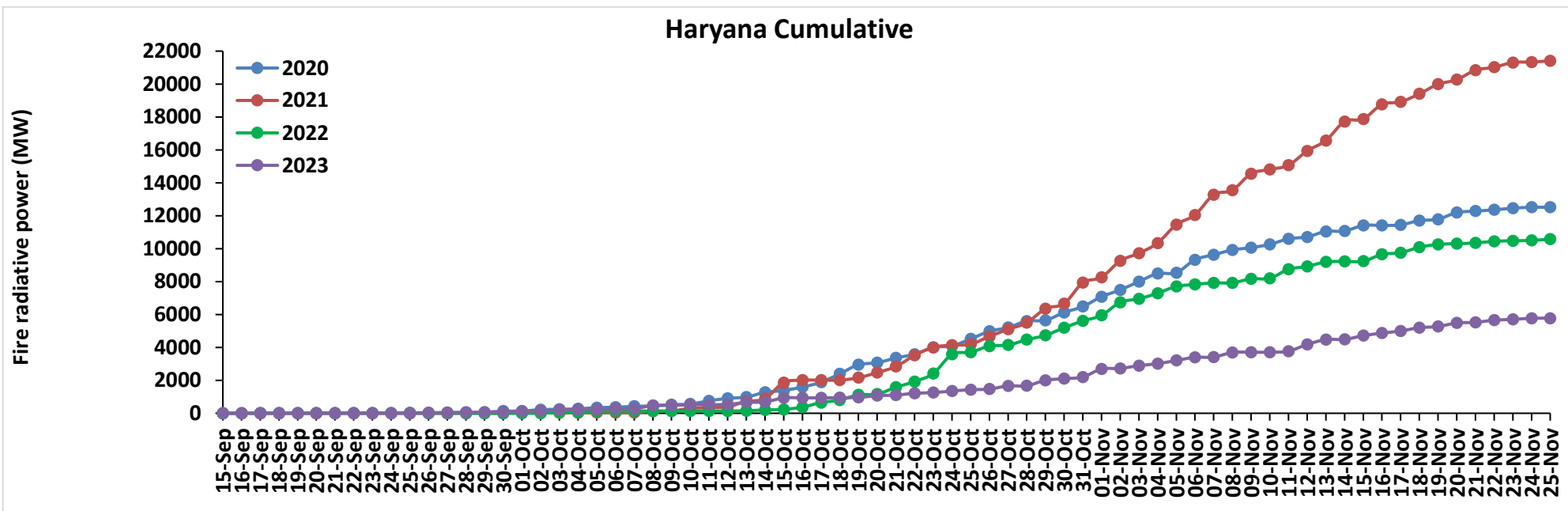
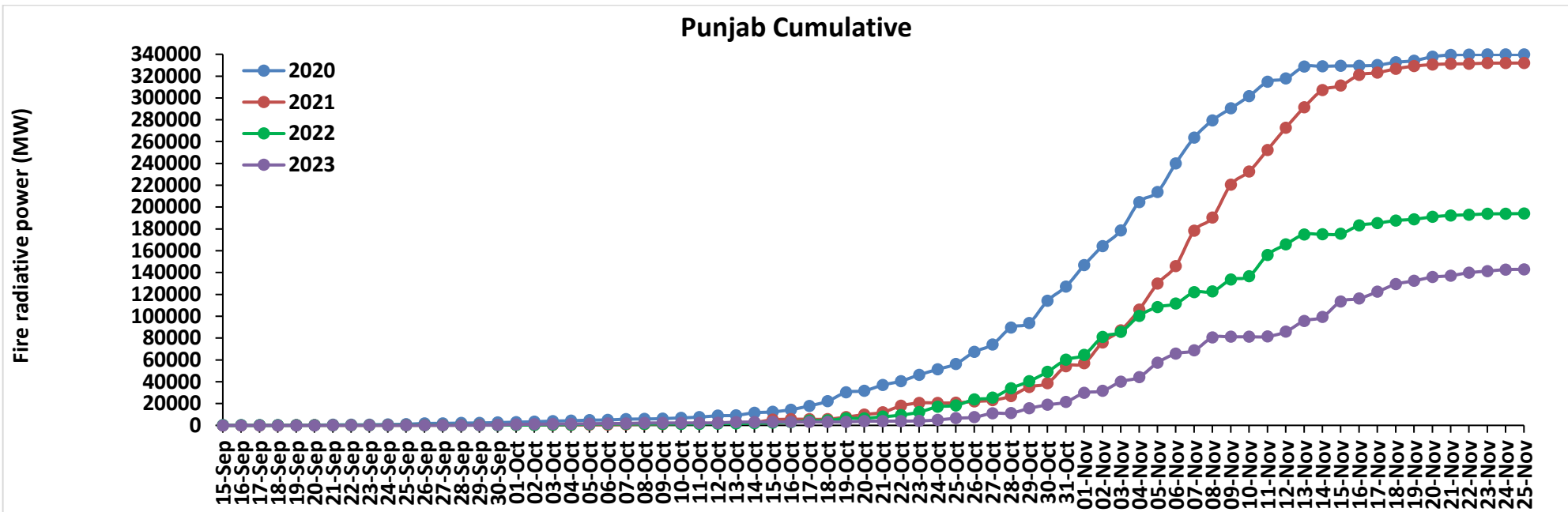
Madhya Pradesh Cumulative



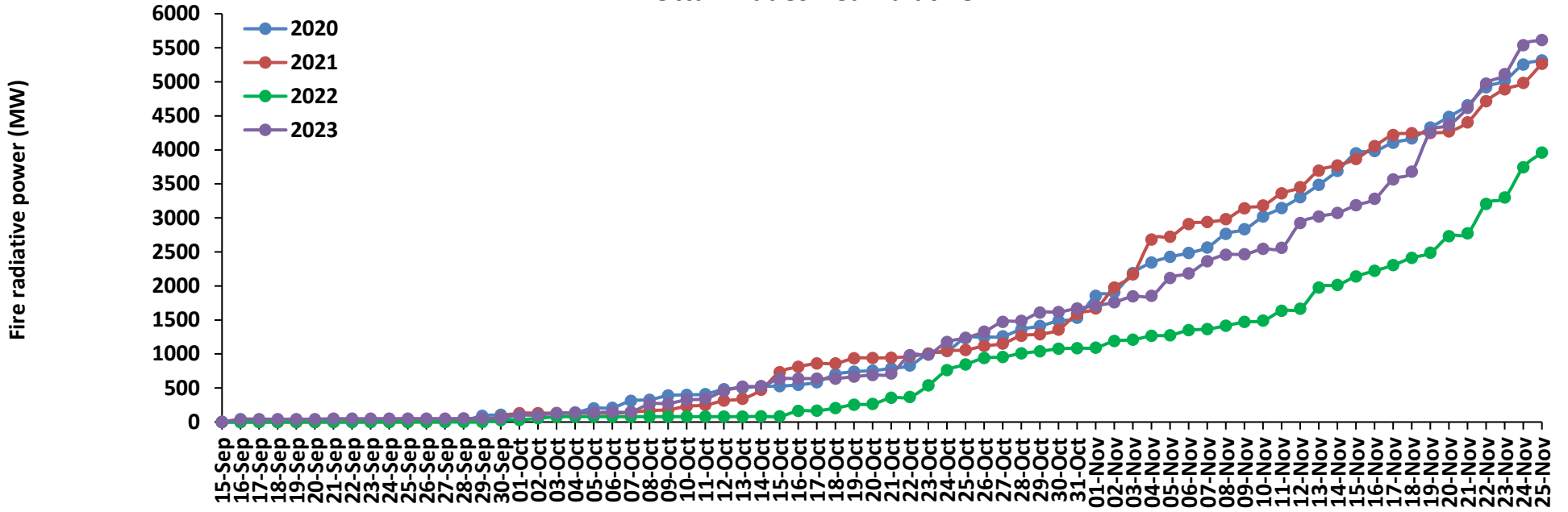
Delhi Cumulative



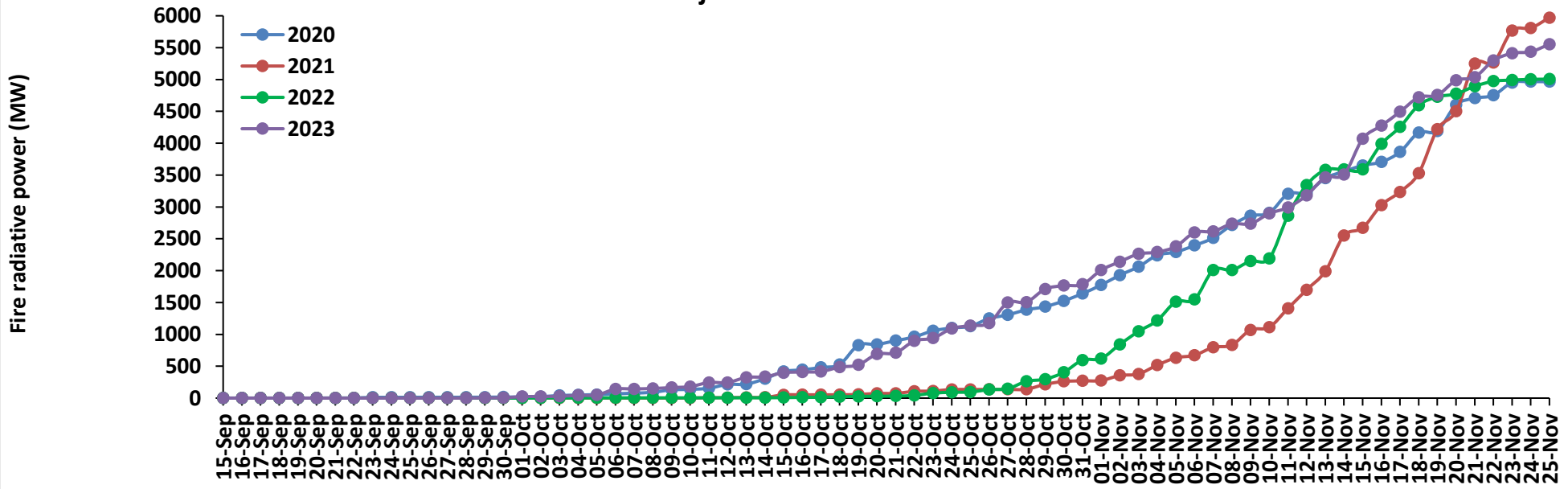
Comparison of residue burning fire power in current year (2023) with previous years (2020, 2021 and 2022) for the study States



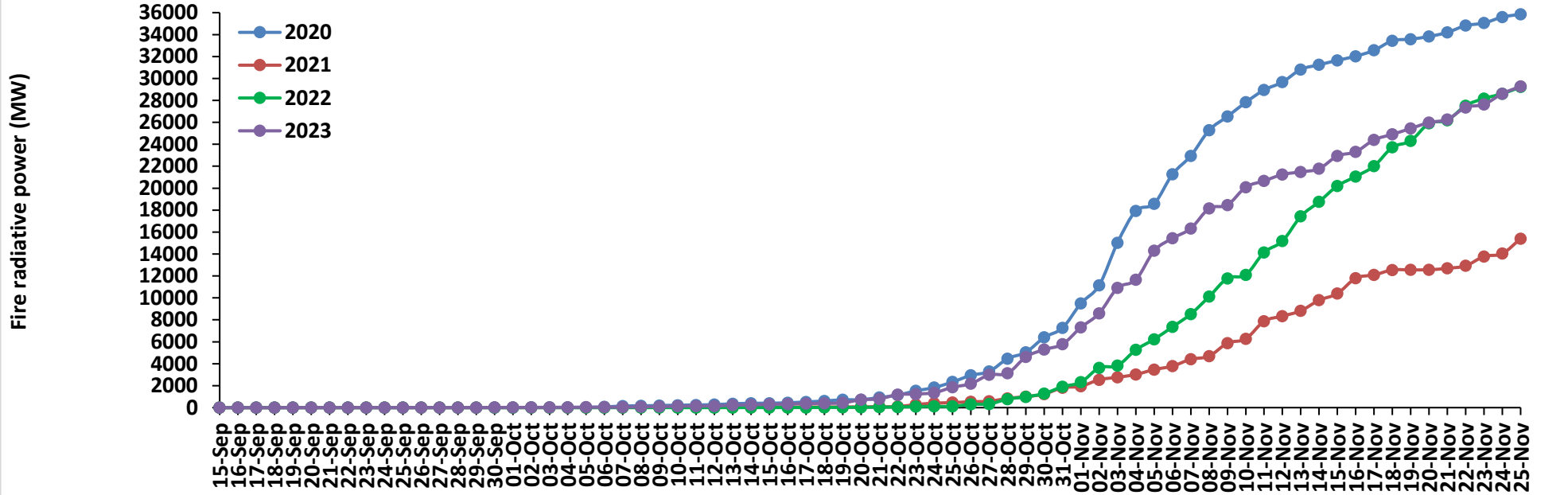
Uttar Pradesh Cumulative



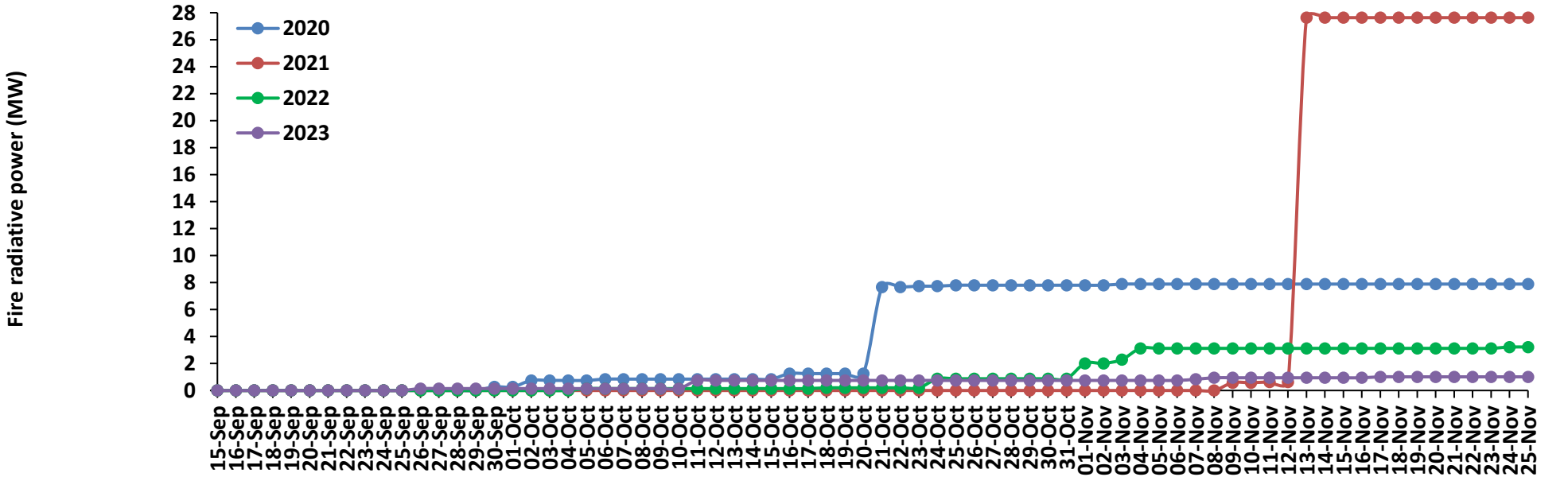
Rajasthan Cumulative



Madhya Pradesh Cumulative

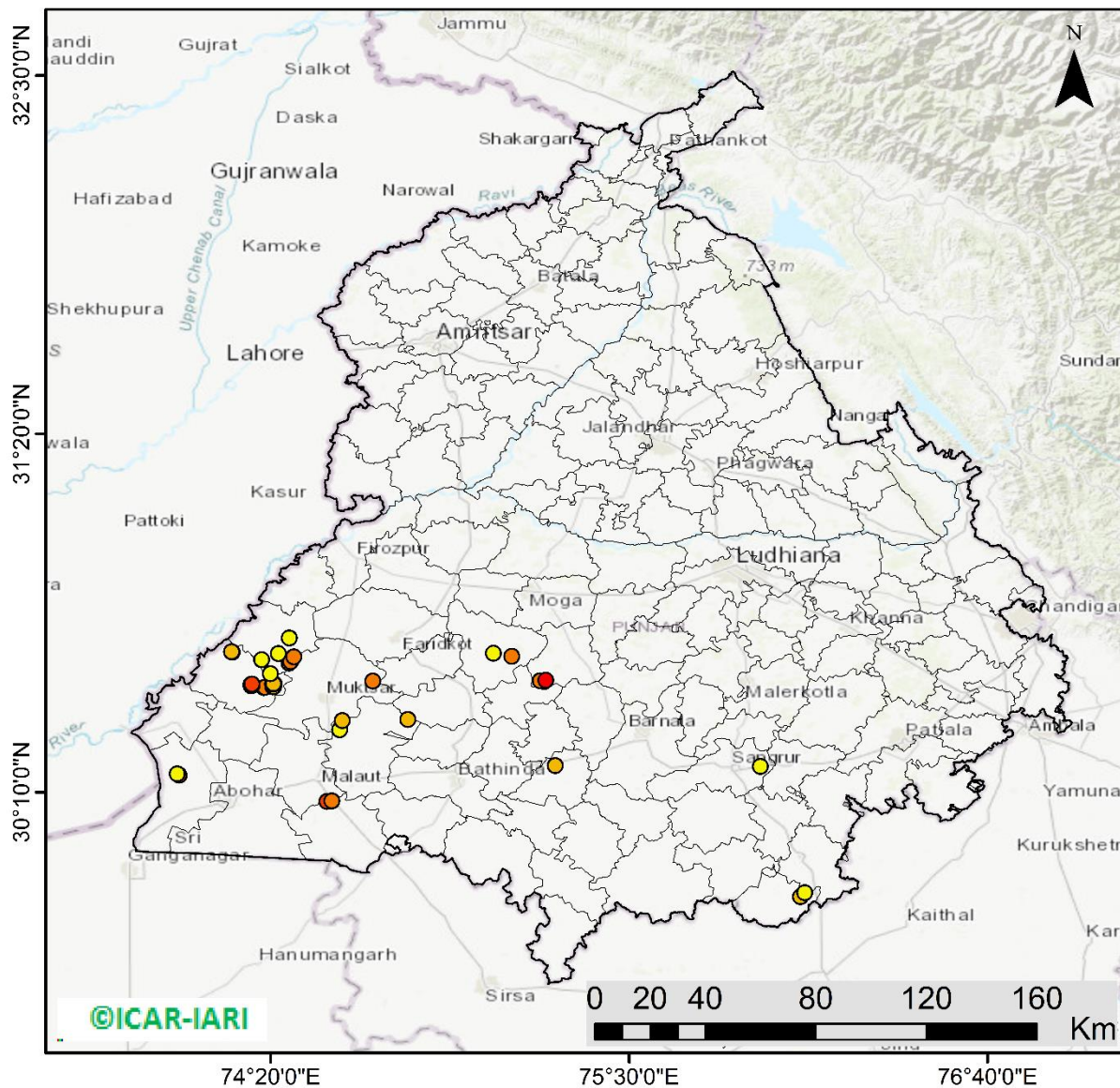


Delhi Cumulative



Punjab

RICE RESIDUE BURNING IN PUNJAB



37 burning events detected in Punjab during (25th Nov 2023)

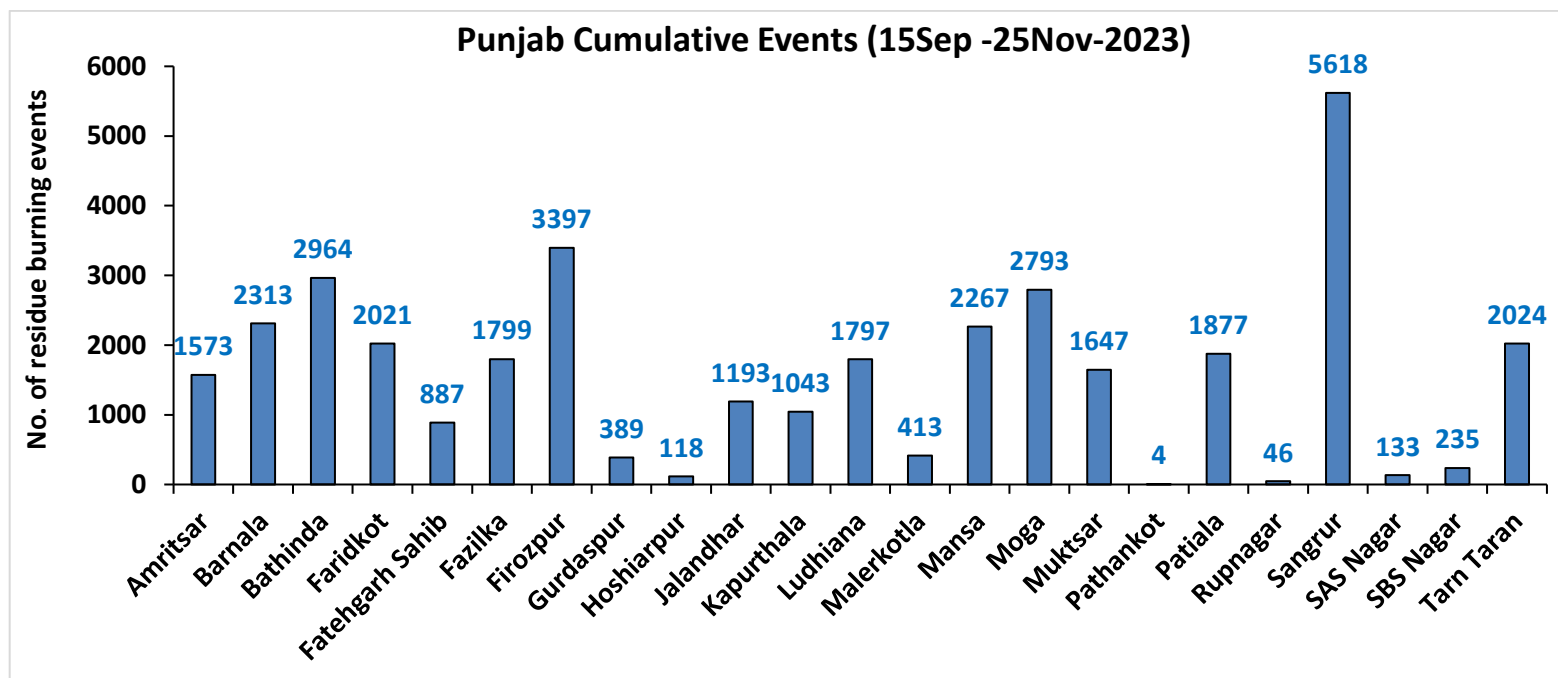
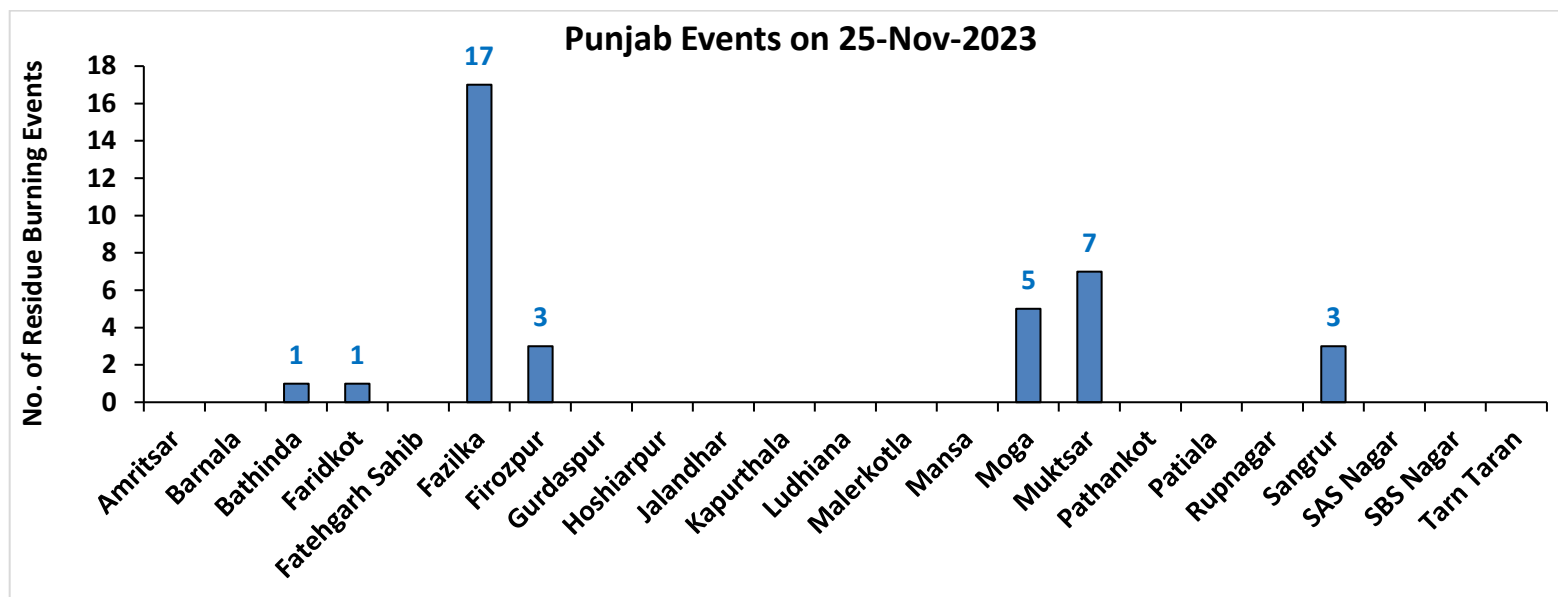
Fire Intensity (W/m²)

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



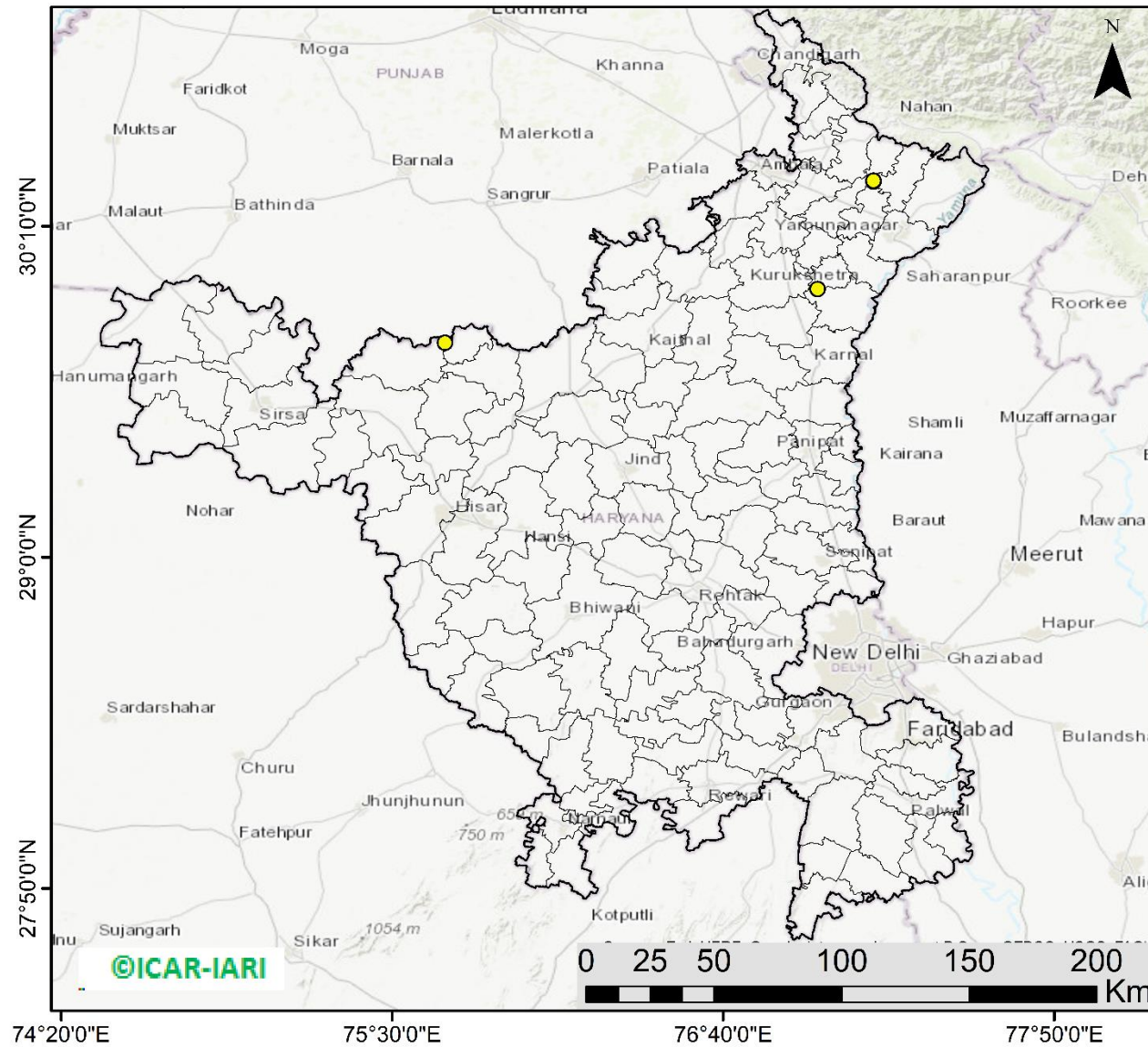
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residues burning events in Punjab (15Sep- 25Nov-2023)



Haryana

RICE RESIDUE BURNING IN HARYANA



04 burning events detected in Haryana on (25th Nov 2023)

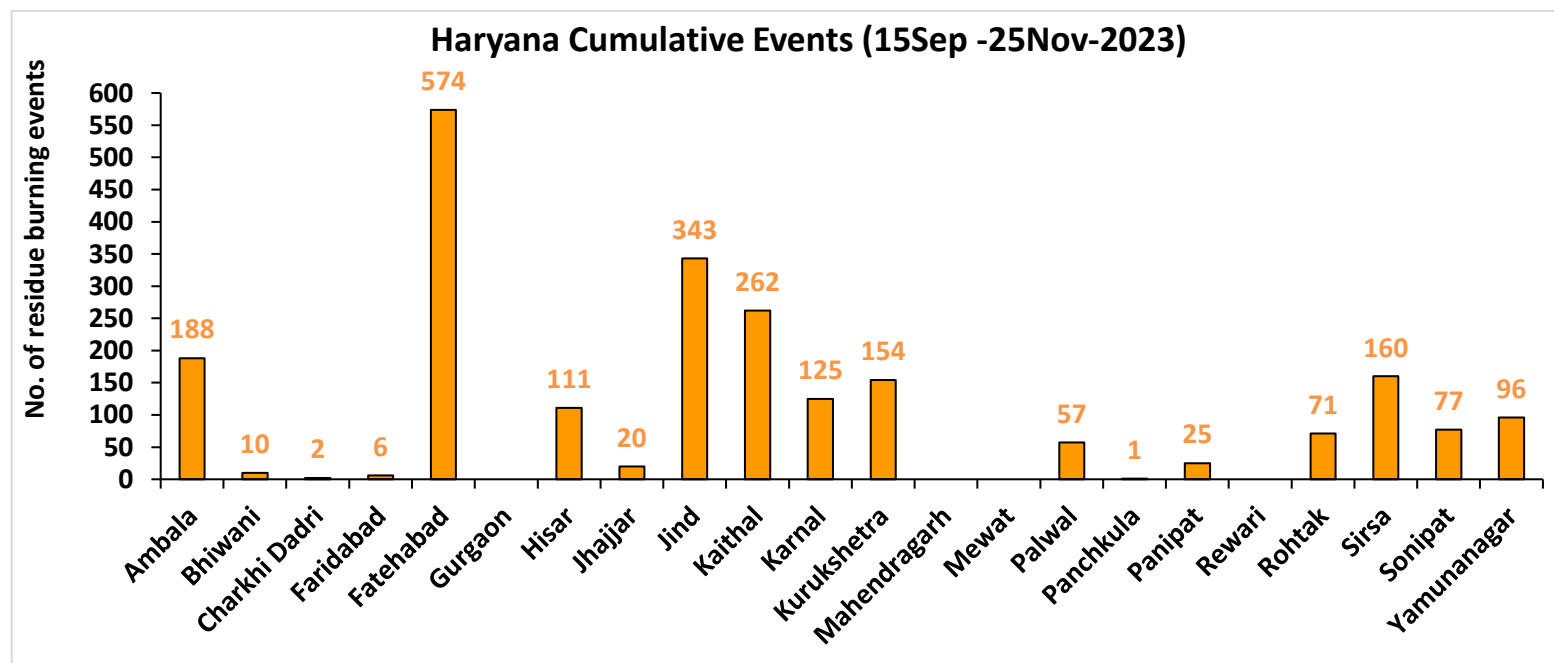
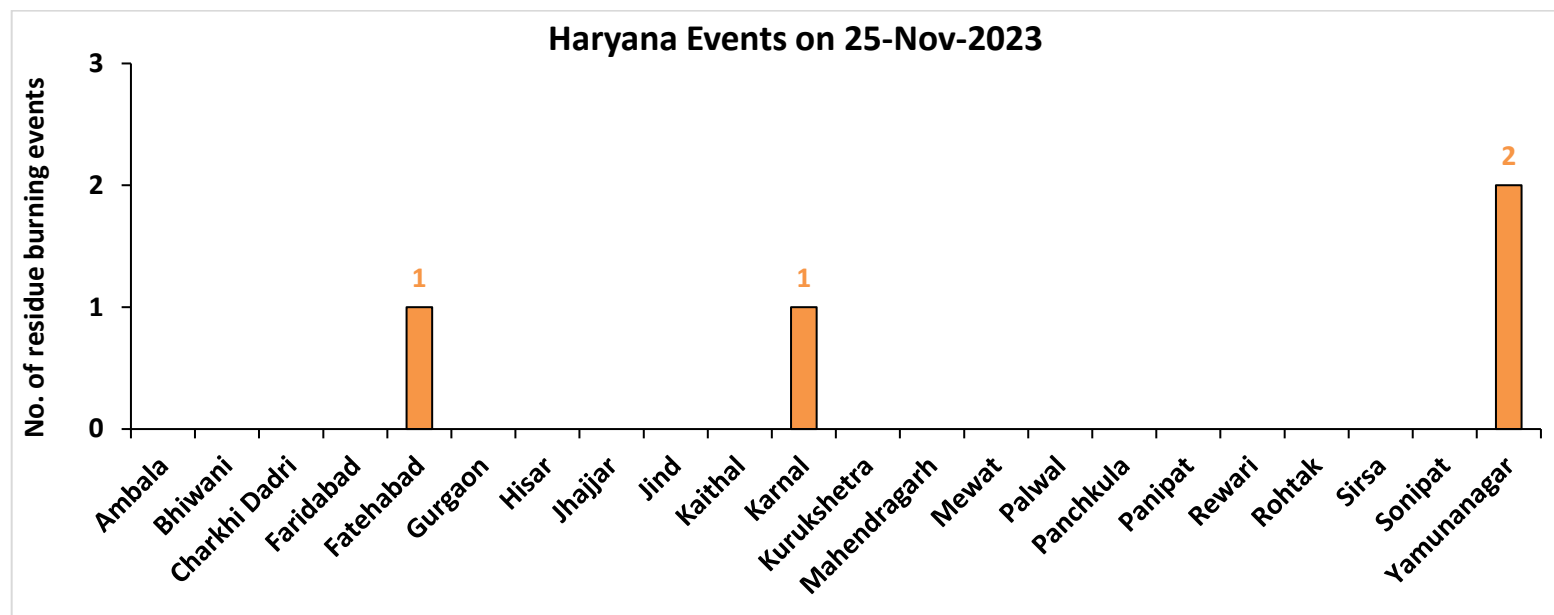
Fire Intensity (W/m²)

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



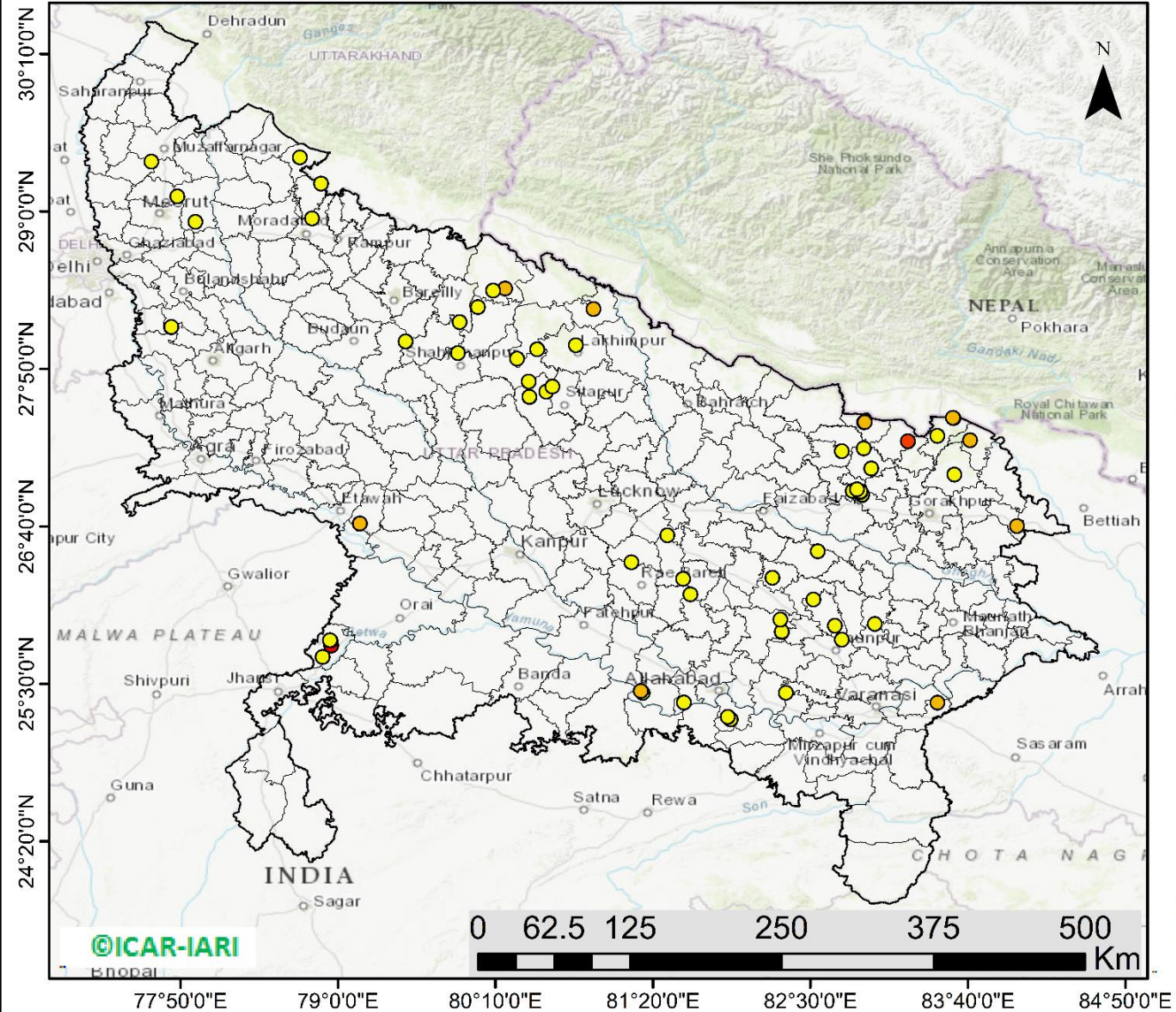
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residues burning events in Haryana (15Sep- 25Nov-2023)



Uttar Pradesh

RICE RESIDUE BURNING IN UTTAR PRADESH



74 burning events detected in Uttar Pradesh on (25th Nov 2023)

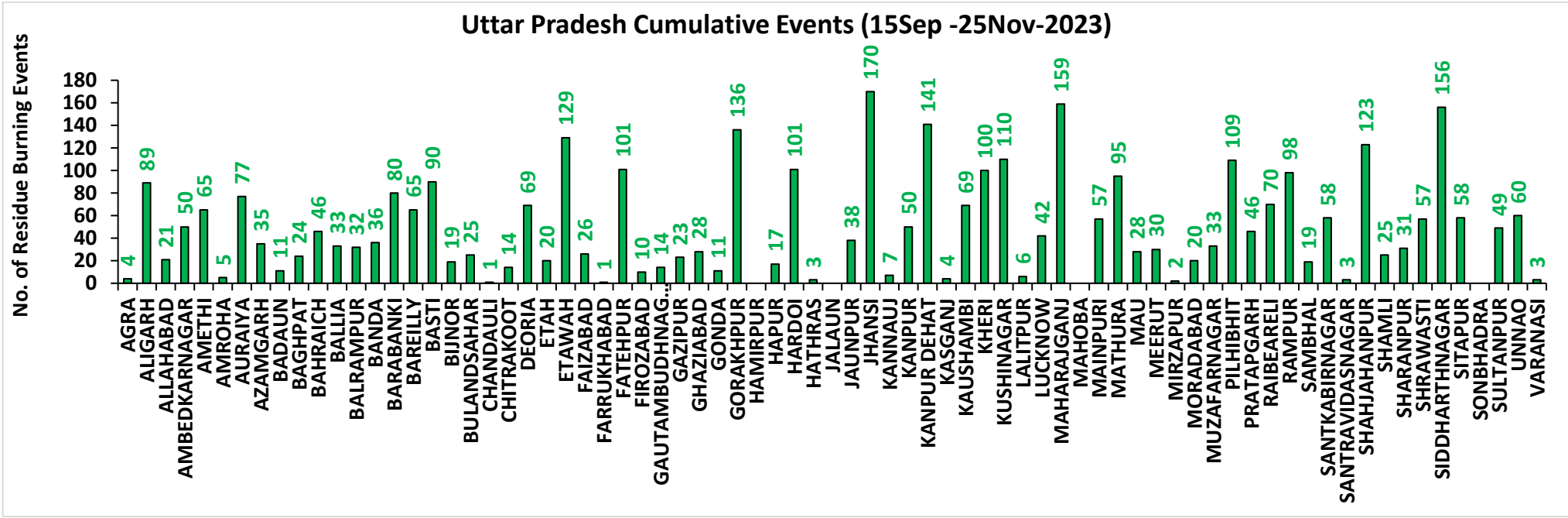
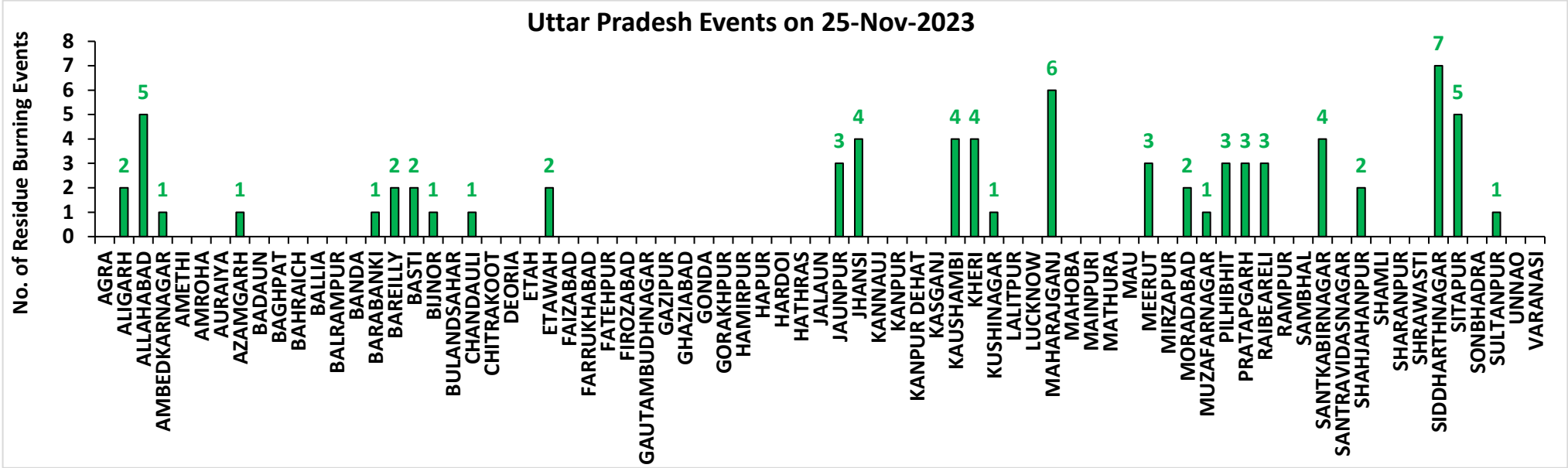
Fire Intensity (W/m2)

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



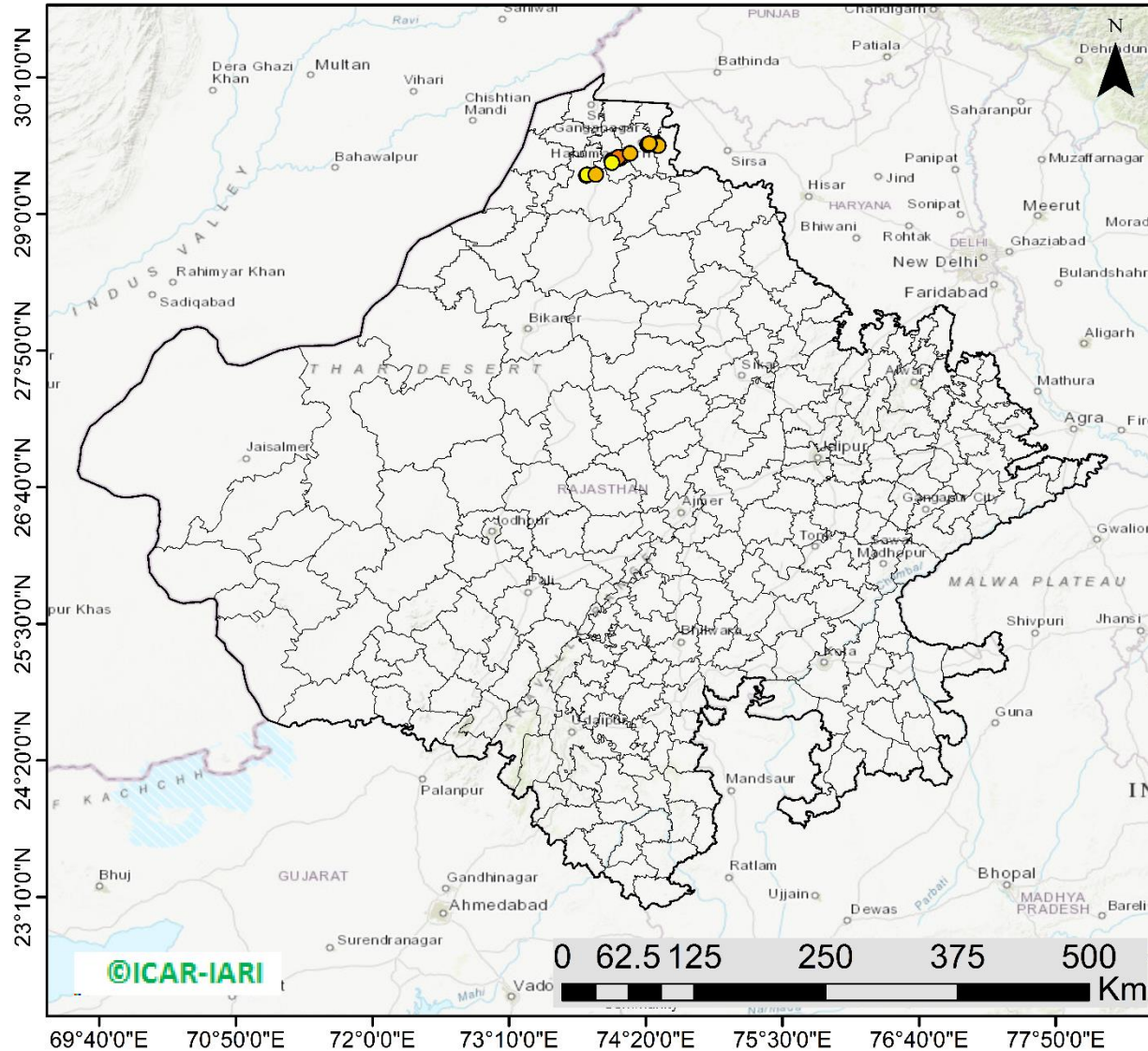
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residues burning events in Uttar Pradesh (15Sep-25Nov -2023)



Rajasthan

RICE RESIDUE BURNING IN RAJASTHAN



16 burning events
detected in Rajasthan on
(25th Nov 2023)

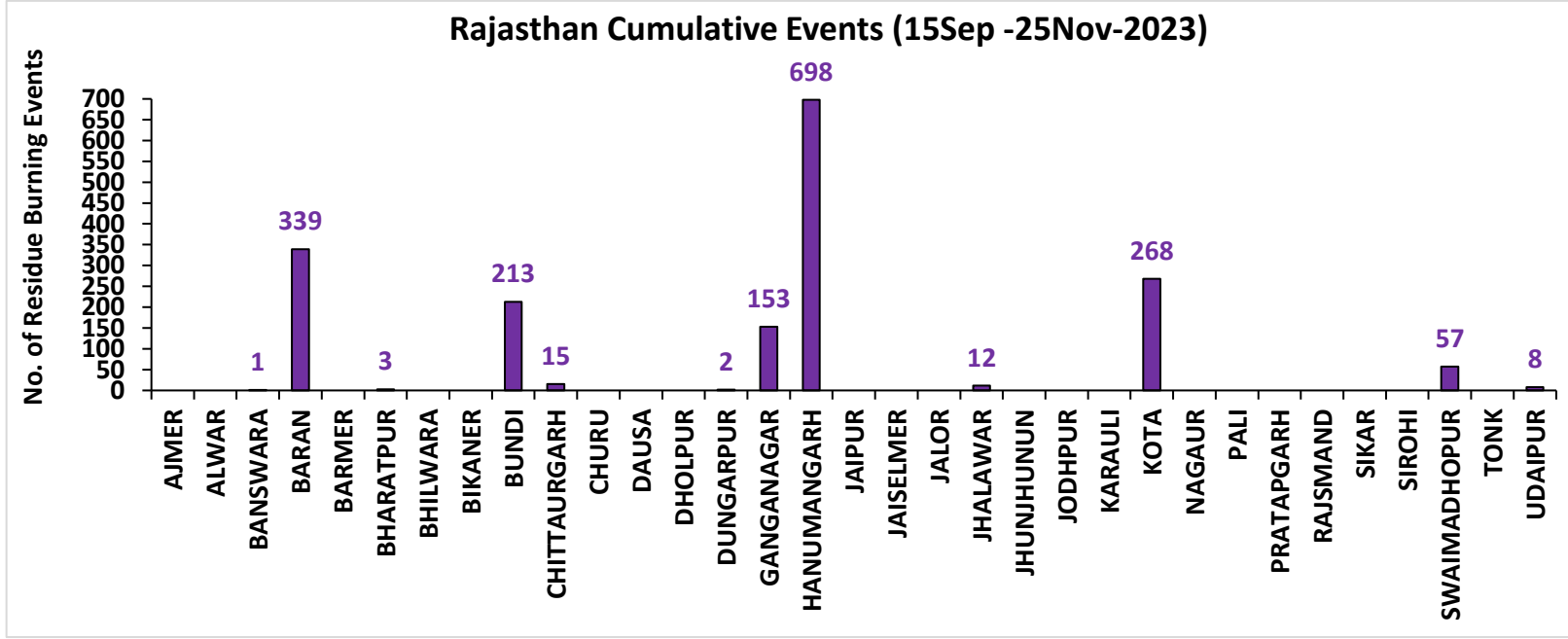
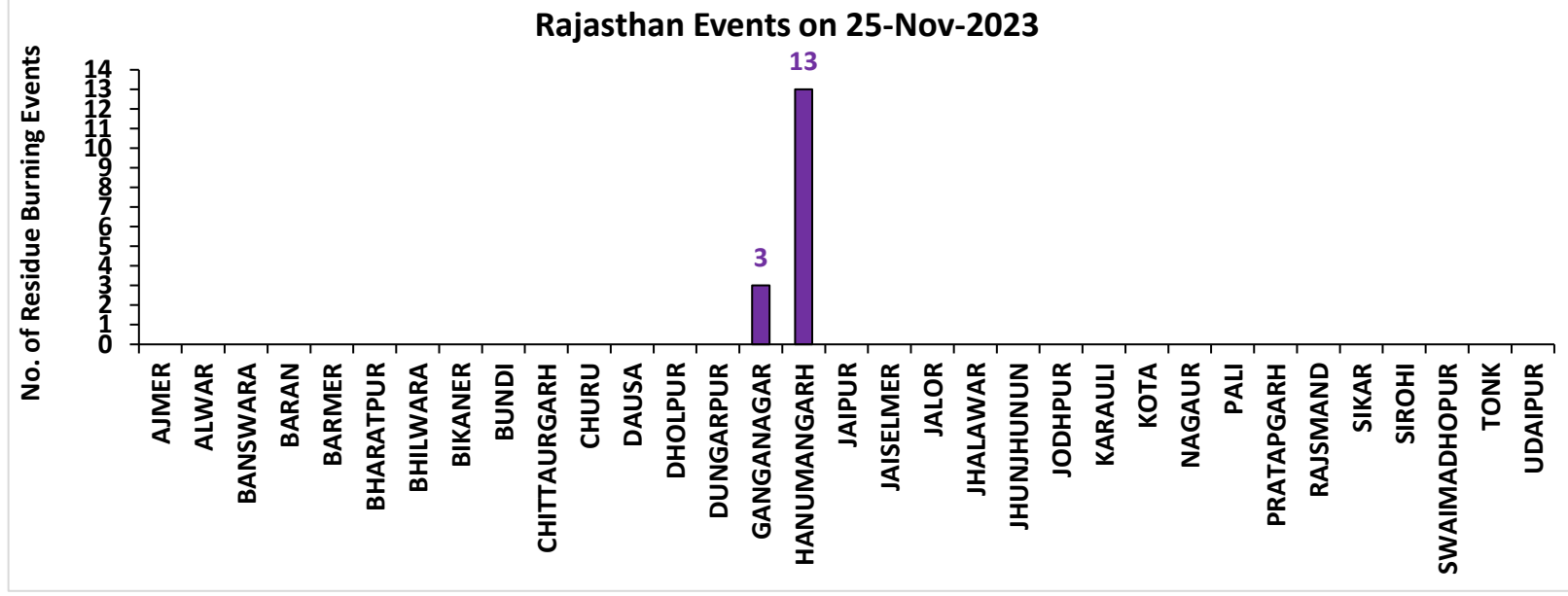
Fire Intensity (W/m²)

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



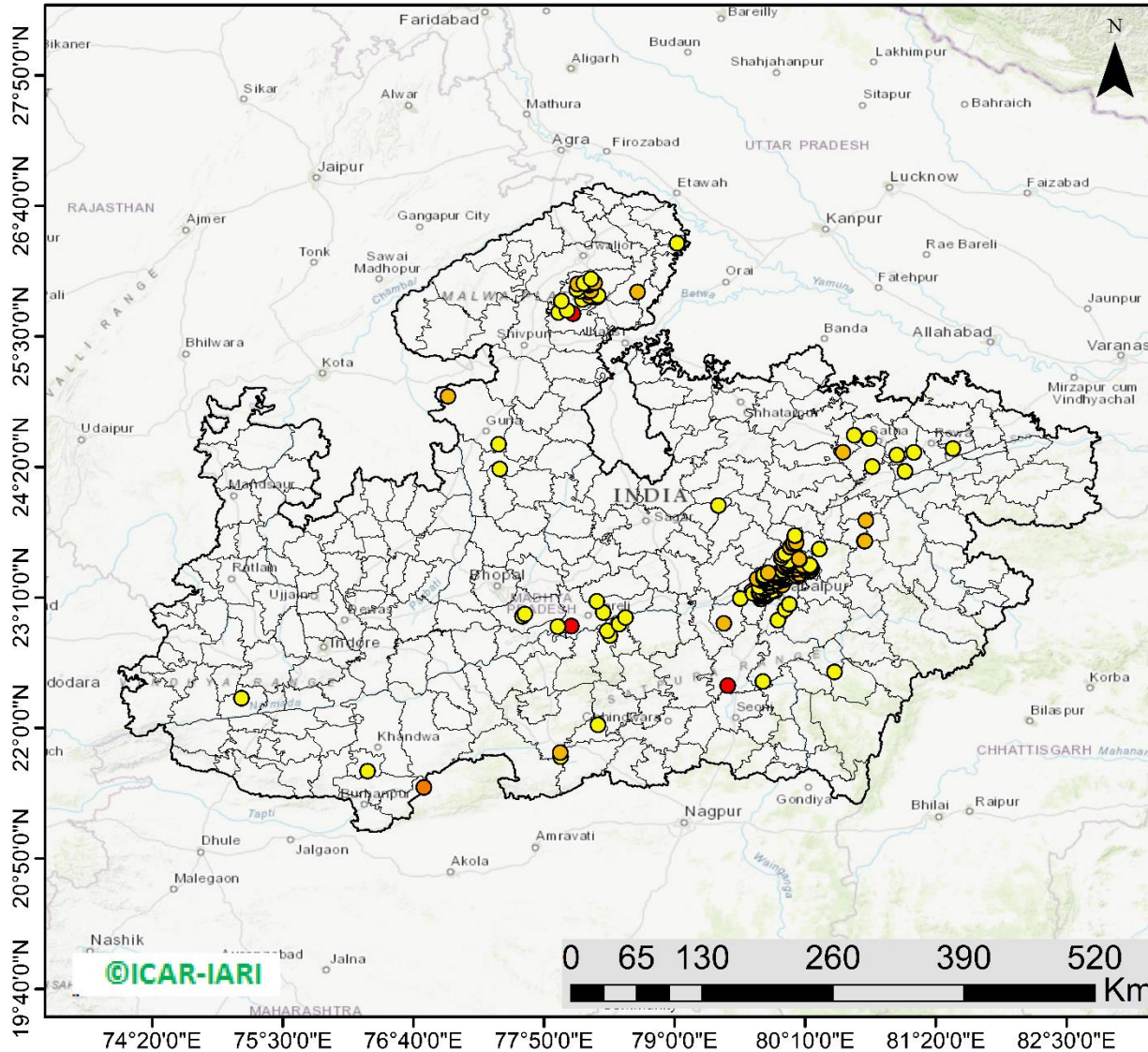
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residues burning events in Rajasthan (15Sep-25Nov -2023)



Madhya Pradesh

RICE RESIDUE BURNING IN MADHYA PRADESH



228 burning events
detected in MP on
(25th Nov 2023)

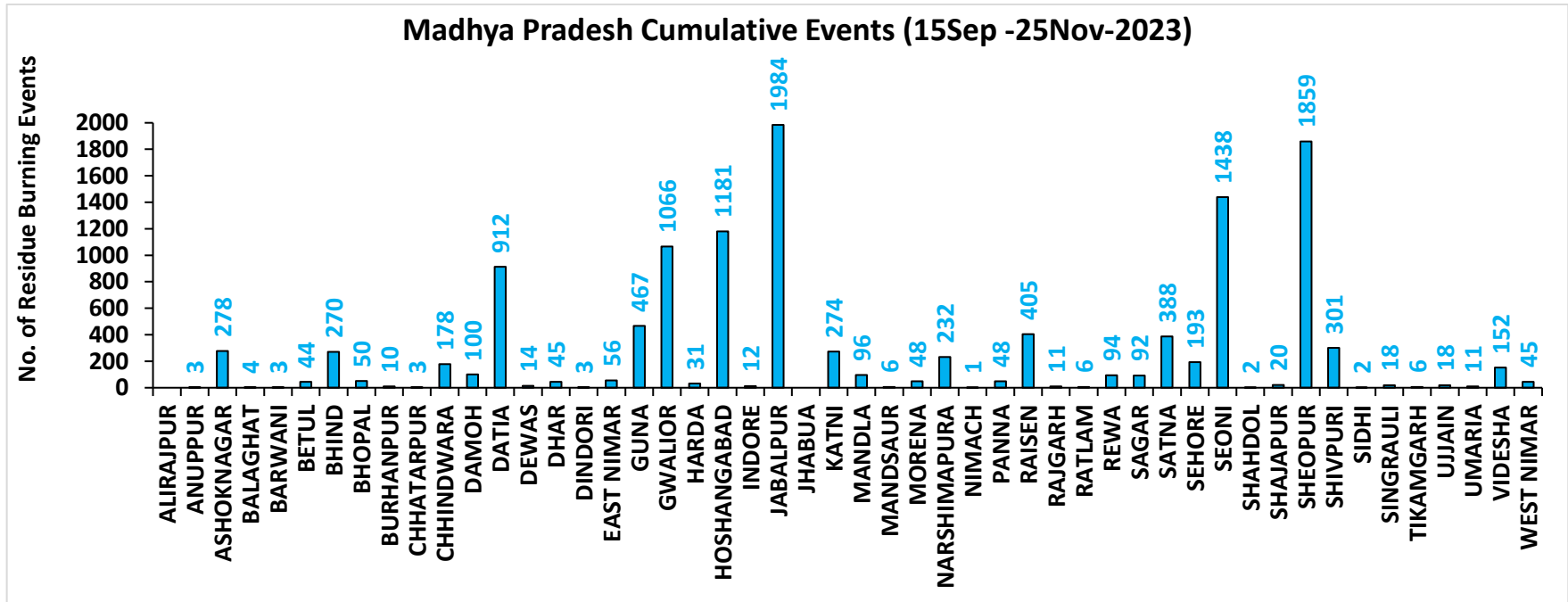
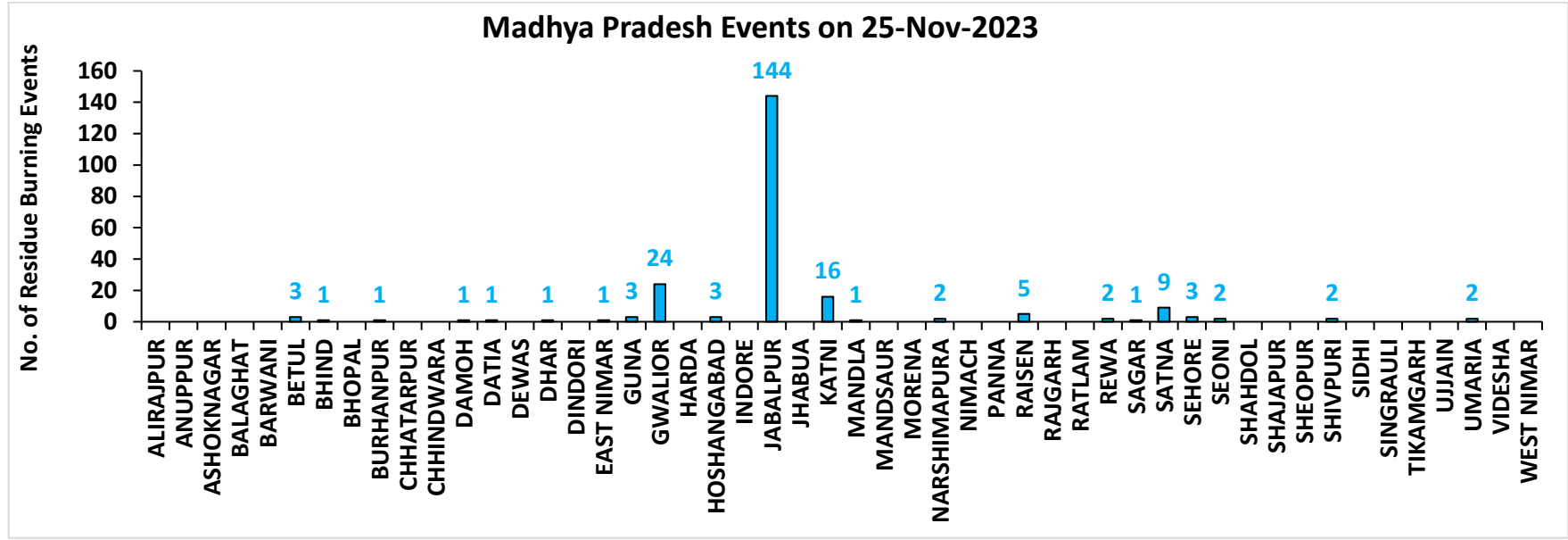
Fire Intensity (W/m²)

- 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-25Nov -2023)



District-wise cumulative number of residues burning events detected in 2020, 2021, 2022 and 2023
(Period: 15 September-25 November)

(a) Punjab

District	15 Sep-25 Nov			
	2020	2021	2022	2023
Amritsar	3059	2173	1541	1573
Barnala	5336	4325	2910	2313
Bathinda	5226	4478	4588	2964
Faridkot	4727	3952	2689	2021
Fatehgarh Sahib	1536	1722	1148	887
Fazilka	2523	2381	2579	1799
Firozpur	8509	6285	4553	3397
Gurdaspur	2124	1391	844	389
Hoshiarpur	386	329	258	118
Jalandhar	1939	2547	1385	1193
Kapurthala	1883	1796	1278	1043
Ludhiana	5054	5814	2680	1797
Malerkotla*	--	--	--	413
Mansa	3780	3214	2812	2267
Moga	7396	6515	3606	2793
Muktsar	4989	4583	3870	1647
Pathankot	13	6	1	4
Patiala	6431	5422	3394	1877
Rupnagar	205	307	246	46
Sangrur#	11724	9387	5915	5618
SAS NAGAR	127	147	103	133
SBS Nagar	131	355	270	235
Tarn Taran	5604	4117	3184	2024
Total	82702	71246	49854	36551

(b) Haryana

District	15 Sep-25 Nov			
	2020	2021	2022	2023
AMBALA	346	303	224	188
BHIWANI	4	10	9	10
CHARKHI DADRI	0	0	1	2
FARIDABAD	1	3	1	6
FATEHABAD	843	1473	759	574
GURGAON	0	0	0	0
HISAR	52	226	111	111
JHAJJAR	6	7	7	20
JIND	343	905	528	343
KAITHAL	838	1152	640	262
KARNAL	581	952	299	125
KURUKSHETRA	406	538	300	154
MAHENDRAGARH	0	0	0	0
MEWAT	0	0	0	0
PALWAL	46	114	51	57
PANCHKULA	0	0	0	1
PANIPAT	50	241	82	25
REWARI	0	0	0	0
ROHTAK	48	68	61	71
SIRSA	261	531	295	160
SONIPAT	70	201	91	77
YAMUNANAGAR	142	146	150	96
Total	4037	6870	3609	2282

*Malerkotla events are included in Sangrur events in 2020, 2021, 2022.

Sangrur events in 2023 do not include Malerkotla events.

(c) Uttar Pradesh

District	15 Sep-25 Nov													
	2020	2021	2022	2023	GAUTAMBUDHNAGAR	15	19	11	14	MUZAFARNAGAR	48	22	21	33
AGRA	7	0	0	4	GAZIPUR	24	24	23	23	PILHIBHIT	21	213	148	109
ALIGARH	113	39	43	89	GHAZIABAD	26	14	8	28	PRATAPGARH	41	36	28	46
ALLAHABAD	34	19	17	21	GONDA	12	11	1	11	RAIBEARELI	40	76	45	70
AMBEDKARNAGAR	35	27	34	50	GORAKHPUR	45	28	36	136	RAMPUR	163	187	104	98
AMETHI	9	20	16	65	HAMIRPUR	6	0	0	0	SAMBHAL	19	17	14	19
AMROHA	12	8	7	5	HAPUR	31	13	11	17	SANTKABIRNAGAR	29	20	14	58
AURAIYA	82	68	58	77	HARDOI	101	106	77	101	SANTRAVIDASNAGAR	4	5	4	3
AZAMGARH	60	26	24	35	HATHRAS	0	0	1	3	SHAHJAHANPUR	143	410	310	123
BADAUN	14	16	6	11	JALAUN	43	0	0	0	SHAMLI	46	41	13	25
BAGHPAT	18	12	11	24	JAUNPUR	47	33	31	38	SHARANPUR	95	71	20	31
BAHRAICH	106	59	22	46	JHANSI	340	126	120	170	SHRAWASTI	47	45	18	57
BALLIA	133	64	43	33	KANNAUJ	33	6	7	7	SIDDHARTHANAGAR	74	128	42	156
BALRAMPUR	67	20	12	32	KANPUR	31	33	28	50	SITAPUR	64	46	32	58
BANDA	38	11	19	36	KANPUR DEHAT	81	47	56	141	SONBHADRA	0	2	0	0
BARABANKI	36	68	58	80	KASGANJ	3	2	3	4	SULTANPUR	7	24	26	49
BAREILLY	79	63	55	65	KAUSHAMBI	89	80	45	69	UNNAO	45	30	37	60
BASTI	57	50	19	90	KHERI	170	164	146	100	VARANASI	2	5	0	3
BIJNOR	40	38	13	19	KUSHINAGAR	80	34	44	110	Total	3923	3543	2536	3637
BULANDSAHAR	61	9	22	25	LALITPUR	3	6	3	6					
CHANDAULI	17	6	4	1	LUCKNOW	35	33	15	42					
CHITRAKOOT	12	9	12	14	MAHARAJGANJ	55	137	153	159					
DEORIA	83	28	37	69	MAHOBA	27	0	0	0					
ETAH	17	10	8	20	MAINPURI	63	49	38	57					
ETAWAH	75	88	61	129	MATHURA	160	240	30	95					
FAIZABAD	14	11	6	26	MAU	32	17	12	28					
FARRUKHABAD	6	4	1	1	MEERUT	71	32	32	30					
FATEHPUR	121	99	95	101	MIRZAPUR	10	10	7	2					
FIROZABAD	27	17	10	10	MORADABAD	29	12	9	20					

(d) Delhi

District	15 Sep-25 Nov			
	2020	2021	2022	2023
CENTRAL	0	0	0	0
EAST	0	0	0	0
NEW DELHI	0	0	0	0
NORTH	3	3	9	5
NORTH EAST	0	0	0	0
NORTH WEST DELHI	3	1	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	1	0
Total	9	4	10	5

(e) Rajasthan

District	15 Sep-25 Nov			
	2020	2021	2022	2023
AJMER	3	0	0	0
ALWAR	10	0	0	0
BANSWARA	0	0	0	1
BARAN	167	11	77	339
BARMER	4	0	0	0
BHARATPUR	2	3	1	3
BHILWARA	11	0	0	0
BIKANER	1	0	0	0
BUNDI	128	84	180	213
CHITTAURGARH	2	13	8	15
CHURU	0	0	0	0
DAUSA	1	0	0	0
DHOLPUR	0	0	0	0
DUNGARPUR	0	0	2	2
GANGANAGAR	202	139	103	153
HANUMANGARH	894	935	675	698
JAIPUR	4	0	0	0
JAISELMER	5	0	0	0
JALOR	2	0	0	0
JHALAWAR	10	1	11	12
JHUNJHUNUN	1	0	0	0
JODHPUR	5	0	0	0
KARAULI	1	0	0	0
KOTA	116	57	147	268
NAGAU	3	0	0	0
PALI	11	0	0	0
PRATAPGARH	8	0	0	0
RAJSMAND	1	0	0	0
SIKAR	0	0	0	0
SIROHI	2	0	0	0
SWAIMADHOPUR	65	34	55	57
TONK	5	0	0	0
UDAIPUR	2	1	3	8
Total	1666	1278	1262	1769

(f) Madhya Pradesh

District	15 Sep-25 Nov								
	2020	2021	2022	2023					
					PANNA	50	21	36	48
ALIRAJPUR	0	0	0	0	RAISEN	602	330	429	405
ANUPPUR	3	2	6	3	RAJGARH	11	3	5	11
ASHOKNAGAR	156	90	186	278	RATLAM	10	7	3	6
BALAGHAT	8	4	3	4	REWA	136	93	82	94
BARWANI	4	0	0	3	SAGAR	28	30	54	92
BETUL	36	14	24	44	SATNA	570	454	434	388
BHIND	259	149	205	270	SEHORE	162	148	211	193
BHOPAL	50	38	38	50	SEONI	1231	886	1116	1438
BURHANPUR	16	1	4	10	SHAHDOL	3	1	2	2
CHHATARPUR	9	0	2	3	SHAJAPUR	20	0	0	20
CHHINDWARA	135	56	100	178	SHEOPUR	1858	984	1800	1859
DAMOH	75	52	69	100	SHIVPURI	382	77	282	301
DATIA	1185	478	852	912	SIDHI	4	5	2	2
DEWAS	8	0	0	14	SINGRAULI	0	6	3	18
DHAR	45	0	0	45	TIKAMGARH	4	0	1	6
DINDORI	0	0	1	3	UJJAIN	14	0	0	18
EAST NIMAR	23	7	11	56	UMARIA	8	7	12	11
GUNA	69	11	121	467	VIDESHA	142	99	88	152
GWALIOR	2045	595	1574	1066	WEST NIMAR	66	10	18	45
HARDA	14	21	11	31	Total	13899	7154	11148	12480
HOSHANGABAD	1059	1062	1095	1181					
INDORE	4	0	0	12					
JABALPUR	2564	1025	1666	1984					
JHABUA	0	0	0	0					
KATNI	324	99	200	274					
MANDLA	147	97	136	96					
MANDSAUR	14	0	0	6					
MORENA	62	37	25	48					
NARSHIMAPURA	282	155	241	232					
NIMACH	2	0	0	1					

State-wise and date-wise number of paddy residue burning events detected in 2020, 2021, 2022 and 2023
(Period: 15 September-25 November)

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

12-Oct	388	97	104	13	69	51	4	5	46	23	0	5
13-Oct	266	132	120	154	47	91	15	29	36	42	0	19
14-Oct	605	229	82	89	69	98	30	41	9	68	5	18
15-Oct	449	660	169	69	106	363	36	127	15	149	0	35
16-Oct	654	429	206	0	80	176	76	4	21	121	6	14
17-Oct	1172	14	403	1	143	0	86	0	38	39	7	0
18-Oct	938	57	342	18	166	1	134	8	76	0	30	2
19-Oct	1080	496	436	37	72	55	122	16	43	5	36	11
20-Oct	890	788	96	174	62	155	78	51	31	1	17	25
21-Oct	1392	597	393	146	101	131	107	68	25	5	23	59
22-Oct	1665	1111	582	30	128	140	122	25	32	3	18	117
23-Oct	1438	620	902	152	106	218	217	29	84	8	109	20
24-Oct	911	0	1019	360	57	38	250	70	63	11	212	38
25-Oct	1416	76	181	398	155	71	12	58	50	18	9	30
26-Oct	2126	329	1238	589	77	175	123	67	33	41	23	78
27-Oct	2563	279	1111	766	96	93	83	67	40	58	23	97
28-Oct	3232	906	2067	127	139	149	123	14	87	35	34	36
29-Oct	1624	1353	1898	1068	52	161	112	75	139	32	73	48
30-Oct	3946	1373	1761	1030	100	148	112	52	50	53	43	19
31-Oct	3531	2895	2131	1389	108	353	70	51	49	170	20	28
01-Nov	3835	1796	1842	1921	151	124	88	99	74	157	9	95
02-Nov	4098	3001	3634	1668	111	203	166	48	82	87	25	37
03-Nov	2818	2512	2666	1551	93	197	128	28	197	66	40	36
04-Nov	4584	3032	2437	1360	72	228	63	33	152	123	61	17
05-Nov	4529	5327	2817	3230	66	331	90	109	52	70	24	64
06-Nov	5382	3942	599	2060	151	219	46	65	43	208	28	87
07-Nov	5491	5199	2487	1515	150	182	37	26	86	46	8	169
08-Nov	3674	4397	604	2003	115	138	11	44	169	21	44	47
09-Nov	1718	5079	1778	639	21	217	69	27	115	51	58	17
10-Nov	3127	4008	1893	6	80	184	35	0	101	77	33	30
11-Nov	2822	4156	3916	104	93	126	152	27	71	151	36	35
12-Nov	1989	3403	2467	987	83	127	99	110	108	120	36	238
13-Nov	2441	3742	2175	1624	105	210	132	44	172	95	102	176

14-Nov	307	2541	4	1776	35	195	17	21	258	49	101	26
15-Nov	32	1761	141	2544	31	129	21	62	29	67	84	49
16-Nov	8	1757	1358	1271	0	269	84	46	15	138	48	56
17-Nov	248	523	966	1150	9	101	39	45	38	177	50	168
18-Nov	670	680	701	637	60	111	108	21	62	14	66	180
19-Nov	454	448	426	740	37	132	79	33	129	11	116	188
20-Nov	677	283	368	634	77	127	32	38	134	20	168	102
21-Nov	457	168	243	513	65	178	11	54	135	106	46	110
22-Nov	46	66	78	512	15	91	20	62	120	276	76	217
23-Nov	43	91	140	205	52	59	27	23	106	186	73	307
24-Nov	9	34	66	191	20	37	32	16	167	87	195	178
25-Nov	0	31	44	37	1	41	28	4	127	80	241	74
Total	82702	71246	49854	36551	4037	6870	3609	2282	3923	3543	2536	3637

Number of Paddy Residue Burning Events Detected

Date	Delhi				Rajasthan				Madhya Pradesh			
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023
15-Sep	0	0	0	0	1	0	0	0	2	0	0	0
16-Sep	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
18-Sep	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	1
20-Sep	0	0	0	0	0	0	0	0	0	0	0	1
21-Sep	0	0	0	0	1	0	1	0	2	0	0	0
22-Sep	0	0	0	0	0	0	0	0	0	0	0	0
23-Sep	0	0	0	0	1	0	0	0	0	0	0	0
24-Sep	0	0	0	0	0	0	0	0	0	0	0	0
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
29-Oct	0	0	0	0	29	23	37	73	349	97	151	372
30-Oct	0	0	0	0	17	20	55	37	428	168	119	224
31-Oct	0	0	0	0	37	15	36	33	455	299	112	360
01-Nov	0	0	1	0	51	5	27	60	709	198	142	509
02-Nov	0	0	0	0	55	19	63	40	820	214	284	401
03-Nov	1	0	1	0	34	20	54	38	771	148	323	552
04-Nov	0	0	2	0	46	19	34	21	618	123	348	408

05-Nov	0	0	0	0	46	45	91	59	474	320	319	698
06-Nov	0	0	0	0	40	32	27	47	678	248	392	655
07-Nov	0	0	0	1	57	38	80	23	848	199	383	497
08-Nov	0	0	0	1	33	44	5	29	981	170	783	417
09-Nov	0	1	0	0	34	48	22	3	495	330	570	251
10-Nov	0	0	0	0	48	40	34	27	346	380	282	508
11-Nov	0	1	0	0	75	55	95	29	418	506	482	488
12-Nov	0	0	0	0	31	40	84	33	422	185	421	300
13-Nov	0	2	0	0	54	78	63	60	670	171	773	144
14-Nov	0	0	0	0	16	88	1	53	294	346	633	164
15-Nov	0	0	0	0	6	51	2	84	35	353	507	326
16-Nov	0	0	0	0	16	81	78	27	145	660	316	423
17-Nov	0	0	0	1	60	38	48	45	191	261	416	465
18-Nov	0	0	0	0	75	77	55	25	352	126	524	363
19-Nov	0	0	0	0	27	73	19	37	124	16	625	187
20-Nov	0	0	0	0	59	53	15	40	106	6	556	208
21-Nov	0	0	0	0	57	72	12	51	159	95	196	267
22-Nov	0	0	0	0	9	21	4	52	165	188	170	510
23-Nov	0	0	0	0	66	61	10	24	150	262	259	263
24-Nov	0	0	1	0	13	26	14	2	258	224	299	253
25-Nov	0	0	0	0	2	30	7	16	106	343	315	228
Total	9	4	10	5	1666	1278	1262	1769	13899	7154	11148	12480

Details of residue burning events in Punjab on 25-Nov-2023

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m ²)
1	Bathinda	Rampura	S-NPP	30.25290	75.25996	14:06:28	D	8.60
2	Faridkot	Jaiton	AQUA	30.40300	74.78000	14:26:07	D	6.70
3	Fazilka	Guruhar Sahai	S-NPP	30.55222	74.33295	14:06:28	D	1.80
4	Fazilka	Guruhar Sahai	S-NPP	30.59751	74.30437	14:06:28	D	4.60
5	Fazilka	Jalalabad	S-NPP	30.50670	74.31161	14:06:28	D	6.80
6	Fazilka	Jalalabad	S-NPP	30.50761	74.31471	14:06:28	D	10.20
7	Fazilka	Jalalabad	S-NPP	30.50936	74.34052	14:06:28	D	11.50
8	Fazilka	Jalalabad	S-NPP	30.51007	74.34367	14:06:28	D	6.70
9	Fazilka	Jalalabad	S-NPP	30.51243	74.27032	14:06:28	D	32.80
10	Fazilka	Jalalabad	S-NPP	30.51360	74.27328	14:06:28	D	18.70
11	Fazilka	Jalalabad	S-NPP	30.51714	74.26978	14:06:28	D	32.80
12	Fazilka	Jalalabad	S-NPP	30.51832	74.27274	14:06:28	D	18.70
13	Fazilka	Jalalabad	S-NPP	30.51883	74.33945	14:06:28	D	5.70
14	Fazilka	Jalalabad	S-NPP	30.51936	74.34525	14:06:28	D	5.70
15	Fazilka	Jalalabad	S-NPP	30.51955	74.34258	14:06:28	D	9.50
16	Fazilka	Jalalabad	S-NPP	30.62206	74.20866	14:06:28	D	8.90
17	Fazilka	Jalalabad	S-NPP	30.62354	74.20640	14:06:28	D	6.00
18	Fazilka	Khuian Sarwar	S-NPP	30.22185	74.03567	14:06:28	D	16.40
19	Fazilka	Khuian Sarwar	S-NPP	30.22598	74.02964	14:06:28	D	4.00
20	Firozpur	Guruhar Sahai	S-NPP	30.60699	74.40918	14:06:28	D	12.30
21	Firozpur	Guruhar Sahai	S-NPP	30.61751	74.35879	14:06:28	D	3.30
22	Firozpur	Guruhar Sahai	S-NPP	30.66859	74.39428	14:06:28	D	3.30
23	Moga	Bagha Purana	S-NPP	30.60867	75.11839	14:06:28	D	10.20
24	Moga	Bagha Purana	S-NPP	30.61882	75.05865	14:06:28	D	3.80
25	Moga	Nihal Singh	AQUA	30.52700	75.22400	14:26:07	D	40.50
26	Moga	Nihal Singh	AQUA	30.52900	75.21100	14:26:07	D	11.70
27	Moga	Nihal Singh	AQUA	30.53100	75.22900	14:26:07	D	35.00
28	Muktsar	Kot Bhai At Gidderbaha	S-NPP	30.36968	74.55830	14:06:28	D	3.50
29	Muktsar	Kot Bhai At Gidderbaha	S-NPP	30.39950	74.56693	14:06:28	D	7.60
30	Muktsar	Lambi	AQUA	30.13600	74.51700	14:26:07	D	16.10
31	Muktsar	Lambi	AQUA	30.13800	74.53300	14:26:07	D	12.30

32	Muktsar	Muktsar	AQUA	30.52800	74.66600	14:26:07	D	14.20
33	Muktsar	Muktsar	S-NPP	30.58637	74.39376	14:06:28	D	6.80
34	Muktsar	Muktsar	S-NPP	30.59165	74.39907	14:06:28	D	11.00
35	Sangrur	Andana	AQUA	29.82600	76.05800	14:26:07	D	9.60
36	Sangrur	Andana	S-NPP	29.83915	76.07210	14:06:28	D	3.60
37	Sangrur	Sangrur	S-NPP	30.25003	75.92738	14:06:28	D	4.90

Details of residue burning events in Haryana on 25-Nov-2023

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	FATEHABAD	RATIA	S-NPP	29.75522	75.68642	14:06:28	D	2.30
2	KARNAL	INDRI	S-NPP	29.94474	76.99939	12:26:54	D	4.00
3	YAMUNANAGAR	SADHAURA	S-NPP	30.32352	77.19632	14:06:28	D	3.50
4	YAMUNANAGAR	SADHAURA	S-NPP	30.32619	77.19627	14:06:28	D	4.00

Details of residue burning events in Uttar Pradesh on 25-Nov-2023

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	ALIGARH	GABHANA	S-NPP	28.14170	77.76424	12:26:54	D	3.20
2	ALIGARH	GABHANA	S-NPP	28.14304	77.76641	12:26:54	D	4.10
3	ALLAHABAD	HADIYA	S-NPP	25.43277	82.31864	12:26:54	D	2.60
4	ALLAHABAD	KARCHHANA	S-NPP	25.23522	81.91022	12:26:54	D	3.70
5	ALLAHABAD	KARCHHANA	S-NPP	25.23593	81.91018	12:26:54	D	3.20
6	ALLAHABAD	KARCHHANA	S-NPP	25.25333	81.88830	12:26:54	D	2.90
7	ALLAHABAD	KARCHHANA	S-NPP	25.25414	81.88815	12:26:54	D	2.50
8	AMBEDKARNAGAR	AKBARPUR	S-NPP	26.48109	82.55437	12:26:54	D	2.60
9	AZAMGARH	NIZAMABAD	S-NPP	25.94216	82.97755	12:26:54	D	2.20
10	BARABANKI	HAI DARGARH	S-NPP	26.59982	81.44087	12:26:54	D	3.10
11	BAREILLY	FARIDPUR	S-NPP	28.03469	79.50106	01:16:54	N	0.60
12	BAREILLY	FARIDPUR	S-NPP	28.03621	79.50161	01:16:54	N	0.50
13	BASTI	RUDHAULI	S-NPP	26.92771	82.81375	12:26:54	D	2.80
14	BASTI	RUDHAULI	S-NPP	26.94001	82.84496	12:26:54	D	1.20
15	BIJNOR	AFZALGARH	S-NPP	29.40012	78.71851	12:26:54	D	2.20
16	CHANDAULI	CHANDAULI	S-NPP	25.35911	83.44106	12:26:54	D	5.50
17	ETAWAH	BHARTHNA	S-NPP	26.68623	79.16236	14:06:28	D	6.60
18	ETAWAH	BHARTHNA	S-NPP	26.68648	79.16336	14:06:28	D	7.30
19	JAUNPUR	JAUNPUR	S-NPP	25.82596	82.73302	12:26:54	D	2.20
20	JAUNPUR	SHHGANJ	S-NPP	25.92959	82.68172	12:26:54	D	1.40
21	JAUNPUR	SHHGANJ	S-NPP	26.12338	82.52249	12:26:54	D	1.50
22	JHANSI	MOTH	AQUA	25.78200	78.95100	14:26:07	D	22.10
23	JHANSI	MOTH	S-NPP	25.69805	78.88696	14:06:28	D	4.00
24	JHANSI	MOTH	S-NPP	25.81961	78.94536	14:06:28	D	5.00
25	JHANSI	MOTH	S-NPP	25.82177	78.94086	14:06:28	D	3.70
26	KAUSHAMBI	CHAIL	S-NPP	25.35966	81.56371	14:06:28	D	3.00
27	KAUSHAMBI	CHAIL	S-NPP	25.36007	81.56281	14:06:28	D	3.40
28	KAUSHAMBI	MANJHANPUR	S-NPP	25.43142	81.25745	12:26:54	D	1.80
29	KAUSHAMBI	MANJHANPUR	S-NPP	25.44599	81.24442	14:06:28	D	7.90
30	KHERI	GOLA	S-NPP	27.90799	80.32691	02:57:11	N	0.80
31	KHERI	GOLA	S-NPP	27.97693	80.47660	14:06:28	D	3.20

32	KHERI	LAKHIMPUR	S-NPP	28.00798	80.76275	14:06:28	D	3.90
33	KHERI	NIGHASAN	S-NPP	28.27595	80.89328	12:26:54	D	5.30
34	KUSHINAGAR	KASAYA	S-NPP	26.66803	84.02967	12:26:54	D	7.80
35	MAHARAJGANJ	MAHARAJGANJ	S-NPP	27.04918	83.56664	12:26:54	D	4.70
36	MAHARAJGANJ	NAUTANWA	S-NPP	27.33512	83.44054	12:26:54	D	3.30
37	MAHARAJGANJ	NAUTANWA	S-NPP	27.33666	83.44061	12:26:54	D	2.50
38	MAHARAJGANJ	NAUTANWA	S-NPP	27.46703	83.55944	12:26:54	D	4.20
39	MAHARAJGANJ	NAUTANWA	S-NPP	27.47023	83.55619	12:26:54	D	7.00
40	MAHARAJGANJ	NICHLAUL	S-NPP	27.30414	83.68325	12:26:54	D	5.30
41	MEERUT	MAWANA	S-NPP	28.92179	77.94424	14:06:28	D	2.10
42	MEERUT	MAWANA	S-NPP	29.11036	77.81114	14:06:28	D	1.80
43	MEERUT	SARDHANA	S-NPP	29.11080	77.81132	14:06:28	D	1.90
44	MORADABAD	THAKUR DWARA	S-NPP	28.94697	78.80807	01:16:54	N	0.40
45	MORADABAD	THAKUR DWARA	S-NPP	29.20486	78.87556	01:16:54	N	0.60
46	MUZAFARNAGAR	MUZAFFARNAGAR	S-NPP	29.36854	77.61855	12:26:54	D	3.50
47	PILHIBHIT	BISALPUR	TERRA	28.17900	79.90200	10:23:24	D	3.80
48	PILHIBHIT	PURANPUR	TERRA	28.42800	80.23900	10:23:24	D	7.40
49	PILHIBHIT	PURANPUR	S-NPP	28.41279	80.14976	14:06:28	D	4.70
50	PRATAPGARH	PATTI	S-NPP	25.88212	82.28784	12:26:54	D	1.80
51	PRATAPGARH	PATTI	S-NPP	25.88525	82.28795	12:26:54	D	1.60
52	PRATAPGARH	PATTI	S-NPP	25.97504	82.27781	12:26:54	D	2.60
53	RAIBEARELI	MAHARAJGANG	S-NPP	26.39991	81.17452	01:16:54	N	0.70
54	RAIBEARELI	SALON	S-NPP	26.16130	81.61136	12:26:54	D	2.10
55	RAIBEARELI	TILOI	S-NPP	26.27592	81.55759	12:26:54	D	3.70
56	SANTKABIRNAGAR	KHALILABAD	S-NPP	26.89750	82.88249	12:26:54	D	2.70
57	SANTKABIRNAGAR	KHALILABAD	S-NPP	26.90100	82.88328	12:26:54	D	2.70
58	SANTKABIRNAGAR	KHALILABAD	S-NPP	26.91947	82.87132	12:26:54	D	4.10
59	SANTKABIRNAGAR	KHALILABAD	S-NPP	26.92445	82.86994	12:26:54	D	1.30
60	SHAHJAHANPUR	PUWANYA	TERRA	28.29000	80.03700	10:23:24	D	4.60
61	SHAHJAHANPUR	SHAHJAHANPUR	S-NPP	27.94976	79.88972	14:06:28	D	3.70
62	SIDDHARTHANAGAR	BANSI	S-NPP	27.09461	82.95116	12:26:54	D	2.00
63	SIDDHARTHANAGAR	BANSI	S-NPP	27.24334	82.89473	12:26:54	D	1.60
64	SIDDHARTHANAGAR	ITWA	S-NPP	27.22248	82.73253	12:26:54	D	2.10
65	SIDDHARTHANAGAR	NAUGARH	S-NPP	27.29457	83.22306	12:26:54	D	10.10

66	SIDDHARTHANAGAR	NAUGARH	S-NPP	27.29641	83.22234	12:26:54	D	16.50
67	SIDDHARTHANAGAR	SHOHRATGARH	S-NPP	27.43707	82.89822	12:26:54	D	4.60
68	SIDDHARTHANAGAR	SHOHRATGARH	S-NPP	27.43824	82.90296	12:26:54	D	6.20
69	SITAPUR	MISRIK	TERRA	27.73800	80.41400	10:23:24	D	4.70
70	SITAPUR	MISRIK	S-NPP	27.62505	80.41933	01:16:54	N	0.60
71	SITAPUR	MISRIK	S-NPP	27.62527	80.41876	01:16:54	N	0.60
72	SITAPUR	SITAPUR	S-NPP	27.66380	80.54382	12:26:54	D	2.20
73	SITAPUR	SITAPUR	S-NPP	27.70181	80.58869	14:06:28	D	2.60
74	SULTANPUR	JAISINGHPUR	S-NPP	26.28454	82.21874	12:26:54	D	1.60

Details of residue burning events in Rajasthan on 25-Nov-2023

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	GANGANAGAR	SURATGARH	AQUA	29.32900	73.82600	14:26:07	D	5.90
2	GANGANAGAR	SURATGARH	S-NPP	29.33464	73.83343	14:06:28	D	4.40
3	GANGANAGAR	SURATGARH	S-NPP	29.33699	73.90680	14:06:28	D	5.40
4	HANUMANGARH	HANUMANGARH	AQUA	29.51700	74.19900	14:26:07	D	5.40
5	HANUMANGARH	HANUMANGARH	AQUA	29.59200	74.34900	14:26:07	D	10.80
6	HANUMANGARH	HANUMANGARH	AQUA	29.59400	74.36400	14:26:07	D	32.10
7	HANUMANGARH	HANUMANGARH	S-NPP	29.60042	74.35867	14:06:28	D	9.90
8	HANUMANGARH	HANUMANGARH	S-NPP	29.60093	74.36430	14:06:28	D	9.90
9	HANUMANGARH	PILIBANGA	AQUA	29.45600	74.04400	14:26:07	D	10.60
10	HANUMANGARH	PILIBANGA	AQUA	29.47300	74.10100	14:26:07	D	16.50
11	HANUMANGARH	PILIBANGA	AQUA	29.47500	74.11500	14:26:07	D	13.00
12	HANUMANGARH	PILIBANGA	AQUA	29.48400	74.09900	14:26:07	D	11.00
13	HANUMANGARH	PILIBANGA	S-NPP	29.43806	74.04414	14:06:28	D	3.70
14	HANUMANGARH	TIBI	AQUA	29.60000	74.42500	14:26:07	D	5.20
15	HANUMANGARH	TIBI	S-NPP	29.58223	74.43716	14:06:28	D	12.90
16	HANUMANGARH	TIBI	S-NPP	29.58399	74.44051	14:06:28	D	6.30

Details of residue burning events in Madhya Pradesh on 25-Nov-2023

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_TIME	Day / Night	Fire Power (W/m ²)
1	BETUL	AMLAL	S-NPP	22.02651	78.31682	14:06:28	D	3.70
2	BETUL	BETUL	S-NPP	21.74095	77.98355	14:06:28	D	3.60
3	BETUL	BETUL	S-NPP	21.77858	77.97934	14:06:28	D	7.90
4	BHIND	ROUN	S-NPP	26.33114	79.02333	14:06:28	D	4.50
5	BURHANPUR	KHAKNAR	S-NPP	21.46781	76.76160	14:06:28	D	11.00
6	DAMOH	PATHARIA	S-NPP	23.98757	79.39239	01:16:54	N	1.10
7	DATIA	BHANDER	S-NPP	25.89711	78.67024	14:06:28	D	6.20
8	DHAR	MANAWAR	S-NPP	22.26500	75.13267	01:16:54	N	1.00
9	EAST NIMAR	PANDHANA	S-NPP	21.61311	76.25810	14:06:28	D	2.80
10	GUNA	ARON	TERRA	24.31400	77.43900	10:23:24	D	4.80
11	GUNA	GUNA	S-NPP	24.53445	77.42952	14:06:28	D	3.60
12	GUNA	GUNA	S-NPP	24.96372	76.97697	14:06:28	D	8.00
13	GWALIOR	BHITARWAR	S-NPP	25.73065	78.04106	14:06:28	D	2.30
14	GWALIOR	BHITARWAR	S-NPP	25.81448	77.99078	14:06:28	D	2.30
15	GWALIOR	BHITARWAR	S-NPP	25.82929	78.17635	14:06:28	D	2.80
16	GWALIOR	BHITARWAR	S-NPP	25.90452	78.15718	14:06:28	D	2.80
17	GWALIOR	BHITARWAR	S-NPP	25.91927	78.12572	14:06:28	D	1.70
18	GWALIOR	BHITARWAR	S-NPP	25.96576	78.13418	14:06:28	D	4.70
19	GWALIOR	BHITARWAR	S-NPP	25.96611	78.13844	14:06:28	D	4.70
20	GWALIOR	BHITARWAR	S-NPP	25.96744	78.13372	14:06:28	D	9.20
21	GWALIOR	BHITARWAR	S-NPP	25.96796	78.23254	12:26:54	D	4.80
22	GWALIOR	BHITARWAR	S-NPP	25.97258	78.19657	12:26:54	D	5.80
23	GWALIOR	BHITARWAR	S-NPP	25.97598	78.18927	14:06:28	D	2.60
24	GWALIOR	BHITARWAR	S-NPP	26.01111	78.25554	14:06:28	D	2.40
25	GWALIOR	DABRA	AQUA	25.84900	78.30600	14:26:07	D	17.90
26	GWALIOR	DABRA	AQUA	25.85100	78.28900	14:26:07	D	19.60
27	GWALIOR	DABRA	AQUA	25.85400	78.31400	14:26:07	D	16.50
28	GWALIOR	DABRA	AQUA	25.86500	78.18200	14:26:07	D	17.70
29	GWALIOR	DABRA	S-NPP	25.85291	78.25639	14:06:28	D	1.30

30	GWALIOR	DABRA	S-NPP	25.86104	78.24064	12:26:54	D	5.50
31	GWALIOR	DABRA	S-NPP	25.86337	78.31791	12:26:54	D	4.30
32	GWALIOR	DABRA	S-NPP	25.89657	78.22632	14:06:28	D	3.20
33	GWALIOR	DABRA	S-NPP	25.90606	78.25217	14:06:28	D	7.40
34	GWALIOR	DABRA	S-NPP	25.95656	78.23437	14:06:28	D	3.90
35	GWALIOR	DABRA	S-NPP	25.97793	78.28506	14:06:28	D	3.80
36	GWALIOR	DABRA	S-NPP	25.97862	78.28487	14:06:28	D	5.30
37	HOSHANGABAD	BANKHERI	S-NPP	22.92653	78.50469	14:06:28	D	1.40
38	HOSHANGABAD	PIPARIYA	S-NPP	22.82544	78.42371	14:06:28	D	2.60
39	HOSHANGABAD	PIPARIYA	S-NPP	22.86754	78.39901	12:26:54	D	3.70
40	JABALPUR	JABALPUR	AQUA	23.28500	79.84800	14:26:07	D	23.70
41	JABALPUR	JABALPUR	AQUA	23.31500	79.98400	14:26:07	D	30.60
42	JABALPUR	JABALPUR	S-NPP	22.96171	79.92280	12:26:54	D	4.60
43	JABALPUR	JABALPUR	S-NPP	23.05923	79.98782	12:26:54	D	3.40
44	JABALPUR	JABALPUR	S-NPP	23.10420	80.02657	14:06:28	D	4.60
45	JABALPUR	JABALPUR	S-NPP	23.10494	80.02445	14:06:28	D	3.90
46	JABALPUR	JABALPUR	S-NPP	23.17398	79.81229	14:06:28	D	5.00
47	JABALPUR	JABALPUR	S-NPP	23.22376	79.89981	14:06:28	D	3.20
48	JABALPUR	JABALPUR	S-NPP	23.22793	79.87405	14:06:28	D	3.30
49	JABALPUR	JABALPUR	S-NPP	23.26962	79.93892	14:06:28	D	11.10
50	JABALPUR	JABALPUR	S-NPP	23.27052	79.94189	14:06:28	D	11.60
51	JABALPUR	JABALPUR	S-NPP	23.27504	79.92821	14:06:28	D	3.10
52	JABALPUR	JABALPUR	S-NPP	23.27587	79.93122	14:06:28	D	4.00
53	JABALPUR	JABALPUR	S-NPP	23.27768	79.96390	14:06:28	D	8.00
54	JABALPUR	JABALPUR	S-NPP	23.30247	79.83967	12:26:54	D	7.50
55	JABALPUR	JABALPUR	S-NPP	23.30589	79.92560	14:06:28	D	2.70
56	JABALPUR	JABALPUR	S-NPP	23.31307	79.91071	12:26:54	D	9.40
57	JABALPUR	JABALPUR	S-NPP	23.32214	79.97572	14:06:28	D	9.40
58	JABALPUR	JABALPUR	S-NPP	23.32565	79.96209	12:26:54	D	4.50
59	JABALPUR	JABALPUR	S-NPP	23.32912	79.98547	14:06:28	D	8.60
60	JABALPUR	JABALPUR	S-NPP	23.32951	79.99062	14:06:28	D	12.10
61	JABALPUR	JABALPUR	S-NPP	23.33475	79.97166	12:26:54	D	5.70
62	JABALPUR	JABALPUR	S-NPP	23.34111	79.97932	14:06:28	D	3.90
63	JABALPUR	JABALPUR	S-NPP	23.34451	79.94292	14:06:28	D	3.50

64	JABALPUR	JABALPUR	S-NPP	23.34829	79.91184	14:06:28	D	3.00
65	JABALPUR	JABALPUR	S-NPP	23.35526	79.92150	14:06:28	D	3.00
66	JABALPUR	JABALPUR	S-NPP	23.36862	79.91631	12:26:54	D	5.00
67	JABALPUR	JABALPUR	S-NPP	23.37045	79.95626	14:06:28	D	6.00
68	JABALPUR	JABALPUR	S-NPP	23.37509	79.95457	14:06:28	D	5.00
69	JABALPUR	JABALPUR	S-NPP	23.37778	79.92592	12:26:54	D	7.40
70	JABALPUR	JABALPUR	S-NPP	23.38411	79.92410	12:26:54	D	5.90
71	JABALPUR	MAJHOULI	AQUA	23.44100	80.05600	14:26:07	D	26.50
72	JABALPUR	MAJHOULI	S-NPP	23.34972	79.97637	12:26:54	D	5.80
73	JABALPUR	MAJHOULI	S-NPP	23.35014	79.97938	12:26:54	D	8.50
74	JABALPUR	MAJHOULI	S-NPP	23.35113	79.98203	12:26:54	D	5.80
75	JABALPUR	MAJHOULI	S-NPP	23.36008	79.98280	14:06:28	D	2.80
76	JABALPUR	MAJHOULI	S-NPP	23.38311	79.97610	12:26:54	D	7.00
77	JABALPUR	MAJHOULI	S-NPP	23.38942	79.97430	12:26:54	D	7.00
78	JABALPUR	MAJHOULI	S-NPP	23.40716	79.96729	14:06:28	D	4.80
79	JABALPUR	MAJHOULI	S-NPP	23.41760	80.02348	14:06:28	D	7.40
80	JABALPUR	MAJHOULI	S-NPP	23.41962	80.02470	14:06:28	D	9.00
81	JABALPUR	MAJHOULI	S-NPP	23.43350	79.98579	14:06:28	D	3.30
82	JABALPUR	MAJHOULI	S-NPP	23.44510	79.97445	14:06:28	D	2.80
83	JABALPUR	MAJHOULI	S-NPP	23.45170	79.97907	14:06:28	D	12.20
84	JABALPUR	MAJHOULI	S-NPP	23.45185	80.06248	14:06:28	D	5.80
85	JABALPUR	MAJHOULI	S-NPP	23.45488	80.02036	14:06:28	D	4.40
86	JABALPUR	MAJHOULI	S-NPP	23.45989	80.00432	14:06:28	D	9.70
87	JABALPUR	MAJHOULI	S-NPP	23.47271	80.00848	14:06:28	D	6.30
88	JABALPUR	MAJHOULI	S-NPP	23.49096	80.01962	14:06:28	D	4.70
89	JABALPUR	MAJHOULI	S-NPP	23.49257	80.02248	14:06:28	D	4.10
90	JABALPUR	MAJHOULI	S-NPP	23.51820	79.95285	14:06:28	D	2.40
91	JABALPUR	MAJHOULI	S-NPP	23.54323	79.96130	12:26:54	D	5.40
92	JABALPUR	MAJHOULI	S-NPP	23.55643	79.98774	12:26:54	D	3.30
93	JABALPUR	PATAN	TERRA	23.21800	79.69900	10:23:24	D	10.40
94	JABALPUR	PATAN	TERRA	23.22000	79.69000	10:23:24	D	7.60
95	JABALPUR	PATAN	AQUA	23.28700	79.84000	14:26:07	D	31.90
96	JABALPUR	PATAN	TERRA	23.30800	79.78000	10:23:24	D	5.40
97	JABALPUR	PATAN	TERRA	23.30900	79.77000	10:23:24	D	10.40

98	JABALPUR	PATAN	S-NPP	23.18664	79.81300	12:26:54	D	21.20
99	JABALPUR	PATAN	S-NPP	23.18723	79.82697	14:06:28	D	9.20
100	JABALPUR	PATAN	S-NPP	23.18746	79.82619	14:06:28	D	7.40
101	JABALPUR	PATAN	S-NPP	23.18807	79.81886	12:26:54	D	29.10
102	JABALPUR	PATAN	S-NPP	23.19798	79.80347	12:26:54	D	6.10
103	JABALPUR	PATAN	S-NPP	23.19868	79.80682	12:26:54	D	11.80
104	JABALPUR	PATAN	S-NPP	23.19941	79.80933	12:26:54	D	6.10
105	JABALPUR	PATAN	S-NPP	23.20203	79.70116	14:06:28	D	4.80
106	JABALPUR	PATAN	S-NPP	23.20267	79.76810	12:26:54	D	4.20
107	JABALPUR	PATAN	S-NPP	23.20630	79.75535	14:06:28	D	9.50
108	JABALPUR	PATAN	S-NPP	23.21356	79.75498	12:26:54	D	8.80
109	JABALPUR	PATAN	S-NPP	23.21402	79.75859	12:26:54	D	14.50
110	JABALPUR	PATAN	S-NPP	23.21499	79.76086	12:26:54	D	11.00
111	JABALPUR	PATAN	S-NPP	23.22085	79.78403	14:06:28	D	3.60
112	JABALPUR	PATAN	S-NPP	23.23356	79.80945	12:26:54	D	3.00
113	JABALPUR	PATAN	S-NPP	23.23420	79.81184	12:26:54	D	2.40
114	JABALPUR	PATAN	S-NPP	23.24778	79.81166	12:26:54	D	6.50
115	JABALPUR	PATAN	S-NPP	23.25417	79.80986	12:26:54	D	6.50
116	JABALPUR	PATAN	S-NPP	23.26178	79.75758	12:26:54	D	3.70
117	JABALPUR	PATAN	S-NPP	23.26365	79.85793	14:06:28	D	7.10
118	JABALPUR	PATAN	S-NPP	23.26400	79.86092	14:06:28	D	8.10
119	JABALPUR	PATAN	S-NPP	23.26904	79.84732	14:06:28	D	4.00
120	JABALPUR	PATAN	S-NPP	23.26933	79.85036	14:06:28	D	5.30
121	JABALPUR	PATAN	S-NPP	23.29348	79.84331	14:06:28	D	3.30
122	JABALPUR	PATAN	S-NPP	23.29359	79.84520	14:06:28	D	4.20
123	JABALPUR	PATAN	S-NPP	23.31427	79.79301	14:06:28	D	3.60
124	JABALPUR	PATAN	S-NPP	23.31847	79.76985	12:26:54	D	3.60
125	JABALPUR	PATAN	S-NPP	23.31870	79.76636	12:26:54	D	2.70
126	JABALPUR	PATAN	S-NPP	23.33097	79.84711	12:26:54	D	9.20
127	JABALPUR	PATAN	S-NPP	23.33182	79.74103	12:26:54	D	7.50
128	JABALPUR	PATAN	S-NPP	23.33218	79.73739	12:26:54	D	5.70
129	JABALPUR	PATAN	S-NPP	23.33218	79.84978	12:26:54	D	7.50
130	JABALPUR	PATAN	S-NPP	23.33342	79.80147	14:06:28	D	3.80
131	JABALPUR	PATAN	S-NPP	23.33856	79.86681	14:06:28	D	2.30

132	JABALPUR	PATAN	S-NPP	23.33915	79.79597	14:06:28	D	3.80
133	JABALPUR	PATAN	S-NPP	23.35180	79.79992	14:06:28	D	8.30
134	JABALPUR	PATAN	S-NPP	23.36353	79.79739	14:06:28	D	7.80
135	JABALPUR	PATAN	S-NPP	23.36365	79.79391	14:06:28	D	4.20
136	JABALPUR	PATAN	S-NPP	23.36405	79.79890	14:06:28	D	4.20
137	JABALPUR	PATAN	S-NPP	23.38493	79.83598	14:06:28	D	3.60
138	JABALPUR	PATAN	S-NPP	23.38530	79.84103	14:06:28	D	3.60
139	JABALPUR	PATAN	S-NPP	23.38571	79.83748	14:06:28	D	5.90
140	JABALPUR	SAHPURA	AQUA	23.17500	79.77400	14:26:07	D	42.60
141	JABALPUR	SAHPURA	S-NPP	23.15198	79.76923	14:06:28	D	7.40
142	JABALPUR	SAHPURA	S-NPP	23.15213	79.77001	14:06:28	D	5.60
143	JABALPUR	SAHPURA	S-NPP	23.15526	79.58746	14:06:28	D	4.70
144	JABALPUR	SAHPURA	S-NPP	23.15658	79.58782	14:06:28	D	4.10
145	JABALPUR	SAHPURA	S-NPP	23.17365	79.76008	12:26:54	D	7.50
146	JABALPUR	SAHPURA	S-NPP	23.17680	79.77211	14:06:28	D	6.10
147	JABALPUR	SAHPURA	S-NPP	23.17693	79.77283	14:06:28	D	7.50
148	JABALPUR	SAHPURA	S-NPP	23.18048	79.76176	12:26:54	D	3.50
149	JABALPUR	SAHPURA	S-NPP	23.19930	79.75274	12:26:54	D	1.80
150	JABALPUR	SAHPURA	S-NPP	23.20019	79.75588	14:06:28	D	9.50
151	JABALPUR	SIHORA	AQUA	23.36900	80.09400	14:26:07	D	24.90
152	JABALPUR	SIHORA	AQUA	23.37100	80.09900	14:26:07	D	29.70
153	JABALPUR	SIHORA	TERRA	23.42600	80.22600	10:23:24	D	15.70
154	JABALPUR	SIHORA	S-NPP	23.35385	80.10513	12:26:54	D	11.10
155	JABALPUR	SIHORA	S-NPP	23.35870	80.04517	14:06:28	D	1.70
156	JABALPUR	SIHORA	S-NPP	23.36191	80.08661	14:06:28	D	10.00
157	JABALPUR	SIHORA	S-NPP	23.37601	80.10653	14:06:28	D	8.70
158	JABALPUR	SIHORA	S-NPP	23.37683	80.11698	14:06:28	D	9.70
159	JABALPUR	SIHORA	S-NPP	23.40138	80.18933	14:06:28	D	8.20
160	JABALPUR	SIHORA	S-NPP	23.40180	80.19463	14:06:28	D	7.10
161	JABALPUR	SIHORA	S-NPP	23.40457	80.18798	14:06:28	D	5.60
162	JABALPUR	SIHORA	S-NPP	23.40495	80.19328	14:06:28	D	5.60
163	JABALPUR	SIHORA	S-NPP	23.40831	80.21944	12:26:54	D	3.80
164	JABALPUR	SIHORA	S-NPP	23.40931	80.16633	14:06:28	D	5.50
165	JABALPUR	SIHORA	S-NPP	23.40937	80.21585	12:26:54	D	6.10

166	JABALPUR	SIHORA	S-NPP	23.41380	80.07572	12:26:54	D	6.50
167	JABALPUR	SIHORA	S-NPP	23.41929	80.09799	14:06:28	D	8.60
168	JABALPUR	SIHORA	S-NPP	23.42304	80.09638	14:06:28	D	7.80
169	JABALPUR	SIHORA	S-NPP	23.42379	80.19183	14:06:28	D	4.30
170	JABALPUR	SIHORA	S-NPP	23.42750	80.18132	12:26:54	D	6.10
171	JABALPUR	SIHORA	S-NPP	23.43202	80.21791	14:06:28	D	7.80
172	JABALPUR	SIHORA	S-NPP	23.43531	80.21885	14:06:28	D	7.50
173	JABALPUR	SIHORA	S-NPP	23.44073	80.21595	12:26:54	D	5.70
174	JABALPUR	SIHORA	S-NPP	23.44184	80.21246	12:26:54	D	5.90
175	JABALPUR	SIHORA	S-NPP	23.44319	80.21793	12:26:54	D	5.90
176	JABALPUR	SIHORA	S-NPP	23.44380	80.20625	14:06:28	D	5.50
177	JABALPUR	SIHORA	S-NPP	23.44419	80.21156	14:06:28	D	5.50
178	JABALPUR	SIHORA	S-NPP	23.44493	80.13690	14:06:28	D	3.30
179	JABALPUR	SIHORA	S-NPP	23.44696	80.21419	12:26:54	D	5.70
180	JABALPUR	SIHORA	S-NPP	23.45196	80.14501	12:26:54	D	6.20
181	JABALPUR	SIHORA	S-NPP	23.45430	80.20895	12:26:54	D	4.50
182	JABALPUR	SIHORA	S-NPP	23.50624	80.11592	14:06:28	D	3.30
183	JABALPUR	SIHORA	S-NPP	23.51025	80.11266	14:06:28	D	5.20
184	KATNI	BAHURIBAND	AQUA	23.63600	80.05400	14:26:07	D	33.20
185	KATNI	BAHURIBAND	AQUA	23.63900	80.07600	14:26:07	D	24.90
186	KATNI	BAHURIBAND	S-NPP	23.61492	80.03121	14:06:28	D	6.30
187	KATNI	BAHURIBAND	S-NPP	23.61735	80.03506	14:06:28	D	6.90
188	KATNI	BAHURIBAND	S-NPP	23.63862	80.07166	12:26:54	D	7.80
189	KATNI	BAHURIBAND	S-NPP	23.64215	80.05884	12:26:54	D	5.30
190	KATNI	BAHURIBAND	S-NPP	23.64256	80.06573	14:06:28	D	6.00
191	KATNI	BAHURIBAND	S-NPP	23.64351	80.06437	12:26:54	D	5.30
192	KATNI	BAHURIBAND	S-NPP	23.64844	80.05721	12:26:54	D	6.20
193	KATNI	BAHURIBAND	S-NPP	23.64879	80.06516	14:06:28	D	6.00
194	KATNI	BAHURIBAND	S-NPP	23.64979	80.06270	12:26:54	D	6.20
195	KATNI	BAHURIBAND	S-NPP	23.65661	80.08569	14:06:28	D	8.10
196	KATNI	BAHURIBAND	S-NPP	23.71687	80.07745	14:06:28	D	5.80
197	KATNI	BAHURIBAND	S-NPP	23.71866	80.07484	14:06:28	D	4.40
198	KATNI	BARHI	TERRA	23.85300	80.70900	10:23:24	D	6.80
199	KATNI	DHIMERKHEDA	S-NPP	23.59777	80.29368	12:26:54	D	2.60

200	MANDLA	BACHHIYA	TERRA	22.50000	80.42900	10:23:24	D	3.80
201	NARSHIMAPURA	GADARWARA	S-NPP	22.98576	78.56190	01:16:54	N	1.00
202	NARSHIMAPURA	GOTECAON	S-NPP	22.93347	79.44073	12:26:54	D	6.40
203	RAISEN	BARELI	AQUA	22.90900	78.07900	14:26:07	D	23.70
204	RAISEN	BARELI	TERRA	23.03100	78.36400	10:23:24	D	4.30
205	RAISEN	GOHARGANJ	S-NPP	22.99632	77.64252	14:06:28	D	1.70
206	RAISEN	GOHARGANJ	S-NPP	23.01748	77.66402	14:06:28	D	2.90
207	RAISEN	SILVANI	TERRA	23.13100	78.30600	10:23:24	D	4.20
208	REWA	GURH	S-NPP	24.49574	81.48780	12:26:54	D	2.60
209	REWA	GURH	S-NPP	24.49603	81.48610	12:26:54	D	2.50
210	SAGAR	DEVRI	S-NPP	23.51359	79.04099	01:16:54	N	0.30
211	SATNA	AMARPATAN	S-NPP	24.29026	81.05956	12:26:54	D	1.90
212	SATNA	AMARPATAN	S-NPP	24.29328	81.05772	12:26:54	D	1.40
213	SATNA	AMARPATAN	S-NPP	24.46226	81.13841	12:26:54	D	2.80
214	SATNA	NAGOD	S-NPP	24.46391	80.50471	14:06:28	D	5.30
215	SATNA	NAGOD	S-NPP	24.58524	80.73952	12:26:54	D	2.30
216	SATNA	NAGOD	S-NPP	24.61438	80.60519	14:06:28	D	4.30
217	SATNA	RAMPURBAGHLEAN	S-NPP	24.43773	80.98636	14:06:28	D	3.00
218	SATNA	UCHAHAR	S-NPP	24.33367	80.76748	12:26:54	D	3.20
219	SATNA	UCHAHAR	S-NPP	24.33525	80.76620	12:26:54	D	1.80
220	SEHORE	BUDHNI	S-NPP	22.87694	77.80746	01:16:54	N	0.30
221	SEHORE	BUDHNI	S-NPP	22.90421	77.96106	01:16:54	N	0.60
222	SEHORE	BUDHNI	S-NPP	22.90430	77.95811	01:16:54	N	0.70
223	SEONI	GHANSAUR	S-NPP	22.41333	79.78986	12:26:54	D	3.50
224	SEONI	LAKHNADOU	AQUA	22.37700	79.47500	14:26:07	D	32.00
225	SHIVPURI	NARWAR	AQUA	25.70200	78.09300	14:26:07	D	36.80
226	SHIVPURI	NARWAR	S-NPP	25.71296	77.96323	14:06:28	D	3.70
227	UMARIA	BANDHOGARH	S-NPP	23.66855	80.69533	14:06:28	D	7.90
228	UMARIA	BANDHOGARH	S-NPP	23.66892	80.69902	14:06:28	D	7.40

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)**

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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](#)
