



Bulletin No. 71

Events Date:
24-Nov-2021

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MONITORING PADDY RESIDUE BURNING IN INDIA USING SATELLITE REMOTE SENSING DURING 2021



Prepared by:

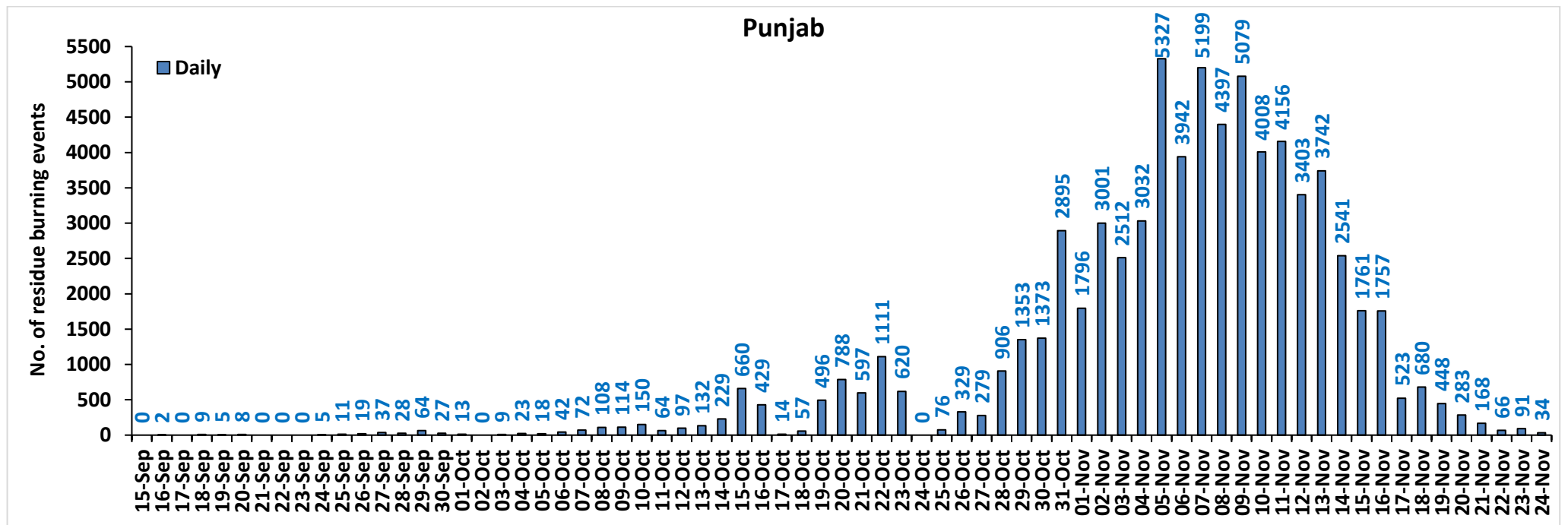
Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS) Laboratory,
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012

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

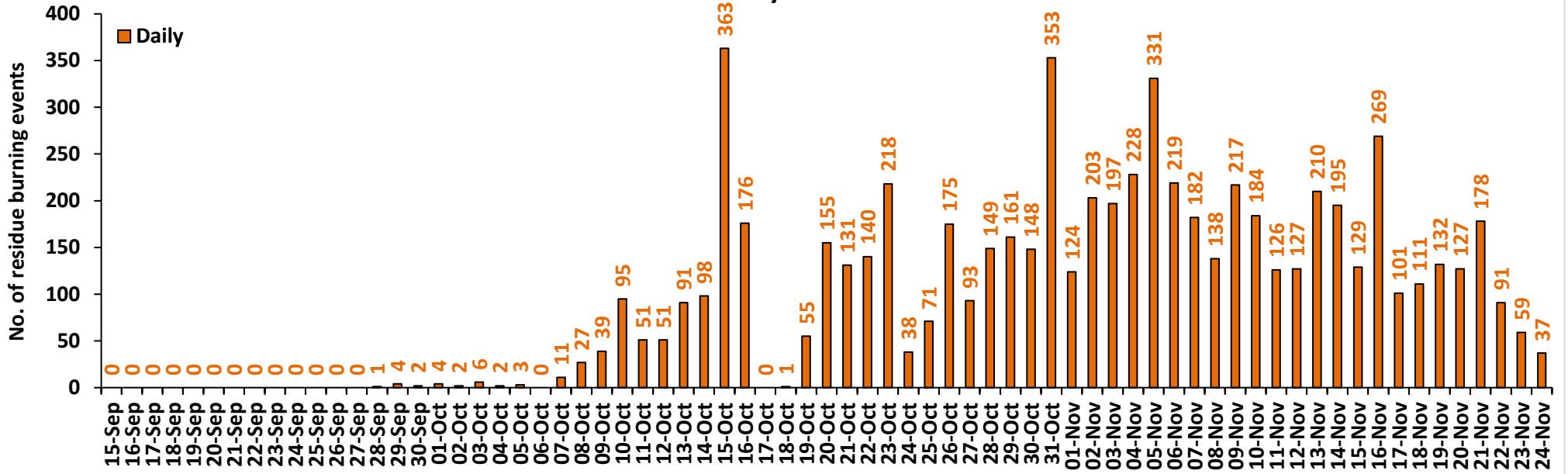
Highlights for 24-November-2021

- The active fire events due to rice residue burning were monitored using satellite remote sensing, following the new "Standard Protocol for Estimation of Crop Residue Burning Fire Events using Satellite Data".
- Satellites detected **408** residue burning events in the six study States on 24-Nov-2021.
- The state wise events detected on 24-Nov-21 were **34** in Punjab, **37** in Haryana, **87** in UP, **0** in Delhi, **26** in Raj and **224** in MP.
- The number of events has decreased from **659** on 23-Nov-2021 to **408** on 24-Nov-2021 in the six study states.
- Total **89570** burning events were detected in the six states between 15-Sept-2021 and 24-Nov-2021, which are distributed as **71215**, **6829**, **3463**, **4**, **1248** and **6811** in Punjab, Haryana, UP, Delhi, Rajasthan and MP, respectively.
- Overall, the total burning events recorded in the six states are **15.5%** less than in 2020 till date. Punjab recorded **13.9%** reduction, Haryana recorded **69.2%** increase, UP recorded **8.7%** reduction, Delhi recorded **55.6%** reduction, Rajasthan recorded **25.0%** reduction and MP recorded **50.6%** reduction, in the current season than in 2020.

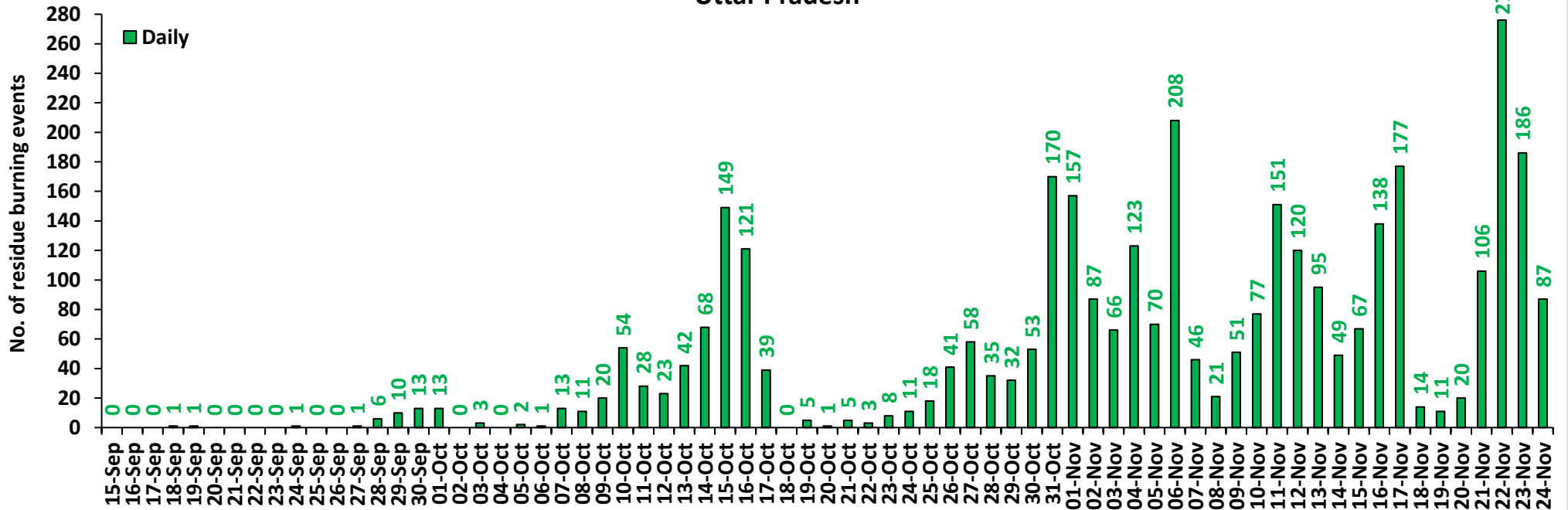
Temporal distribution of rice residue burning events for the study States in 2021



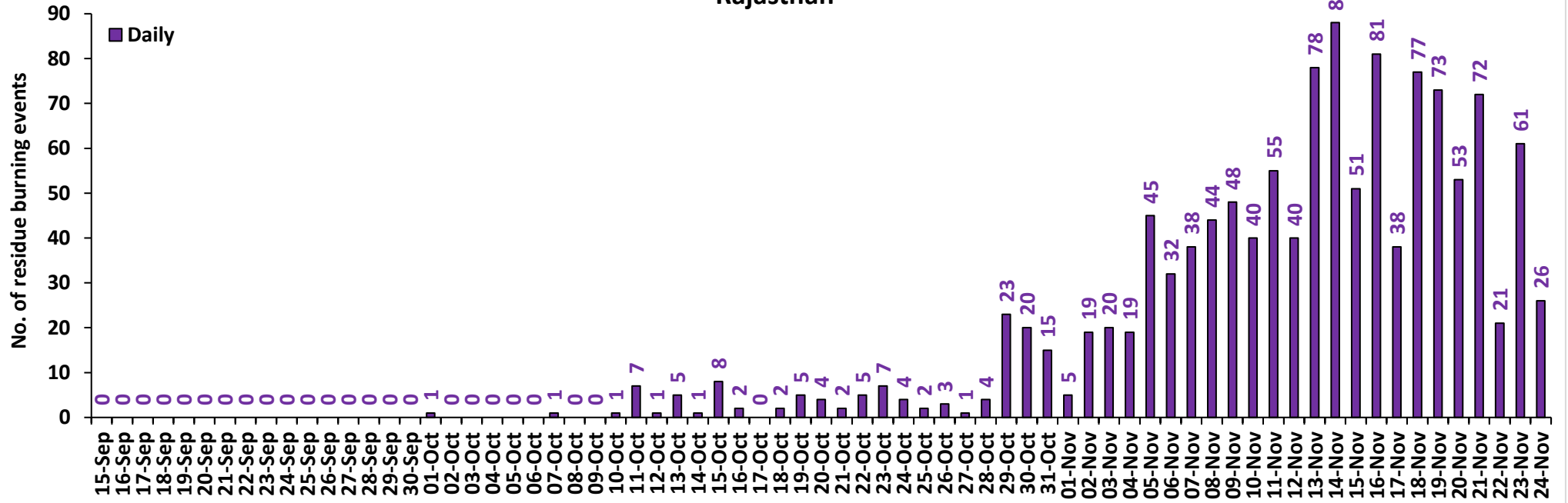
Haryana



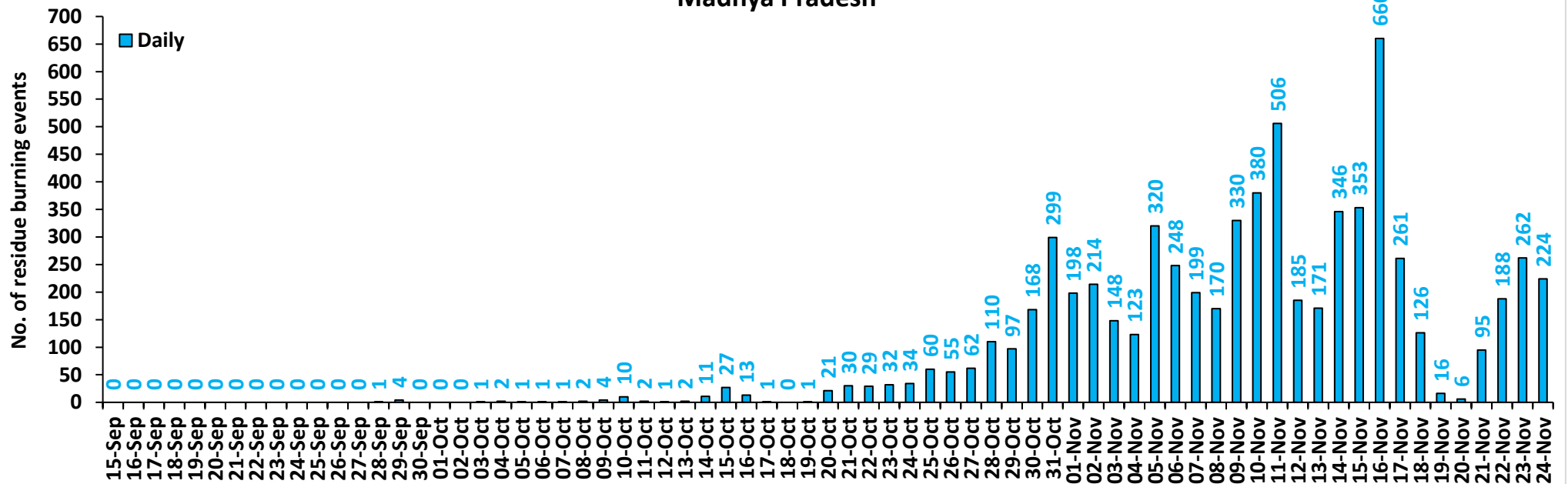
Uttar Pradesh



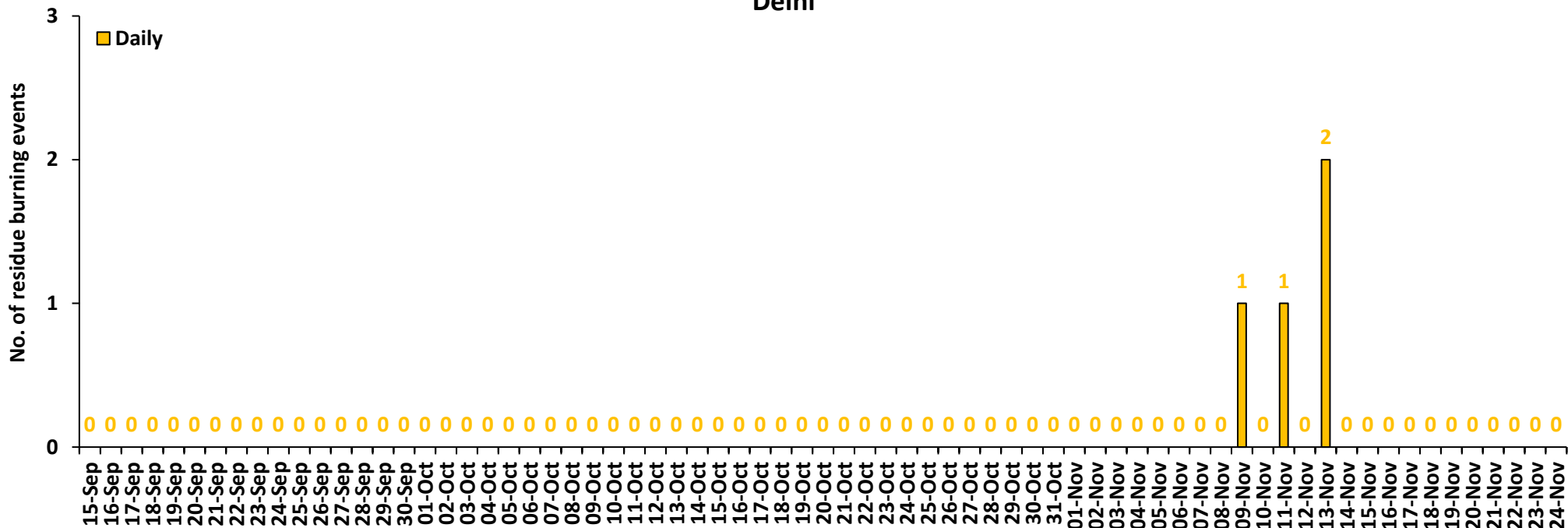
Rajasthan



Madhya Pradesh

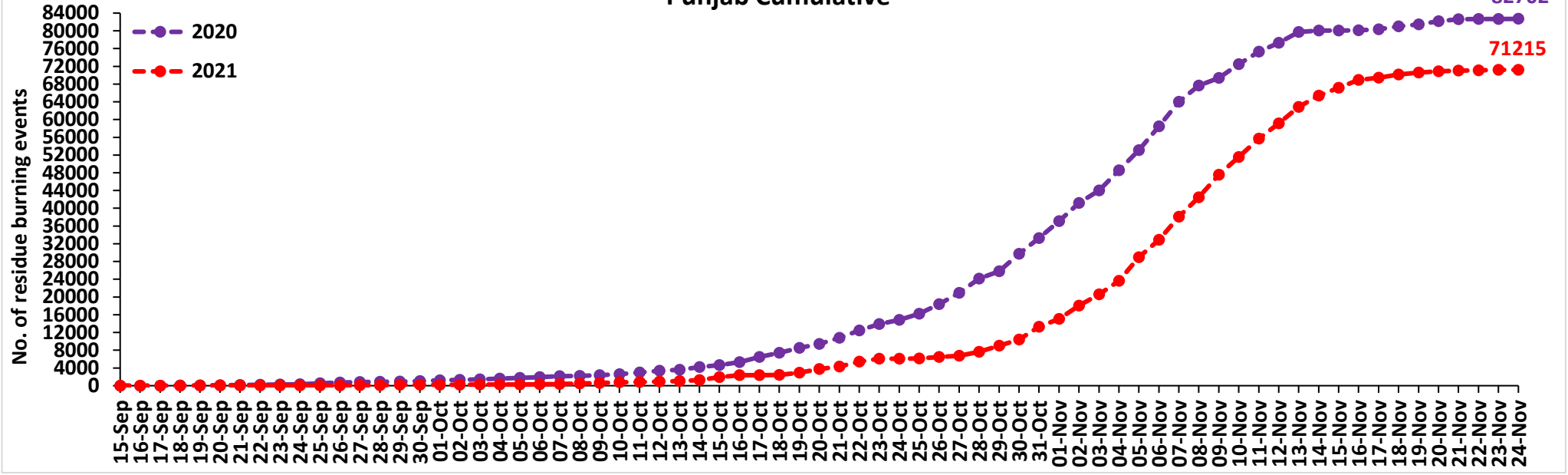


Delhi

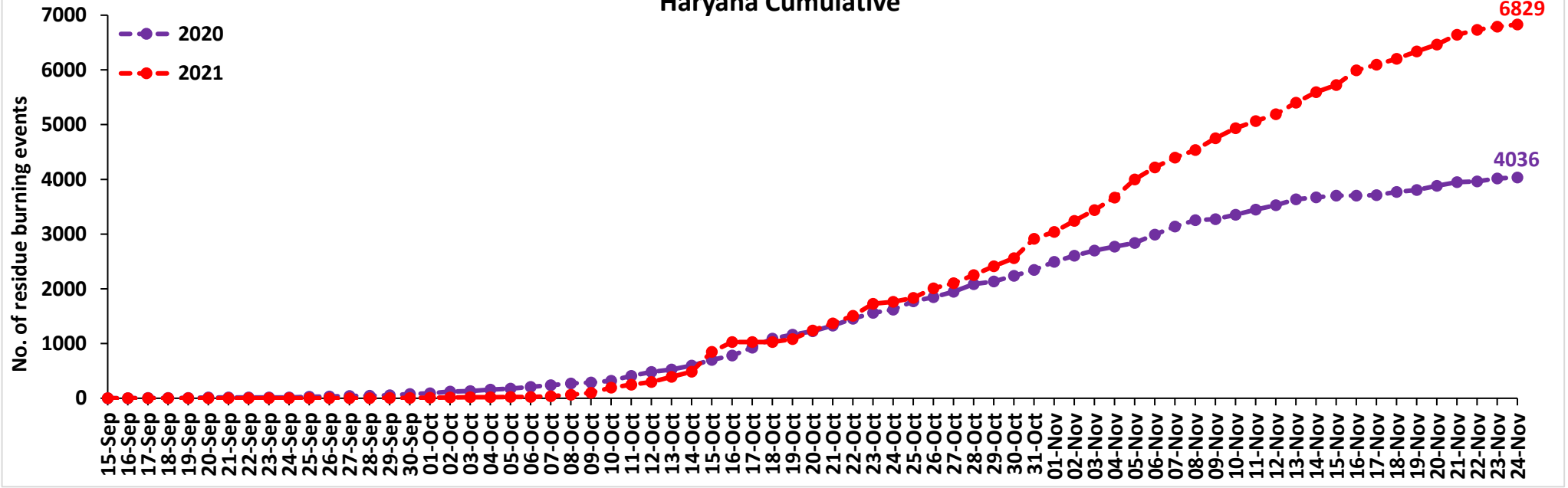


Comparison of residue burning events in current year (2021) with previous year (2020) for the study States

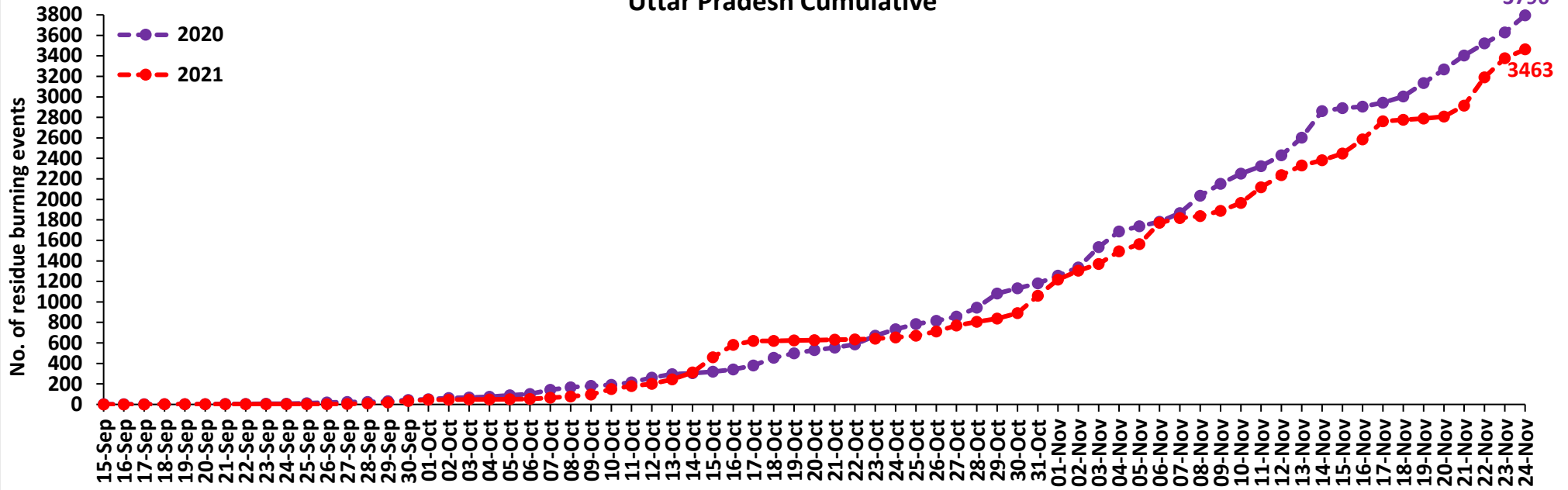
Punjab Cumulative



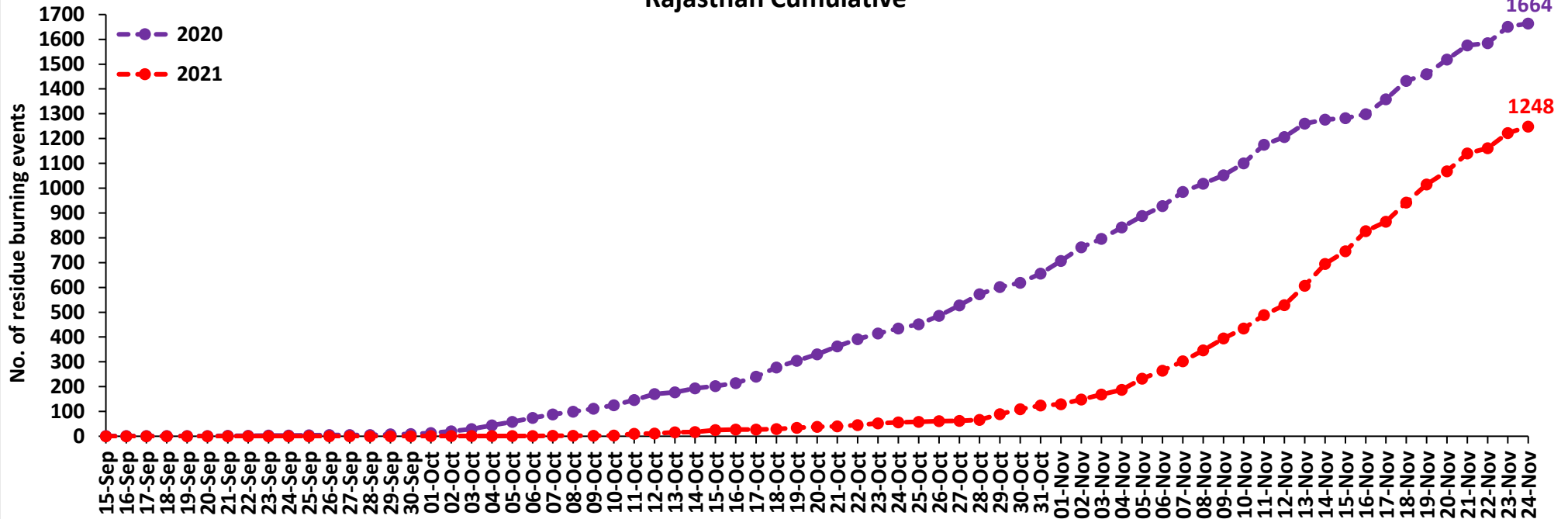
Haryana Cumulative



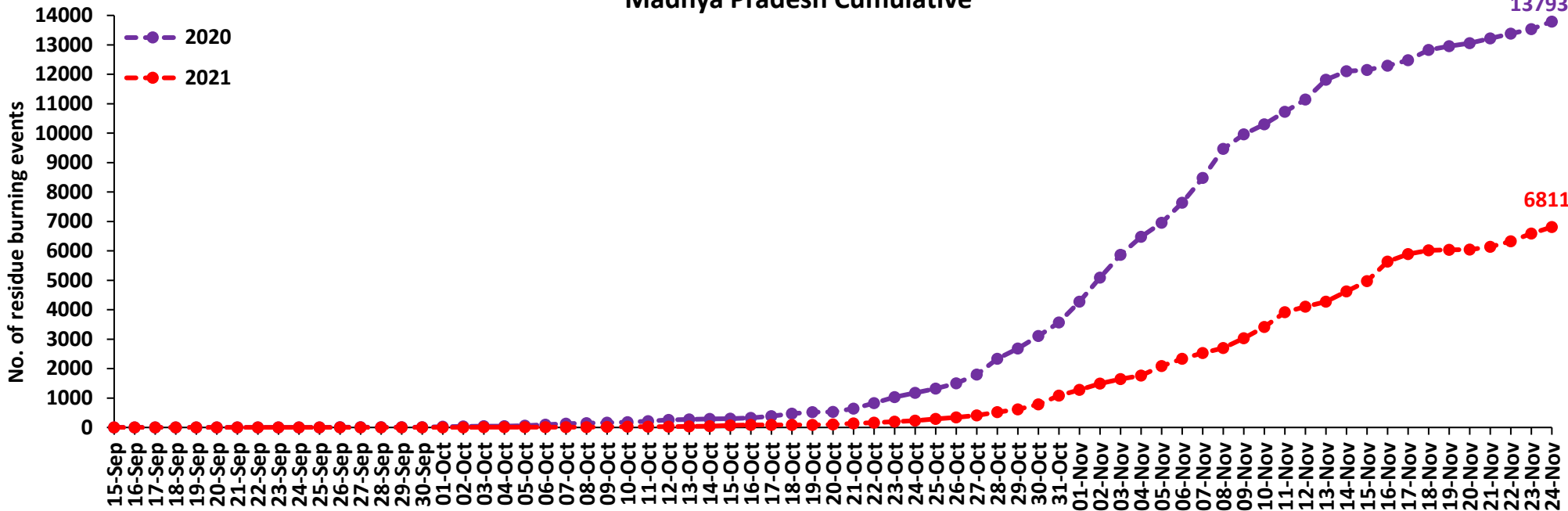
Uttar Pradesh Cumulative



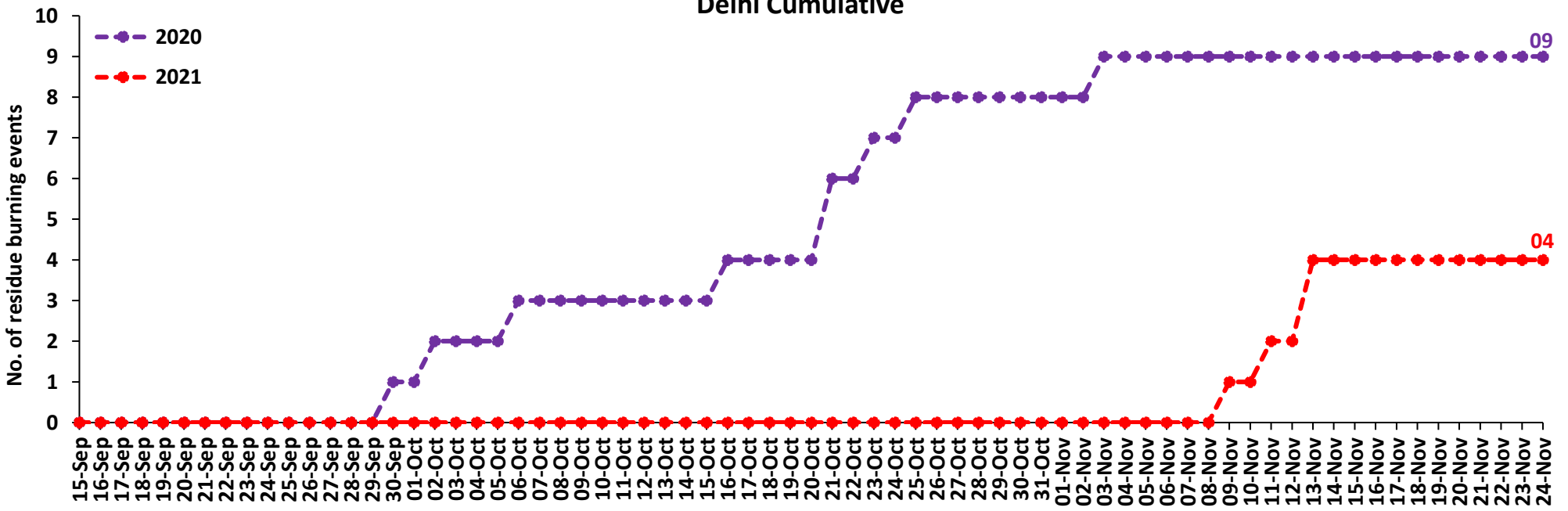
Rajasthan Cumulative



Madhya Pradesh Cumulative

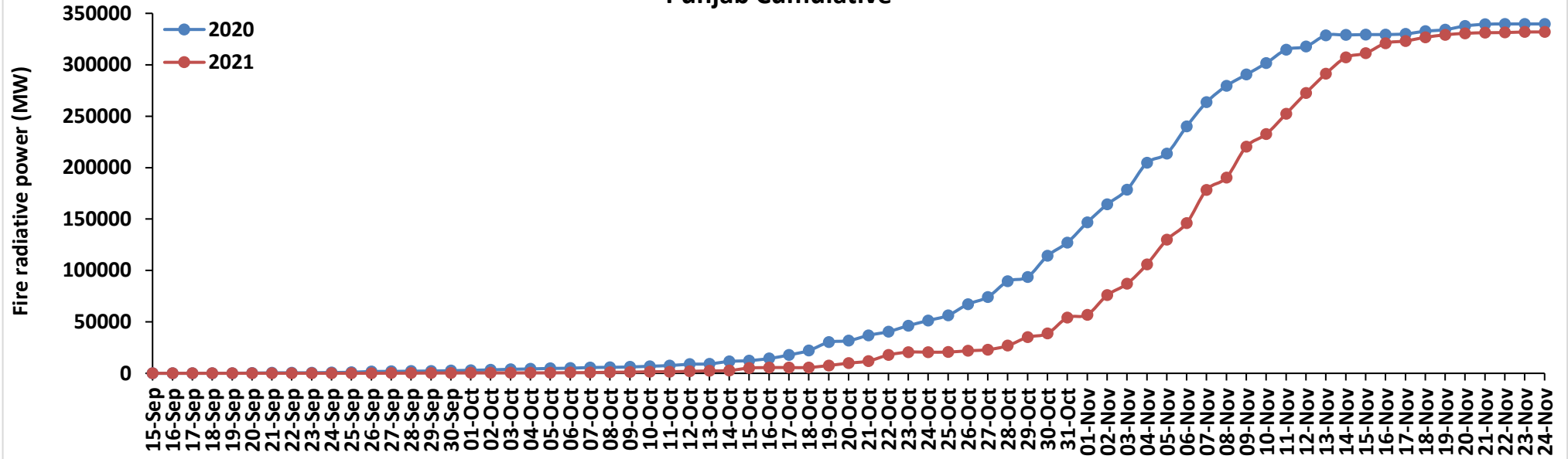


Delhi Cumulative

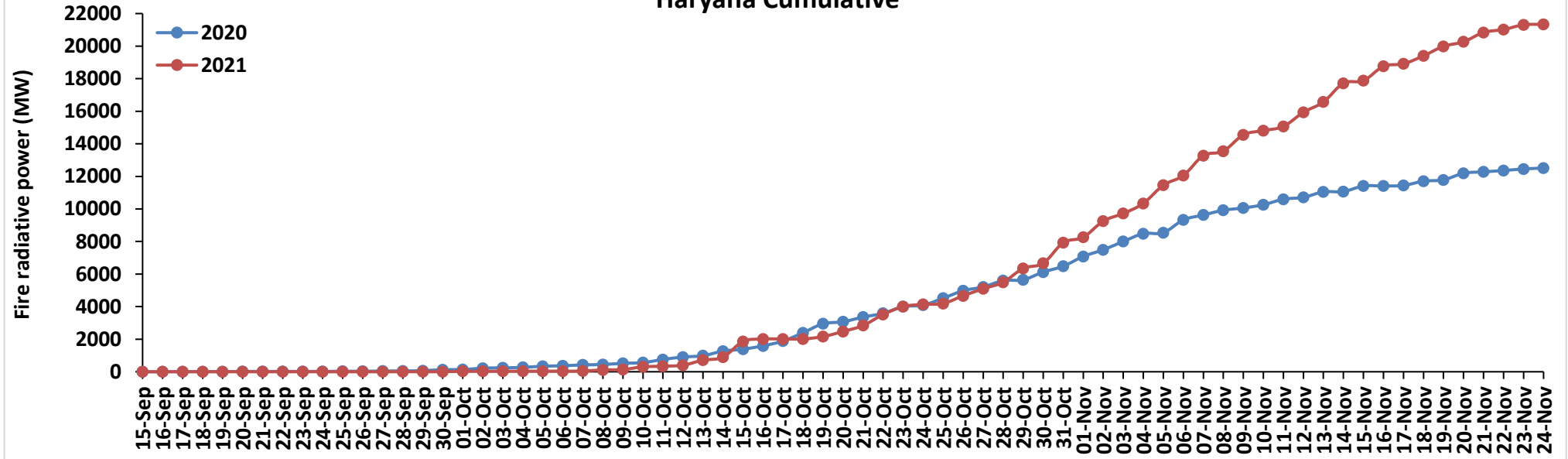


Comparison of residue burning fire power in current year (2021) with previous year (2020) for the study States

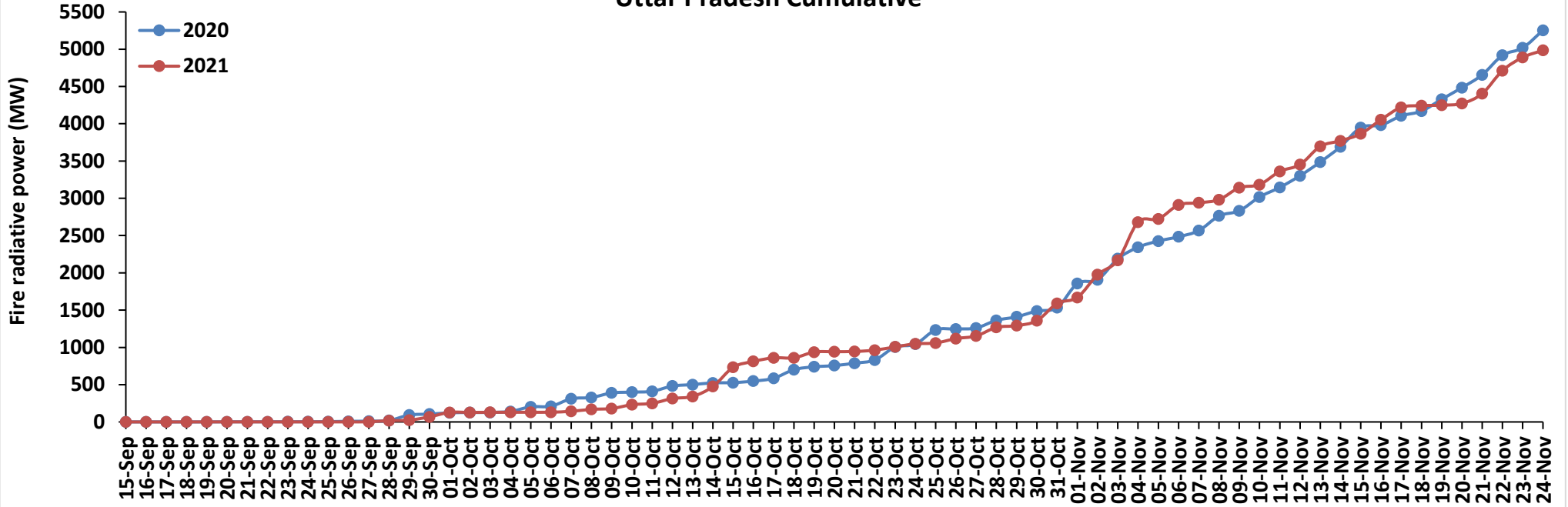
Punjab Cumulative



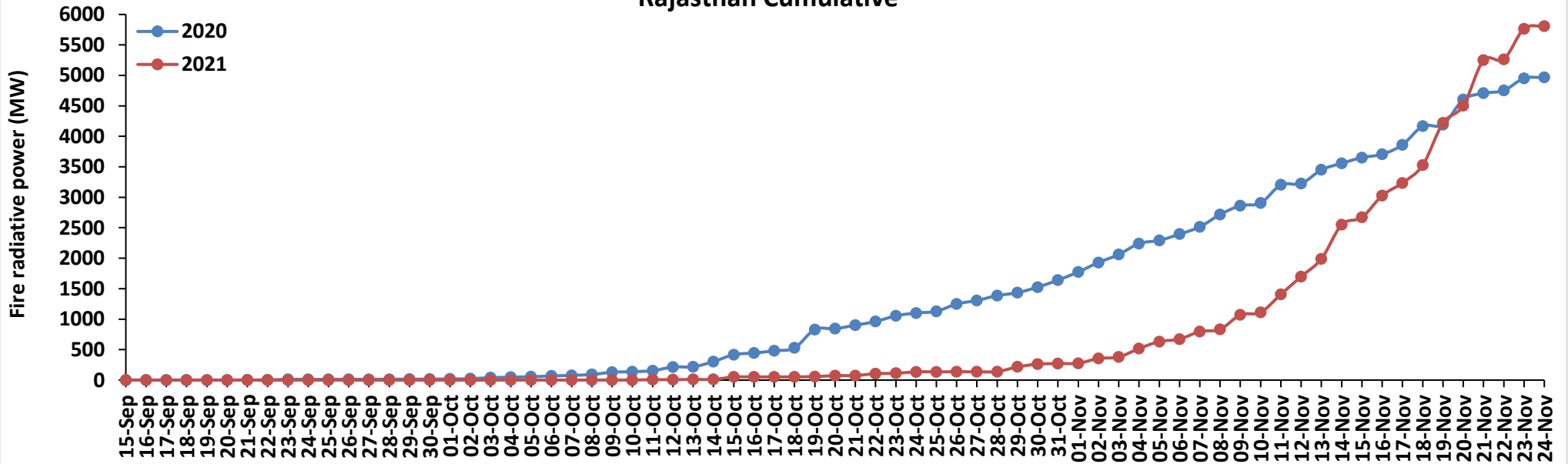
Haryana Cumulative



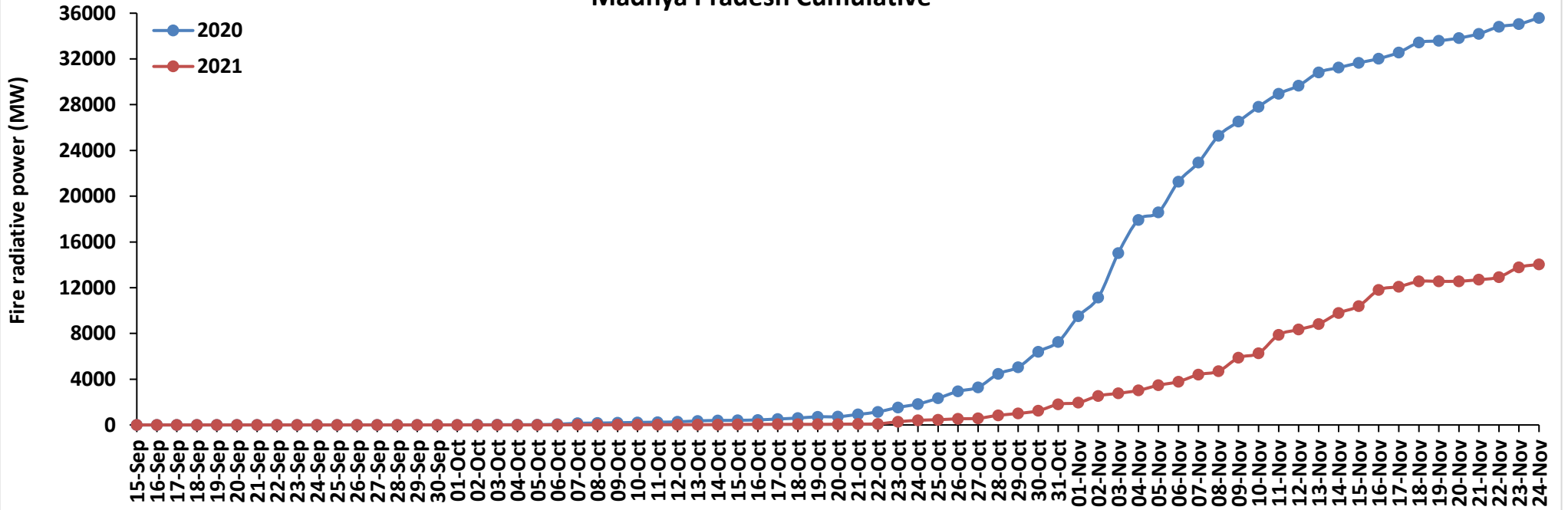
Uttar Pradesh Cumulative



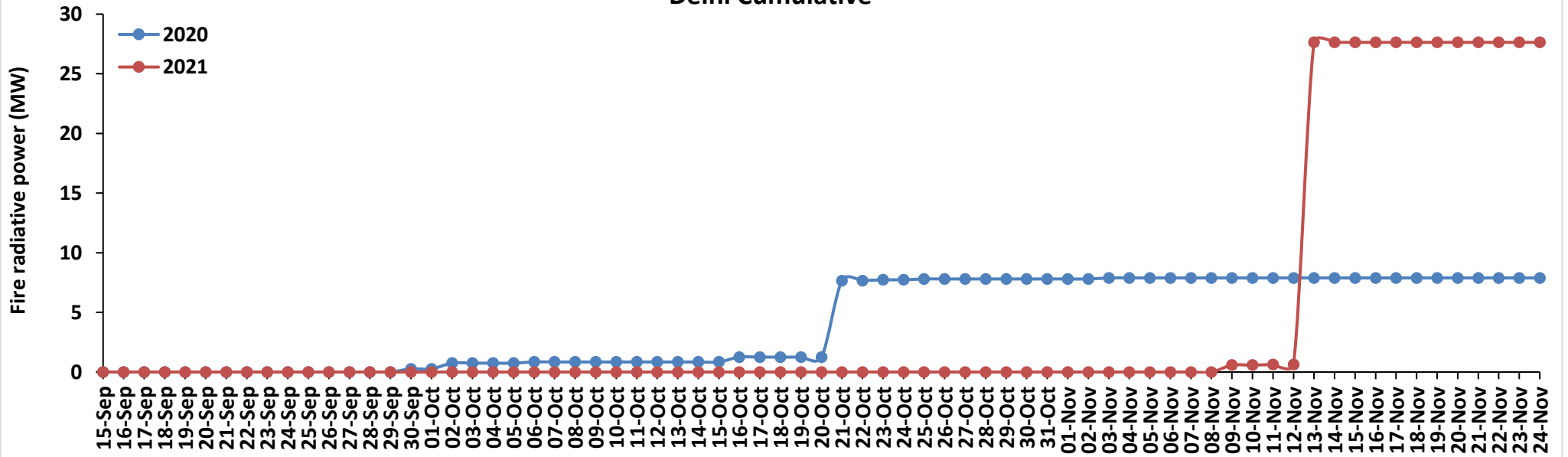
Rajasthan Cumulative



Madhya Pradesh Cumulative

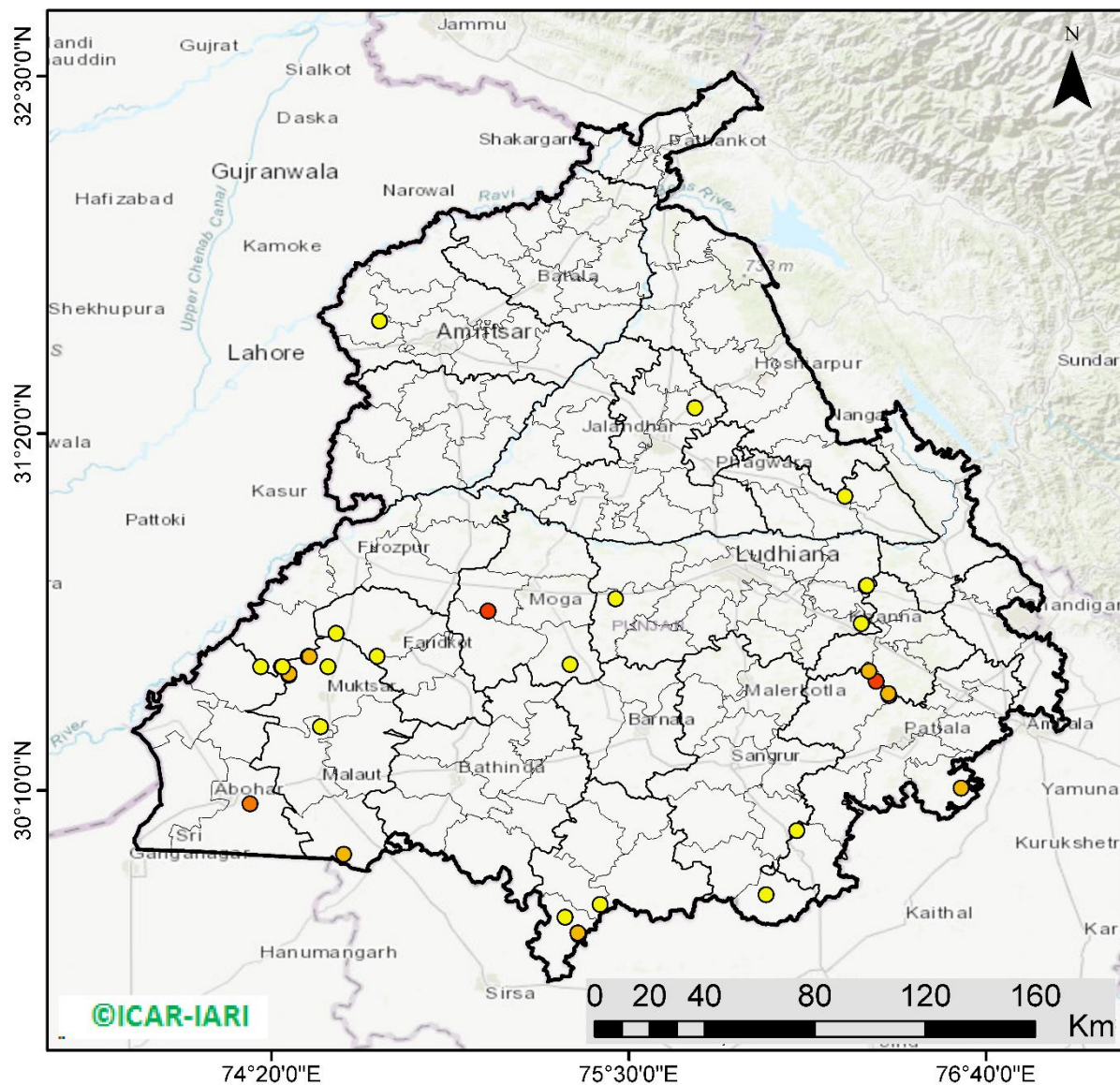


Delhi Cumulative



Punjab

RICE RESIDUE BURNING IN PUNJAB



34 burning events detected in Punjab on 24th November 2021

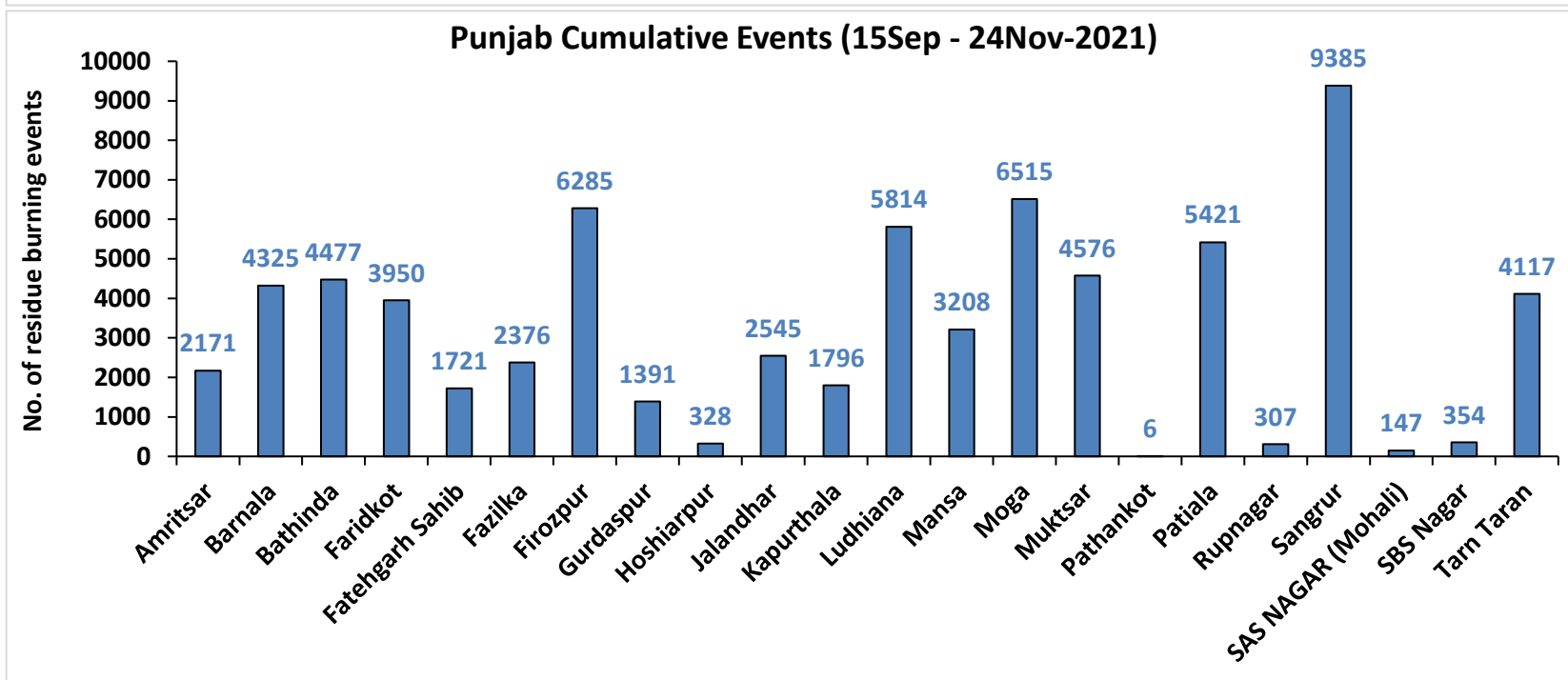
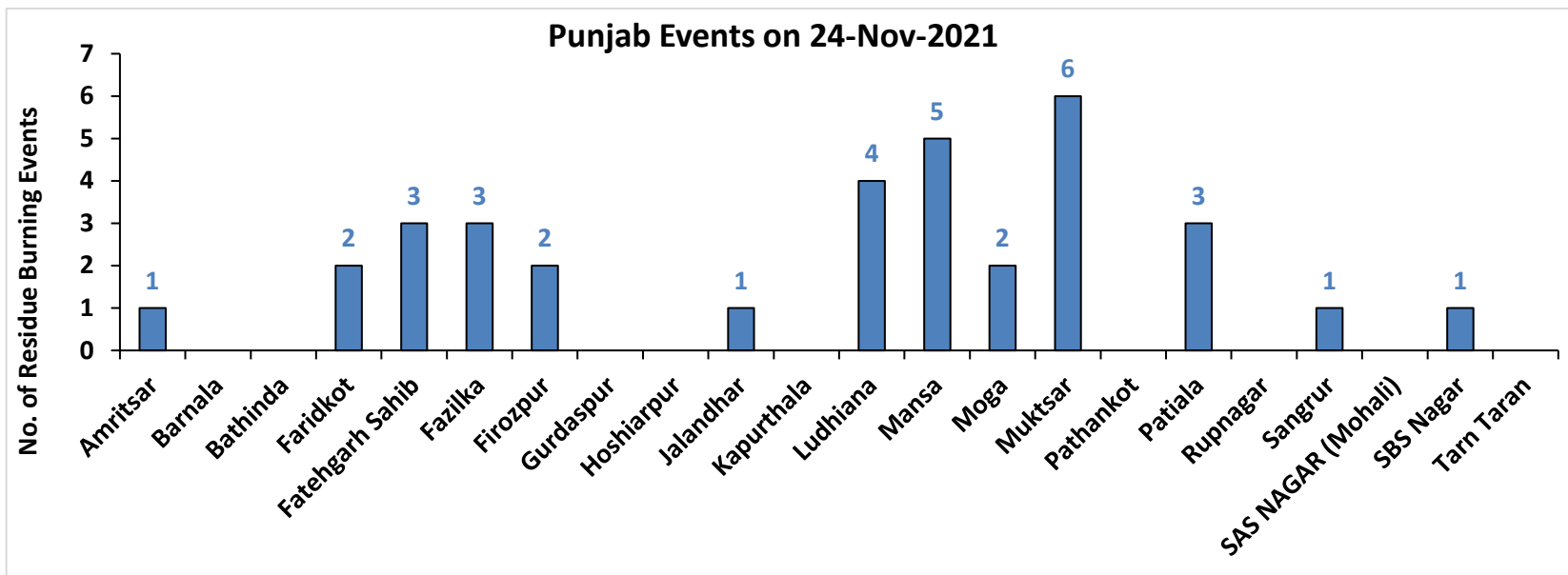
Fire Intensity (W/m²)

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



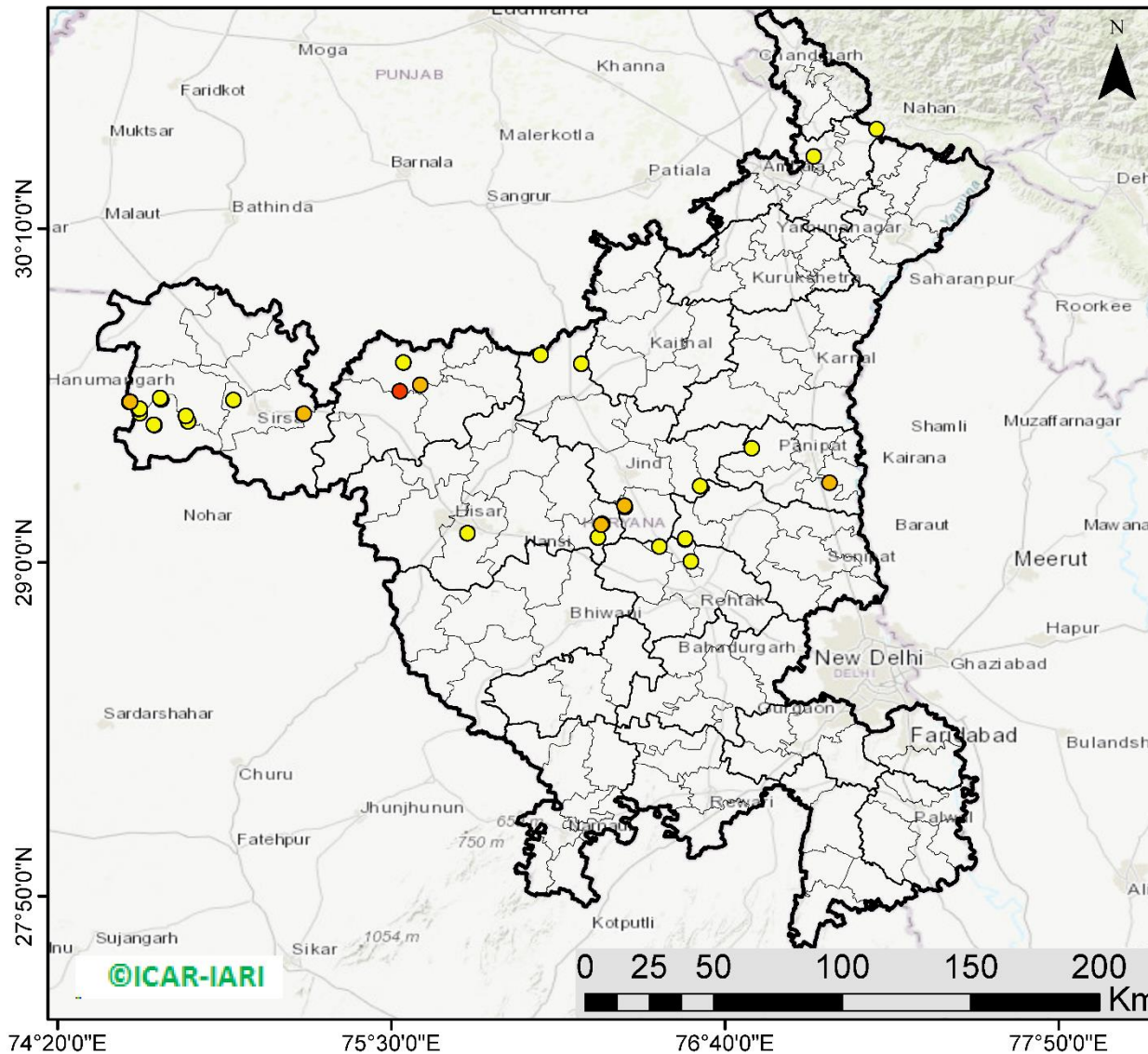
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residues burning events in Punjab (15 Sep - 24 Nov-2021)



Haryana

RICE RESIDUE BURNING IN HARYANA



37 burning events detected in Haryana on 24th November 2021

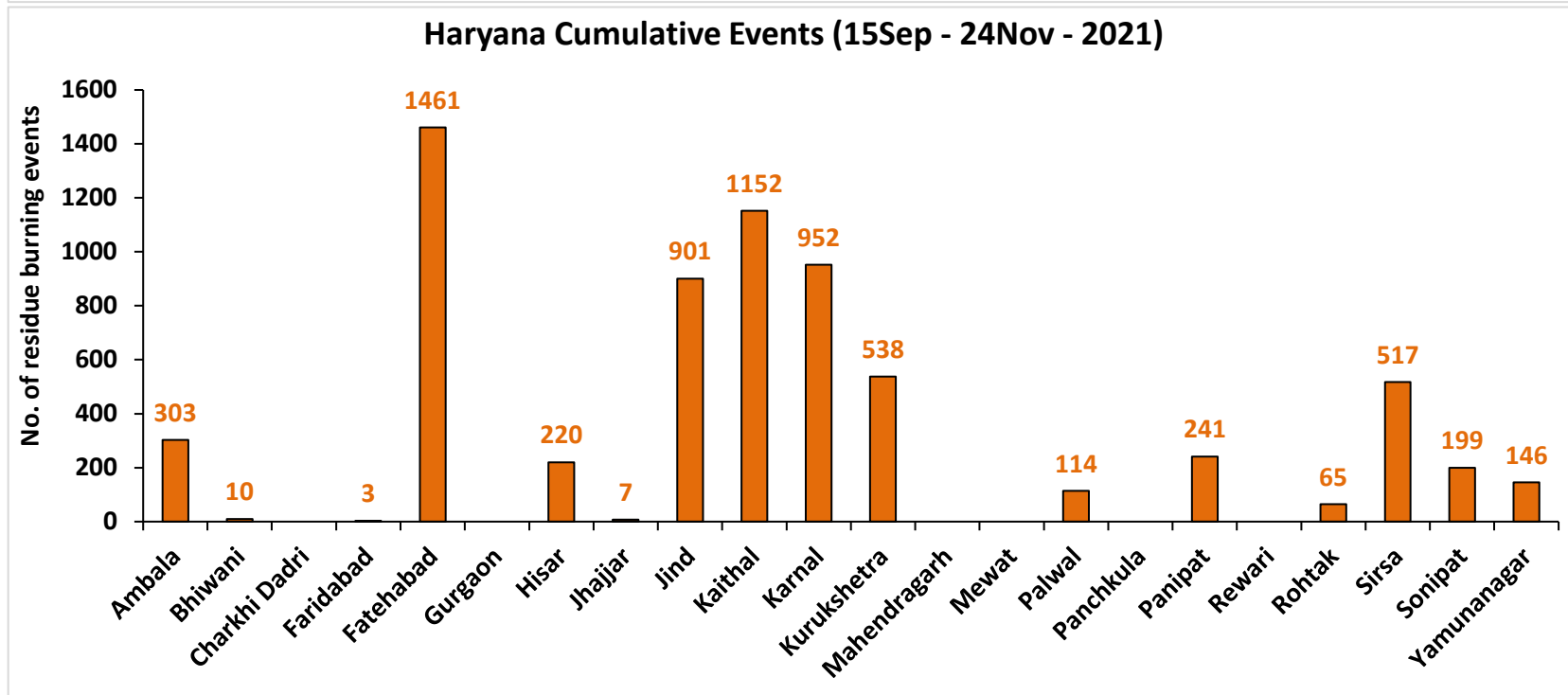
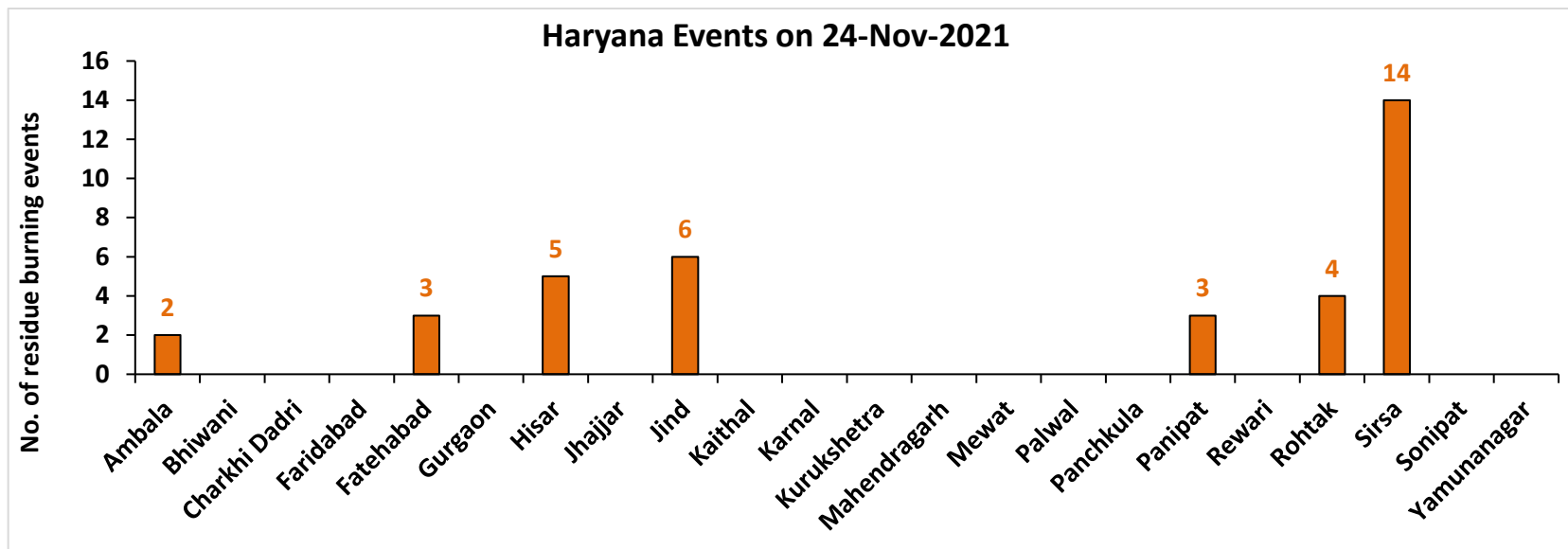
Fire Intensity (W/m²)

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



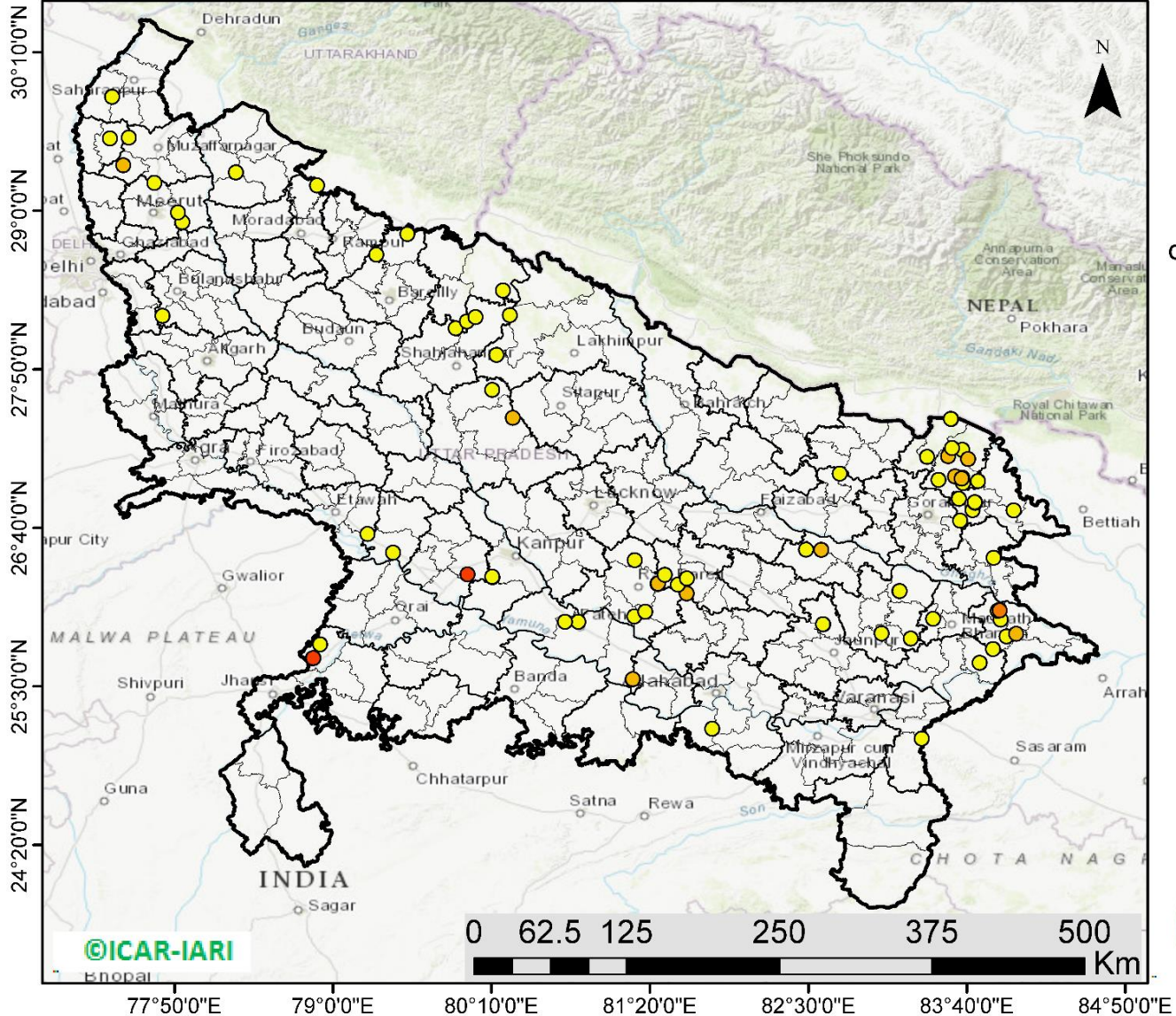
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residues burning events in Haryana (15 Sep - 24 Nov-2021)



Uttar Pradesh

RICE RESIDUE BURNING IN UTTAR PRADESH



87 burning events detected in Uttar Pradesh on 24th November 2021

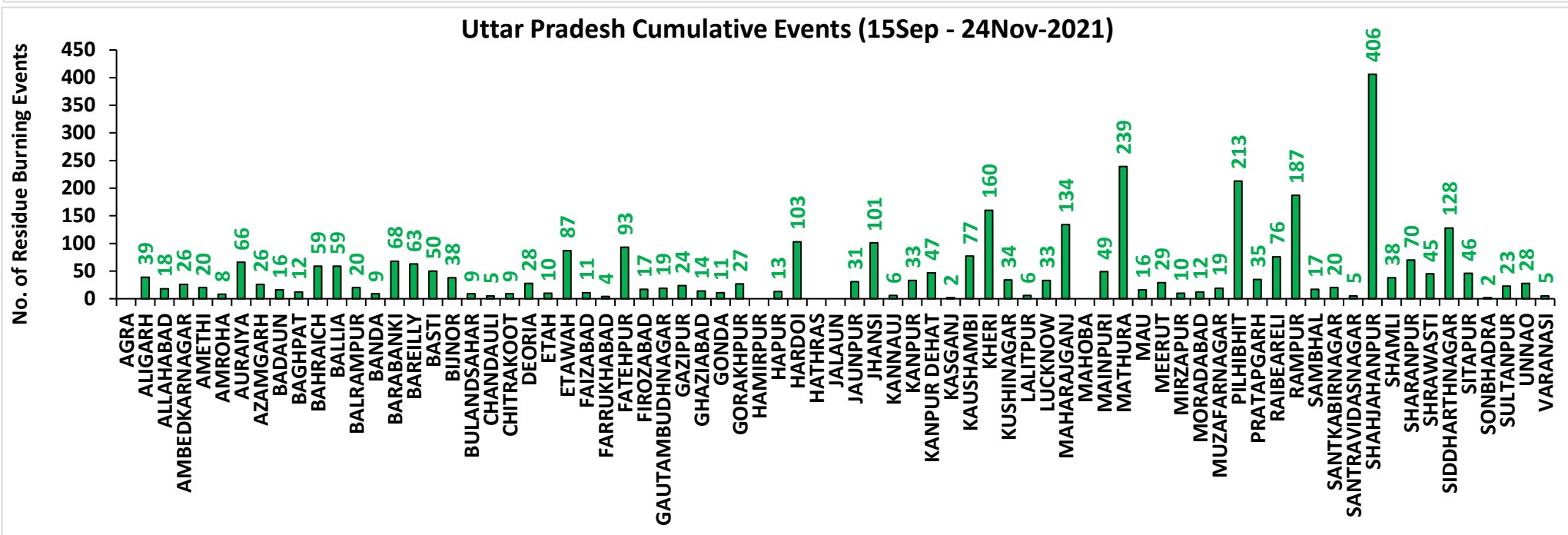
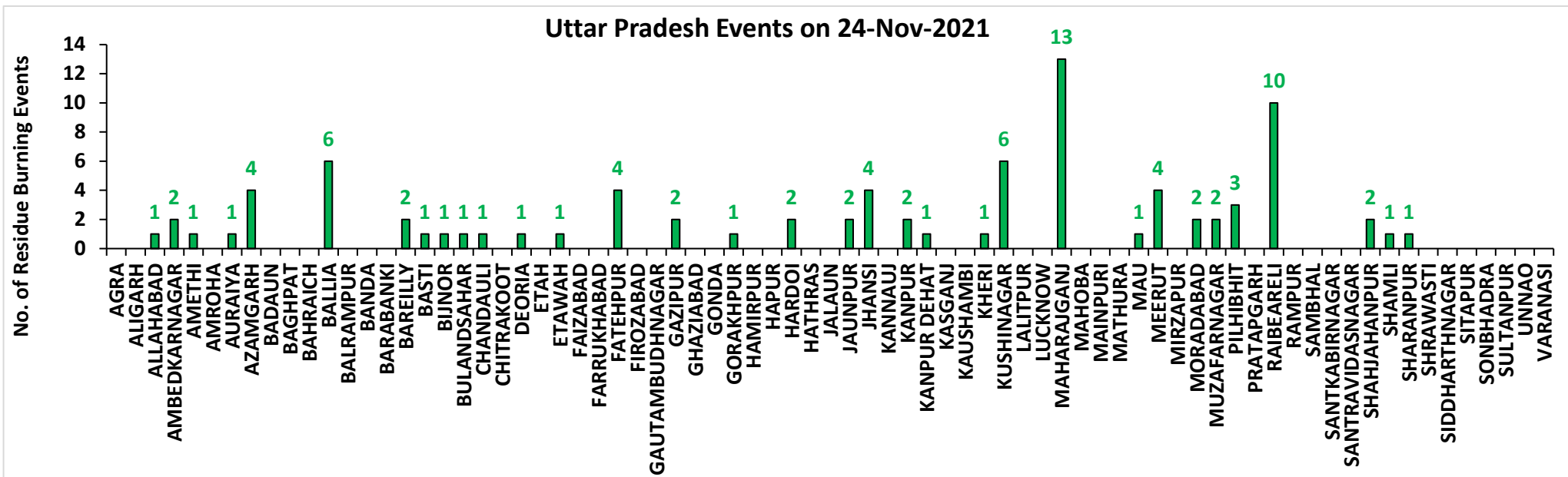
Fire Intensity (W/m2)

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



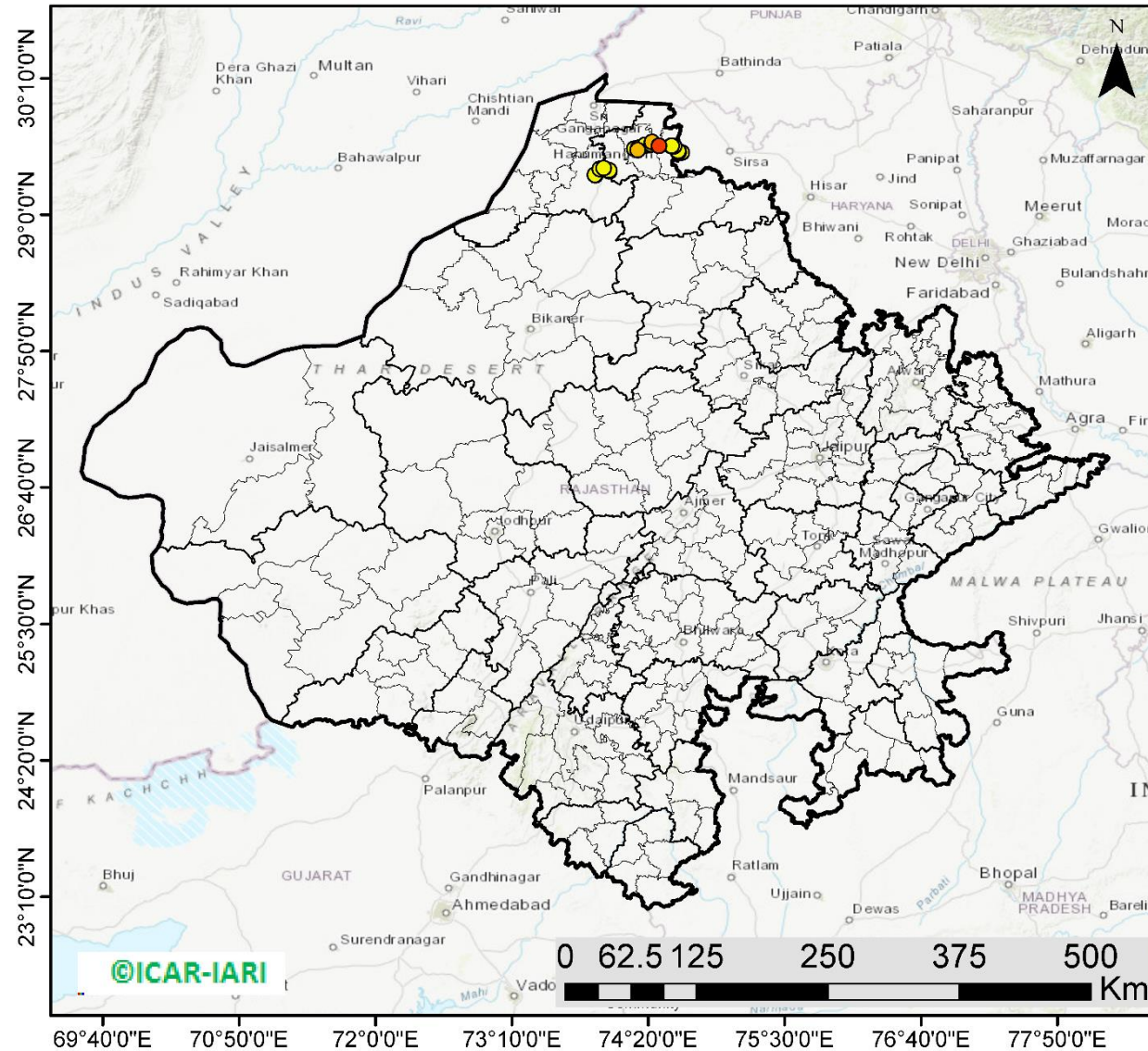
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residues burning events in Uttar Pradesh (15 Sep - 24 Nov-2021)



Rajasthan

RICE RESIDUE BURNING IN RAJASTHAN



26 burning events
detected in Rajasthan on
24th November 2021

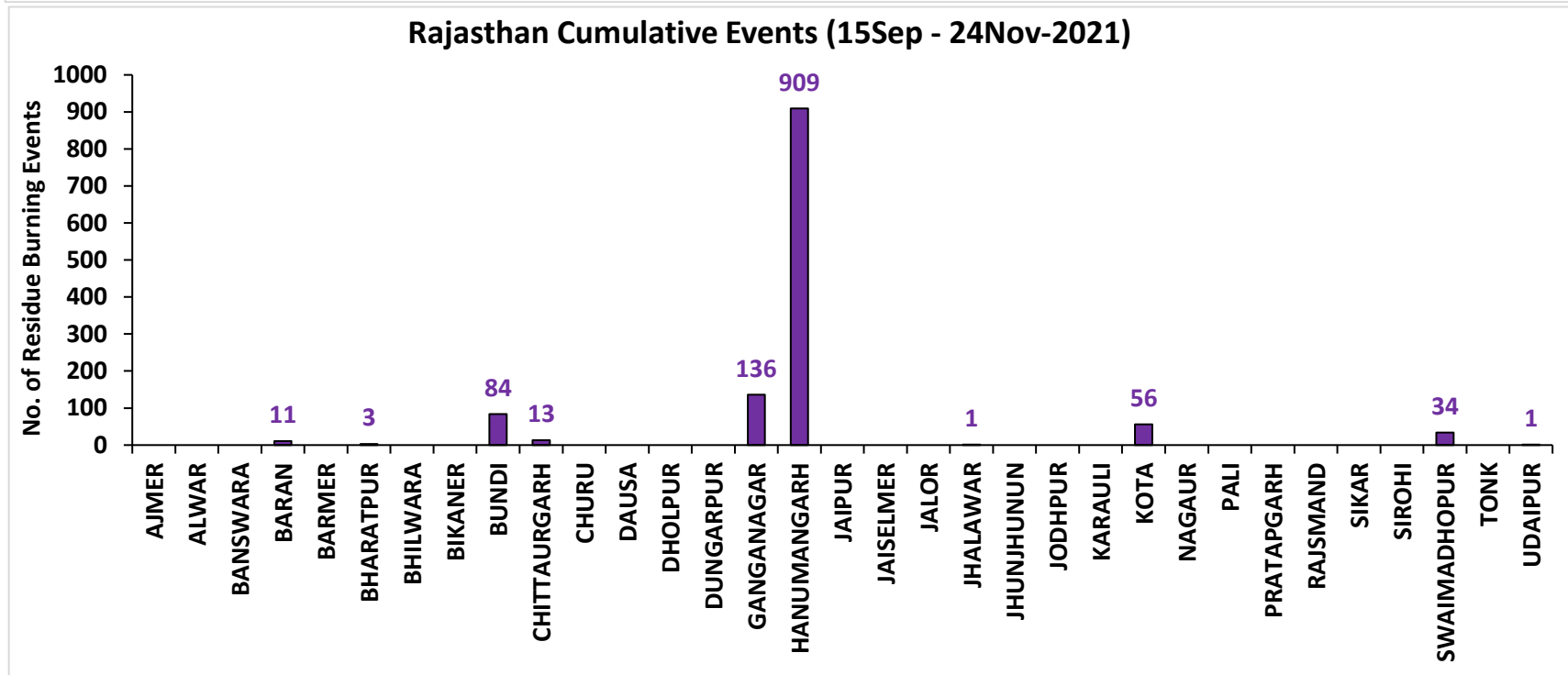
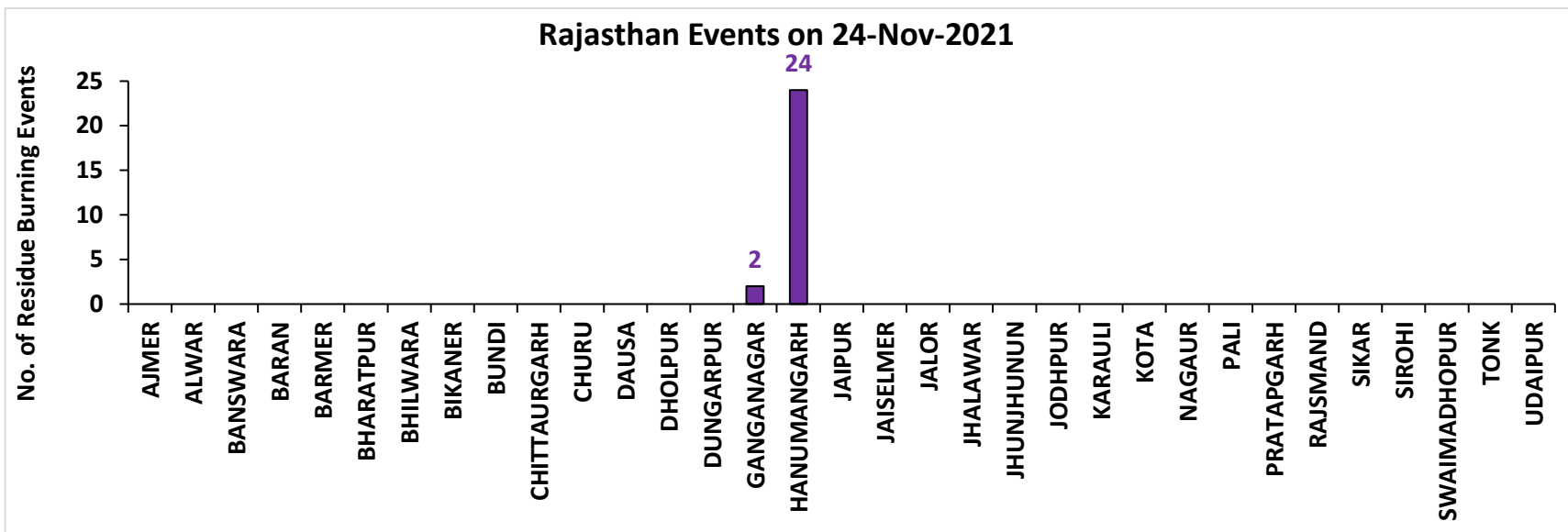
Fire Intensity (W/m²)

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



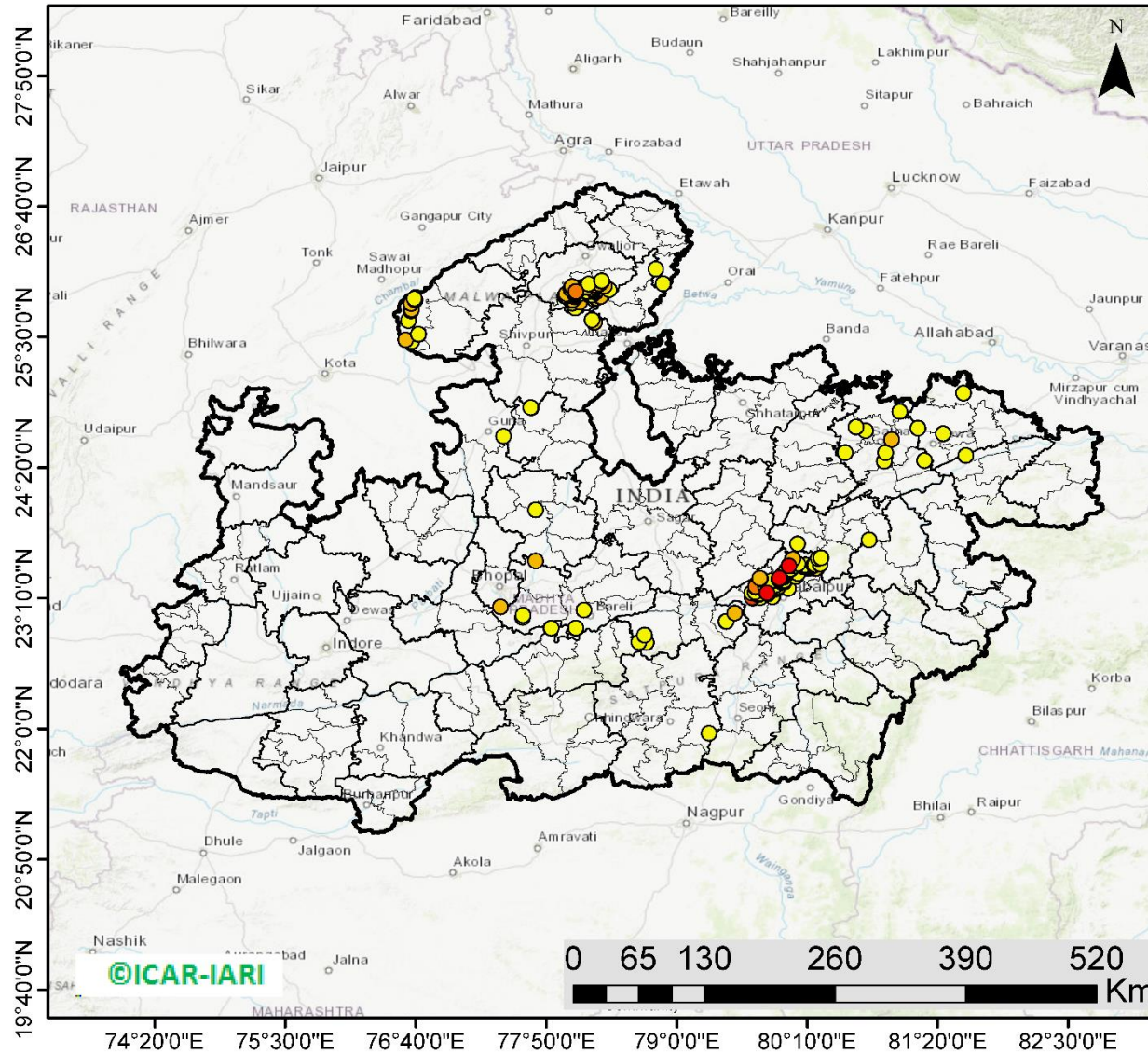
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residues burning events in Rajasthan (15 Sep - 24 Nov-2021)



Madhya Pradesh

RICE RESIDUE BURNING IN MADHYA PRADESH



224 burning events detected in MP on 24th November 2021

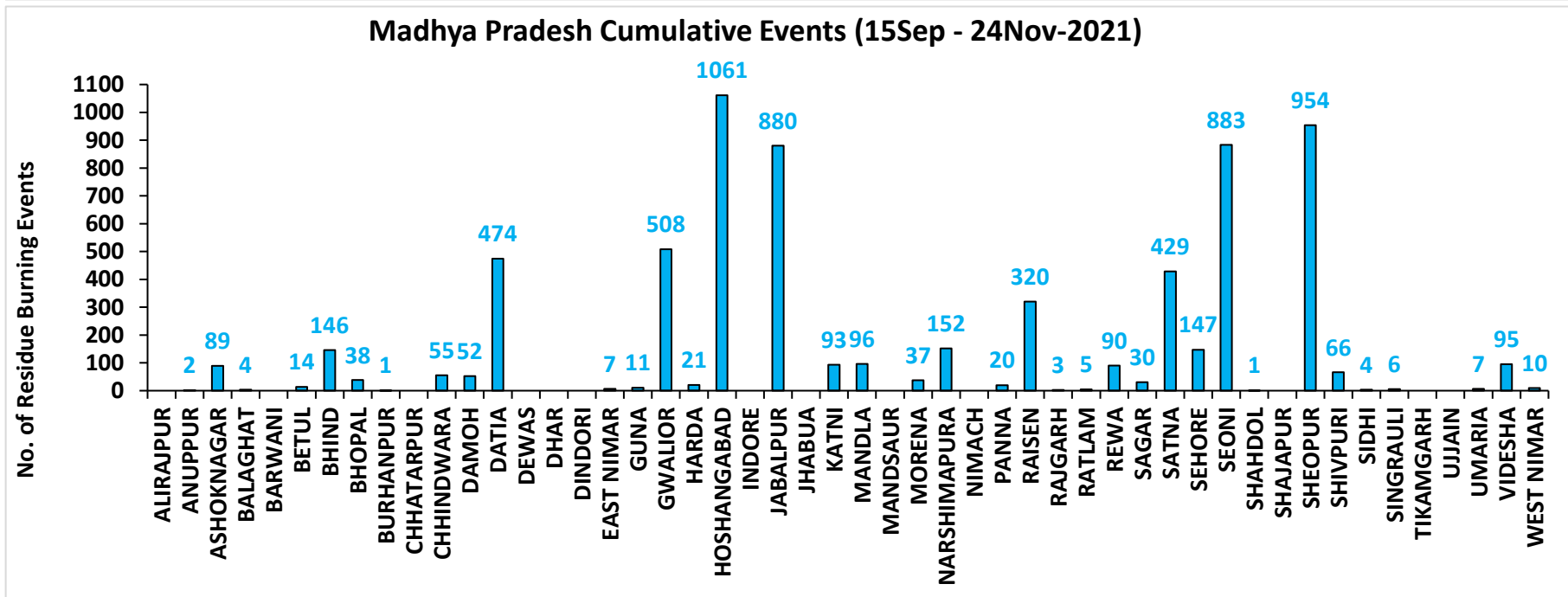
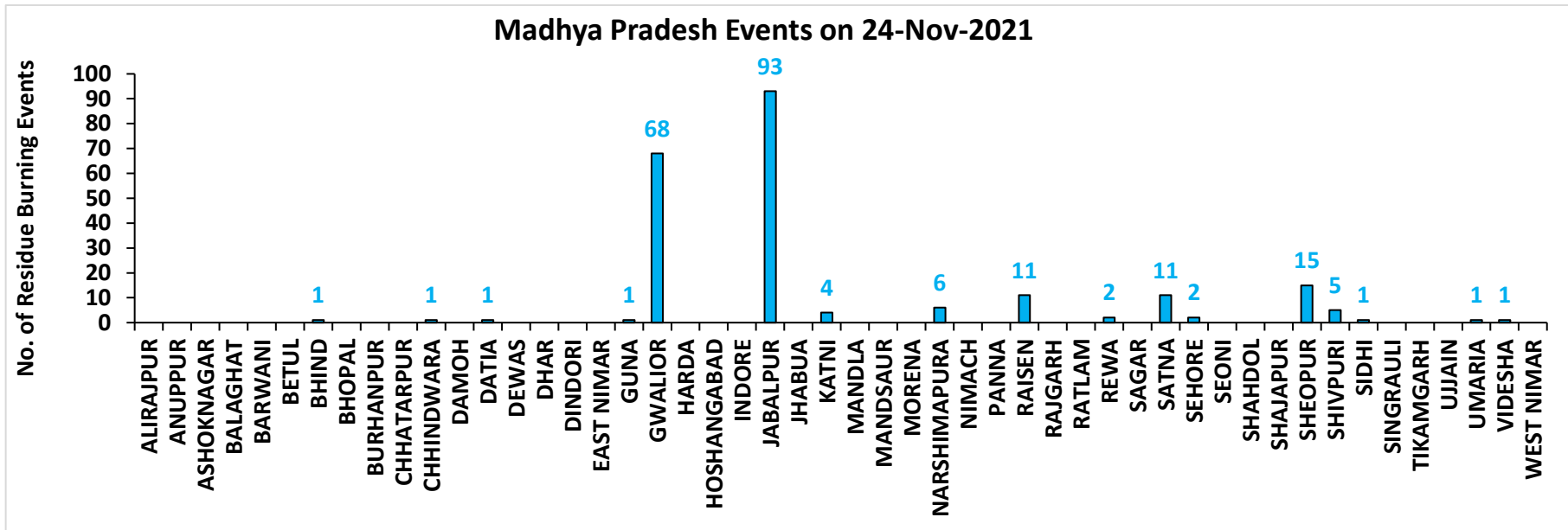
Fire Intensity (W/m²)

- 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 (15 Sep - 24 Nov-2021)



District-wise cumulative number of residues burning events detected in 2020 and 2021
(Period: 15 September - 24 November)

(a) Punjab

District	15 Sep – 24 Nov	
	2020	2021
AMRITSAR	3059	2171
BARNALA	5336	4325
BATHINDA	5226	4477
FARIDKOT	4727	3950
FATEHGARH SAHIB	1536	1721
FAZILKA	2523	2376
FIROZPUR	8509	6285
GURDASPUR	2124	1391
HOSHIARPUR	386	328
JALANDHAR	1939	2545
KAPURTHALA	1883	1796
LUDHIANA	5054	5814
MANSA	3780	3208
MOGA	7396	6515
MUKTSAR	4989	4576
PATHANKOT	13	6
PATIALA	6431	5421
RUPNAGAR	205	307
SANGRUR	11724	9385
SAS NAGAR (MOHALI)	127	147
SBS NAGAR	131	354
TARN TARAN	5604	4117
Total	82702	71215

(b) Haryana

District	15 Sep – 24 Nov	
	2020	2021
AMBALA	346	303
BHIWANI	4	10
CHARKHI DADRI	0	0
FARIDABAD	1	3
FATEHABAD	842	1461
GURGAON	0	0
HISAR	52	220
JHAJJAR	6	7
JIND	343	901
KAITHAL	838	1152
KARNAL	581	952
KURUKSHETRA	406	538
MAHENDRAGARH	0	0
MEWAT	0	0
PALWAL	46	114
PANCHKULA	0	0
PANIPAT	50	241
REWARI	0	0
ROHTAK	48	65
SIRSA	261	517
SONIPAT	70	199
YAMUNANAGAR	142	146
Total	4036	6829

(c) Uttar Pradesh

District	15 Sep – 24 Nov							
	2020	2021						
			GAUTAMBUDHNAGAR	15	19	MUZAFARNAGAR	48	19
AGRA	7	0	GAZIPUR	20	24	PILHIBHIT	21	213
ALIGARH	113	39	GHAZIABAD	26	14	PRATAPGARH	40	35
ALLAHABAD	28	18	GONDA	12	11	RAIBEARELI	38	76
AMBEDKARNAGAR	31	26	GORAKHPUR	42	27	RAMPUR	163	187
AMETHI	4	20	HAMIRPUR	6	0	SAMBHAL	19	17
AMROHA	12	8	HAPUR	31	13	SANTKABIRNAGAR	29	20
AURAIYA	82	66	HARDOI	99	103	SANTRAVIDASNAGAR	4	5
AZAMGARH	55	26	HATHRAS	0	0	SHAHJAHANPUR	141	406
BADAUN	14	16	JALAUN	43	0	SHAMLI	46	38
BAGHPAT	18	12	JAUNPUR	45	31	SHARANPUR	95	70
BAHRAICH	105	59	JHANSI	335	101	SHRAWASTI	45	45
BALLIA	109	59	KANNAUJ	33	6	SIDDHARTHANAGAR	73	128
BALRAMPUR	67	20	KANPUR	31	33	SITAPUR	62	46
BANDA	32	9	KANPUR DEHAT	80	47	SONBHADRA	0	2
BARABANKI	36	68	KASGANJ	3	2	SULTANPUR	5	23
BAREILLY	79	63	KAUSHAMBI	79	77	UNNAO	44	28
BASTI	55	50	KHERI	165	160	VARANASI	2	5
BIJNOR	40	38	KUSHINAGAR	76	34	Total	3796	3463
BULANDSAHAR	59	9	LALITPUR	3	6			
CHANDAULI	12	5	LUCKNOW	35	33			
CHITRAKOOT	12	9	MAHARAJGANJ	51	134			
DEORIA	82	28	MAHOBA	27	0			
ETAH	17	10	MAINPURI	63	49			
ETAWAH	71	87	MATHURA	160	239			
FAIZABAD	13	11	MAU	28	16			
FARRUKHABAD	6	4	MEERUT	71	29			
FATEHPUR	120	93	MIRZAPUR	9	10			
FIROZABAD	26	17	MORADABAD	28	12			

(d) Delhi

District	15 Sep – 24 Nov	
	2020	2021
CENTRAL	0	0
EAST	0	0
NEW DELHI	0	0
NORTH	3	3
NORTH EAST	0	0
NORTH WEST DELHI	3	1
SHAHADRA	0	0
SOUTH	1	0
SOUTH EAST	0	0
SOUTH WEST DELHI	0	0
WEST DELHI	2	0
Total	9	4

(e) Rajasthan

District	15 Sep – 24 Nov	
	2020	2021
AJMER	3	0
ALWAR	9	0
BANSWARA	0	0
BARAN	167	11
BARMER	4	0
BHARATPUR	2	3
BHILWARA	11	0
BIKANER	1	0
BUNDI	128	84
CHITTAURGARH	2	13
CHURU	0	0
DAUSA	1	0
DHOLPUR	0	0
DUNGARPUR	0	0
GANGANAGAR	202	136
HANUMANGARH	894	909
JAIPUR	4	0
JAISELMER	5	0
JALOR	2	0
JHALAWAR	9	1
JHUNJHUNUN	1	0
JODHPUR	5	0
KARALI	1	0
KOTA	116	56
NAGPUR	3	0
PALI	11	0
PRATAPGARH	8	0
RAJSMAND	1	0
SIKAR	0	0
SIROHI	2	0
SWAIMADHOPUR	65	34
TONK	5	0
UDAIPUR	2	1
Total	1664	1248

(f) Madhya Pradesh

District	15 Sep – 24 Nov				
	2020	2021			
			PANNA	50	20
ALIRAJPUR	0	0	RAISEN	597	320
ANUPPUR	3	2	RAJGARH	11	3
ASHOKNAGAR	156	89	RATLAM	10	5
BALAGHAT	5	4	REWA	134	90
BARWANI	4	0	SAGAR	28	30
BETUL	36	14	SATNA	566	429
BHIND	256	146	SEHORE	159	147
BHOPAL	50	38	SEONI	1230	883
BURHANPUR	16	1	SHAHDOL	3	1
CHHATARPUR	9	0	SHAJAPUR	20	0
CHHINDWARA	135	55	SHEOPUR	1857	954
DAMOH	75	52	SHIVPURI	378	66
DATIA	1185	474	SIDHI	4	4
DEWAS	8	0	SINGRAULI	0	6
DHAR	43	0	TIKAMGARH	4	0
DINDORI	0	0	UJJAIN	14	0
EAST NIMAR	23	7	UMARIA	8	7
GUNA	69	11	VIDESHA	142	95
GWALIOR	2037	508	WEST NIMAR	66	10
HARDA	14	21	Total	13793	6811
HOSHANGABAD	1057	1061			
INDORE	4	0			
JABALPUR	2502	880			
JHABUA	0	0			
KATNI	323	93			
MANDLA	144	96			
MANDSAUR	14	0			
MORENA	62	37			
NARSHIMAPURA	280	152			
NIMACH	2	0			

State-wise and date-wise number of paddy residue burning events detected in 2020 and 2021
(Period: 15 September – 24 November)

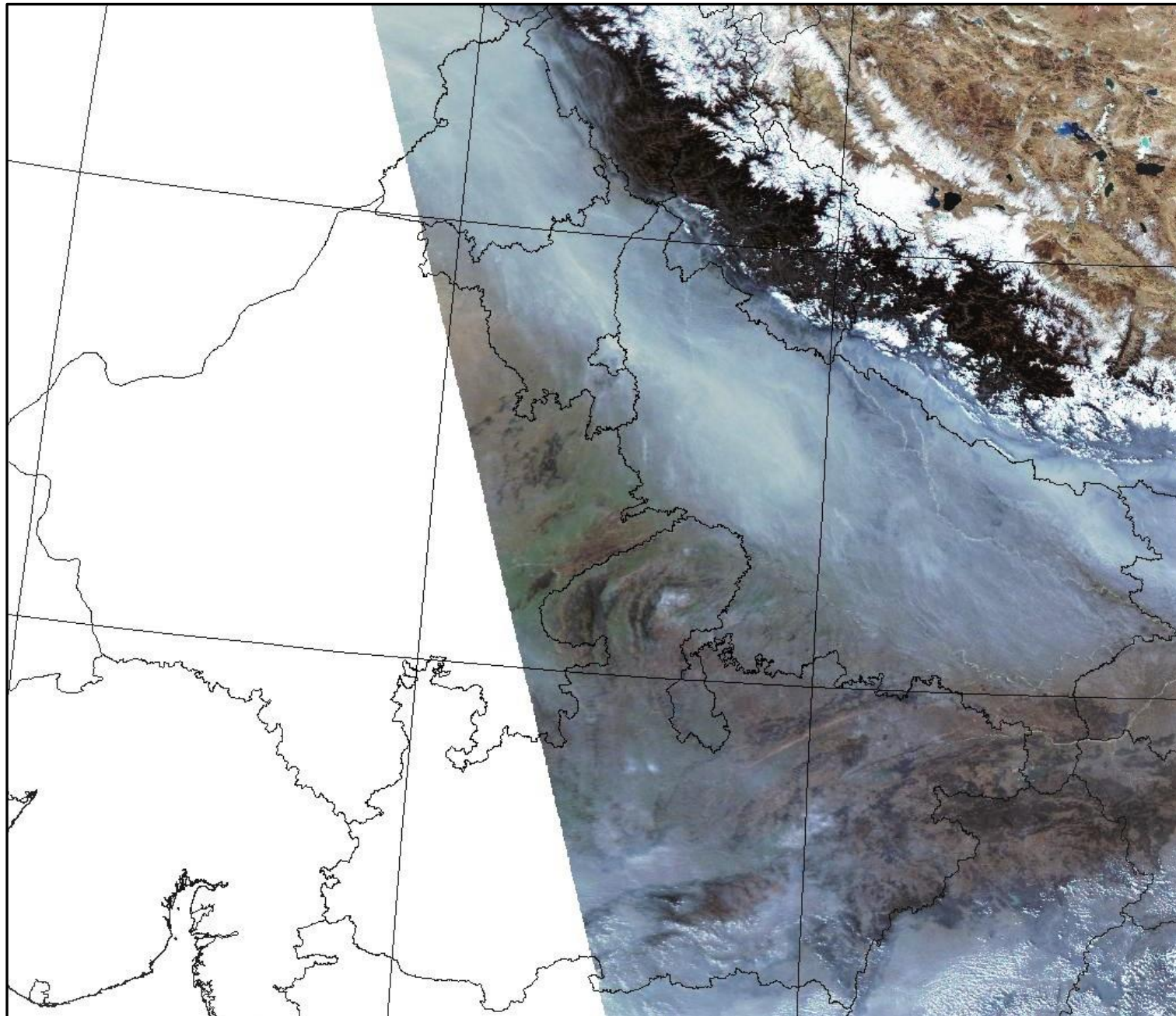
Number of Paddy Residue Burning Events Detected

	Punjab		Haryana		Uttar Pradesh		Delhi		Rajasthan		Madhya Pradesh	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
15-Sep	5	0	2	0	1	0	0	0	1	0	2	0
16-Sep	0	2	1	0	0	0	0	0	0	0	0	0
17-Sep	5	0	3	0	0	0	0	0	0	0	0	0
18-Sep	17	9	0	0	0	1	0	0	0	0	0	0
19-Sep	30	5	2	0	0	1	0	0	0	0	0	0
20-Sep	67	8	6	0	2	0	0	0	0	0	0	0
21-Sep	54	0	2	0	1	0	0	0	1	0	2	0
22-Sep	34	0	1	0	1	0	0	0	0	0	0	0
23-Sep	49	0	0	0	1	0	0	0	1	0	0	0
24-Sep	78	5	0	0	1	1	0	0	0	0	0	0
25-Sep	184	11	11	0	5	0	0	0	1	0	0	0
26-Sep	190	19	5	0	8	0	0	0	1	0	2	0
27-Sep	78	37	8	0	4	1	0	0	0	0	1	0
28-Sep	55	28	6	1	1	6	0	0	0	0	1	1
29-Sep	63	64	9	4	6	10	0	0	3	0	0	4
30-Sep	116	27	22	2	13	13	1	0	1	0	5	0
01-Oct	165	13	15	4	7	13	0	0	4	1	13	0
02-Oct	141	0	30	2	12	0	1	0	7	0	12	0
03-Oct	110	9	8	6	4	3	0	0	9	0	5	1
04-Oct	162	23	29	2	8	0	0	0	15	0	4	2
05-Oct	161	18	17	3	14	2	0	0	14	0	13	1
06-Oct	171	42	30	0	12	1	1	0	16	0	37	1
07-Oct	197	72	32	11	41	13	0	0	14	1	31	1
08-Oct	95	108	29	27	25	11	0	0	11	0	17	2
09-Oct	121	114	20	39	15	20	0	0	12	0	15	4
10-Oct	232	150	33	95	9	54	0	0	14	1	18	10
11-Oct	377	64	90	51	23	28	0	0	21	7	32	2

12-Oct	388	97	69	51	46	23	0	0	24	1	44	1
13-Oct	266	132	47	91	36	42	0	0	7	5	21	2
14-Oct	605	229	69	98	9	68	0	0	16	1	15	11
15-Oct	449	660	106	363	15	149	0	0	9	8	8	27
16-Oct	654	429	80	176	21	121	1	0	12	2	23	13
17-Oct	1172	14	143	0	38	39	0	0	26	0	63	1
18-Oct	938	57	166	1	76	0	0	0	37	2	88	0
19-Oct	1080	496	72	55	43	5	0	0	27	5	49	1
20-Oct	890	788	62	155	31	1	0	0	26	4	9	21
21-Oct	1392	597	101	131	25	5	2	0	32	2	112	30
22-Oct	1665	1111	128	140	32	3	0	0	29	5	183	29
23-Oct	1438	620	106	218	84	8	1	0	23	7	204	32
24-Oct	911	0	57	38	63	11	0	0	20	4	150	34
25-Oct	1416	76	155	71	50	18	1	0	18	2	144	60
26-Oct	2126	329	77	175	33	41	0	0	34	3	178	55
27-Oct	2563	279	96	93	40	58	0	0	42	1	294	62
28-Oct	3232	906	139	149	87	35	0	0	45	4	537	110
29-Oct	1624	1353	52	161	139	32	0	0	29	23	349	97
30-Oct	3946	1373	100	148	50	53	0	0	17	20	428	168
31-Oct	3531	2895	108	353	49	170	0	0	37	15	455	299
01-Nov	3835	1796	151	124	74	157	0	0	51	5	709	198
02-Nov	4098	3001	111	203	82	87	0	0	55	19	820	214
03-Nov	2818	2512	93	197	197	66	1	0	34	20	771	148
04-Nov	4584	3032	72	228	152	123	0	0	46	19	618	123
05-Nov	4529	5327	66	331	52	70	0	0	46	45	474	320
06-Nov	5382	3942	151	219	43	208	0	0	40	32	678	248
07-Nov	5491	5199	150	182	86	46	0	0	57	38	848	199
08-Nov	3674	4397	115	138	169	21	0	0	33	44	981	170
09-Nov	1718	5079	21	217	115	51	0	1	34	48	495	330
10-Nov	3127	4008	80	184	101	77	0	0	48	40	346	380
11-Nov	2822	4156	93	126	71	151	0	1	75	55	418	506
12-Nov	1989	3403	83	127	108	120	0	0	31	40	422	185
13-Nov	2441	3742	105	210	172	95	0	2	54	78	670	171
14-Nov	307	2541	35	195	258	49	0	0	16	88	294	346
15-Nov	32	1761	31	129	29	67	0	0	6	51	35	353
16-Nov	8	1757	0	269	15	138	0	0	16	81	145	660

17-Nov	248	523	9	101	38	177	0	0	60	38	191	261
18-Nov	670	680	60	111	62	14	0	0	75	77	352	126
19-Nov	454	448	37	132	129	11	0	0	27	73	124	16
20-Nov	677	283	77	127	134	20	0	0	59	53	106	6
21-Nov	457	168	65	178	135	106	0	0	57	72	159	95
22-Nov	46	66	15	91	120	276	0	0	9	21	165	188
23-Nov	43	91	52	59	106	186	0	0	66	61	150	262
24-Nov	9	34	20	37	167	87	0	0	13	26	258	224
Total	82702	71215	4036	6829	3796	3463	9	4	1664	1248	13793	6811

[AQUA \(MODIS\) Satellite image \(TCC\) of North and Central India Acquired on 24-Nov-2021 at 12:53:00 IST by IARI Ground Station](#)



Details of residue burning events in Punjab on 24-Nov-2021

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_DATE	ACQ_TIME	Day / Night	Fire Power (W/m ²)
1	AMRITSAR	CHOGAWAN	S-NPP	31.70020	74.68690	11/24/2021	12:33:58	D	4.80
2	FARIDKOT	FARIDKOT	S-NPP	30.60460	74.67830	11/24/2021	14:13:32	D	2.40
3	FARIDKOT	FARIDKOT	S-NPP	30.67970	74.54500	11/24/2021	12:33:58	D	2.30
4	FATEHGARH SAHIB	AMLOH	S-NPP	30.55680	76.28440	11/24/2021	12:33:58	D	7.70
5	FATEHGARH SAHIB	SIRHIND	S-NPP	30.47680	76.35000	11/24/2021	12:33:58	D	6.10
6	FATEHGARH SAHIB	SIRHIND	S-NPP	30.48280	76.34800	11/24/2021	12:33:58	D	6.10
7	FAZILKA	ABOHAR	S-NPP	30.12300	74.26360	11/24/2021	12:33:58	D	12.70
8	FAZILKA	JALALABAD	S-NPP	30.54340	74.39050	11/24/2021	12:33:58	D	5.90
9	FAZILKA	JALALABAD	S-NPP	30.57060	74.29840	11/24/2021	14:13:32	D	2.50
10	FIROZPUR	GURUHAR SAHAI	S-NPP	30.57040	74.36580	11/24/2021	14:13:32	D	3.20
11	FIROZPUR	GURUHAR SAHAI	S-NPP	30.57070	74.36960	11/24/2021	14:13:32	D	4.20
12	JALANDHAR	ADAMPUR	S-NPP	31.41670	75.71620	11/24/2021	14:13:32	D	3.90
13	LUDHIANA	JAGRAON	S-NPP	30.79310	75.45690	11/24/2021	14:13:32	D	4.20
14	LUDHIANA	KHANNA	S-NPP	30.71190	76.25950	11/24/2021	14:13:32	D	1.90
15	LUDHIANA	MACHHIWARA	S-NPP	30.83380	76.27550	11/24/2021	12:33:58	D	6.60
16	LUDHIANA	MACHHIWARA	S-NPP	30.83560	76.27730	11/24/2021	12:33:58	D	4.60
17	MANSA	JHUNIR	S-NPP	29.79410	75.40650	11/24/2021	14:13:32	D	2.90
18	MANSA	SARDULGARH	S-NPP	29.69510	75.33590	11/24/2021	12:33:58	D	6.30
19	MANSA	SARDULGARH	S-NPP	29.69680	75.33780	11/24/2021	12:33:58	D	13.90
20	MANSA	SARDULGARH	S-NPP	29.70150	75.33370	11/24/2021	12:33:58	D	6.30
21	MANSA	SARDULGARH	S-NPP	29.75260	75.29230	11/24/2021	14:13:32	D	4.20
22	MOGA	MOGA-2	S-NPP	30.75250	75.04040	11/24/2021	14:13:32	D	15.10
23	MOGA	NIHAL SINGH	TERRA	30.57800	75.30900	11/24/2021	11:19:05	D	4.90
24	MUKTSAR	LAMBI	S-NPP	29.95860	74.56930	11/24/2021	12:33:58	D	8.80
25	MUKTSAR	MALOUT	S-NPP	30.37440	74.49370	11/24/2021	14:13:32	D	3.00
26	MUKTSAR	MUKTSAR	S-NPP	30.54750	74.39110	11/24/2021	12:33:58	D	7.00

27	MUKTSAR	MUKTSAR	S-NPP	30.57110	74.51790	11/24/2021	14:13:32	D	2.90
28	MUKTSAR	MUKTSAR	S-NPP	30.60380	74.45360	11/24/2021	14:13:32	D	9.90
29	MUKTSAR	MUKTSAR	S-NPP	30.60410	74.45740	11/24/2021	14:13:32	D	10.00
30	PATIALA	BHUNARHERI	TERRA	30.17400	76.58600	11/24/2021	11:19:05	D	5.10
31	PATIALA	NABHA	S-NPP	30.52300	76.30800	11/24/2021	14:13:32	D	18.20
32	PATIALA	PATRAN	S-NPP	30.03520	76.04880	11/24/2021	14:13:32	D	2.30
33	SANGRUR	ANDANA	S-NPP	29.82630	75.94890	11/24/2021	12:33:58	D	4.00
34	SBS NAGAR	NAWAN SHAHR	S-NPP	31.12750	76.20670	11/24/2021	14:13:32	D	4.60

Details of residue burning events in Haryana on 24-Nov-2021

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_DATE	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	AMBALA	NARAINGARH	S-NPP	30.51440	77.19710	11/24/2021	01:23:58	N	0.70
2	AMBALA	SHAHZADPUR	S-NPP	30.41900	76.97780	11/24/2021	12:33:58	D	3.60
3	FATEHABAD	RATIA	S-NPP	29.59770	75.52980	11/24/2021	12:33:58	D	16.00
4	FATEHABAD	RATIA	S-NPP	29.62030	75.60160	11/24/2021	14:13:32	D	5.10
5	FATEHABAD	RATIA	S-NPP	29.69830	75.54260	11/24/2021	14:13:32	D	4.30
6	HISAR	HANSI-II	S-NPP	29.08630	76.22300	11/24/2021	14:13:32	D	3.20
7	HISAR	HANSI-II	S-NPP	29.08720	76.22290	11/24/2021	14:13:32	D	3.30
8	HISAR	HANSI-II	S-NPP	29.13410	76.23780	11/24/2021	14:13:32	D	7.60
9	HISAR	HANSI-II	TERRA	29.13100	76.23400	11/24/2021	11:19:05	D	7.60
10	HISAR	HISAR-I	S-NPP	29.10130	75.76660	11/24/2021	14:13:32	D	3.30
11	JIND	JULANA	S-NPP	29.19250	76.31780	11/24/2021	14:13:32	D	7.60
12	JIND	JULANA	S-NPP	29.19720	76.31620	11/24/2021	14:13:32	D	5.60
13	JIND	NARWANA	S-NPP	29.69330	76.16470	11/24/2021	14:13:32	D	2.90
14	JIND	NARWANA	S-NPP	29.69410	76.16440	11/24/2021	14:13:32	D	3.10
15	JIND	NARWANA	S-NPP	29.72500	76.02220	11/24/2021	14:13:32	D	2.40
16	JIND	PILLUKHERA	S-NPP	29.26630	76.57990	11/24/2021	12:33:58	D	3.90
17	PANIPAT	MADLAUDA	S-NPP	29.39830	76.76070	11/24/2021	12:33:58	D	2.40
18	PANIPAT	MADLAUDA	S-NPP	29.39860	76.76050	11/24/2021	12:33:58	D	3.80
19	PANIPAT	SAMALKHA	S-NPP	29.27800	77.03280	11/24/2021	14:13:32	D	5.60
20	ROHTAK	LAKHAN MAJRA	S-NPP	29.00300	76.54810	11/24/2021	14:13:32	D	4.80

21	ROHTAK	LAKHAN MAJRA	S-NPP	29.05510	76.43790	11/24/2021	14:13:32	D	3.10
22	ROHTAK	LAKHAN MAJRA	S-NPP	29.07900	76.52760	11/24/2021	14:13:32	D	3.50
23	ROHTAK	LAKHAN MAJRA	S-NPP	29.08210	76.52780	11/24/2021	14:13:32	D	3.40
24	SIRSA	ELLENABAD	S-NPP	29.47930	74.67230	11/24/2021	12:33:58	D	3.70
25	SIRSA	ELLENABAD	S-NPP	29.48030	74.67000	11/24/2021	12:33:58	D	4.70
26	SIRSA	ELLENABAD	S-NPP	29.49250	74.79020	11/24/2021	14:13:32	D	2.40
27	SIRSA	ELLENABAD	S-NPP	29.52050	74.62150	11/24/2021	14:13:32	D	1.90
28	SIRSA	RANIA	S-NPP	29.51110	74.78230	11/24/2021	14:13:32	D	2.90
29	SIRSA	RANIA	S-NPP	29.53610	74.61620	11/24/2021	14:13:32	D	2.60
30	SIRSA	RANIA	S-NPP	29.53640	74.62000	11/24/2021	14:13:32	D	2.60
31	SIRSA	RANIA	S-NPP	29.56030	74.58390	11/24/2021	14:13:32	D	5.50
32	SIRSA	RANIA	S-NPP	29.56060	74.58760	11/24/2021	14:13:32	D	5.50
33	SIRSA	RANIA	S-NPP	29.56920	74.69640	11/24/2021	14:13:32	D	3.60
34	SIRSA	RANIA	S-NPP	29.57420	74.69210	11/24/2021	14:13:32	D	3.20
35	SIRSA	SIRSA	S-NPP	29.51830	75.19190	11/24/2021	14:13:32	D	4.60
36	SIRSA	SIRSA	S-NPP	29.51890	75.19400	11/24/2021	14:13:32	D	5.70
37	SIRSA	SIRSA	S-NPP	29.56690	74.94870	11/24/2021	14:13:32	D	4.40

Details of residue burning events in Uttar Pradesh on 24-Nov-2021

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_DATE	ACQ_TIME	Day / Night	Fire Power (W/m ²)
1	ALLAHABAD	BARA	S-NPP	25.18760	81.79310	11/24/2021	01:23:58	N	0.40
2	AMBEDKARNAGAR	AKBARPUR	S-NPP	26.50650	82.48300	11/24/2021	12:33:58	D	4.40
3	AMBEDKARNAGAR	TANDA	S-NPP	26.50400	82.59500	11/24/2021	12:33:58	D	5.10
4	AMETHI	GAURIGANJ	S-NPP	26.29370	81.60540	11/24/2021	12:33:58	D	3.90
5	AURAIYA	AURAIYA	S-NPP	26.48440	79.44320	11/24/2021	12:33:58	D	1.40
6	AZAMGARH	MEHNAGAR	S-NPP	25.85200	83.25510	11/24/2021	12:33:58	D	3.10
7	AZAMGARH	MEHNAGAR	S-NPP	25.88960	83.03950	11/24/2021	01:23:58	N	0.60
8	AZAMGARH	SAGRI	S-NPP	26.20040	83.17010	11/24/2021	12:33:58	D	2.70
9	AZAMGARH	SAGRI	S-NPP	26.20140	83.17190	11/24/2021	12:33:58	D	3.90
10	BALLIA	BALLIA	S-NPP	25.88690	84.03100	11/24/2021	12:33:58	D	7.00
11	BALLIA	BELTHARA ROAD	S-NPP	26.06210	83.90470	11/24/2021	12:33:58	D	6.10
12	BALLIA	BELTHARA ROAD	AQUA	26.05600	83.89500	11/24/2021	12:56:02	D	8.30
13	BALLIA	BELTHARA ROAD	AQUA	26.05800	83.90800	11/24/2021	12:56:02	D	10.70
14	BALLIA	RASRA	S-NPP	25.86800	83.95930	11/24/2021	12:33:58	D	2.40
15	BALLIA	RASRA	S-NPP	25.99080	83.91590	11/24/2021	12:33:58	D	4.20
16	BAREILLY	BAHERI	S-NPP	28.82910	79.54920	11/24/2021	14:13:32	D	3.20
17	BAREILLY	MIRGANJ	S-NPP	28.67690	79.31970	11/24/2021	12:33:58	D	3.50
18	BASTI	BHANPUR	S-NPP	27.06470	82.73060	11/24/2021	12:33:58	D	2.00
19	BIJNOR	BIJNOR	S-NPP	29.28280	78.28650	11/24/2021	12:33:58	D	2.10
20	BULANDSAHAR	KHURJA	S-NPP	28.22620	77.74580	11/24/2021	14:13:32	D	2.20
21	CHANDAULI	CHAKIA	S-NPP	25.11450	83.33450	11/24/2021	12:33:58	D	3.30
22	DEORIA	DEORIA	S-NPP	26.44610	83.86390	11/24/2021	12:33:58	D	1.80
23	ETAWAH	BHARTHNA	S-NPP	26.62190	79.25390	11/24/2021	12:33:58	D	2.80
24	FATEHPUR	FATEHPUR	S-NPP	25.97550	80.80580	11/24/2021	12:33:58	D	3.40
25	FATEHPUR	FATEHPUR	S-NPP	25.97560	80.70810	11/24/2021	12:33:58	D	3.10
26	FATEHPUR	KHAGA	S-NPP	25.55130	81.20690	11/24/2021	12:33:58	D	6.30
27	FATEHPUR	KHAGA	S-NPP	25.55270	81.20850	11/24/2021	12:33:58	D	6.20
28	GAZIPUR	MUHAMMADBAD	S-NPP	25.67250	83.76200	11/24/2021	12:33:58	D	2.30
29	GAZIPUR	MUHAMMADBAD	S-NPP	25.77460	83.85990	11/24/2021	12:33:58	D	3.20

30	GORAKHPUR	CHAURI CHAURA	S-NPP	26.71860	83.61830	11/24/2021	12:33:58	D	3.40
31	HARDOI	HARDOI	S-NPP	27.47560	80.32520	11/24/2021	12:33:58	D	5.50
32	HARDOI	SHAHABAD	S-NPP	27.68150	80.17360	11/24/2021	12:33:58	D	2.60
33	JAUNPUR	SHHGANJ	S-NPP	25.95590	82.60950	11/24/2021	12:33:58	D	5.90
34	JAUNPUR	SHHGANJ	S-NPP	25.95740	82.60800	11/24/2021	12:33:58	D	4.40
35	JHANSI	MOTH	S-NPP	25.70680	78.85110	11/24/2021	14:13:32	D	11.40
36	JHANSI	MOTH	S-NPP	25.70710	78.85720	11/24/2021	14:13:32	D	13.80
37	JHANSI	MOTH	S-NPP	25.70810	78.85420	11/24/2021	14:13:32	D	18.40
38	JHANSI	MOTH	S-NPP	25.80880	78.90600	11/24/2021	01:23:58	N	0.50
39	KANPUR	KANPUR NAGAR	S-NPP	26.30400	80.17380	11/24/2021	12:33:58	D	3.90
40	KANPUR	KANPUR NAGAR	S-NPP	26.30610	80.17280	11/24/2021	12:33:58	D	4.10
41	KANPUR DEHAT	AKBARPUR	TERRA	26.32400	79.99100	11/24/2021	11:19:05	D	18.70
42	KHERI	MOHMADI	S-NPP	27.93970	80.20370	11/24/2021	12:33:58	D	1.40
43	KUSHINAGAR	HATA	S-NPP	26.79620	83.71020	11/24/2021	12:33:58	D	4.00
44	KUSHINAGAR	HATA	S-NPP	26.85100	83.72640	11/24/2021	12:33:58	D	5.20
45	KUSHINAGAR	HATA	S-NPP	26.85390	83.72920	11/24/2021	12:33:58	D	7.70
46	KUSHINAGAR	HATA	S-NPP	26.85520	83.72540	11/24/2021	12:33:58	D	2.40
47	KUSHINAGAR	HATA	S-NPP	26.88070	83.60820	11/24/2021	12:33:58	D	4.40
48	KUSHINAGAR	KASAYA	S-NPP	26.79520	84.01130	11/24/2021	12:33:58	D	2.50
49	MAHARAJGANJ	MAHARAJGANJ	S-NPP	26.99610	83.63840	11/24/2021	12:33:58	D	2.10
50	MAHARAJGANJ	MAHARAJGANJ	S-NPP	27.00980	83.74960	11/24/2021	12:33:58	D	1.60
51	MAHARAJGANJ	MAHARAJGANJ	S-NPP	27.01910	83.45880	11/24/2021	12:33:58	D	2.70
52	MAHARAJGANJ	MAHARAJGANJ	S-NPP	27.03560	83.63330	11/24/2021	12:33:58	D	2.20
53	MAHARAJGANJ	MAHARAJGANJ	S-NPP	27.04420	83.57950	11/24/2021	12:33:58	D	6.00
54	MAHARAJGANJ	MAHARAJGANJ	S-NPP	27.19280	83.52990	11/24/2021	12:33:58	D	6.00
55	MAHARAJGANJ	MAHARAJGANJ	S-NPP	27.25260	83.55830	11/24/2021	12:33:58	D	4.40
56	MAHARAJGANJ	MAHARAJGANJ	AQUA	27.02900	83.62900	11/24/2021	12:56:02	D	6.40
57	MAHARAJGANJ	MAHARAJGANJ	AQUA	27.17200	83.67700	11/24/2021	12:56:02	D	6.80
58	MAHARAJGANJ	NAUTANWA	S-NPP	27.46680	83.55150	11/24/2021	12:33:58	D	3.10
59	MAHARAJGANJ	NAUTANWA	S-NPP	27.46900	83.54950	11/24/2021	12:33:58	D	3.50
60	MAHARAJGANJ	NICHLAUL	S-NPP	27.24080	83.63340	11/24/2021	12:33:58	D	2.20
61	MAHARAJGANJ	PHARENDA	S-NPP	27.18810	83.37400	11/24/2021	12:33:58	D	2.30
62	MAU	MUHAMMADABAD	S-NPP	25.99750	83.41910	11/24/2021	01:23:58	N	0.70

63	MEERUT	MAWANA	S-NPP	28.91510	77.89140	11/24/2021	12:33:58	D	3.80
64	MEERUT	MAWANA	S-NPP	28.91560	77.89080	11/24/2021	12:33:58	D	2.60
65	MEERUT	MAWANA	S-NPP	28.98680	77.85880	11/24/2021	12:33:58	D	3.90
66	MEERUT	SARDHANA	S-NPP	29.20510	77.68490	11/24/2021	12:33:58	D	1.60
67	MORADABAD	THAKUR DWARA	S-NPP	29.18620	78.88390	11/24/2021	12:33:58	D	3.50
68	MORADABAD	THAKUR DWARA	S-NPP	29.18640	78.88320	11/24/2021	12:33:58	D	3.70
69	MUZAFARNAGAR	BUDHANA	S-NPP	29.33450	77.45630	11/24/2021	14:13:32	D	5.40
70	MUZAFARNAGAR	MUZAFFARNAGAR	S-NPP	29.53900	77.49760	11/24/2021	14:13:32	D	2.40
71	PILHIBHIT	BISALPUR	S-NPP	28.13530	79.90400	11/24/2021	14:13:32	D	4.70
72	PILHIBHIT	BISALPUR	S-NPP	28.18560	79.98620	11/24/2021	12:33:58	D	1.20
73	PILHIBHIT	PURANPUR	S-NPP	28.41280	80.25210	11/24/2021	12:33:58	D	1.40
74	RAIBEARELI	MAHARAJGANG	S-NPP	26.42890	81.22190	11/24/2021	12:33:58	D	2.30
75	RAIBEARELI	SALON	S-NPP	26.18370	81.60400	11/24/2021	12:33:58	D	3.60
76	RAIBEARELI	SALON	S-NPP	26.18420	81.60380	11/24/2021	12:33:58	D	8.60
77	RAIBEARELI	TILOI	S-NPP	26.24820	81.54030	11/24/2021	12:33:58	D	4.80
78	RAIBEARELI	TILOI	S-NPP	26.25270	81.39300	11/24/2021	12:33:58	D	2.10
79	RAIBEARELI	TILOI	S-NPP	26.25590	81.39030	11/24/2021	12:33:58	D	3.50
80	RAIBEARELI	TILOI	S-NPP	26.25660	81.39350	11/24/2021	12:33:58	D	5.30
81	RAIBEARELI	TILOI	S-NPP	26.32040	81.44380	11/24/2021	12:33:58	D	2.60
82	RAIBEARELI	UNCHA HAR	S-NPP	26.01430	81.21870	11/24/2021	12:33:58	D	1.30
83	RAIBEARELI	UNCHA HAR	S-NPP	26.04860	81.30020	11/24/2021	12:33:58	D	3.70
84	SHAHJAHANPUR	PUWANYA	S-NPP	28.21670	80.04950	11/24/2021	12:33:58	D	3.10
85	SHAHJAHANPUR	PUWANYA	S-NPP	28.23140	80.30200	11/24/2021	12:33:58	D	2.40
86	SHAMLI	SHAMLI	S-NPP	29.53180	77.35770	11/24/2021	12:33:58	D	4.90
87	SHARANPUR	NAKUR	S-NPP	29.83820	77.37480	11/24/2021	14:13:32	D	2.80

Details of residue burning events in Rajasthan on 24-Nov-2021

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_DATE	ACQ_TIME	Day / Night	Fire Power (W/m ²)
1	GANGANAGAR	SURATGARH	S-NPP	29.33650	73.88040	11/24/2021	12:33:58	D	5.90
2	GANGANAGAR	SURATGARH	S-NPP	29.34010	73.87680	11/24/2021	14:13:32	D	5.00
3	HANUMANGARH	HANUMANGARH	S-NPP	29.56300	74.21360	11/24/2021	12:33:58	D	3.30
4	HANUMANGARH	HANUMANGARH	S-NPP	29.57050	74.24800	11/24/2021	14:13:32	D	5.20
5	HANUMANGARH	HANUMANGARH	S-NPP	29.59080	74.30710	11/24/2021	14:13:32	D	8.90
6	HANUMANGARH	HANUMANGARH	S-NPP	29.59300	74.33590	11/24/2021	14:13:32	D	3.80
7	HANUMANGARH	HANUMANGARH	S-NPP	29.59600	74.30660	11/24/2021	14:13:32	D	3.10
8	HANUMANGARH	HANUMANGARH	S-NPP	29.60020	74.36060	11/24/2021	14:13:32	D	3.70
9	HANUMANGARH	HANUMANGARH	S-NPP	29.62170	74.36580	11/24/2021	14:13:32	D	5.90
10	HANUMANGARH	HANUMANGARH	TERRA	29.55100	74.24300	11/24/2021	11:19:05	D	6.60
11	HANUMANGARH	P LIBANGA	S-NPP	29.37110	74.00110	11/24/2021	12:33:58	D	4.20
12	HANUMANGARH	P LIBANGA	S-NPP	29.37790	73.99860	11/24/2021	12:33:58	D	4.40
13	HANUMANGARH	P LIBANGA	S-NPP	29.38960	73.91900	11/24/2021	14:13:32	D	2.20
14	HANUMANGARH	P LIBANGA	S-NPP	29.39750	73.95220	11/24/2021	14:13:32	D	2.40
15	HANUMANGARH	TIBI	S-NPP	29.53080	74.61680	11/24/2021	14:13:32	D	4.20
16	HANUMANGARH	TIBI	S-NPP	29.53110	74.62050	11/24/2021	14:13:32	D	4.20
17	HANUMANGARH	TIBI	S-NPP	29.53410	74.59020	11/24/2021	14:13:32	D	10.00
18	HANUMANGARH	TIBI	S-NPP	29.53440	74.59390	11/24/2021	14:13:32	D	30.60
19	HANUMANGARH	TIBI	S-NPP	29.54470	74.58920	11/24/2021	14:13:32	D	0.80
20	HANUMANGARH	TIBI	S-NPP	29.58230	74.54290	11/24/2021	14:13:32	D	1.90
21	HANUMANGARH	TIBI	S-NPP	29.58370	74.54430	11/24/2021	14:13:32	D	2.10
22	HANUMANGARH	TIBI	S-NPP	29.58470	74.55540	11/24/2021	14:13:32	D	2.20
23	HANUMANGARH	TIBI	S-NPP	29.58680	74.53130	11/24/2021	14:13:32	D	6.10
24	HANUMANGARH	TIBI	S-NPP	29.58780	74.52900	11/24/2021	14:13:32	D	3.40
25	HANUMANGARH	TIBI	S-NPP	29.58810	74.53270	11/24/2021	14:13:32	D	3.40
26	HANUMANGARH	TIBI	TERRA	29.58800	74.42600	11/24/2021	11:19:05	D	18.10

Details of residue burning events in Madhya Pradesh on 24-Nov-2021

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_DATE	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	BHIND	LAHAR	S-NPP	25.97660	78.87700	11/24/2021	14:13:32	D	2.30
2	CHHINDWARA	CHAURAI	S-NPP	21.95780	79.28890	11/24/2021	12:33:58	D	3.70
3	DATIA	SEONDHA	S-NPP	26.10750	78.81360	11/24/2021	12:33:58	D	3.40
4	GUNA	GUNA	S-NPP	24.61390	77.45100	11/24/2021	14:13:32	D	1.40
5	GWALIOR	BHITARWAR	S-NPP	25.75710	78.09170	11/24/2021	14:13:32	D	4.80
6	GWALIOR	BHITARWAR	S-NPP	25.79960	78.06680	11/24/2021	14:13:32	D	4.70
7	GWALIOR	BHITARWAR	S-NPP	25.81040	78.13210	11/24/2021	14:13:32	D	9.40
8	GWALIOR	BHITARWAR	S-NPP	25.82750	78.05530	11/24/2021	14:13:32	D	8.60
9	GWALIOR	BHITARWAR	S-NPP	25.82820	78.06620	11/24/2021	14:13:32	D	14.70
10	GWALIOR	BHITARWAR	S-NPP	25.83060	78.05910	11/24/2021	14:13:32	D	5.70
11	GWALIOR	BHITARWAR	S-NPP	25.83100	78.06450	11/24/2021	14:13:32	D	7.40
12	GWALIOR	BHITARWAR	S-NPP	25.83140	78.07000	11/24/2021	14:13:32	D	7.40
13	GWALIOR	BHITARWAR	S-NPP	25.85870	78.09220	11/24/2021	12:33:58	D	4.50
14	GWALIOR	BHITARWAR	S-NPP	25.86170	78.09670	11/24/2021	14:13:32	D	3.90
15	GWALIOR	BHITARWAR	S-NPP	25.86430	78.00190	11/24/2021	14:13:32	D	5.30
16	GWALIOR	BHITARWAR	S-NPP	25.86550	78.01820	11/24/2021	14:13:32	D	7.20
17	GWALIOR	BHITARWAR	S-NPP	25.86600	78.09560	11/24/2021	12:33:58	D	7.30
18	GWALIOR	BHITARWAR	S-NPP	25.86820	78.00280	11/24/2021	14:13:32	D	6.30
19	GWALIOR	BHITARWAR	S-NPP	25.86820	78.00540	11/24/2021	12:33:58	D	4.00
20	GWALIOR	BHITARWAR	S-NPP	25.88000	78.05180	11/24/2021	12:33:58	D	3.40
21	GWALIOR	BHITARWAR	S-NPP	25.88030	78.07490	11/24/2021	12:33:58	D	3.90
22	GWALIOR	BHITARWAR	S-NPP	25.88100	78.10080	11/24/2021	14:13:32	D	9.90
23	GWALIOR	BHITARWAR	S-NPP	25.88240	78.12280	11/24/2021	14:13:32	D	4.20
24	GWALIOR	BHITARWAR	S-NPP	25.88280	78.08510	11/24/2021	12:33:58	D	9.10
25	GWALIOR	BHITARWAR	S-NPP	25.88410	78.09020	11/24/2021	12:33:58	D	9.40
26	GWALIOR	BHITARWAR	S-NPP	25.88450	78.01290	11/24/2021	12:33:58	D	5.60
27	GWALIOR	BHITARWAR	S-NPP	25.89250	78.08330	11/24/2021	14:13:32	D	7.20
28	GWALIOR	BHITARWAR	S-NPP	25.90940	78.08820	11/24/2021	12:33:58	D	4.90
29	GWALIOR	BHITARWAR	S-NPP	25.90970	78.09250	11/24/2021	12:33:58	D	6.00

30	GWALIOR	BHITARWAR	S-NPP	25.91070	78.09330	11/24/2021	12:33:58	D	4.60
31	GWALIOR	BHITARWAR	S-NPP	25.91480	78.11300	11/24/2021	12:33:58	D	2.90
32	GWALIOR	BHITARWAR	S-NPP	25.91570	78.11380	11/24/2021	12:33:58	D	6.80
33	GWALIOR	BHITARWAR	S-NPP	25.91610	78.11800	11/24/2021	12:33:58	D	4.80
34	GWALIOR	BHITARWAR	S-NPP	25.92830	78.05290	11/24/2021	14:13:32	D	3.90
35	GWALIOR	BHITARWAR	S-NPP	25.94300	78.14840	11/24/2021	12:33:58	D	6.90
36	GWALIOR	BHITARWAR	S-NPP	25.94320	78.08500	11/24/2021	14:13:32	D	3.50
37	GWALIOR	BHITARWAR	S-NPP	25.94330	78.17540	11/24/2021	12:33:58	D	3.50
38	GWALIOR	BHITARWAR	S-NPP	25.94360	78.14930	11/24/2021	12:33:58	D	4.90
39	GWALIOR	BHITARWAR	S-NPP	25.94380	78.17640	11/24/2021	12:33:58	D	2.60
40	GWALIOR	BHITARWAR	S-NPP	25.94460	78.18050	11/24/2021	12:33:58	D	3.50
41	GWALIOR	BHITARWAR	S-NPP	25.94490	78.20160	11/24/2021	14:13:32	D	6.90
42	GWALIOR	BHITARWAR	S-NPP	25.94540	78.06530	11/24/2021	14:13:32	D	7.90
43	GWALIOR	BHITARWAR	S-NPP	25.94790	78.06260	11/24/2021	14:13:32	D	9.20
44	GWALIOR	BHITARWAR	S-NPP	25.94830	78.06810	11/24/2021	14:13:32	D	7.90
45	GWALIOR	BHITARWAR	S-NPP	25.95170	78.06480	11/24/2021	14:13:32	D	7.90
46	GWALIOR	BHITARWAR	S-NPP	25.97390	78.21320	11/24/2021	14:13:32	D	3.90
47	GWALIOR	BHITARWAR	TERRA	25.90500	78.09800	11/24/2021	11:19:05	D	13.50
48	GWALIOR	DABRA	S-NPP	25.83810	78.25860	11/24/2021	14:13:32	D	4.10
49	GWALIOR	DABRA	S-NPP	25.84600	78.28060	11/24/2021	14:13:32	D	3.30
50	GWALIOR	DABRA	S-NPP	25.84810	78.28220	11/24/2021	14:13:32	D	6.10
51	GWALIOR	DABRA	S-NPP	25.86150	78.31920	11/24/2021	14:13:32	D	6.20
52	GWALIOR	DABRA	S-NPP	25.86340	78.32080	11/24/2021	14:13:32	D	7.00
53	GWALIOR	DABRA	S-NPP	25.87380	78.22220	11/24/2021	14:13:32	D	8.80
54	GWALIOR	DABRA	S-NPP	25.87600	78.21800	11/24/2021	14:13:32	D	9.00
55	GWALIOR	DABRA	S-NPP	25.87720	78.24490	11/24/2021	12:33:58	D	4.10
56	GWALIOR	DABRA	S-NPP	25.87740	78.24030	11/24/2021	14:13:32	D	4.20
57	GWALIOR	DABRA	S-NPP	25.89860	78.27270	11/24/2021	14:13:32	D	4.60
58	GWALIOR	DABRA	S-NPP	25.90020	78.19940	11/24/2021	14:13:32	D	4.20
59	GWALIOR	DABRA	S-NPP	25.90620	78.19330	11/24/2021	14:13:32	D	4.20
60	GWALIOR	DABRA	S-NPP	25.91180	78.27740	11/24/2021	14:13:32	D	3.10
61	GWALIOR	DABRA	S-NPP	25.91660	78.25430	11/24/2021	14:13:32	D	9.40
62	GWALIOR	DABRA	S-NPP	25.92110	78.39670	11/24/2021	12:33:58	D	1.80

63	GWALIOR	DABRA	S-NPP	25.92330	78.25950	11/24/2021	14:13:32	D	7.50
64	GWALIOR	DABRA	S-NPP	25.94080	78.26770	11/24/2021	12:33:58	D	5.30
65	GWALIOR	DABRA	S-NPP	25.94080	78.26900	11/24/2021	12:33:58	D	8.70
66	GWALIOR	DABRA	S-NPP	25.95530	78.35410	11/24/2021	14:13:32	D	5.60
67	GWALIOR	DABRA	S-NPP	25.95710	78.28530	11/24/2021	14:13:32	D	5.90
68	GWALIOR	DABRA	S-NPP	25.96260	78.27350	11/24/2021	14:13:32	D	3.90
69	GWALIOR	DABRA	S-NPP	25.96480	78.27040	11/24/2021	14:13:32	D	7.60
70	GWALIOR	DABRA	S-NPP	25.97370	78.30980	11/24/2021	14:13:32	D	5.50
71	GWALIOR	DABRA	S-NPP	25.99500	78.33150	11/24/2021	12:33:58	D	3.90
72	GWALIOR	DABRA	S-NPP	26.00090	78.32970	11/24/2021	12:33:58	D	3.70
73	JABALPUR	JABALPUR	S-NPP	23.17680	79.85740	11/24/2021	12:33:58	D	5.60
74	JABALPUR	JABALPUR	S-NPP	23.17790	79.85600	11/24/2021	12:33:58	D	4.50
75	JABALPUR	JABALPUR	S-NPP	23.23950	79.87010	11/24/2021	14:13:32	D	6.60
76	JABALPUR	JABALPUR	S-NPP	23.24990	79.88090	11/24/2021	12:33:58	D	5.90
77	JABALPUR	JABALPUR	S-NPP	23.25270	79.99870	11/24/2021	12:33:58	D	4.50
78	JABALPUR	JABALPUR	S-NPP	23.26950	79.90770	11/24/2021	14:13:32	D	5.00
79	JABALPUR	JABALPUR	S-NPP	23.28170	79.88710	11/24/2021	14:13:32	D	3.70
80	JABALPUR	JABALPUR	S-NPP	23.30530	79.94260	11/24/2021	12:33:58	D	2.90
81	JABALPUR	JABALPUR	S-NPP	23.30800	79.96140	11/24/2021	14:13:32	D	9.10
82	JABALPUR	JABALPUR	S-NPP	23.32200	79.96170	11/24/2021	12:33:58	D	3.40
83	JABALPUR	JABALPUR	S-NPP	23.33460	79.91110	11/24/2021	12:33:58	D	7.60
84	JABALPUR	JABALPUR	S-NPP	23.34860	79.95200	11/24/2021	14:13:32	D	4.20
85	JABALPUR	JABALPUR	S-NPP	23.34960	79.95320	11/24/2021	14:13:32	D	6.50
86	JABALPUR	JABALPUR	S-NPP	23.35540	79.95160	11/24/2021	14:13:32	D	4.20
87	JABALPUR	JABALPUR	S-NPP	23.35740	79.95690	11/24/2021	12:33:58	D	4.70
88	JABALPUR	JABALPUR	S-NPP	23.36860	79.94400	11/24/2021	14:13:32	D	5.80
89	JABALPUR	JABALPUR	S-NPP	23.36970	79.94510	11/24/2021	14:13:32	D	6.90
90	JABALPUR	JABALPUR	AQUA	23.34500	79.91800	11/24/2021	12:56:02	D	25.10
91	JABALPUR	MAJHOULI	S-NPP	23.38280	79.98760	11/24/2021	12:33:58	D	11.80
92	JABALPUR	MAJHOULI	S-NPP	23.38510	79.98300	11/24/2021	14:13:32	D	6.40
93	JABALPUR	MAJHOULI	S-NPP	23.39200	79.98260	11/24/2021	14:13:32	D	6.60
94	JABALPUR	MAJHOULI	S-NPP	23.39290	79.98370	11/24/2021	14:13:32	D	8.40
95	JABALPUR	MAJHOULI	S-NPP	23.39880	79.98220	11/24/2021	14:13:32	D	6.60

96	JABALPUR	MAJHOULI	S-NPP	23.41080	79.97860	11/24/2021	12:33:58	D	1.90
97	JABALPUR	MAJHOULI	S-NPP	23.41140	79.97990	11/24/2021	12:33:58	D	2.70
98	JABALPUR	MAJHOULI	S-NPP	23.42590	80.01660	11/24/2021	12:33:58	D	3.50
99	JABALPUR	MAJHOULI	S-NPP	23.42620	80.01800	11/24/2021	12:33:58	D	3.30
100	JABALPUR	MAJHOULI	S-NPP	23.45260	80.05770	11/24/2021	14:13:32	D	3.50
101	JABALPUR	MAJHOULI	S-NPP	23.45310	80.06100	11/24/2021	14:13:32	D	3.60
102	JABALPUR	MAJHOULI	S-NPP	23.45320	80.05560	11/24/2021	12:33:58	D	4.50
103	JABALPUR	MAJHOULI	S-NPP	23.46220	80.01620	11/24/2021	12:33:58	D	6.20
104	JABALPUR	MAJHOULI	S-NPP	23.46320	80.02060	11/24/2021	12:33:58	D	6.20
105	JABALPUR	MAJHOULI	S-NPP	23.51330	80.03310	11/24/2021	14:13:32	D	6.00
106	JABALPUR	MAJHOULI	S-NPP	23.51370	80.03980	11/24/2021	14:13:32	D	6.00
107	JABALPUR	MAJHOULI	AQUA	23.45400	80.00300	11/24/2021	12:56:02	D	29.90
108	JABALPUR	PATAN	S-NPP	23.20410	79.81630	11/24/2021	12:33:58	D	3.50
109	JABALPUR	PATAN	S-NPP	23.20450	79.73840	11/24/2021	12:33:58	D	2.40
110	JABALPUR	PATAN	S-NPP	23.20820	79.81310	11/24/2021	14:13:32	D	15.70
111	JABALPUR	PATAN	S-NPP	23.21190	79.67090	11/24/2021	14:13:32	D	4.90
112	JABALPUR	PATAN	S-NPP	23.21460	79.80620	11/24/2021	14:13:32	D	7.20
113	JABALPUR	PATAN	S-NPP	23.22090	79.70230	11/24/2021	14:13:32	D	2.40
114	JABALPUR	PATAN	S-NPP	23.22130	79.80570	11/24/2021	14:13:32	D	10.10
115	JABALPUR	PATAN	S-NPP	23.22990	79.83130	11/24/2021	14:13:32	D	3.70
116	JABALPUR	PATAN	S-NPP	23.23090	79.82770	11/24/2021	14:13:32	D	6.40
117	JABALPUR	PATAN	S-NPP	23.24520	79.83410	11/24/2021	12:33:58	D	2.90
118	JABALPUR	PATAN	S-NPP	23.24530	79.83980	11/24/2021	14:13:32	D	3.70
119	JABALPUR	PATAN	S-NPP	23.24660	79.77800	11/24/2021	14:13:32	D	6.00
120	JABALPUR	PATAN	S-NPP	23.24790	79.77430	11/24/2021	14:13:32	D	6.60
121	JABALPUR	PATAN	S-NPP	23.25430	79.79050	11/24/2021	14:13:32	D	5.30
122	JABALPUR	PATAN	S-NPP	23.25920	79.77320	11/24/2021	12:33:58	D	4.90
123	JABALPUR	PATAN	S-NPP	23.26100	79.79610	11/24/2021	12:33:58	D	3.20
124	JABALPUR	PATAN	S-NPP	23.26180	79.70590	11/24/2021	14:13:32	D	10.40
125	JABALPUR	PATAN	S-NPP	23.26260	79.77630	11/24/2021	12:33:58	D	5.40
126	JABALPUR	PATAN	S-NPP	23.26330	79.73810	11/24/2021	12:33:58	D	1.90
127	JABALPUR	PATAN	S-NPP	23.26390	79.70840	11/24/2021	14:13:32	D	21.30
128	JABALPUR	PATAN	S-NPP	23.26460	79.79590	11/24/2021	12:33:58	D	3.90

129	JABALPUR	PATAN	S-NPP	23.26850	79.70550	11/24/2021	14:13:32	D	12.90
130	JABALPUR	PATAN	S-NPP	23.27040	79.79440	11/24/2021	12:33:58	D	3.30
131	JABALPUR	PATAN	S-NPP	23.27260	79.79300	11/24/2021	12:33:58	D	2.80
132	JABALPUR	PATAN	S-NPP	23.30420	79.80290	11/24/2021	14:13:32	D	8.80
133	JABALPUR	PATAN	S-NPP	23.31410	79.84820	11/24/2021	14:13:32	D	8.50
134	JABALPUR	PATAN	S-NPP	23.31890	79.84390	11/24/2021	12:33:58	D	2.50
135	JABALPUR	PATAN	S-NPP	23.34130	79.74830	11/24/2021	14:13:32	D	9.50
136	JABALPUR	PATAN	S-NPP	23.34310	79.74270	11/24/2021	14:13:32	D	5.40
137	JABALPUR	PATAN	AQUA	23.21300	79.80700	11/24/2021	12:56:02	D	25.20
138	JABALPUR	SAHPURA	S-NPP	23.16600	79.68000	11/24/2021	12:33:58	D	4.20
139	JABALPUR	SAHPURA	S-NPP	23.16900	79.67620	11/24/2021	14:13:32	D	7.90
140	JABALPUR	SAHPURA	S-NPP	23.16960	79.74450	11/24/2021	14:13:32	D	4.50
141	JABALPUR	SAHPURA	S-NPP	23.17160	79.67370	11/24/2021	14:13:32	D	18.40
142	JABALPUR	SAHPURA	S-NPP	23.19540	79.72620	11/24/2021	12:33:58	D	6.90
143	JABALPUR	SAHPURA	S-NPP	23.19650	79.73080	11/24/2021	12:33:58	D	8.50
144	JABALPUR	SAHPURA	S-NPP	23.20290	79.73570	11/24/2021	14:13:32	D	9.40
145	JABALPUR	SIHORA	S-NPP	23.35810	80.06420	11/24/2021	12:33:58	D	1.40
146	JABALPUR	SIHORA	S-NPP	23.38690	80.08420	11/24/2021	12:33:58	D	4.60
147	JABALPUR	SIHORA	S-NPP	23.43020	80.24180	11/24/2021	14:13:32	D	8.40
148	JABALPUR	SIHORA	S-NPP	23.43240	80.17730	11/24/2021	12:33:58	D	4.20
149	JABALPUR	SIHORA	S-NPP	23.43360	80.18590	11/24/2021	14:13:32	D	17.60
150	JABALPUR	SIHORA	S-NPP	23.44430	80.13690	11/24/2021	14:13:32	D	3.30
151	JABALPUR	SIHORA	S-NPP	23.44520	80.15060	11/24/2021	14:13:32	D	9.30
152	JABALPUR	SIHORA	S-NPP	23.44760	80.19140	11/24/2021	12:33:58	D	7.20
153	JABALPUR	SIHORA	S-NPP	23.44840	80.18950	11/24/2021	12:33:58	D	10.50
154	JABALPUR	SIHORA	S-NPP	23.44940	80.19380	11/24/2021	12:33:58	D	11.40
155	JABALPUR	SIHORA	S-NPP	23.45250	80.21280	11/24/2021	12:33:58	D	8.30
156	JABALPUR	SIHORA	S-NPP	23.45330	80.18990	11/24/2021	12:33:58	D	7.20
157	JABALPUR	SIHORA	S-NPP	23.45340	80.21080	11/24/2021	12:33:58	D	8.90
158	JABALPUR	SIHORA	S-NPP	23.45340	80.21700	11/24/2021	12:33:58	D	6.70
159	JABALPUR	SIHORA	S-NPP	23.45540	80.22550	11/24/2021	12:33:58	D	2.10
160	JABALPUR	SIHORA	S-NPP	23.46200	80.22830	11/24/2021	12:33:58	D	2.10
161	JABALPUR	SIHORA	S-NPP	23.46240	80.15100	11/24/2021	12:33:58	D	8.10

162	JABALPUR	SIHORA	S-NPP	23.46300	80.14930	11/24/2021	12:33:58	D	4.70
163	JABALPUR	SIHORA	S-NPP	23.46300	80.22630	11/24/2021	12:33:58	D	5.00
164	JABALPUR	SIHORA	S-NPP	23.46390	80.23680	11/24/2021	12:33:58	D	5.00
165	JABALPUR	SIHORA	S-NPP	23.47160	80.08290	11/24/2021	12:33:58	D	2.40
166	KATNI	BAHURIBAND	S-NPP	23.65180	80.08110	11/24/2021	12:33:58	D	4.90
167	KATNI	DHIMERKHEDA	S-NPP	23.47030	80.28270	11/24/2021	12:33:58	D	3.50
168	KATNI	DHIMERKHEDA	S-NPP	23.51990	80.26510	11/24/2021	12:33:58	D	4.30
169	KATNI	DHIMERKHEDA	S-NPP	23.52570	80.29050	11/24/2021	12:33:58	D	1.80
170	NARSHIMAPURA	GADARWARA	S-NPP	22.76780	78.72970	11/24/2021	12:33:58	D	3.40
171	NARSHIMAPURA	GADARWARA	S-NPP	22.77320	78.66240	11/24/2021	14:13:32	D	3.70
172	NARSHIMAPURA	GADARWARA	S-NPP	22.83430	78.71210	11/24/2021	14:13:32	D	2.20
173	NARSHIMAPURA	GOTECAON	S-NPP	22.95610	79.43950	11/24/2021	01:23:58	N	1.60
174	NARSHIMAPURA	GOTECAON	S-NPP	22.95780	79.44230	11/24/2021	01:23:58	N	0.90
175	NARSHIMAPURA	GOTECAON	S-NPP	23.03340	79.51950	11/24/2021	14:13:32	D	5.60
176	RAISEN	BARELI	S-NPP	22.89650	78.09800	11/24/2021	01:23:58	N	0.60
177	RAISEN	BARELI	S-NPP	22.89880	78.09820	11/24/2021	01:23:58	N	0.50
178	RAISEN	BARELI	S-NPP	22.92280	78.06480	11/24/2021	01:23:58	N	0.20
179	RAISEN	BARELI	S-NPP	23.05940	78.16970	11/24/2021	01:23:58	N	0.60
180	RAISEN	BARELI	S-NPP	23.07180	78.20060	11/24/2021	01:23:58	N	0.20
181	RAISEN	BARELI	S-NPP	23.08540	78.25280	11/24/2021	01:23:58	N	0.20
182	RAISEN	GOHARGANJ	S-NPP	22.99180	77.62300	11/24/2021	14:13:32	D	3.70
183	RAISEN	GOHARGANJ	S-NPP	23.01320	77.62680	11/24/2021	14:13:32	D	3.70
184	RAISEN	GOHARGANJ	S-NPP	23.08670	77.42390	11/24/2021	12:33:58	D	5.20
185	RAISEN	RAISEN	S-NPP	23.37620	77.91440	11/24/2021	01:23:58	N	0.30
186	RAISEN	RAISEN	S-NPP	23.49790	77.73900	11/24/2021	12:33:58	D	5.50
187	REWA	RAJPUR KUCHULIYAN	S-NPP	24.63570	81.38380	11/24/2021	12:33:58	D	4.70
188	REWA	TEONTHAR	S-NPP	24.99710	81.56440	11/24/2021	12:33:58	D	1.80
189	SATNA	AMARPATAN	S-NPP	24.39630	81.21670	11/24/2021	12:33:58	D	4.00
190	SATNA	MAIHAR	S-NPP	24.38870	80.85650	11/24/2021	12:33:58	D	3.50
191	SATNA	MAIHAR	S-NPP	24.38990	80.85530	11/24/2021	12:33:58	D	3.20
192	SATNA	MAJHGAWAN	S-NPP	24.83230	80.99370	11/24/2021	12:33:58	D	1.30
193	SATNA	NAGOD	S-NPP	24.46570	80.50760	11/24/2021	12:33:58	D	2.10
194	SATNA	RAGURAJNAGAR	S-NPP	24.58190	80.92110	11/24/2021	12:33:58	D	6.10

195	SATNA	RAGURAJNAGAR	S-NPP	24.66080	80.68850	11/24/2021	12:33:58	D	3.30
196	SATNA	RAGURAJNAGAR	S-NPP	24.66190	80.68790	11/24/2021	12:33:58	D	2.50
197	SATNA	RAGURAJNAGAR	S-NPP	24.69360	80.60290	11/24/2021	12:33:58	D	3.60
198	SATNA	RAMPURBAGHLEAN	S-NPP	24.68260	81.15800	11/24/2021	12:33:58	D	2.80
199	SATNA	UCHAHAR	S-NPP	24.46590	80.86660	11/24/2021	12:33:58	D	2.70
200	SEHORE	BUDHNI	S-NPP	22.89670	77.87710	11/24/2021	14:13:32	D	1.20
201	SEHORE	BUDHNI	S-NPP	22.89790	77.87720	11/24/2021	14:13:32	D	2.30
202	SHEOPUR	SHEOPUR	S-NPP	25.46030	76.62970	11/24/2021	14:13:32	D	3.50
203	SHEOPUR	SHEOPUR	S-NPP	25.47340	76.57600	11/24/2021	14:13:32	D	6.80
204	SHEOPUR	SHEOPUR	S-NPP	25.52310	76.69020	11/24/2021	14:13:32	D	2.80
205	SHEOPUR	SHEOPUR	S-NPP	25.52360	76.69020	11/24/2021	14:13:32	D	3.00
206	SHEOPUR	SHEOPUR	S-NPP	25.64420	76.60030	11/24/2021	14:13:32	D	2.80
207	SHEOPUR	SHEOPUR	S-NPP	25.73450	76.62400	11/24/2021	14:13:32	D	5.30
208	SHEOPUR	SHEOPUR	S-NPP	25.73500	76.62370	11/24/2021	14:13:32	D	5.60
209	SHEOPUR	SHEOPUR	S-NPP	25.74020	76.62350	11/24/2021	14:13:32	D	5.20
210	SHEOPUR	SHEOPUR	S-NPP	25.74110	76.62760	11/24/2021	14:13:32	D	4.30
211	SHEOPUR	SHEOPUR	S-NPP	25.74640	76.62740	11/24/2021	14:13:32	D	6.10
212	SHEOPUR	SHEOPUR	S-NPP	25.79870	76.62270	11/24/2021	14:13:32	D	6.90
213	SHEOPUR	SHEOPUR	S-NPP	25.79910	76.62710	11/24/2021	14:13:32	D	6.90
214	SHEOPUR	SHEOPUR	S-NPP	25.83070	76.66000	11/24/2021	14:13:32	D	3.20
215	SHEOPUR	SHEOPUR	S-NPP	25.84190	76.65450	11/24/2021	14:13:32	D	3.70
216	SHEOPUR	SHEOPUR	S-NPP	25.84260	76.65510	11/24/2021	14:13:32	D	4.60
217	SHIVPURI	KOLARAS	S-NPP	24.86750	77.69870	11/24/2021	14:13:32	D	3.00
218	SHIVPURI	KOLARAS	S-NPP	24.86820	77.69570	11/24/2021	14:13:32	D	2.10
219	SHIVPURI	NARWAR	S-NPP	25.62880	78.26270	11/24/2021	14:13:32	D	10.90
220	SHIVPURI	NARWAR	S-NPP	25.63150	78.26460	11/24/2021	14:13:32	D	9.70
221	SHIVPURI	NARWAR	S-NPP	25.65090	78.24320	11/24/2021	12:33:58	D	2.60
222	SIDHI	CHORHAT	S-NPP	24.43890	81.58590	11/24/2021	12:33:58	D	2.00
223	UMARIA	BANDHOGARH	S-NPP	23.68640	80.71980	11/24/2021	12:33:58	D	3.30
224	VIDESHA	NATERAN	S-NPP	23.95290	77.73830	11/24/2021	12:33:58	D	4.10

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

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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)
