



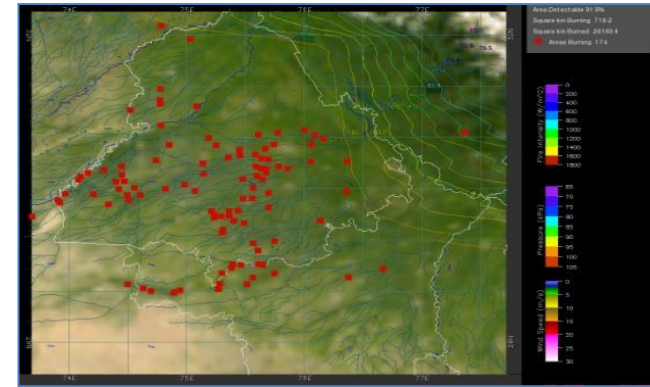
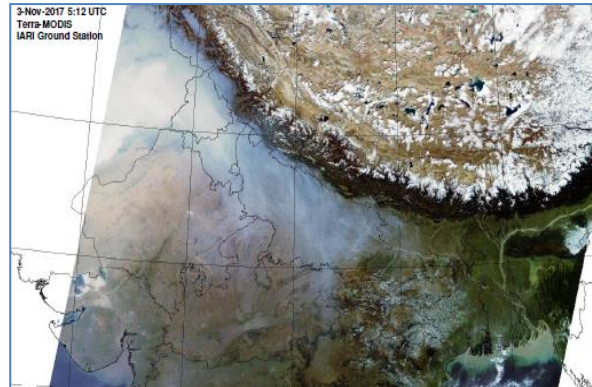
## Bulletin No. 57

Events Date:  
26-Nov-2020

Issued on:  
27-Nov-2020



# MONITORING PADDY RESIDUE BURNING IN NORTH INDIA USING SATELLITE REMOTE SENSING DURING 2020



Prepared by:

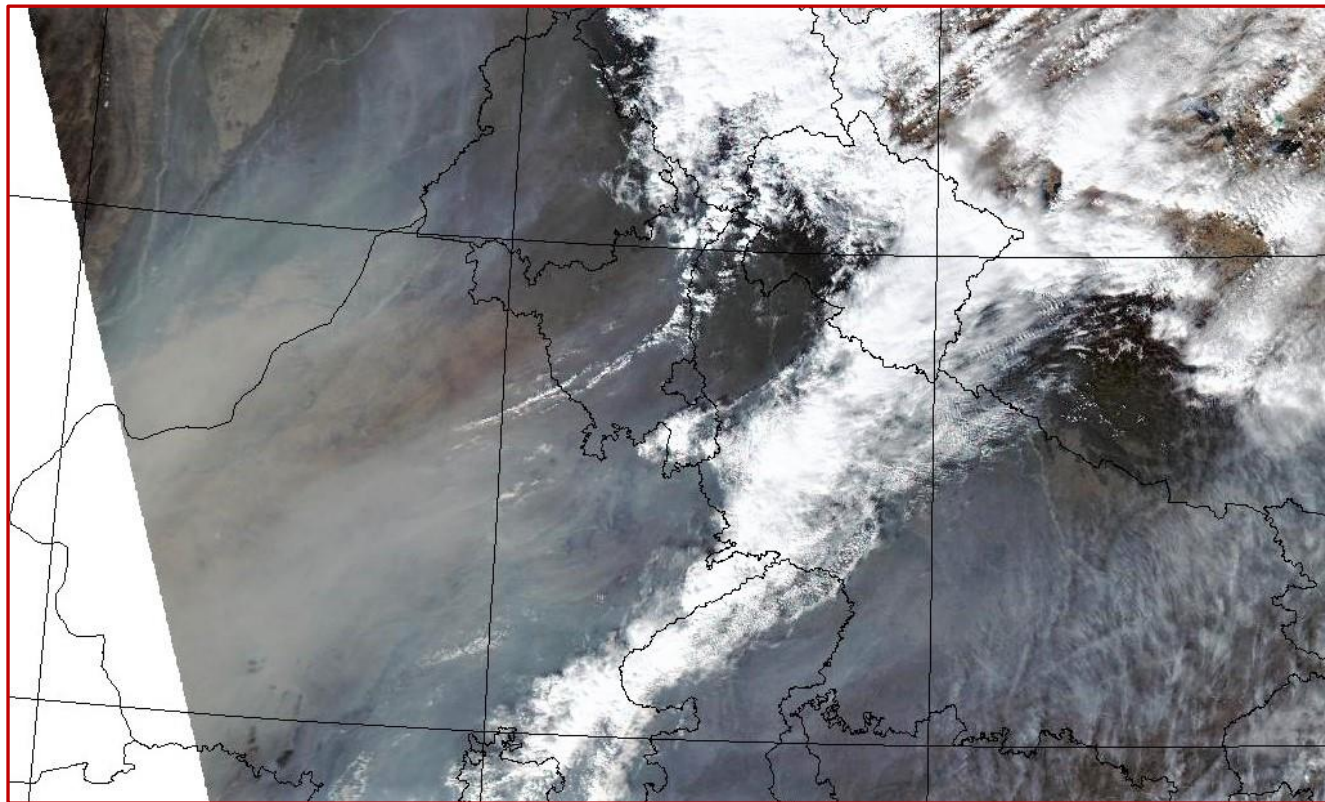
Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS) Laboratory,  
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012

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

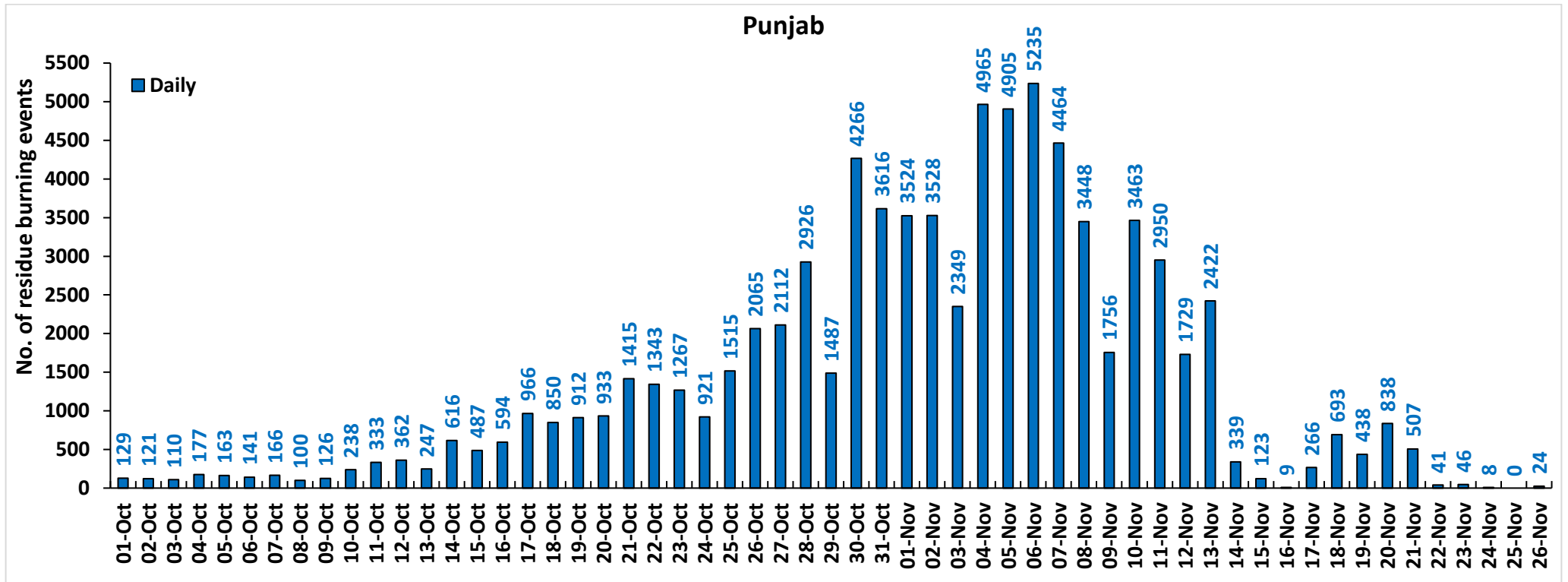
### Highlights for 26-November-2020

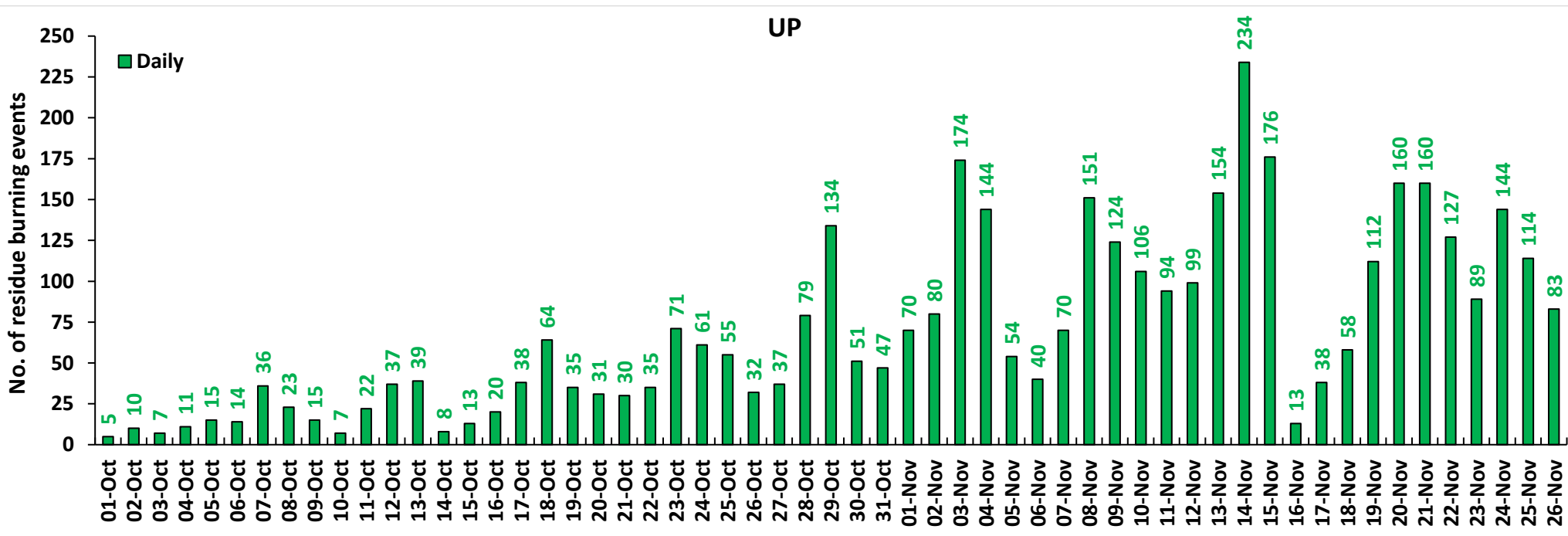
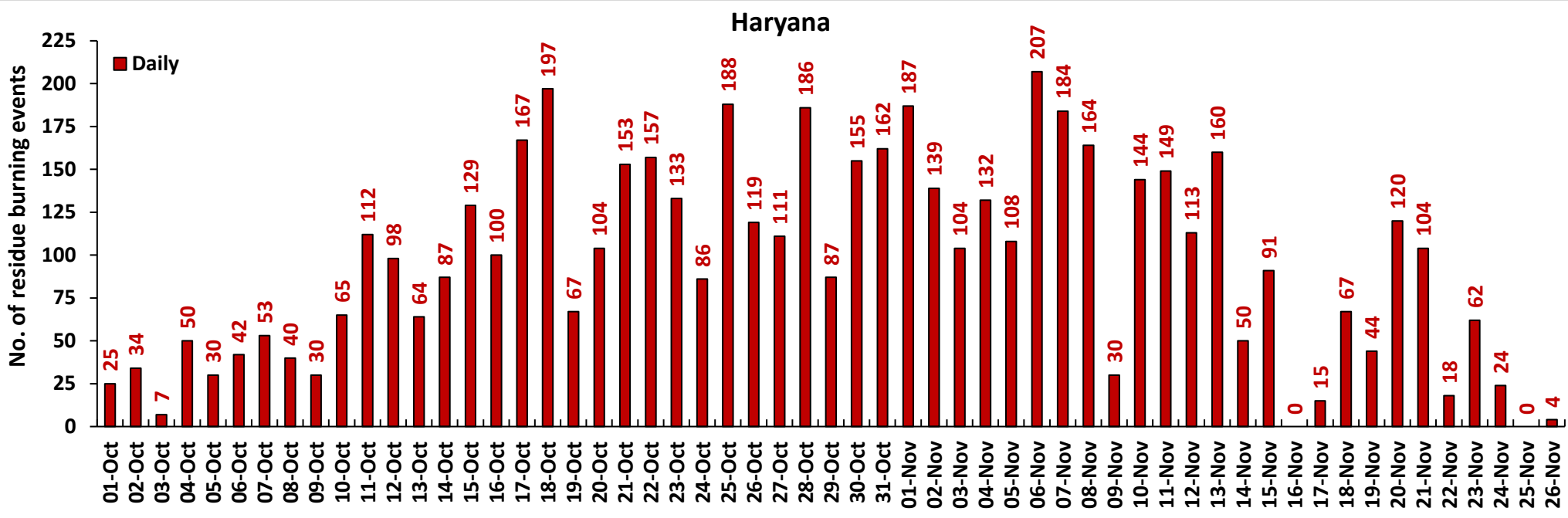
- Satellites detected **111** residue burning events in the three study States on **26-Nov-2020**.
- The state wise events detected on **26-Nov-2020** were **24** in Punjab, **04** in Haryana and **83** in UP.
- The number of events has decreased from **114** on **25-Nov-2020** to **111** on **26-Nov-2020** in the three states.
- The state of UP was partly covered with clouds which prevented fire event detection by satellites.
- Gurdaspur in Punjab, Panipat in Haryana and Jhansi in UP reported the highest number of events on **26-Nov-2020**.
- Total **88182** burning events were detected in the three States between **01-Oct-2020** and **26-Nov-2020**, which are distributed as **78774**, **5458** and **3950** in Punjab, Haryana and UP, respectively.
- In Haryana the cumulative number of burning events between **01-Oct** and **26-Nov 2020** were lower than in **2019**, while in Punjab and UP the cumulative number of events were more than in **2019**.

[AQUA \(MODIS\) Satellite image of North India Acquired on 26-Nov-2020 at 13:15 IST by IARI Ground Station](#)



**Temporal distribution of residue burning events for the three study States in 2020.**

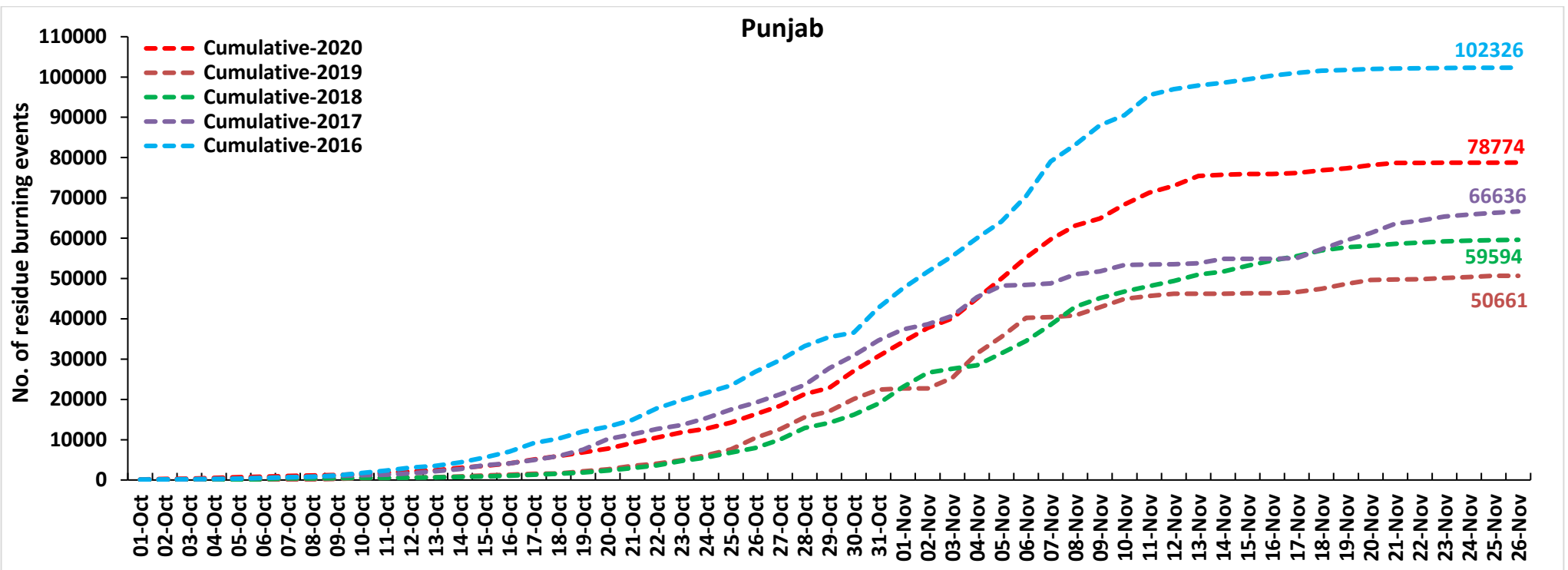




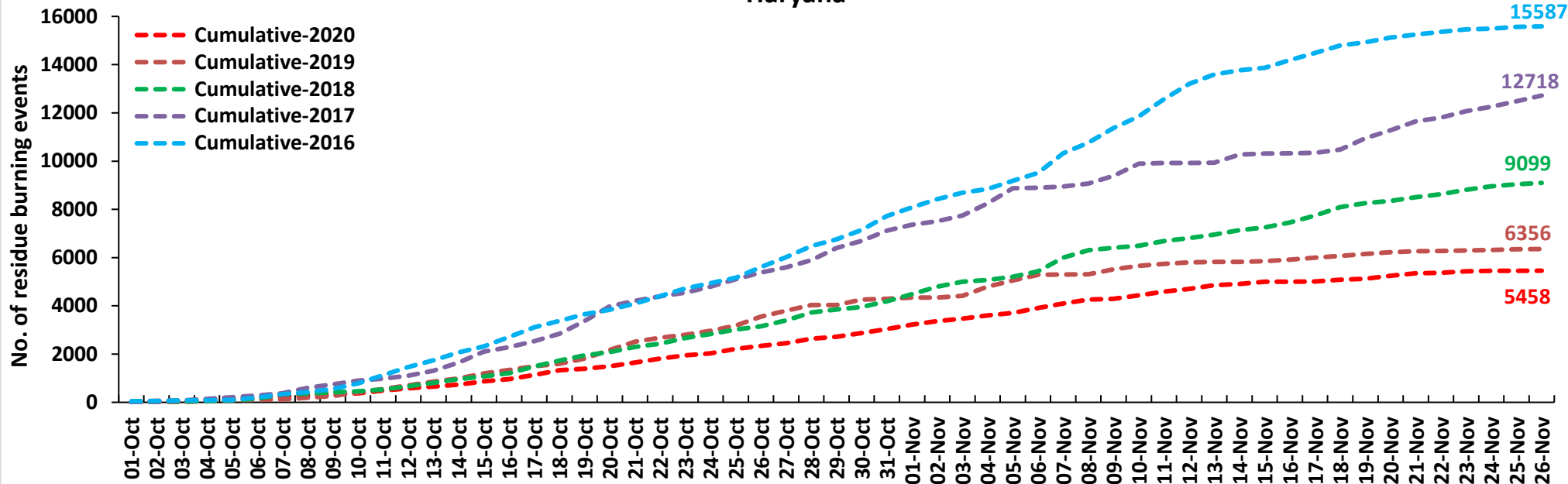
**Comparison of residue burning events in current year (2020) with previous years (2019, 2018, 2017 & 2016) for the three study States**

**(01-Oct to 26-Nov)**

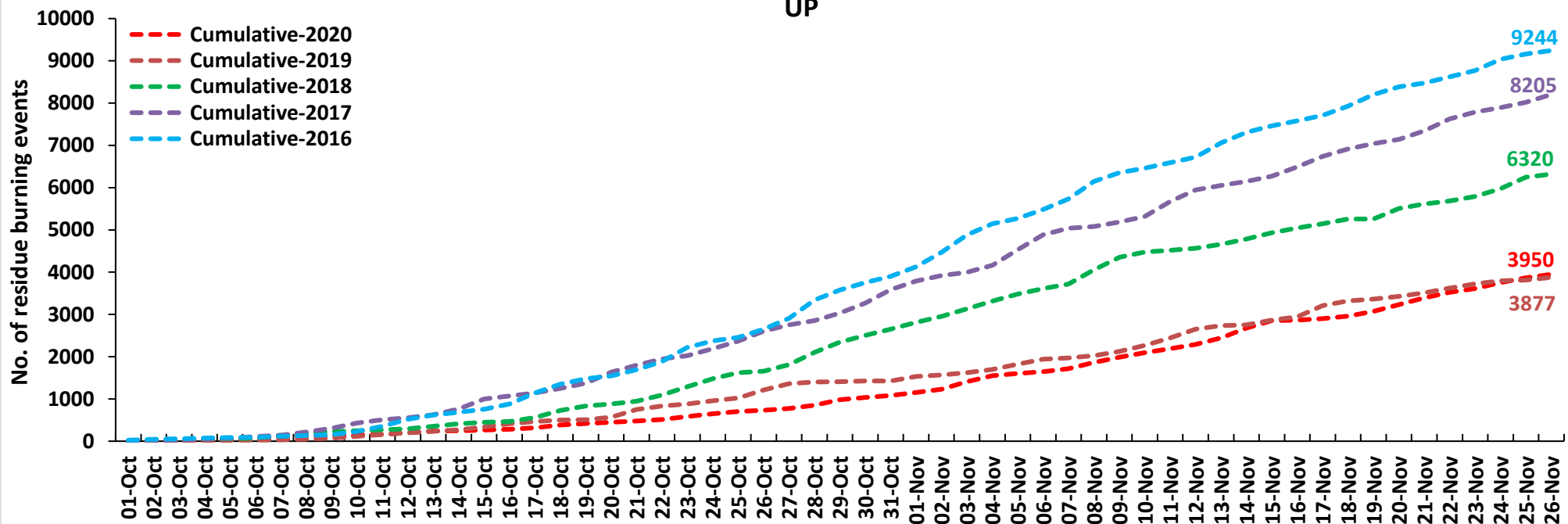
**Punjab**



### Haryana

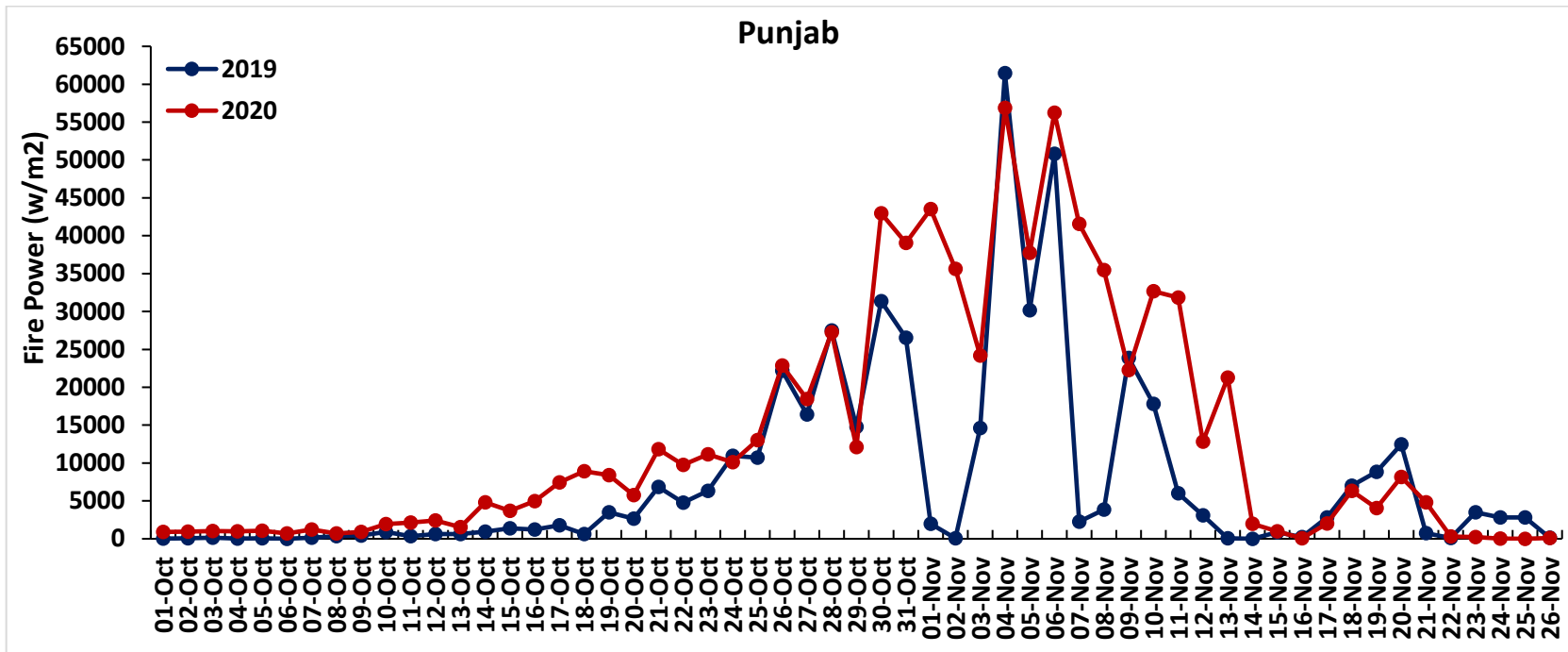


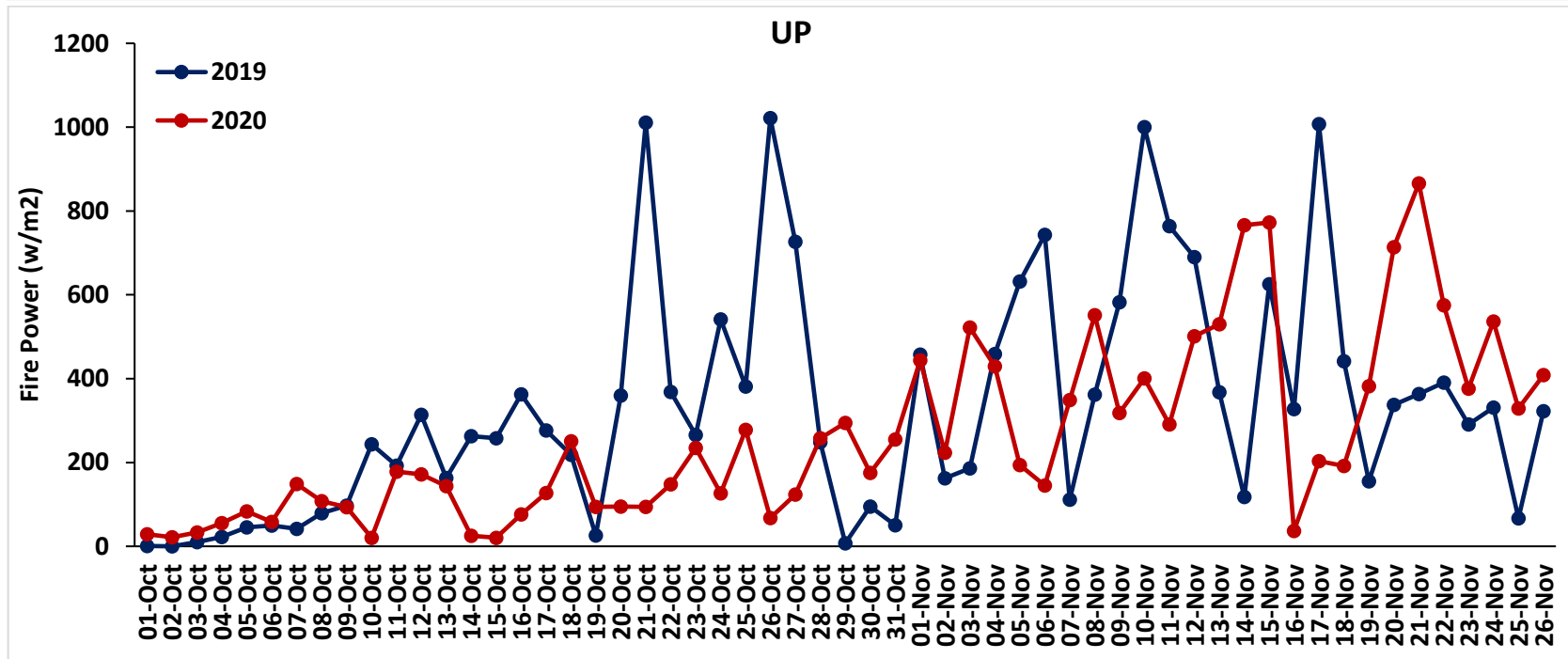
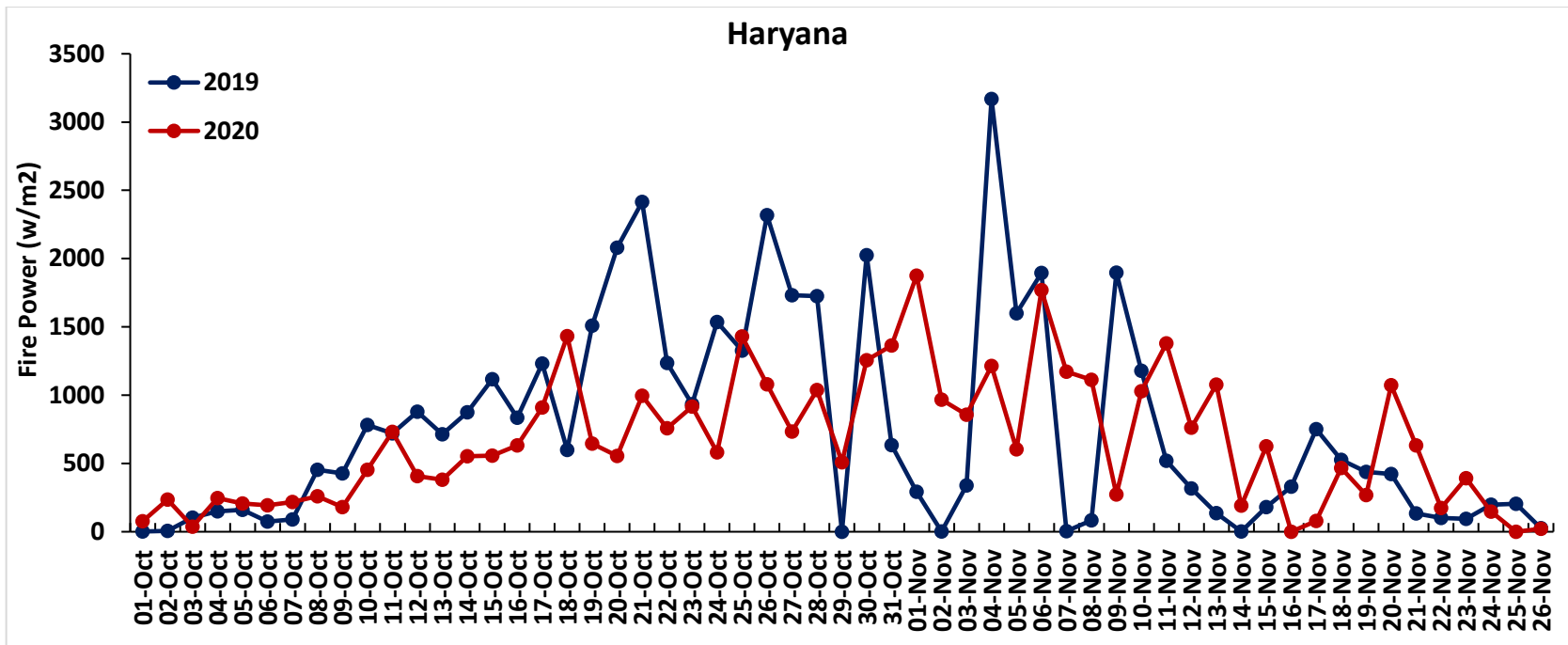
### UP



**Comparison of Fire Intensity of residue burning events in current year (2020) with previous year (2019)**  
**For the three study States**

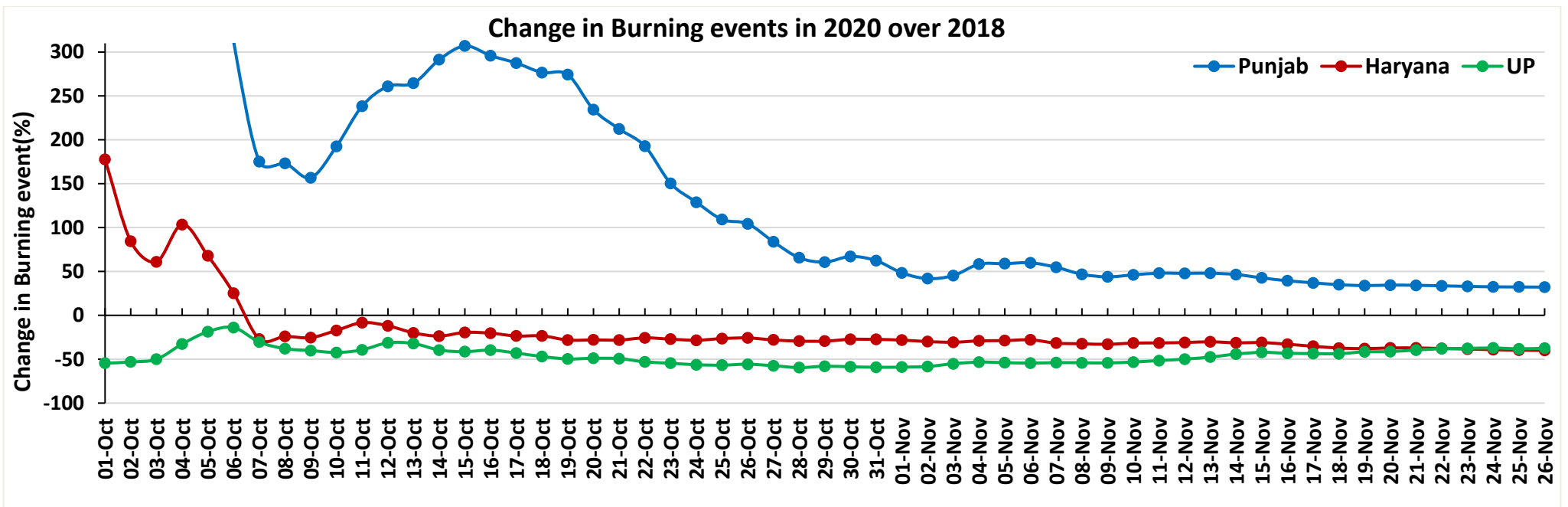
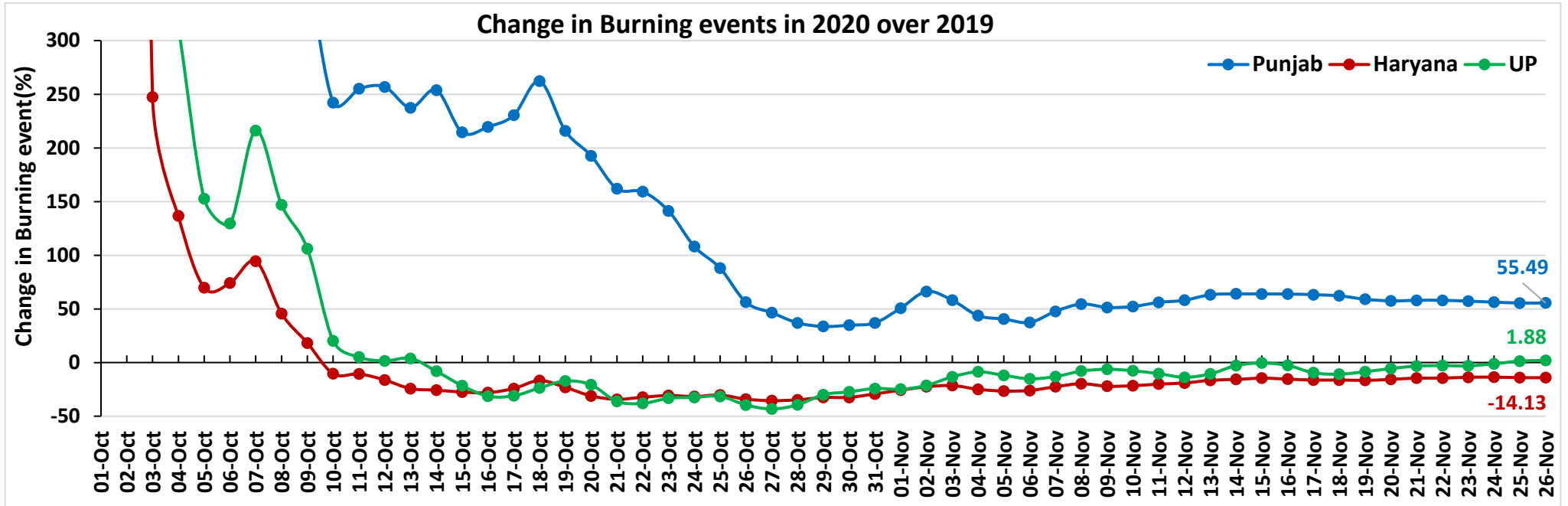
**(01-Oct to 26-Nov)**



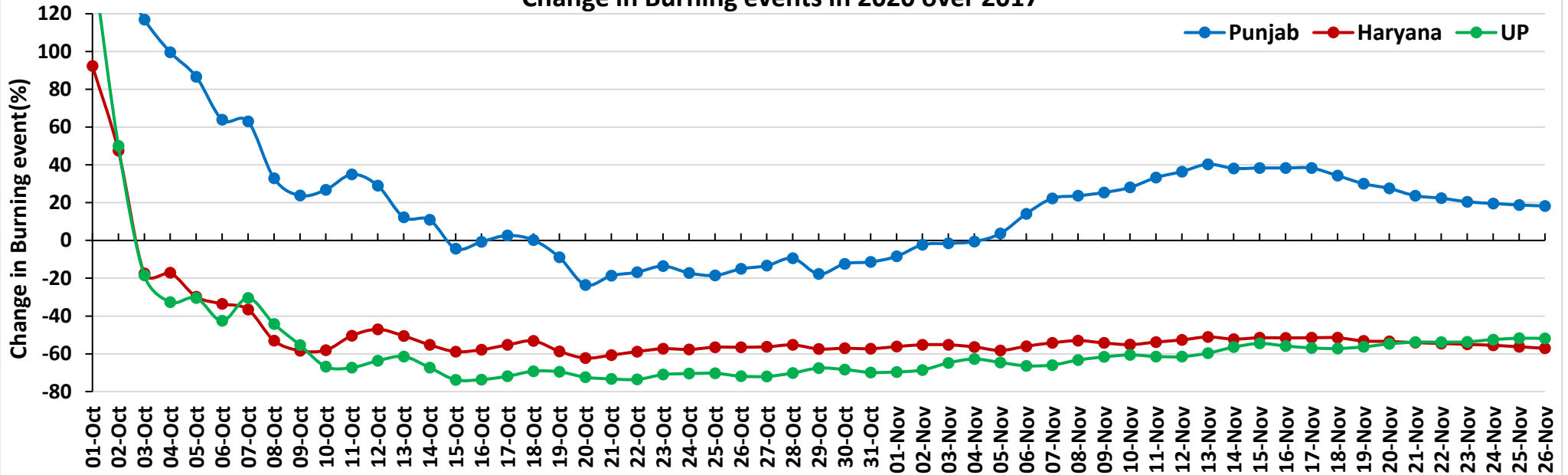




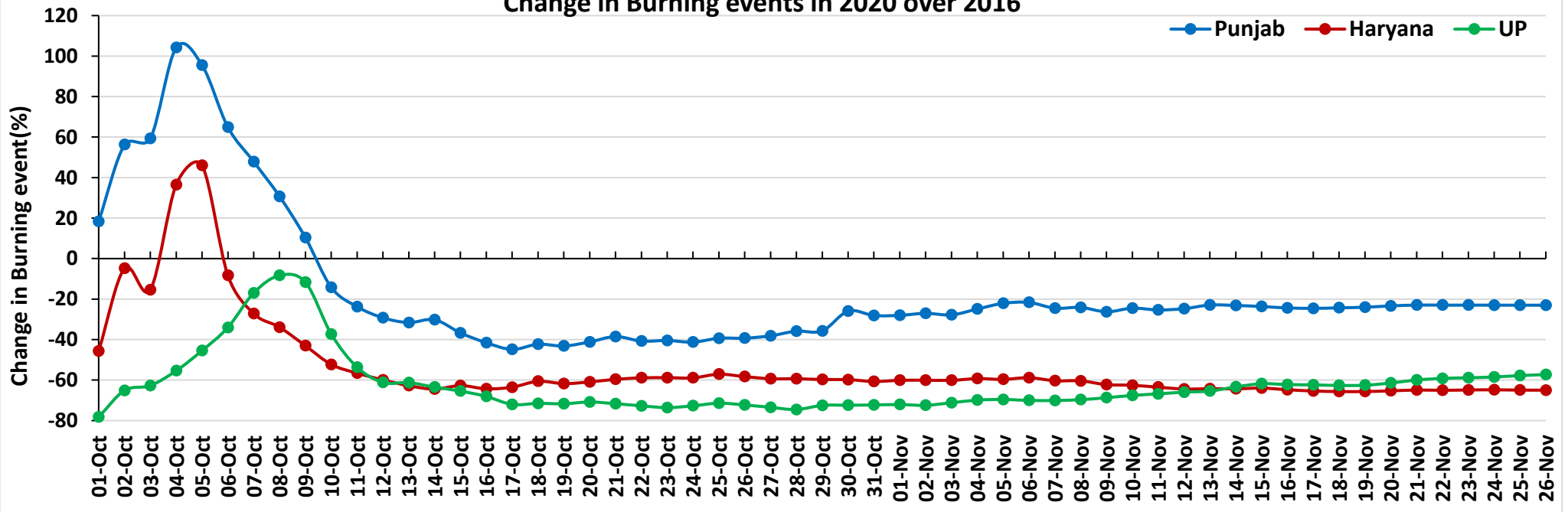
**Percent Change in Burning events in 2020 over 2019, 2018, 2017 and 2016 (Daily Cumulative)**



### Change in Burning events in 2020 over 2017

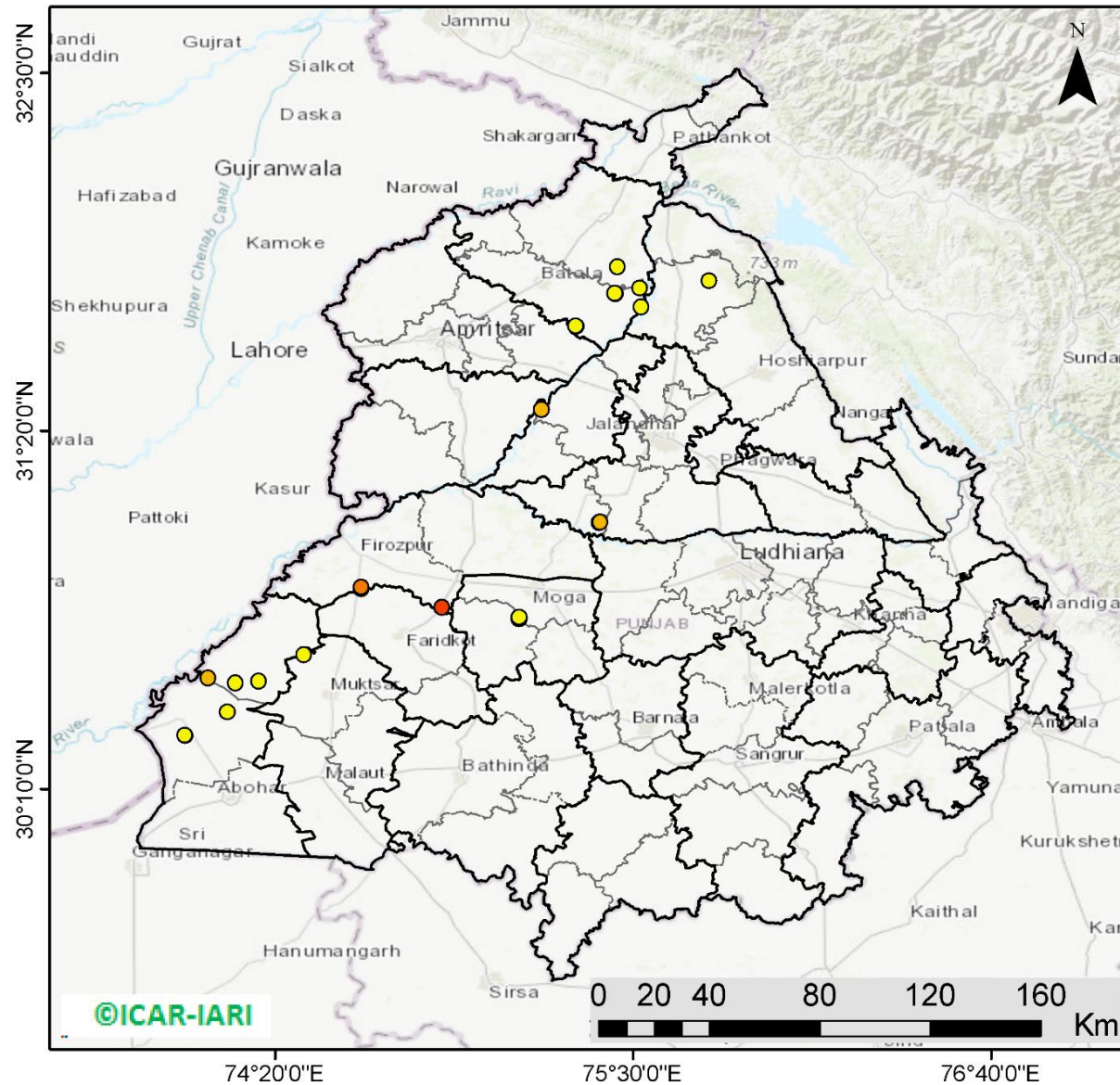


### Change in Burning events in 2020 over 2016



(a) Punjab

RICE RESIDUE BURNING IN PUNJAB



**24** burning events detected in Punjab on 26th November 2020

Fire Intensity (W/m<sup>2</sup>)

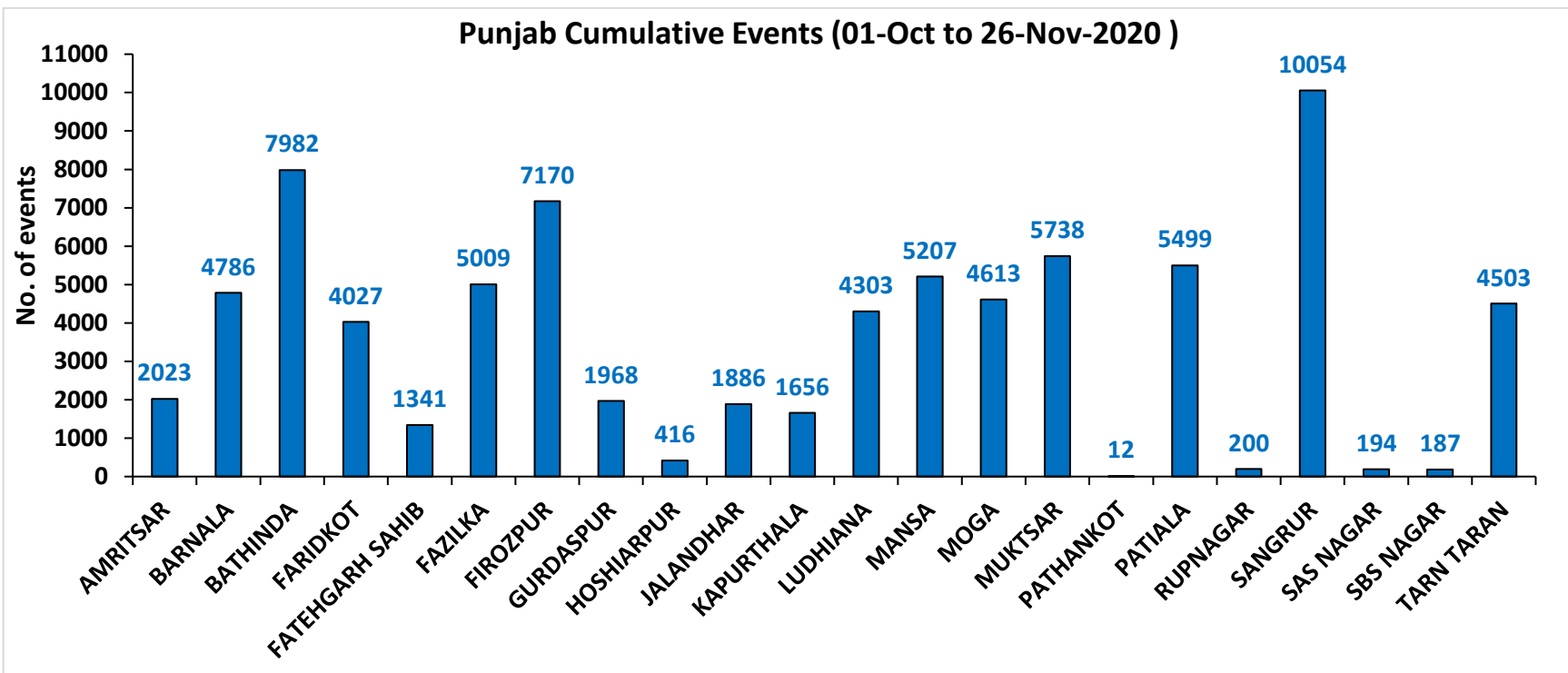
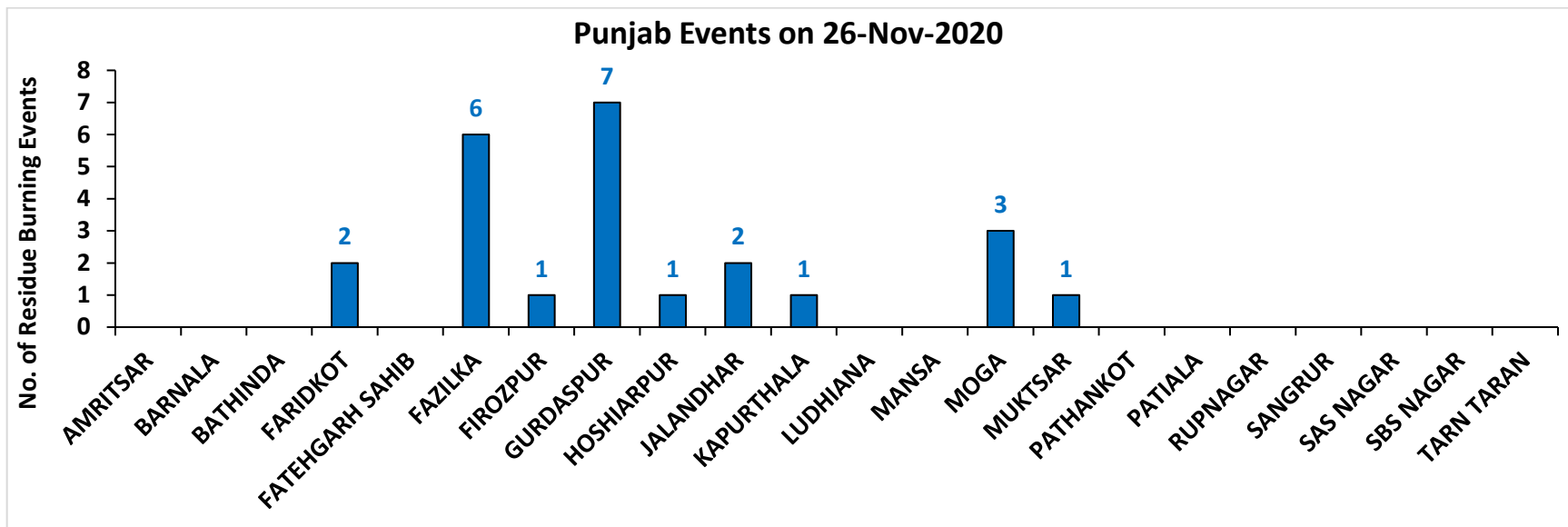
- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- >20

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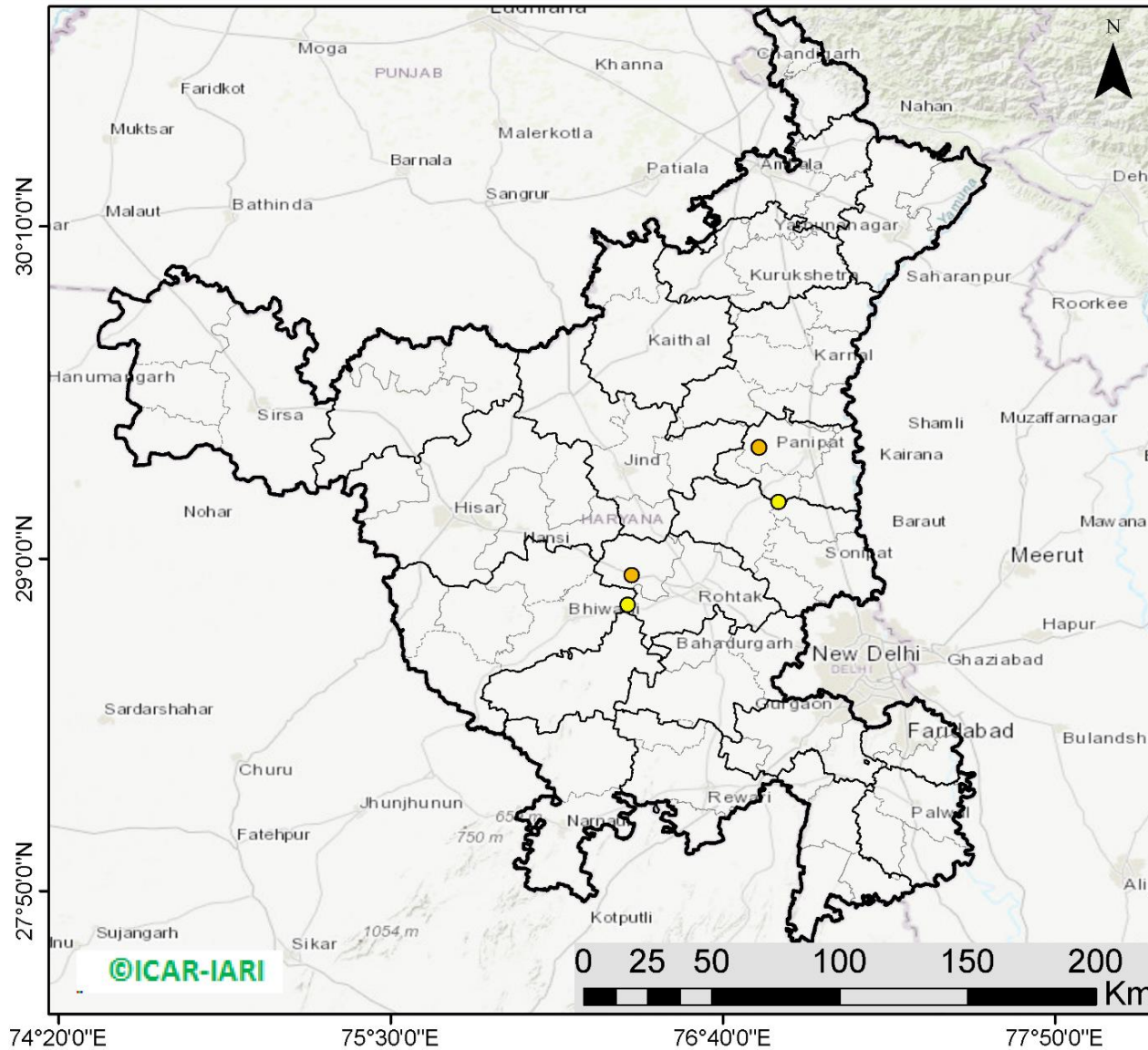
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

### District-wise number of residue burning events in Punjab (01-Oct to 26-Nov 2020)



(b) Haryana

RICE RESIDUE BURNING IN HARYANA



**04** burning events detected in Haryana on 26th November 2020

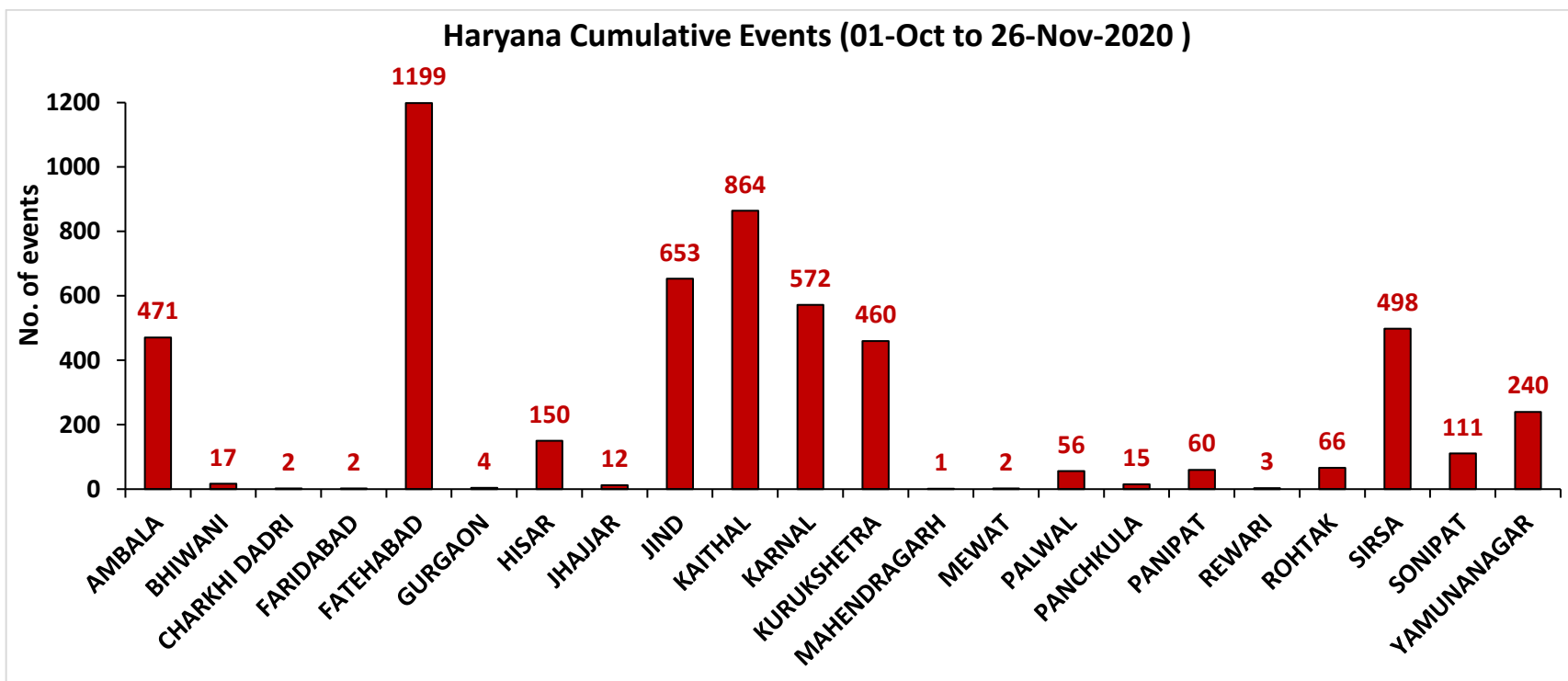
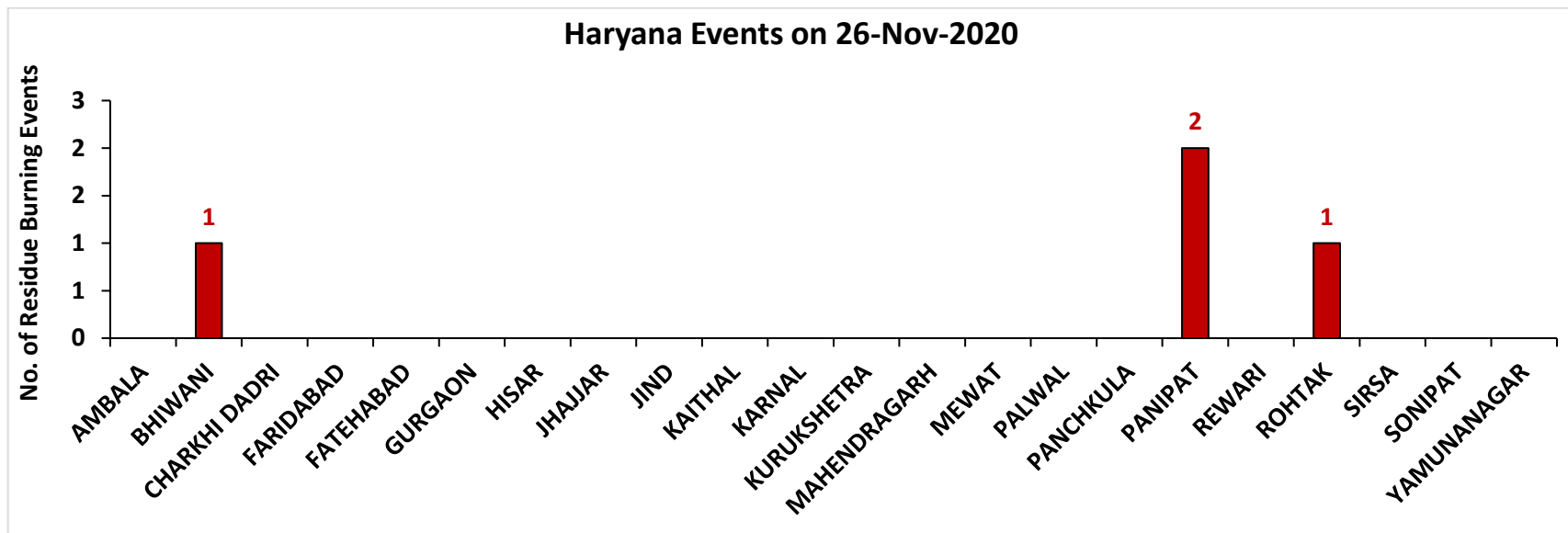
Fire Intensity (W/m<sup>2</sup>)

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



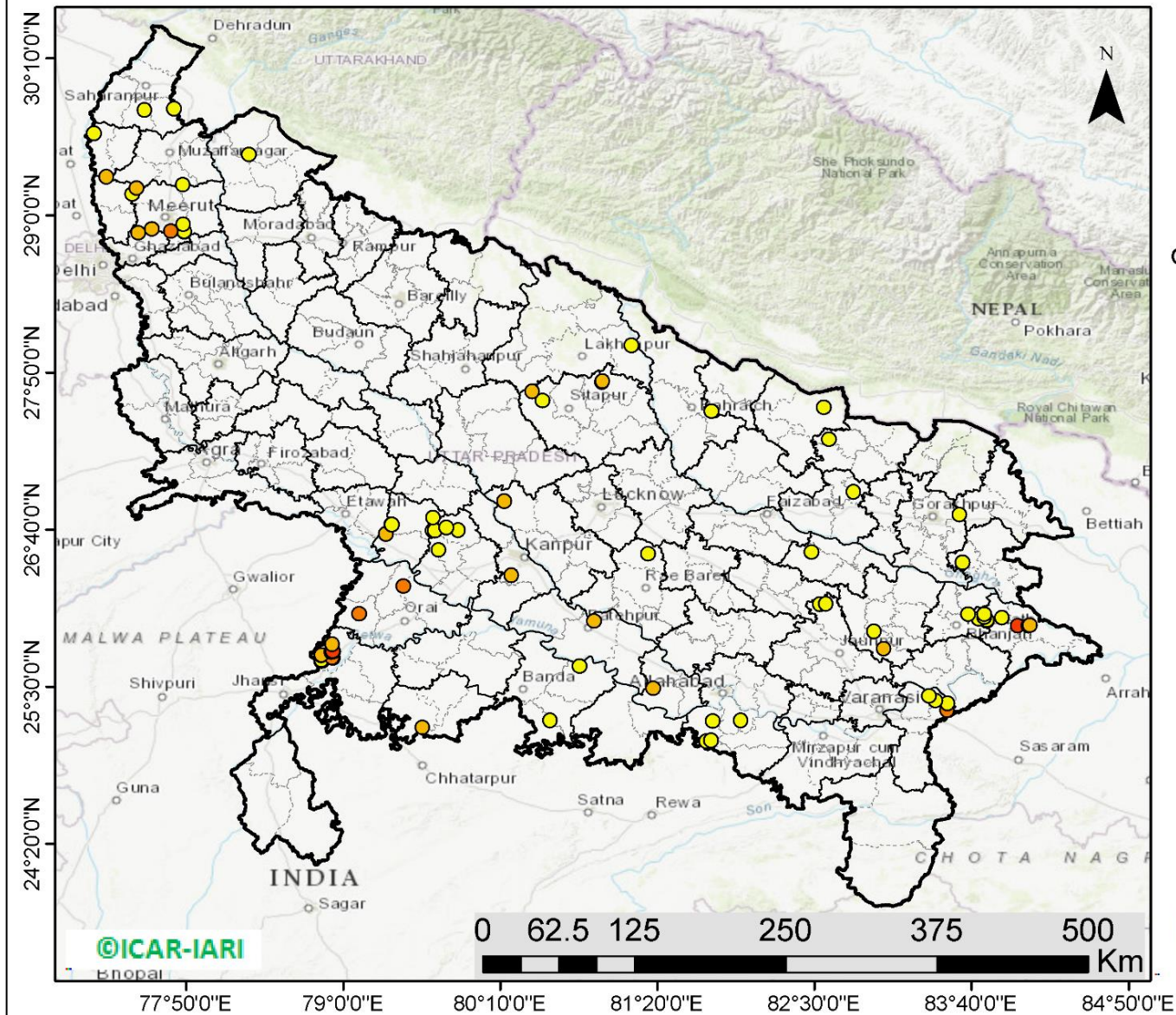
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

## District-wise number of residue burning events in Haryana (01-Oct to 26-Nov 2020)



(c) Uttar Pradesh

RICE RESIDUE BURNING IN UTTAR PRADESH



**83** burning events detected in Uttar Pradesh on 26th November 2020

Fire Intensity (W/m<sup>2</sup>)

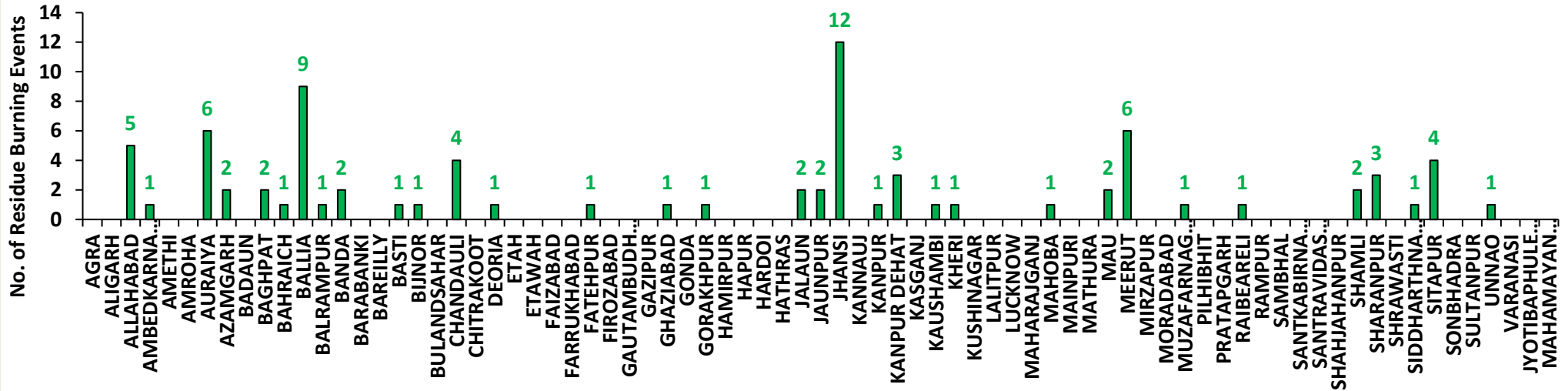
- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- >20



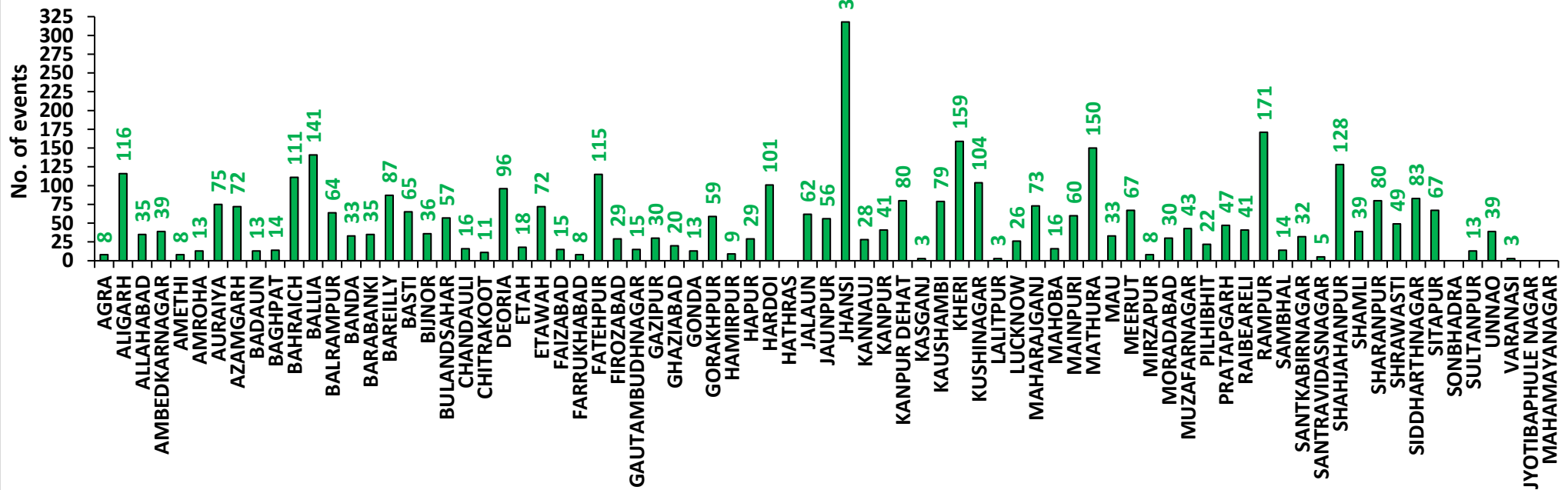
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

## District-wise number of residue burning events in Uttar Pradesh (01-Oct to 26-Nov 2020)

### Uttar Pradesh Events on 26-Nov-2020



### Uttar Pradesh Cumulative Events (01-Oct to 26-Nov 2020 )





**State-wise and date-wise number of residue burning events detected in 2016, 2017, 2018, 2019 and 2020**  
**(Period: 01-October to 26-November)**

Date	Punjab					Haryana					UP					Total				
	2020	2019	2018	2017	2016	2020	2019	2018	2017	2016	2020	2019	2018	2017	2016	2020	2019	2018	2017	2016
01-Oct	129	3	16	54	109	25	1	9	13	46	5	1	11	2	23	159	5	36	69	178
02-Oct	121	20	9	50	51	34	2	23	27	16	10	0	21	8	20	165	22	53	85	87
03-Oct	110	37	4	62	66	07	16	9	40	16	07	3	12	17	16	124	56	25	119	98
04-Oct	177	3	32	103	37	50	30	16	60	7	11	4	5	22	15	238	37	53	185	59
05-Oct	163	16	56	106	95	30	37	30	68	15	15	11	10	20	14	208	64	96	194	124
06-Oct	141	0	87	138	152	42	22	63	75	105	14	8	13	39	6	197	30	163	252	263
07-Oct	166	27	162	105	171	53	16	180	97	126	36	4	69	33	24	255	47	411	235	321
08-Oct	100	59	39	215	166	40	69	40	218	94	23	18	54	76	14	163	146	133	509	274
09-Oct	126	93	75	163	270	30	70	47	148	121	15	17	32	88	22	171	180	154	399	413
10-Oct	238	172	23	164	597	65	157	37	151	242	07	53	21	126	74	310	382	81	441	913
11-Oct	333	78	30	177	652	112	126	78	87	336	22	38	24	74	128	467	242	132	338	1116
12-Oct	362	99	67	342	694	98	154	133	123	338	37	42	22	51	164	497	295	222	516	1196
13-Oct	247	108	62	470	467	64	159	147	207	284	39	33	61	69	102	350	300	270	746	853
14-Oct	616	141	112	582	812	87	133	153	333	328	08	39	57	137	60	711	313	322	1052	1200
15-Oct	487	262	90	943	1215	129	203	110	458	248	13	63	35	237	76	629	528	235	1638	1539
16-Oct	594	168	174	465	1478	100	148	138	186	385	20	77	20	71	125	714	393	332	722	1988
17-Oct	966	250	272	807	2173	167	152	268	244	399	38	53	94	69	261	1171	455	634	1120	2833
18-Oct	850	100	263	970	1065	197	103	255	306	270	64	39	163	108	204	1111	242	681	1384	1539
19-Oct	912	529	254	1591	1762	67	220	208	541	276	35	3	108	128	132	1014	752	570	2260	2170
20-Oct	933	490	496	2653	1175	104	360	141	597	188	31	62	49	255	62	1068	912	686	3505	1425
21-Oct	1415	852	618	1139	1726	153	339	217	233	257	30	185	66	168	152	1598	1376	901	1540	2135
22-Oct	1343	555	656	1356	2837	157	158	134	186	309	35	78	149	151	194	1535	791	939	1693	3340
23-Oct	1267	827	1113	994	2040	133	131	232	155	313	71	48	193	72	331	1471	1006	1538	1221	2684
24-Oct	921	1220	844	1714	1836	86	165	166	244	221	61	79	192	171	152	1068	1464	1202	2129	2209
25-Oct	1515	1463	1247	2104	1813	188	212	182	303	229	55	67	142	175	83	1758	1742	1571	2582	2125
26-Oct	2065	2861	1173	1715	3390	119	366	132	276	434	32	189	33	240	195	2216	3416	1338	2231	4019
27-Oct	2112	2135	2040	2069	2904	111	249	252	224	417	37	145	154	145	255	2260	2529	2446	2438	3576
28-Oct	2926	3007	2864	2318	3493	186	238	330	292	458	79	45	290	99	435	3191	3290	3484	2709	4386
29-Oct	1487	1504	1321	4184	2258	87	0	124	502	278	134	1	243	180	237	1708	1505	1688	4866	2773
30-Oct	4266	3017	2008	3152	1076	155	222	103	307	395	51	19	158	238	175	4472	3258	2269	3697	1646
31-Oct	3616	2325	2715	3743	6132	162	36	229	413	575	47	4	148	321	153	3825	2365	3092	4477	6860
01-Nov	3524	293	4140	2736	4843	187	50	306	250	362	70	105	161	199	223	3781	448	4607	3185	5428
02-Nov	3528	6	3550	1246	4183	139	2	306	145	332	80	33	142	131	345	3747	41	3998	1522	4860

03-Nov	2349	2646	972	2109	3806	104	68	202	240	375	174	56	181	75	409	2627	2770	1355	2424	4490
04-Nov	4965	6001	882	4603	4477	132	383	77	499	146	144	75	183	168	265	5241	6459	1142	5270	4888
05-Nov	4905	4199	2989	2876	4137	108	253	129	625	345	54	124	163	367	125	5067	4576	3281	3868	4607
06-Nov	5235	4642	3071	171	6303	207	243	222	26	322	40	118	130	357	215	5482	5003	3423	554	6840
07-Nov	4464	189	4033	420	8575	184	2	568	46	821	70	33	108	149	244	4718	224	4709	615	9640
08-Nov	3448	462	4450	2256	4129	164	16	313	128	432	151	54	338	43	419	3763	532	5101	2427	4980
09-Nov	1756	2003	2083	675	4857	30	199	96	311	608	124	96	294	107	205	1910	2298	2473	1093	5670
10-Nov	3463	2046	1675	1642	2468	144	151	85	509	484	106	147	125	131	109	3713	2344	1885	2282	3061
11-Nov	2950	783	1364	103	5040	149	78	196	29	716	94	174	45	358	129	3193	1035	1605	490	5885
12-Nov	1729	520	1256	33	1477	113	68	122	3	634	99	210	45	269	129	1941	798	1423	305	2240
13-Nov	2422	10	1563	237	885	160	16	146	7	389	154	79	94	109	338	2736	105	1803	353	1612
14-Nov	339	0	765	1101	692	50	1	189	340	171	234	22	128	95	247	623	23	1082	1536	1110
15-Nov	123	92	1480	5	871	91	29	107	40	107	176	111	146	123	154	390	232	1733	168	1132
16-Nov	9	23	1250	8	911	0	59	204	17	318	13	79	112	218	123	22	161	1566	243	1352
17-Nov	266	332	1132	217	638	15	85	289	12	299	38	265	103	249	130	319	682	1524	478	1067
18-Nov	693	740	1400	2147	568	67	70	356	139	312	58	113	111	180	217	818	923	1867	2466	1097
19-Nov	438	1221	752	2200	168	44	82	159	471	125	112	39	3	122	273	594	1342	914	2793	566
20-Nov	838	1007	385	1857	240	120	74	88	325	204	160	64	243	101	183	1118	1145	716	2283	627
21-Nov	507	151	480	2310	112	104	37	161	378	115	160	84	107	205	86	771	272	748	2893	313
22-Nov	41	21	287	719	99	18	19	122	154	118	127	116	72	281	148	186	156	481	1154	365
23-Nov	46	286	317	1033	54	62	14	180	259	97	89	100	106	163	151	197	400	603	1455	302
24-Nov	8	293	229	507	21	24	23	152	192	36	144	72	186	105	265	176	388	567	804	322
25-Nov	0	266	72	443	33	0	31	81	219	68	114	18	272	124	123	114	315	425	786	224
26-Nov	24	8	95	334	27	4	9	57	240	25	83	62	73	186	85	111	79	225	760	137
<b>Total</b>	<b>78774</b>	<b>50661</b>	<b>59594</b>	<b>66636</b>	<b>102326</b>	<b>5458</b>	<b>6356</b>	<b>9099</b>	<b>12718</b>	<b>15587</b>	<b>3950</b>	<b>3877</b>	<b>6320</b>	<b>8205</b>	<b>9244</b>	<b>88182</b>	<b>60894</b>	<b>75013</b>	<b>87559</b>	<b>127157</b>

**District-wise and date-wise cumulative number of residue burning events detected in 2016, 2017, 2018, 2019 and 2020**  
**(Period: 01-Oct to 26-Nov)**

**(a) Punjab**

Districts	01-Oct to 26-Nov				
	2016	2017	2018	2019	2020
AMRITSAR	2170	1352	1393	1410	2023
BARNALA	5699	3413	3278	2964	4786
BATHINDA	8843	5732	6341	5309	7982
FARIDKOT	4628	3464	3057	2317	4027
FATEHGARH SAHIB	2461	1642	861	827	1341
FAZILKA	0	0	0	2763	5009
FIROZPUR	13633	9870	9981	4635	7170
GURDASPUR	2215	1587	1169	1478	1968
HOSHIARPUR	901	495	198	311	416
JALANDHAR	4660	2116	1393	1515	1886
KAPURTHALA	3136	1623	750	1353	1656
LUDHIANA	9545	4711	3033	2273	4303
MANSA	5648	4480	4316	3567	5207
MOGA	6393	2746	2729	2150	4613
MUKTSAR	7032	5391	5778	3709	5738
PATHANKOT	0	0	0	6	12
PATIALA	6544	5031	4213	3853	5499
RUPNAGAR	717	328	86	119	200
SANGRUR	11862	8427	7780	6363	10054
SAS NAGAR	115	107	104	150	194
SBS NAGAR	1611	822	389	265	187
TARN TARAN	4513	3299	2745	3324	4503
<b>Total</b>	<b>102326</b>	<b>66636</b>	<b>59594</b>	<b>50661</b>	<b>78774</b>

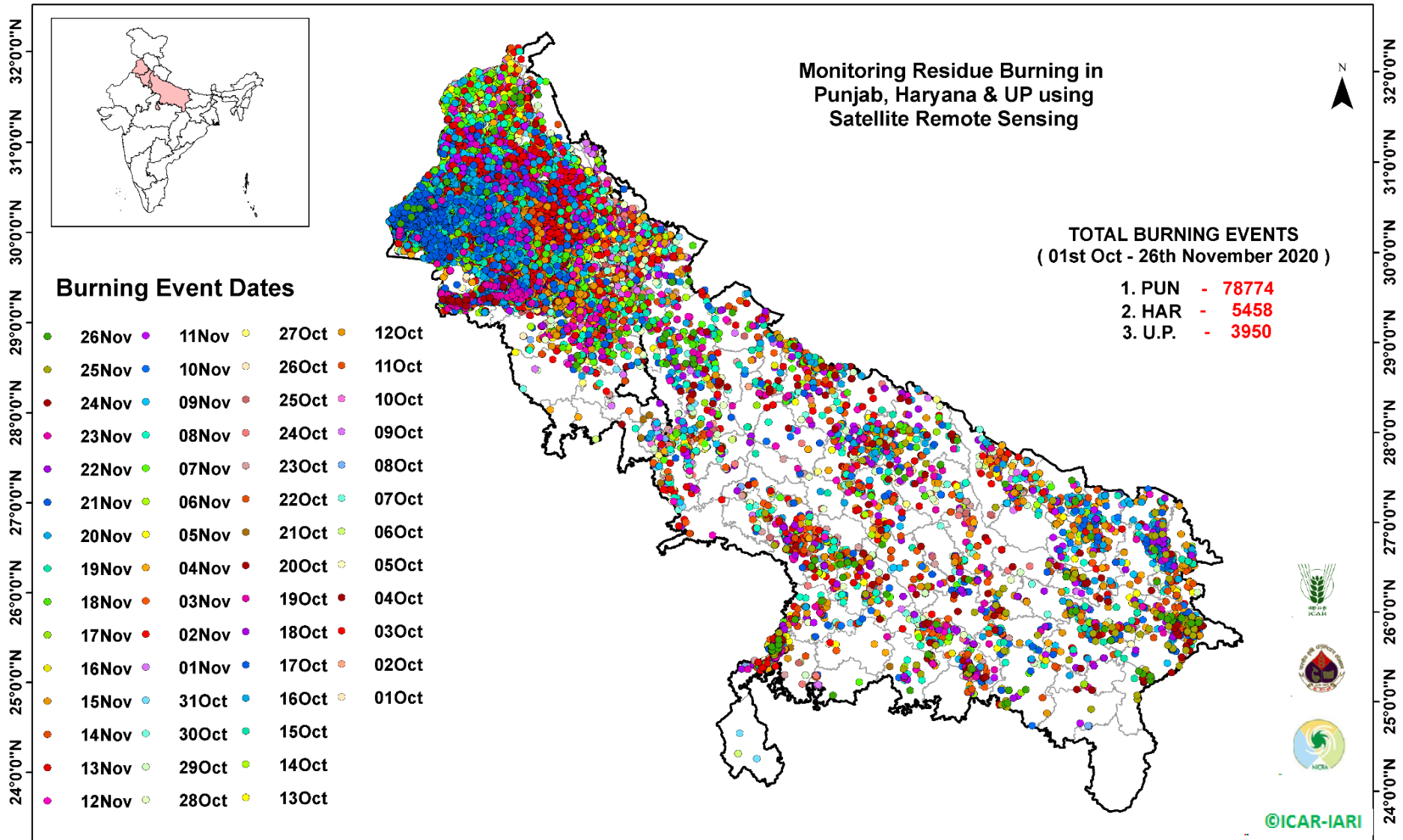
**(b) Haryana**

Districts	01-Oct to 26-Nov				
	2016	2017	2018	2019	2020
AMBALA	534	500	329	339	471
BHIWANI	85	45	20	11	17
CHARKHI DADRI	0	0	0	0	2
FARIDABAD	288	343	185	10	2
FATEHABAD	4826	3698	2532	1203	1199
GURGAON	0	0	0	4	4
HISAR	406	188	209	116	150
JHAJJAR	36	19	29	4	12
JIND	858	943	883	579	653
KAITHAL	1748	1512	1292	1258	864
KARNAL	1637	1508	851	1083	572
KURUKSHETRA	1078	1148	680	738	460
MAHENDRAGARH	0	0	0	2	1
MEWAT	0	0	0	3	2
PALWAL	0	0	0	188	56
PANCHKULA	0	0	3	21	15
PANIPAT	93	102	60	40	60
REWARI	0	0	0	3	3
ROHTAK	99	91	47	23	66
SIRSA	3561	2230	1739	448	498
SONIPAT	94	74	41	33	111
YAMUNANAGAR	244	317	199	250	240
<b>Total</b>	<b>15587</b>	<b>12718</b>	<b>9099</b>	<b>6356</b>	<b>5458</b>

**(C)**  
**Uttar Pradesh**

Districts	01-Oct to 26-Nov																
	2016	2017	2018	2019	2020	GAUTAMBUDHNAGAR	29	43	12	19	15	MUZAFARNAGAR	143	169	59	37	43
AGRA	0	0	0	4	8	GAZIPUR	16	18	24	12	30	PILHIBHIT	952	737	436	357	22
ALIGARH	55	80	93	90	116	GHAZIABAD	89	61	38	15	20	PRATAPGARH	45	55	43	19	47
ALLAHABAD	6	16	20	17	35	GONDA	48	34	22	11	13	RAIBEARELI	115	118	73	25	41
AMBEDKARNAGAR	76	56	28	8	39	GORAKHPUR	66	112	141	16	59	RAMPUR	623	646	226	318	171
AMETHI	0	0	0	10	8	HAMIRPUR	0	0	1	38	9	SAMBHAL	0	0	0	9	14
AMROHA	0	0	0	8	13	HAPUR	0	0	0	13	29	SANTKABIRNAGAR	56	63	54	14	32
AURAIYA	271	233	70	53	75	HARDOI	257	205	113	83	101	SANTRAVIDASNAGAR	0	0	0	1	5
AZAMGARH	38	46	35	5	72	HATHRAS	0	0	0	1	0	SHAHJAHANPUR	1148	700	388	353	128
BADAUN	12	9	14	22	13	JALAUN	0	0	0	128	62	SHAMLI	0	0	0	25	39
BAGHPAT	0	0	0	14	14	JAUNPUR	24	34	26	11	56	SHARANPUR	122	150	72	68	80
BAHRAICH	81	40	60	45	111	JHANSI	0	0	2	209	318	SHRAWASTI	37	31	36	21	49
BALLIA	19	42	28	22	141	KANNAUJ	35	18	8	10	28	SIDDHARTHANAGAR	259	185	472	48	83
BALRAMPUR	37	27	44	9	64	KANPUR	20	10	13	9	41	SITAPUR	136	82	48	44	67
BANDA	2	20	12	17	33	KANPUR DEHAT	68	70	29	46	80	SONBHADRA	16	16	12	0	0
BARABANKI	220	167	175	60	35	KASGANJ	0	0	0	6	3	SULTANPUR	78	59	59	16	13
BAREILLY	258	232	118	115	87	KAUSHAMBI	33	49	52	20	79	UNNAO	67	56	41	37	39
BASTI	146	186	125	30	65	KHERI	469	314	221	185	159	VARANASI	2	0	0	0	3
BIJNOR	65	62	19	16	36	KUSHINAGAR	66	152	169	33	104	JYOTIBAPHULE NAGAR	12	17	6	0	0
BULANDSAHAR	32	35	21	27	57	LALITPUR	0	0	0	7	3	MAHAMAYANAGAR	2	2	8	0	0
CHANDAULI	18	15	2	1	16	LUCKNOW	62	30	26	24	26	<b>Total</b>	<b>9244</b>	<b>8205</b>	<b>6320</b>	<b>3877</b>	<b>3950</b>
CHITRAKOOT	0	0	0	6	11	MAHARAJGANJ	717	1018	1065	275	73						
DEORIA	62	78	78	8	96	MAHOBA	0	0	0	9	16						
ETAH	22	32	28	5	18	MAINPURI	94	94	60	46	60						
ETAWAH	178	132	70	55	72	MATHURA	1458	1083	1049	463	150						
FAIZABAD	15	15	10	7	15	MAU	15	19	20	8	33						
FARRUKHABAD	0	0	0	8	8	MEERUT	93	102	22	32	67						
FATEHPUR	74	57	89	57	115	MIRZAPUR	5	15	9	4	8						
FIROZABAD	23	18	11	17	29	MORADABAD	57	40	15	16	30						

**Map of Cumulative Burning Events (01-Oct to 26-Nov 2020)**



[\(http://geoportal.icar.gov.in:8080/geoexplorer/composer/\)](http://geoportal.icar.gov.in:8080/geoexplorer/composer/)

**Details of residue burning events in Punjab on 26-Nov-2020**

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	Time (IST)	Day / Night	Fire Power (W/m <sup>2</sup> )
1	FARIDKOT	FARIDKOT	S-NPP	30.81906	74.61478	14:18:00	D	10.80
2	FARIDKOT	FARIDKOT	S-NPP	30.82487	74.61433	14:18:00	D	10.80
3	FAZILKA	FAZILKA	S-NPP	30.34052	74.04131	14:18:00	D	2.70
4	FAZILKA	FAZILKA	S-NPP	30.34205	74.04055	14:18:00	D	3.00
5	FAZILKA	FAZILKA	S-NPP	30.41754	74.17812	14:18:00	D	1.20
6	FAZILKA	JALALABAD	S-NPP	30.51283	74.20518	14:18:00	D	2.30
7	FAZILKA	JALALABAD	S-NPP	30.51787	74.28031	14:18:00	D	2.40
8	FAZILKA	JALALABAD	S-NPP	30.52943	74.11593	14:18:00	D	6.50
9	FIROZPUR	FIROZPUR	AQUA	30.75900	74.87700	13:15:00	D	15.30
10	GURDASPUR	BATALA	S-NPP	31.67355	75.31491	12:42:00	D	2.40
11	GURDASPUR	BATALA	S-NPP	31.67510	75.31333	12:42:00	D	2.70
12	GURDASPUR	BATALA	S-NPP	31.73724	75.52679	14:18:00	D	2.70
13	GURDASPUR	BATALA	S-NPP	31.78112	75.44270	14:18:00	D	2.20
14	GURDASPUR	BATALA	S-NPP	31.78201	75.44118	14:18:00	D	2.60
15	GURDASPUR	BATALA	S-NPP	31.79891	75.52288	14:18:00	D	2.80
16	GURDASPUR	GURDASPUR	S-NPP	31.86860	75.44888	12:42:00	D	2.00
17	HOSHIARPUR	DASUYA	S-NPP	31.82260	75.74741	12:42:00	D	1.80
18	JALANDHAR	SHAHKOT	S-NPP	31.03539	75.39010	14:18:00	D	4.80
19	JALANDHAR	SHAHKOT	S-NPP	31.03654	75.39287	14:18:00	D	6.40
20	KAPURTHALA	KAPURTHALA	NOAA-19	31.40383	75.20120	18:14:00	N	8.00
21	MOGA	MOGA	S-NPP	30.72068	75.12913	14:18:00	D	3.50
22	MOGA	MOGA	S-NPP	30.72473	75.13049	14:18:00	D	7.80
23	MOGA	MOGA	S-NPP	30.72667	75.12868	14:18:00	D	3.50
24	MUKTSAR	MUKTSAR	S-NPP	30.60387	74.42806	14:18:00	D	2.00

**Details of residue burning events in Haryana on 26-Nov-2020**

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	Time (IST)	Day / Night	Fire Power (W/m <sup>2</sup> )
1	BHIWANI	BHIWANI	S-NPP	28.83757	76.33234	12:36:00	D	2.90
2	PANIPAT	ISRANA	S-NPP	29.19934	76.86178	12:36:00	D	1.90
3	PANIPAT	PANIPAT	NOAA-19	29.39161	76.79296	18:14:00	N	7.00
4	ROHTAK	MAHAM	NOAA-19	28.94245	76.34649	18:14:00	N	9.00

**Details of residue burning events in Uttar Pradesh on 26-Nov-2020**

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	Time (IST)	Day / Night	Fire Power (W/m <sup>2</sup> )
1	ALLAHABAD	BARA	S-NPP	25.09355	81.69855	01:24:00	N	0.90
2	ALLAHABAD	BARA	S-NPP	25.10114	81.73194	01:24:00	N	0.70
3	ALLAHABAD	BARA	S-NPP	25.24249	81.74513	01:24:00	N	0.80
4	ALLAHABAD	BARA	S-NPP	25.24347	81.74636	01:24:00	N	0.20
5	ALLAHABAD	KARCHHANA	S-NPP	25.24913	81.95426	01:24:00	N	0.60
6	AMBEDKARNAGAR	AKBARPUR	S-NPP	26.49974	82.47794	12:36:00	D	2.00
7	AURAIYA	AURAIYA	NOAA-19	26.63378	79.31648	18:14:00	N	10.00
8	AURAIYA	BIDHUNA	S-NPP	26.65908	79.66425	12:36:00	D	1.60
9	AURAIYA	BIDHUNA	S-NPP	26.66012	79.68126	12:36:00	D	1.70
10	AURAIYA	BIDHUNA	S-NPP	26.70320	79.35812	12:36:00	D	3.50
11	AURAIYA	BIDHUNA	S-NPP	26.70341	79.35961	12:36:00	D	2.70
12	AURAIYA	BIDHUNA	S-NPP	26.75428	79.66827	01:24:00	N	0.60
13	AZAMGARH	LALGANJ	AQUA	25.78200	83.01500	13:15:00	D	6.60
14	AZAMGARH	LALGANJ	S-NPP	25.91008	82.94218	12:36:00	D	2.20
15	BAGHPAT	BARAUT	S-NPP	29.15598	77.43362	14:18:00	D	3.20
16	BAGHPAT	BARAUT	NOAA-19	29.20296	77.46267	18:14:00	N	8.00
17	BAHRAICH	BAHRAICH	S-NPP	27.54445	81.73520	12:36:00	D	2.50
18	BALLIA	BELTHARA ROAD	S-NPP	25.98530	83.78112	12:36:00	D	1.20
19	BALLIA	BELTHARA ROAD	S-NPP	25.99332	83.77923	12:36:00	D	2.30
20	BALLIA	BELTHARA ROAD	S-NPP	25.99372	83.77927	12:36:00	D	2.20
21	BALLIA	BELTHARA ROAD	S-NPP	26.01075	83.89302	12:36:00	D	3.60
22	BALLIA	BELTHARA ROAD	S-NPP	26.01549	83.76188	12:36:00	D	2.10
23	BALLIA	BELTHARA ROAD	S-NPP	26.03631	83.76109	12:36:00	D	2.50

24	BALLIA	SIKANDARPUR	AQUA	25.95100	84.01000	13:15:00	D	15.20
25	BALLIA	SIKANDARPUR	AQUA	25.95300	84.09100	13:15:00	D	6.20
26	BALLIA	SIKANDARPUR	AQUA	25.95500	84.10100	13:15:00	D	7.10
27	BALRAMPUR	TULSIPUR	S-NPP	27.57404	82.56879	12:36:00	D	2.30
28	BANDA	BABERU	S-NPP	25.65155	80.75615	12:36:00	D	3.10
29	BANDA	NARAINI	S-NPP	25.25069	80.53561	01:24:00	N	0.70
30	BASTI	BHANPUR	S-NPP	26.94620	82.79171	12:36:00	D	2.80
31	BIJNOR	NAJIBABAD	S-NPP	29.45277	78.29903	12:36:00	D	1.40
32	CHANDAULI	CHANDAULI	AQUA	25.32500	83.48700	13:15:00	D	13.70
33	CHANDAULI	CHANDAULI	S-NPP	25.37519	83.48859	12:36:00	D	1.60
34	CHANDAULI	SHAKALDIHA	S-NPP	25.39678	83.39662	12:36:00	D	1.70
35	CHANDAULI	SHAKALDIHA	S-NPP	25.43081	83.34896	12:36:00	D	1.30
36	DEORIA	RUDRAPUR	S-NPP	26.42374	83.60050	01:24:00	N	0.60
37	FATEHPUR	FATEHPUR	AQUA	25.98800	80.86200	13:15:00	D	5.70
38	GHAZIABAD	MODINAGAR	NOAA-19	28.87058	77.47723	18:14:00	N	8.00
39	GORAKHPUR	GORAKHPUR	S-NPP	26.77779	83.57865	12:36:00	D	2.00
40	JALAUN	JALAUN	AQUA	26.24700	79.44500	13:15:00	D	10.20
41	JALAUN	KONCH	NOAA-19	26.04089	79.11751	18:14:00	N	10.50
42	JAUNPUR	SHHGANJ	S-NPP	26.11178	82.54001	12:36:00	D	3.10
43	JAUNPUR	SHHGANJ	S-NPP	26.11681	82.58673	12:36:00	D	2.90
44	JHANSI	MOTH	AQUA	25.68800	78.83700	13:15:00	D	24.90
45	JHANSI	MOTH	S-NPP	25.68921	78.84002	12:36:00	D	4.80
46	JHANSI	MOTH	S-NPP	25.69011	78.84392	12:36:00	D	4.80
47	JHANSI	MOTH	S-NPP	25.69461	78.83852	12:36:00	D	2.90
48	JHANSI	MOTH	S-NPP	25.71144	78.92110	14:18:00	D	6.70
49	JHANSI	MOTH	S-NPP	25.71479	78.91801	14:18:00	D	11.90
50	JHANSI	MOTH	S-NPP	25.73183	78.83505	14:18:00	D	8.90
51	JHANSI	MOTH	S-NPP	25.73507	78.83797	14:18:00	D	6.20
52	JHANSI	MOTH	AQUA	25.75700	78.91200	13:15:00	D	12.00
53	JHANSI	MOTH	AQUA	25.75900	78.92600	13:15:00	D	9.00
54	JHANSI	MOTH	AQUA	25.76200	78.92000	13:15:00	D	15.50
55	JHANSI	MOTH	NOAA-19	25.81631	78.91854	18:14:00	N	6.00
56	KANPUR	KANPUR NAGAR	S-NPP	26.32757	80.24871	12:36:00	D	5.60
57	KANPUR DEHAT	RASULABAD	S-NPP	26.66159	79.85506	12:36:00	D	2.60



58	KANPUR DEHAT	RASULABAD	S-NPP	26.68248	79.76656	12:36:00	D	2.00
59	KANPUR DEHAT	SIKANDRA	S-NPP	26.51457	79.70853	12:36:00	D	2.50
60	KAUSHAMBI	MANJHANPUR	S-NPP	25.48551	81.30048	12:36:00	D	5.50
61	KHERI	DHAURAHRA	S-NPP	28.03489	81.14024	12:36:00	D	4.00
62	MAHOBA	KULPAHAR	NOAA-19	25.19647	79.58825	18:14:00	N	6.00
63	MAU	MADHUBAN	S-NPP	26.03827	83.64085	12:36:00	D	3.00
64	MAU	MAU	S-NPP	26.00300	83.71959	12:36:00	D	2.40
65	MEERUT	MEERUT	S-NPP	28.87464	77.81962	12:36:00	D	3.30
66	MEERUT	MEERUT	S-NPP	28.87628	77.81914	12:36:00	D	6.60
67	MEERUT	MEERUT	S-NPP	28.87996	77.81799	12:36:00	D	3.30
68	MEERUT	MEERUT	AQUA	28.88200	77.72000	13:15:00	D	11.80
69	MEERUT	MEERUT	NOAA-19	28.89753	77.57914	18:14:00	N	7.00
70	MEERUT	MEERUT	S-NPP	28.93136	77.81078	12:36:00	D	2.20
71	MUZAFARNAGAR	KHATOLI	S-NPP	29.22546	77.80928	12:36:00	D	2.20
72	RAIBEARELI	MAHARAJGANG	AQUA	26.48500	81.26500	13:15:00	D	3.60
73	SHAMLI	KAIRANA	NOAA-19	29.28830	77.23943	18:14:00	N	6.00
74	SHAMLI	KAIRANA	S-NPP	29.60854	77.14745	12:36:00	D	1.80
75	SHARANPUR	DEOBAND	S-NPP	29.79377	77.74398	12:36:00	D	1.90
76	SHARANPUR	RAMPUR MANIHARRAN	S-NPP	29.78106	77.52505	12:36:00	D	3.90
77	SHARANPUR	RAMPUR MANIHARRAN	S-NPP	29.78216	77.52406	12:36:00	D	3.90
78	SIDDHARTHANAGAR	ITWA	S-NPP	27.33712	82.60815	12:36:00	D	3.90
79	SITAPUR	LAHARPUR	AQUA	27.76300	80.92300	13:15:00	D	8.60
80	SITAPUR	LAHARPUR	AQUA	27.77000	80.92700	13:15:00	D	8.70
81	SITAPUR	MISRIK	S-NPP	27.62541	80.48107	12:36:00	D	3.40
82	SITAPUR	MISRIK	AQUA	27.69400	80.40300	13:15:00	D	8.50
83	UNNAO	SAFIPUR	AQUA	26.87800	80.19600	13:15:00	D	9.00

## The study used images received from following Satellites at IARI Satellite 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
4.	NOAA – 18	AVHRR	1000	Night
5.	NOAA – 19	AVHRR	1000	Night
6.	Metop - 1	AVHRR	1000	Night
7.	Metop - 2	AVHRR	1000	Night

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Softcopy of this report and latest statistics can be seen on <http://creams.iari.res.in>

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)

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