



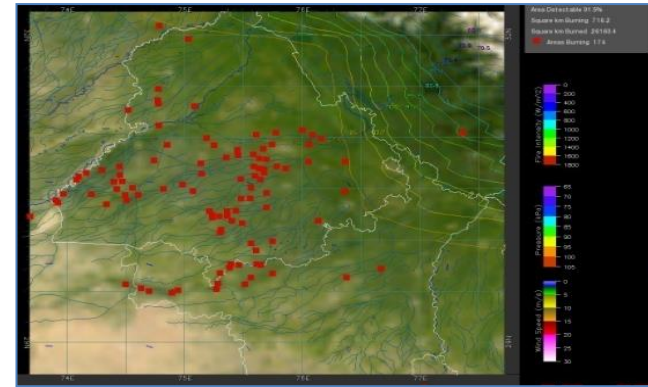
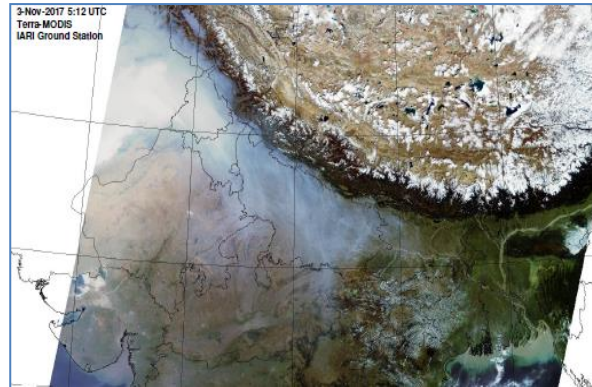
**Bulletin  
No. 51**

**Events Date:  
20-Nov-2018**

**Issued on:  
21-Nov-2018**



# **MONITORING PADDY RESIDUE BURNING IN NORTH INDIA USING SATELLITE REMOTE SENSING DURING 2018**



**Prepared by:**

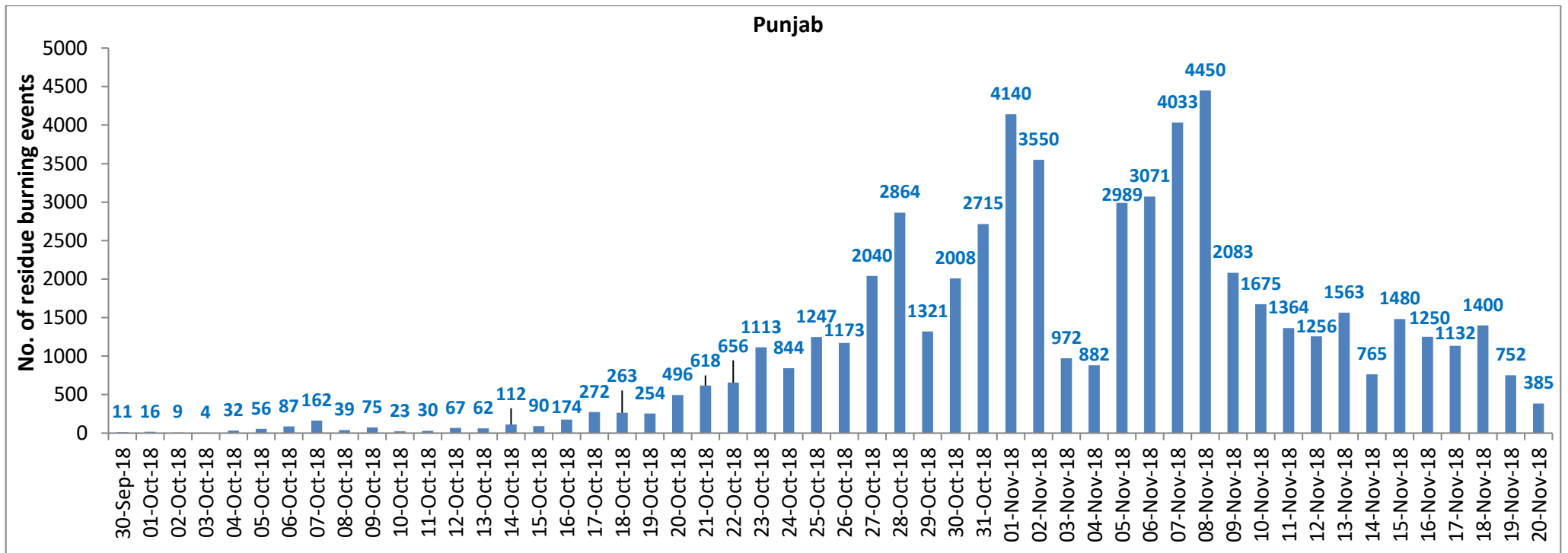
**Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS) Laboratory,  
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012**

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

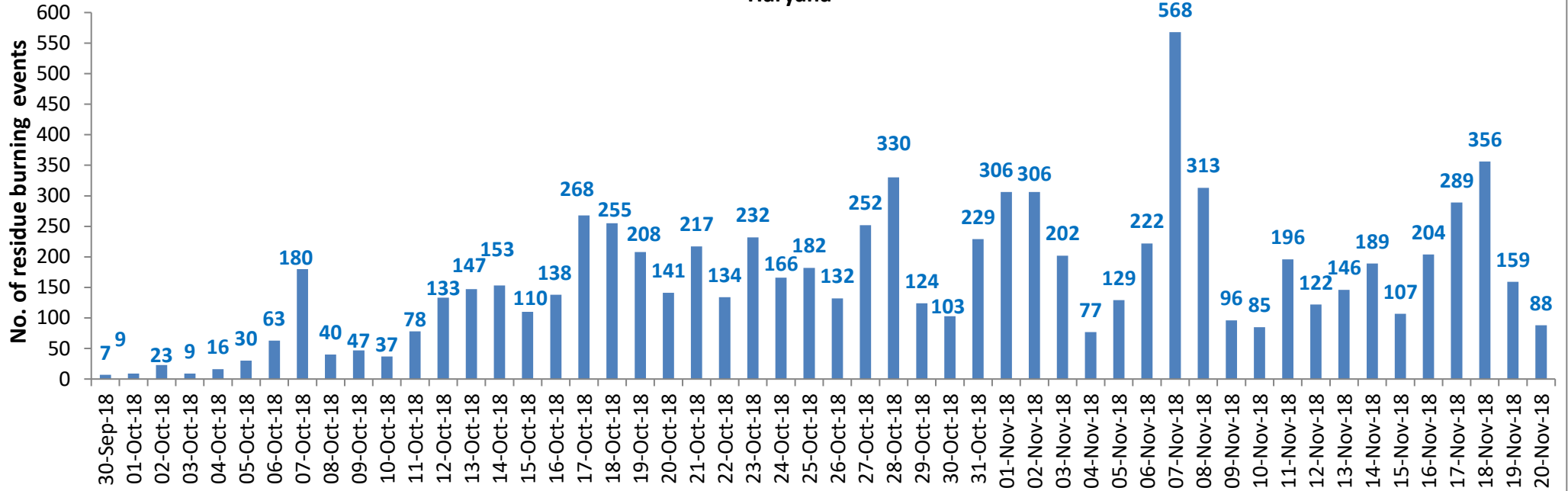
## Highlights for 20-November-2018

- Satellites detected **716** residue burning events in the three States (Punjab, Haryana & UP) on **20-Nov-2018**.
- The burning events detected on **20-Nov-2018** are **385**, **88** and **243** in Punjab, Haryana, and UP, respectively.
- The number of events has decreased from **914** on **19-Nov-2018** to **716** on **20-Nov-2018** in the three States.
- Total **71995** burning events were detected in the three States between **30-Sept-2018** and **20-Nov-2018**, which are distributed as **58125**, **8353** and **5517** in Punjab, Haryana and UP, respectively.
- Till **20-Nov-2018**, the burning events in the current year are about **90.3%** of the events detected in 2017 and about **57.4%** of the events detected in 2016.
- Overall, about **10%** and **43%** reduction in burning events are observed in current year (2018) till date as compared to that in 2017 and 2016, respectively.

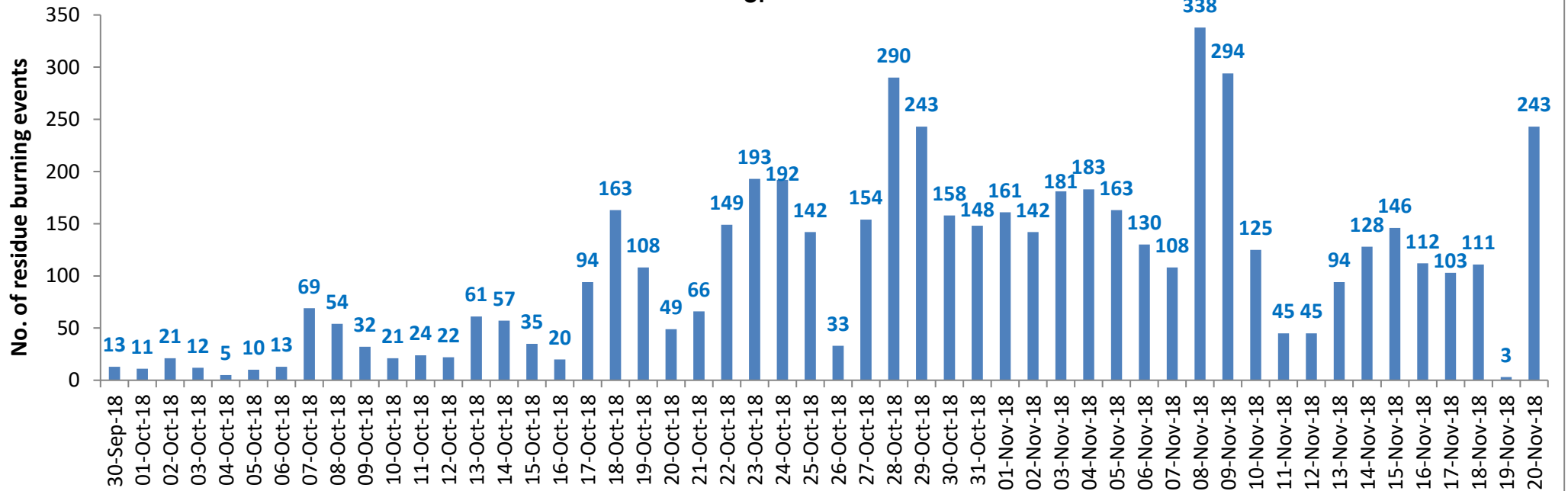
### Temporal distribution of residue burning events for the three study States



### Haryana

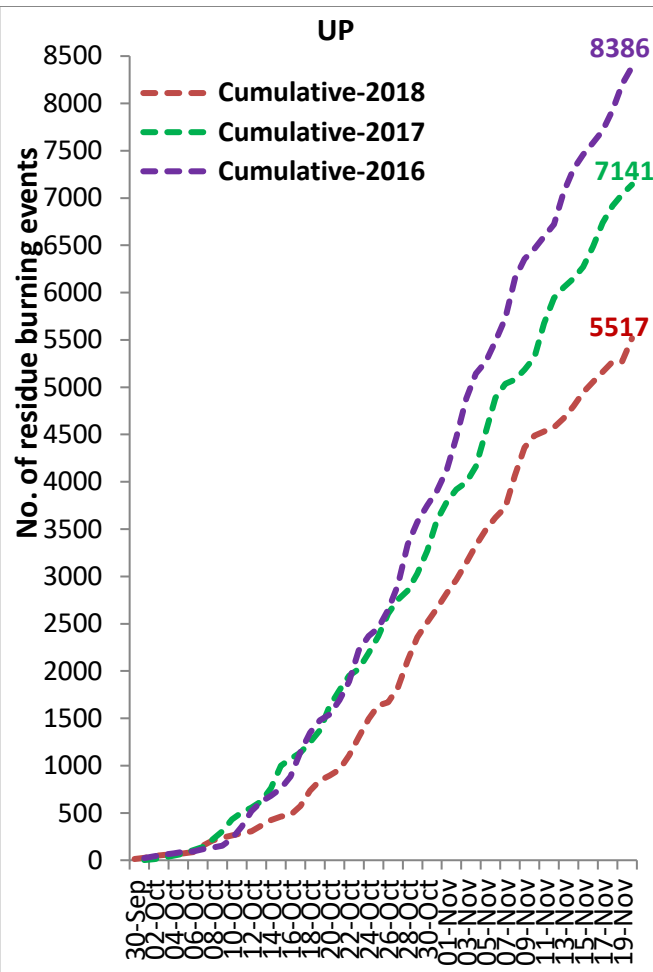
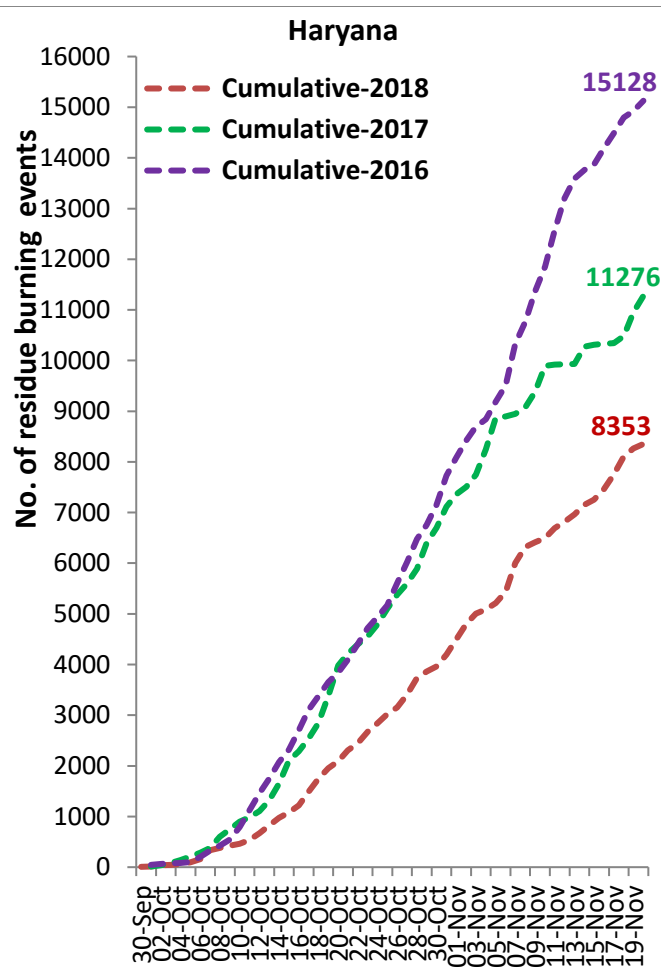
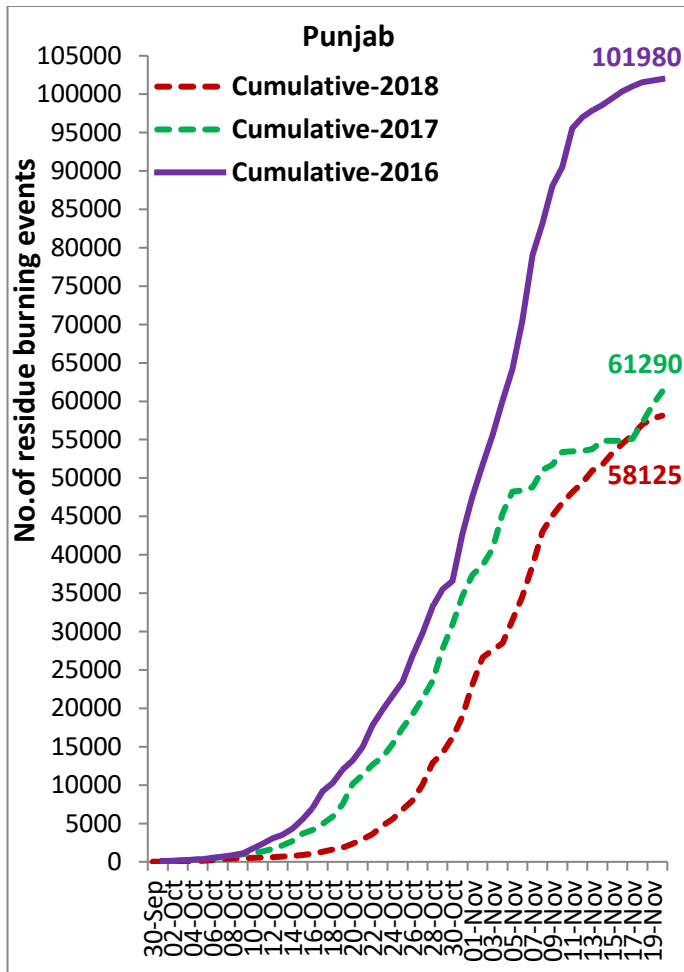


### UP

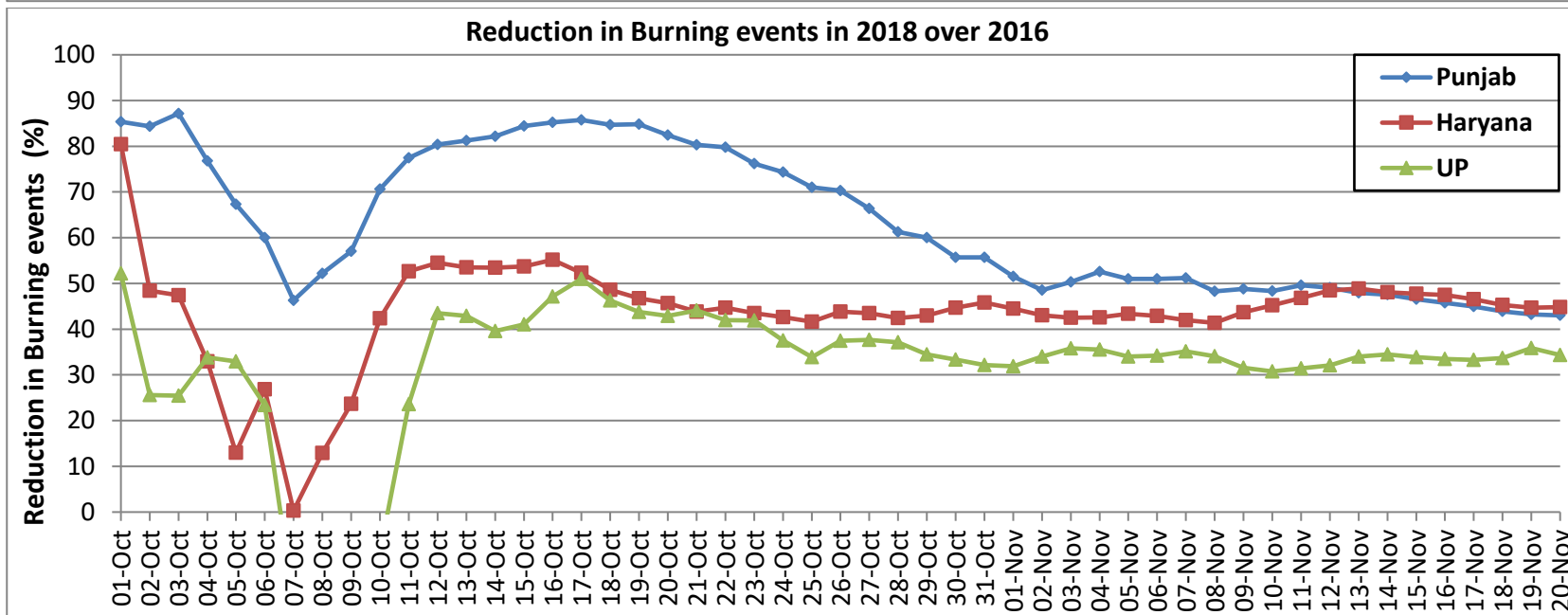
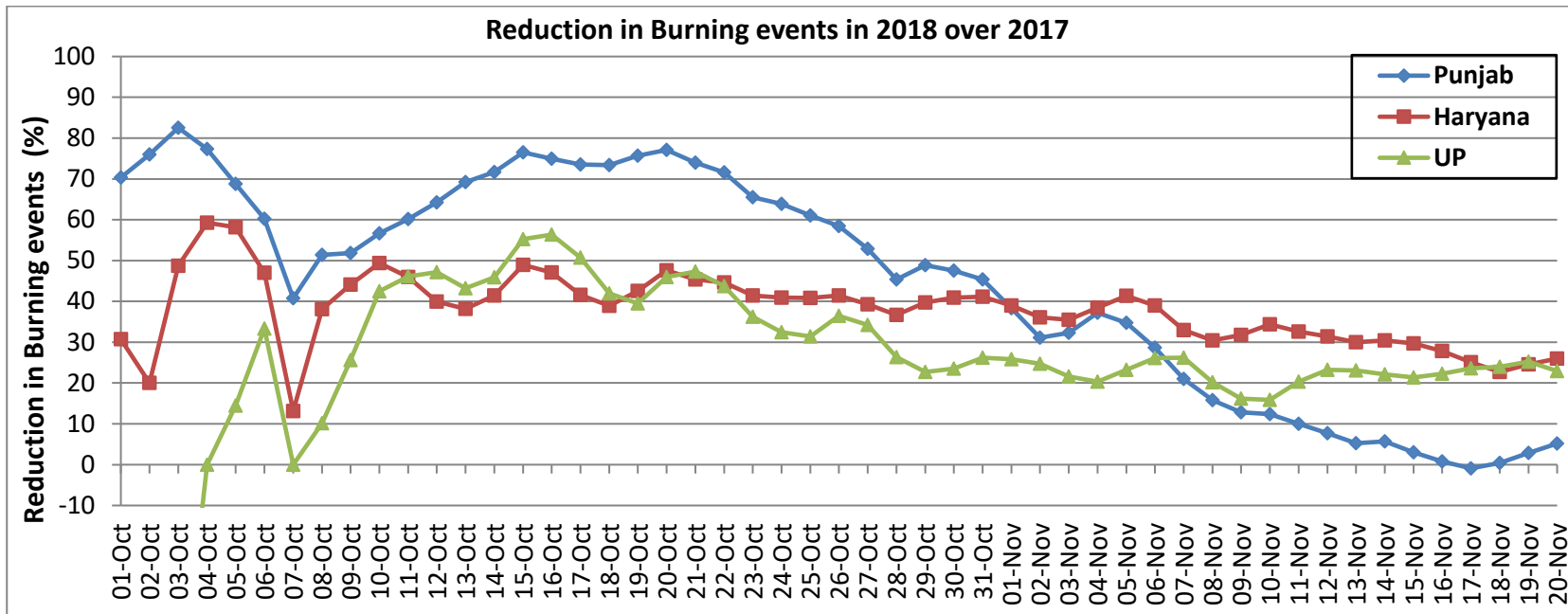


**Comparison of residue burning events in current year (2018) with previous years (2017& 2016) for the three study States**

**(30-Sep to 19-Nov)**

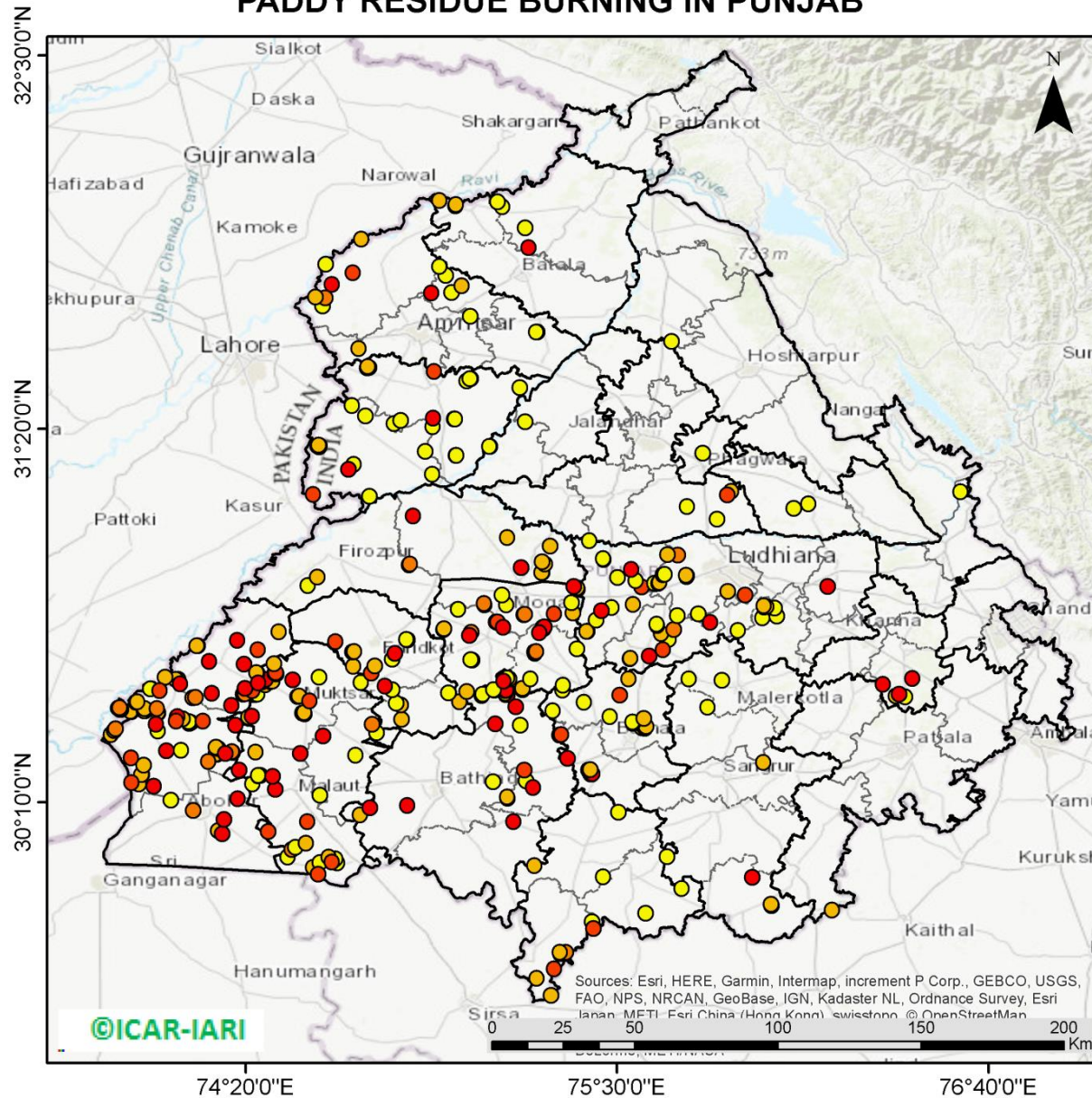


## Percent Reduction in Burning events in 2018 over 2017 and 2016 (Daily Cumulative)



(a) Punjab

PADDY RESIDUE BURNING IN PUNJAB



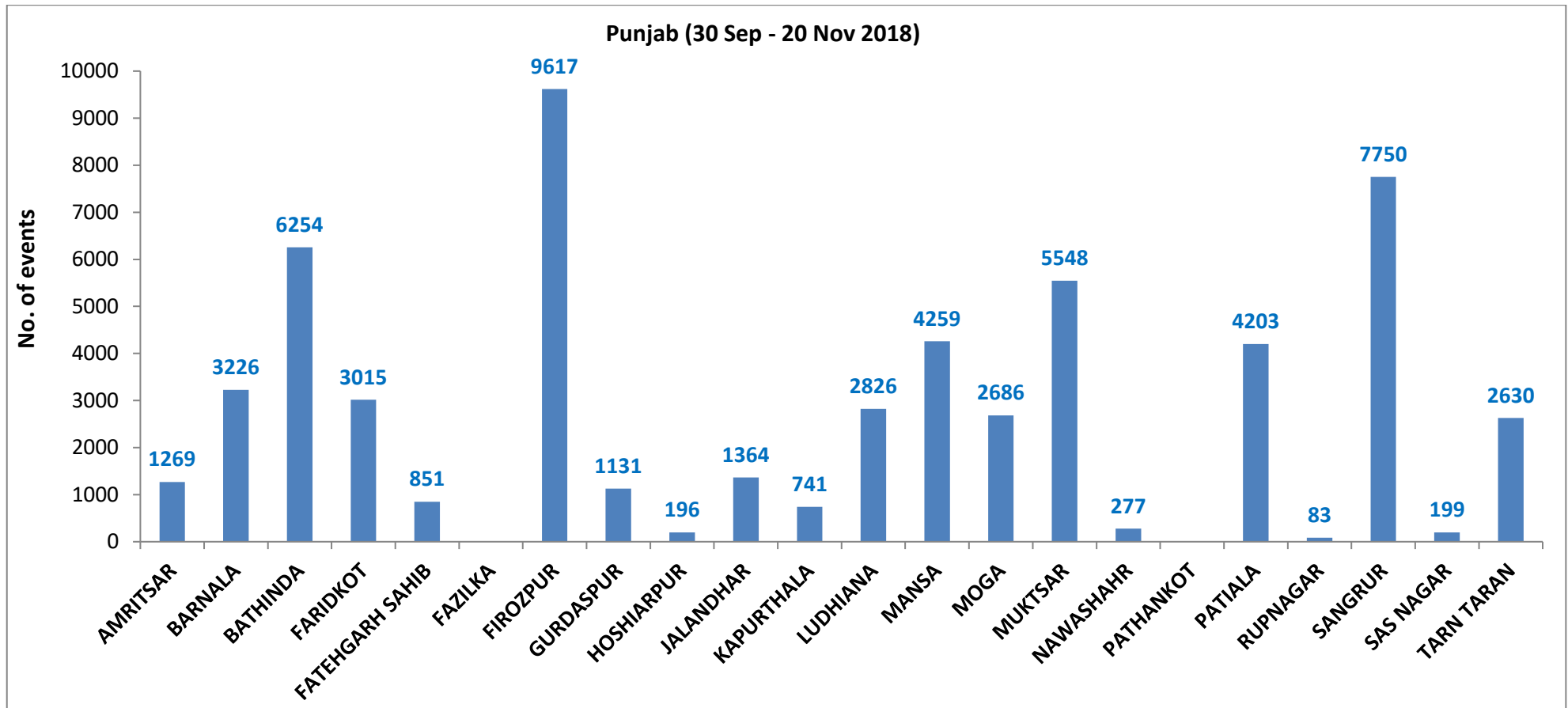
**385** burning events detected in Punjab on 20th November, 2018

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

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

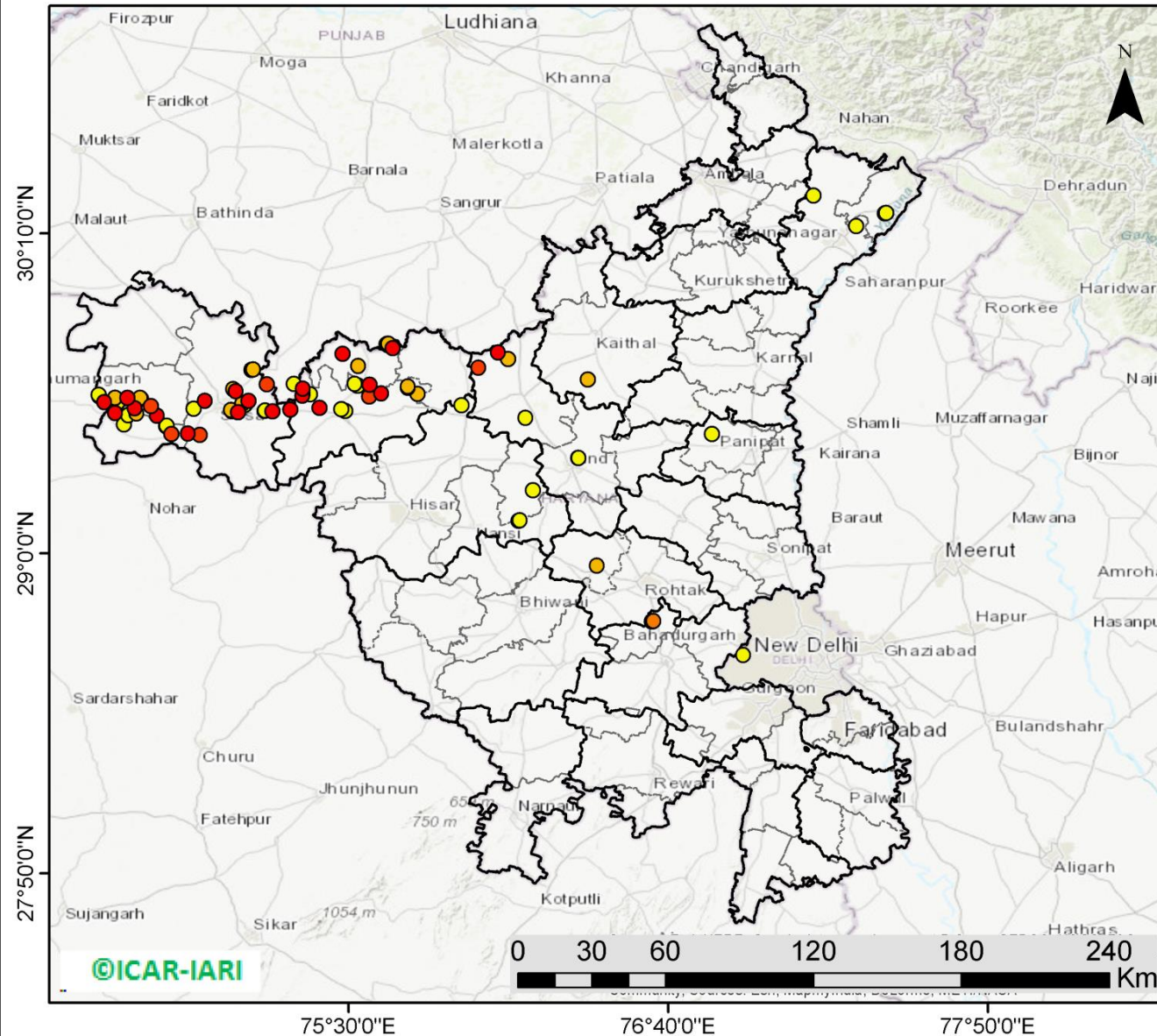


**District-wise cumulative number of residue burning events in Punjab (30-Sep-2018 to 20-Nov-2018)**



(b) Haryana

PADDY RESIDUE BURNING IN HARYANA



**88** burning events detected in Haryana on 20th November, 2018

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

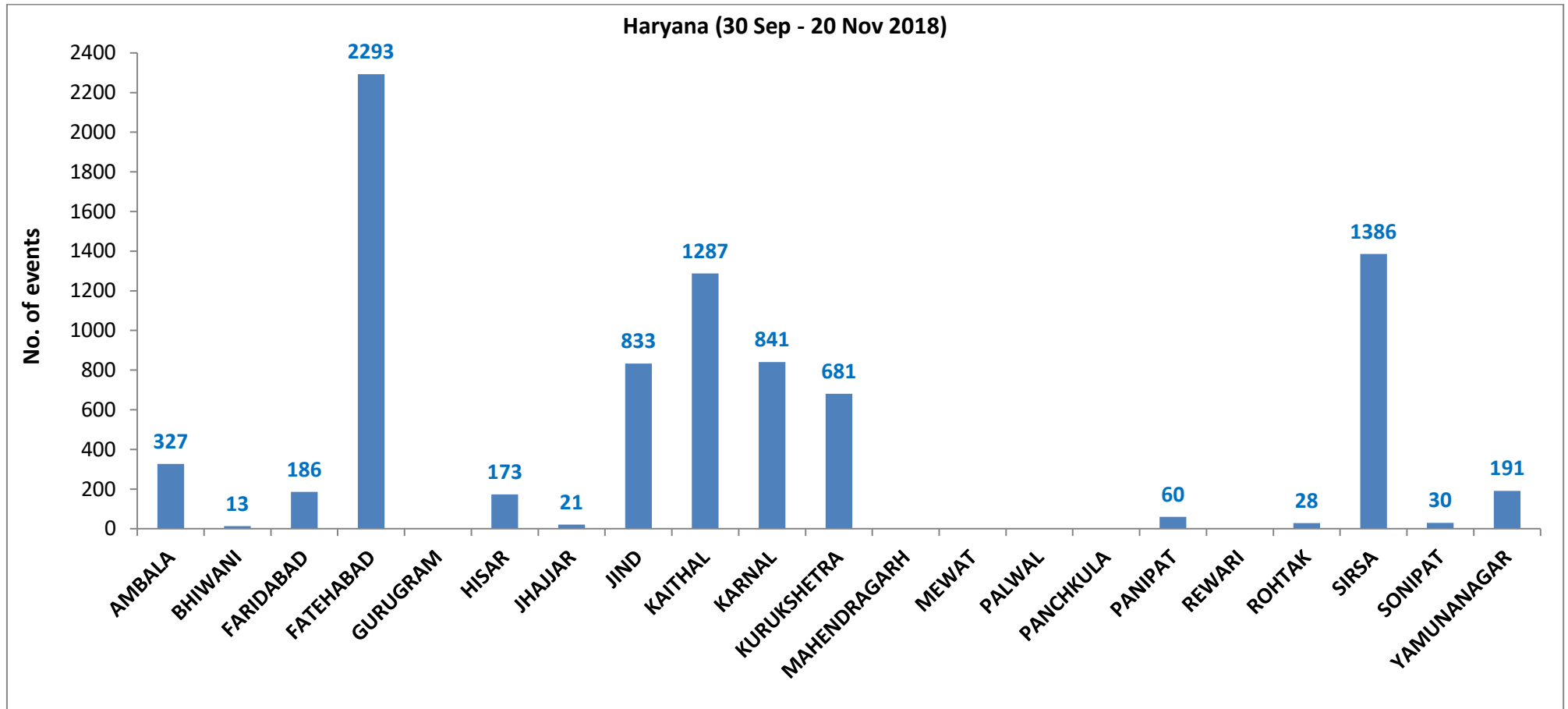
- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- >20



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

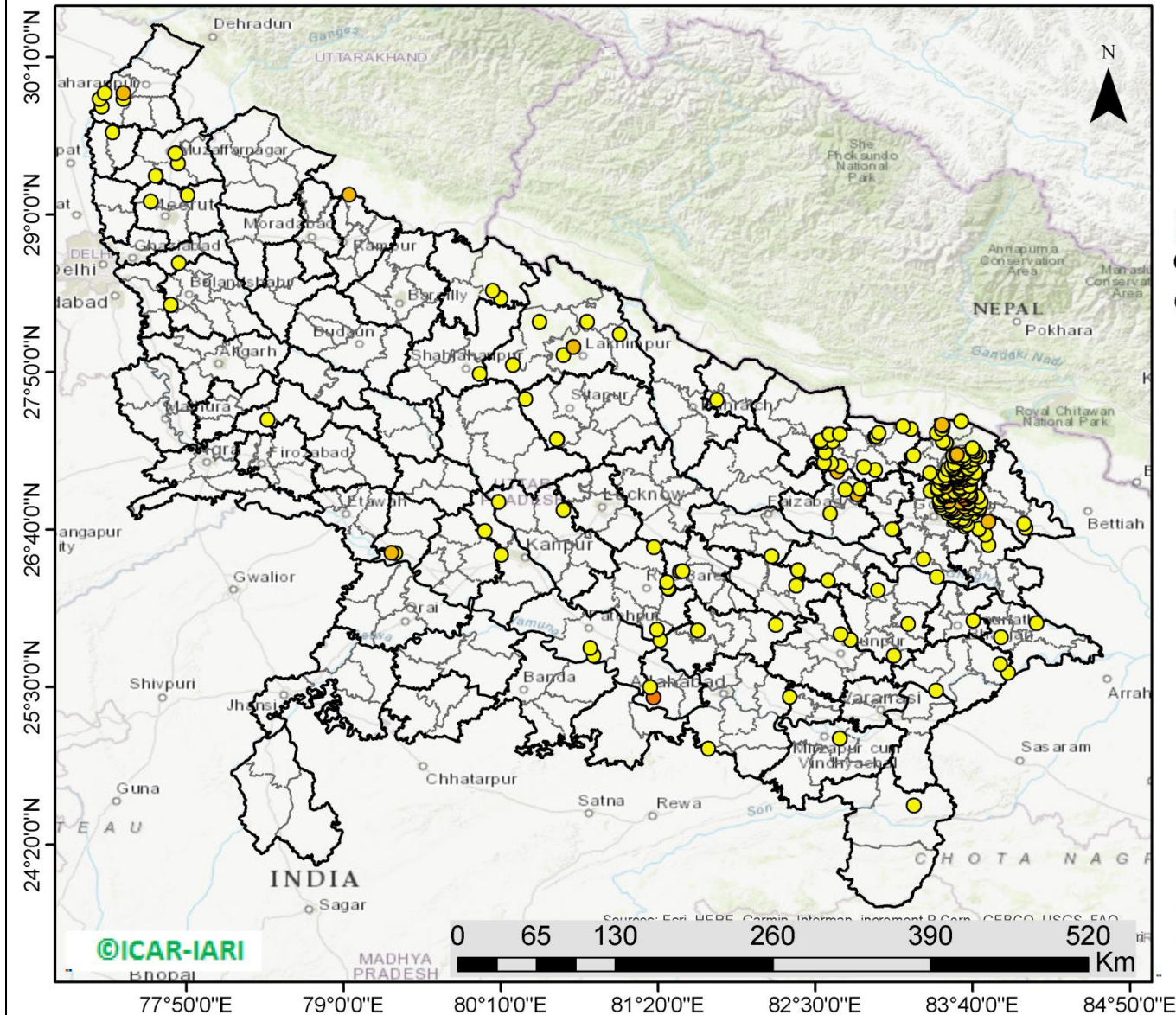


**District-wise cumulative number of residue burning events in Haryana (30-Sep-2018 to 20-Nov-2018)**



(c) Uttar Pradesh

PADDY RESIDUE BURNING IN UTTAR PRADESH



**243** burning events detected in Uttar Pradesh on **20th Nov, 2018**

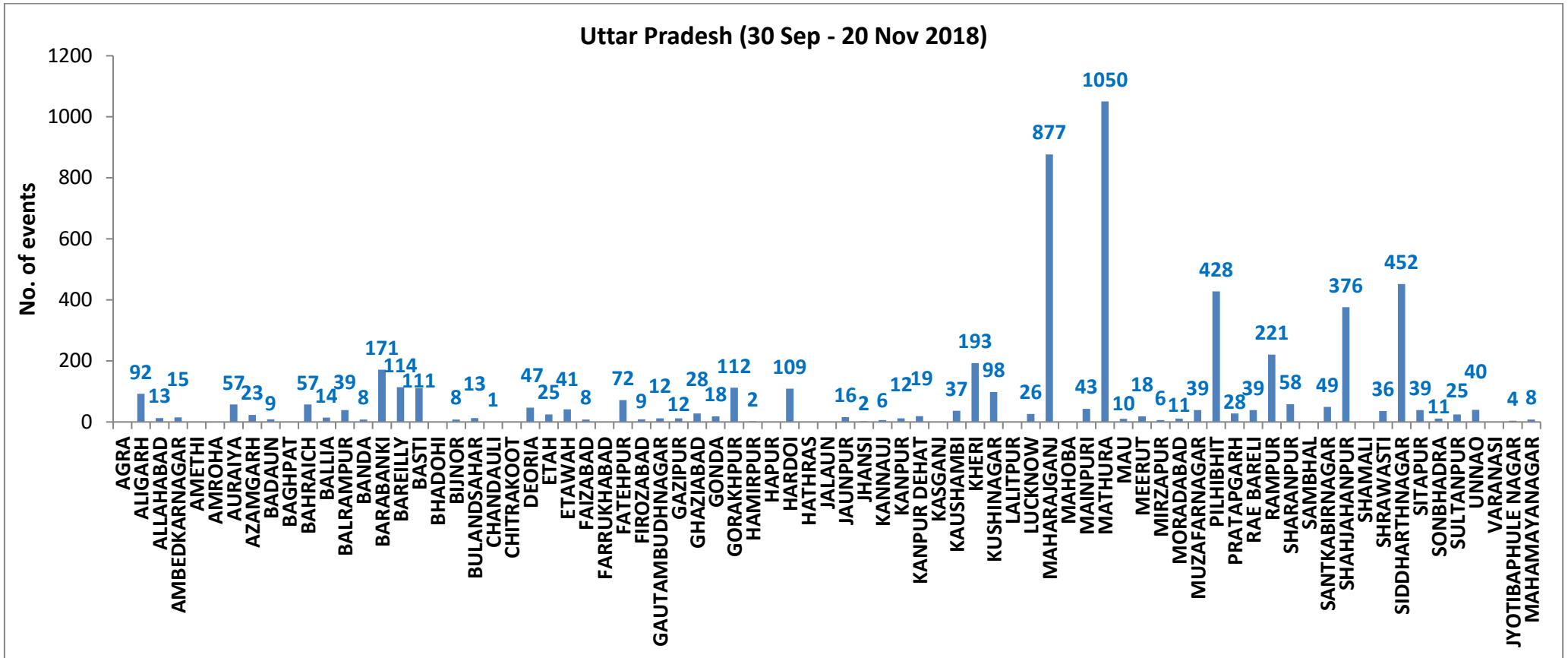
Fire Intensity (W/m<sup>2</sup>)

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



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

**District-wise cumulative number of residue burning events in Uttar Pradesh (30-Sep-2018 to 20-Nov-2018)**



**State wise, date wise and district-wise number of residue burning events detected in 2016, 2017 and 2018**  
**(Period: 30-Sep to 19-Nov)**

Date	Punjab			Haryana			UP			Total		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
30-Sep	--	--	11	--	---	7	--	---	13	--	---	31
1-Oct	109	54	16	46	13	9	23	2	11	178	69	36
2-Oct	51	50	9	16	27	23	20	8	21	87	85	53
3-Oct	66	62	4	16	40	9	16	17	12	98	119	25
4-Oct	37	103	32	7	60	16	15	22	5	59	185	53
5-Oct	95	106	56	15	68	30	14	20	10	124	194	96
6-Oct	152	138	87	105	75	65	6	39	13	263	252	165
7-Oct	171	105	162	126	97	180	24	31	69	321	233	411
8-Oct	166	215	39	94	218	40	14	75	54	274	508	133
9-Oct	270	163	75	121	148	47	22	87	32	413	398	154
10-Oct	597	164	23	242	151	37	74	126	21	913	441	81
11-Oct	652	177	30	336	87	78	128	74	24	1116	338	132
12-Oct	694	342	67	338	123	133	164	51	22	1196	516	222
13-Oct	467	470	62	284	207	147	102	69	61	853	746	270
14-Oct	812	582	112	328	333	153	60	137	57	1200	1052	322
15-Oct	1215	943	90	248	458	110	76	237	35	1539	1638	235
16-Oct	1478	465	174	385	186	138	125	71	20	1988	722	332
17-Oct	2173	807	272	399	244	268	261	69	94	2833	1120	634
18-Oct	1065	970	263	270	306	255	204	108	163	1539	1384	681
19-Oct	1762	1591	254	276	541	208	132	128	108	2170	2260	570
20-Oct	1175	2653	496	188	597	141	62	255	49	1425	3505	686
21-Oct	1726	1139	618	257	233	217	152	168	66	2135	1540	901
22-Oct	2837	1356	656	309	186	134	194	151	149	3340	1693	939
23-Oct	2040	994	1113	313	155	232	331	72	193	2684	1221	1538
24-Oct	1836	1714	844	221	244	166	152	171	192	2209	2129	1202

<b>25-Oct</b>	1813	2104	1247	229	303	182	83	175	142	2125	2582	1571
<b>26-Oct</b>	3390	1715	1173	434	276	132	195	240	33	4019	2231	1338
<b>27-Oct</b>	2904	2069	2040	417	224	252	255	145	154	3576	2438	2446
<b>28-Oct</b>	3493	2318	2864	458	292	330	435	99	290	4386	2709	3484
<b>29-Oct</b>	2258	4184	1321	278	502	124	237	180	243	2773	4866	1688
<b>30-Oct</b>	1076	3152	2008	395	307	103	175	238	158	1646	3697	2269
<b>31-Oct</b>	6132	3743	2715	575	413	229	153	321	148	6860	4447	3092
<b>01-Nov</b>	4843	2736	4140	362	250	306	223	199	161	5628	3185	4607
<b>02-Nov</b>	4183	1246	3550	332	145	306	345	131	142	4860	1522	3998
<b>03-Nov</b>	3806	2109	972	275	240	202	409	75	181	4409	2424	1355
<b>04-Nov</b>	4477	4603	882	146	499	77	265	168	183	4888	5270	1142
<b>05-Nov</b>	4137	2876	2989	345	625	129	125	367	163	4607	3868	3281
<b>06-Nov</b>	6303	171	3071	322	26	222	215	357	130	6840	327	3423
<b>07-Nov</b>	8575	420	4033	821	46	568	244	149	108	9640	615	4709
<b>08-Nov</b>	4129	2256	4450	432	128	313	419	43	338	4874	2427	5101
<b>09-Nov</b>	4857	675	2083	608	311	96	205	107	294	5670	1093	2473
<b>10-Nov</b>	2468	1642	1675	484	509	85	109	131	125	3061	2282	1885
<b>11-Nov</b>	5040	103	1364	716	29	196	129	358	45	5885	490	1605
<b>12-Nov</b>	1477	33	1256	634	3	122	129	269	45	2240	305	1423
<b>13-Nov</b>	885	237	1563	389	7	146	338	109	94	1612	353	1803
<b>14-Nov</b>	692	1101	765	171	340	189	247	95	128	1110	1536	1082
<b>15-Nov</b>	871	5	1480	107	40	107	154	123	146	1132	168	1733
<b>16-Nov</b>	911	8	1250	318	17	204	123	218	112	1352	243	1566
<b>17-Nov</b>	638	217	1132	299	12	289	130	249	103	1067	478	1524
<b>18-Nov</b>	568	2147	1400	312	139	356	217	180	111	1097	2466	1867
<b>19-Nov</b>	168	2200	752	125	471	159	273	122	3	566	2793	914
<b>20-Nov</b>	240	1857	385	204	325	88	183	101	243	627	2283	716
<b>Total</b>	<b>101980</b>	<b>61290</b>	<b>58125</b>	<b>15128</b>	<b>11276</b>	<b>8353</b>	<b>8386</b>	<b>7141</b>	<b>5517</b>	<b>125494</b>	<b>79707</b>	<b>71995</b>

**(a) Punjab**

Districts	01 Oct - 20Nov		
	2016	2017	2018
AMRITSAR	2163	1283	1269
BARNALA	5689	2965	3226
BATHINDA	8821	5059	6254
FARIDKOT	4621	3282	3015
FATEHGARH SAHIB	2457	1618	851
FAZILKA	0	0	0
FIROZPUR	13515	8669	9617
GURDASPUR	2207	1532	1131
HOSHIARPUR	899	480	196
JALANDHAR	4658	2016	1364
KAPURTHALA	3134	1564	741
LUDHIANA	9513	4130	2826
MANSA	5618	4284	4259
MOGA	6391	2201	2686
MUKTSAR	6978	4636	5548
NAWASHAHR (SBS Nagar)	1357	664	277
PATHANKOT	0	0	0
PATIALA	6536	5020	4203
RUPNAGAR	715	326	83
SANGRUR	11853	8289	7750
SAS NAGAR	361	243	199
TARN TARAN	4494	3029	2630
<b>Total</b>	<b>101980</b>	<b>61290</b>	<b>58125</b>

**(b) Haryana**

Districts	01 Oct - 20Nov		
	2016	2017	2018
AMBALA	530	492	327
BHIWANI	74	27	13
FARIDABAD	286	341	186
FATEHABAD	4746	3283	2293
GURUGRAM	0	0	0
HISAR	379	169	173
JHAJJAR	28	16	21
JIND	850	919	833
KAITHAL	1747	1505	1287
KARNAL	1625	1494	841
KURUKSHETRA	1076	1143	681
MAHENDRAGARH	0	0	0
MEWAT	0	0	0
PALWAL	0	0	0
PANCHKULA	0	0	3
PANIPAT	79	80	60
REWARI	0	0	0
ROHTAK	85	55	28
SIRSA	3303	1386	1386
SONIPAT	81	58	30
YAMUNANAGAR	239	308	191
<b>Total</b>	<b>15128</b>	<b>11276</b>	<b>8353</b>

**(c) Uttar Pradesh**

Distrites	01 Oct - 20Nov			GAUTAMBUDH NAGAR			RAE BARELI				
	2016	2017	2018								
AGRA	0	0	0	NAGAR	20	35	12	RAMPUR	617	619	221
ALIGARH	53	77	92	GAZIPUR	13	11	12	SHARANPUR	96	111	58
ALLAHABAD	5	8	13	GHAZIABAD	68	42	28	SAMBHAL	0	0	0
AMBEDKARNAGAR	66	33	15	GONDA	46	33	18	SANTKABIRNAGAR	53	59	49
AMETHI	0	0	0	GORAKHPUR	59	99	112	SHAHJAHANPUR	1127	676	376
AMROHA	0	0	0	HAMIRPUR	0	0	2	SHAMALI	0	0	0
AURAIYA	213	177	57	HAPUR	0	0	0	SHRAWASTI	32	29	36
AZAMGARH	32	26	23	HARDOI	235	193	109	SIDDHARTHANAGAR	237	168	452
BADAUN	6	7	9	HATHRAS	0	0	0	SITAPUR	120	71	39
BAGHPAT	0	0	0	JALAUN	0	0	0	SONBHADRA	14	13	11
BAHRAICH	65	39	57	JAUNPUR	15	13	16	SULTANPUR	53	28	25
BALLIA	17	22	14	JHANSI	0	0	2	UNNAO	60	47	40
BALRAMPUR	33	27	39	KANNAUJ	28	14	6	VARANASI	1	0	0
BANDA	2	14	8	KANPUR	14	7	12	JYOTIBAPHULE NAGAR	10	13	4
BARABANKI	213	152	171	KANPUR DEHAT	49	48	19	MAHAMAYANAGAR	2	2	8
BAREILLY	242	201	114	KASGANJ	0	0	0	Total	8386	7141	5517
BASTI	137	180	111	KAUSHAMBI	20	39	37				
BHADOHI	0	0	0	KHERI	418	256	193				
BIJNOR	50	41	8	KUSHINAGAR	45	95	98				
BULANDSAHAR	25	29	13	LALITPUR	0	0	0				
CHANDALI	7	7	1	LUCKNOW	60	30	26				
CHITRAKOOT	0	0	0	MAHARAJGANJ	595	882	877				
DEORIA	56	54	47	MAHOBA	0	0	0				
ETAH	17	30	25	MAINPURI	79	83	43				
ETAWAH	127	99	41	MATHURA	1442	1082	1050				
FAIZABAD	13	10	8	MAU	12	9	10				
FARRUKHABAD	0	0	0	MEERUT	71	69	18				
FATEHPUR	57	36	72	MIRZAPUR	4	12	6				
FIROZABAD	23	18	9	MORADABAD	46	32	11				
				MUZAFARNAGAR	119	126	39				
				PILHIBHIT	933	713	428				
				PRATAPGARH	36	34	28				

**Details of residue burning events in Punjab on 20-Nov-2018**

<b>Event S. No.</b>	<b>District</b>	<b>Tehsil/Block</b>	<b>Satellite</b>	<b>Longitude</b>	<b>Latitude</b>	<b>Time (IST)</b>	<b>Day/Night</b>	<b>Fire Power (W/m<sup>2</sup>)</b>
1	AMRITSAR	AJNALA	S-NPP	74.57357	31.71856	13:00:00	D	1.80
2	AMRITSAR	AJNALA	S-NPP	74.58295	31.74268	13:00:00	D	11.00
3	AMRITSAR	AJNALA	S-NPP	74.55225	31.74551	13:00:00	D	6.60
4	AMRITSAR	AJNALA	S-NPP	74.94186	31.84191	13:00:00	D	3.80
5	AMRITSAR	AJNALA	S-NPP	74.58413	31.84849	13:00:00	D	4.90
6	AMRITSAR	AJNALA	S-NPP	74.69569	31.92653	13:00:00	D	6.70
7	AMRITSAR	AJNALA	AQUA-1	74.60323	31.78543	14:06:00	D	20.08
8	AMRITSAR	AJNALA	AQUA-1	74.66939	31.82196	14:06:00	D	19.73
9	AMRITSAR	AMRITSAR I	S-NPP	75.03769	31.68576	13:00:00	D	3.70
10	AMRITSAR	AMRITSAR I	S-NPP	74.97929	31.75954	13:00:00	D	4.50
11	AMRITSAR	AMRITSAR I	S-NPP	75.01234	31.78098	13:00:00	D	7.70
12	AMRITSAR	AMRITSAR I	S-NPP	74.96178	31.81308	13:00:00	D	2.70
13	AMRITSAR	AMRITSAR I	AQUA-1	74.91631	31.75848	14:06:00	D	29.69
14	AMRITSAR	AMRITSAR II	S-NPP	74.68753	31.58490	13:00:00	D	6.40
15	AMRITSAR	BABA BAKALA	S-NPP	75.24955	31.63609	13:00:00	D	6.20
16	AMRITSAR	BABA BAKALA	S-NPP	75.24604	31.63725	13:00:00	D	4.20
17	BARNALA	BARNALA	S-NPP	75.58690	30.39752	13:00:00	D	28.10
18	BARNALA	BARNALA	S-NPP	75.57847	30.39933	13:00:00	D	3.90
19	BARNALA	BARNALA	S-NPP	75.58881	30.40152	13:00:00	D	56.70
20	BARNALA	BARNALA	S-NPP	75.58565	30.40195	13:00:00	D	9.90
21	BARNALA	BARNALA	S-NPP	75.59081	30.40309	13:00:00	D	9.90
22	BARNALA	BARNALA	S-NPP	75.54958	30.41292	13:00:00	D	5.00
23	BARNALA	BARNALA	S-NPP	75.54832	30.41737	13:00:00	D	5.00
24	BARNALA	BARNALA	S-NPP	75.58325	30.42970	13:00:00	D	6.10
25	BARNALA	BARNALA	S-NPP	75.47701	30.43496	13:00:00	D	3.70
26	BARNALA	BARNALA	S-NPP	75.29742	30.45336	13:00:00	D	2.10
27	BARNALA	BARNALA	S-NPP	75.39597	30.47990	13:00:00	D	2.60
28	BARNALA	BARNALA	S-NPP	75.32887	30.51762	13:00:00	D	1.80



29	BARNALA	BARNALA	S-NPP	75.33031	30.53225	13:00:00	D	3.20
30	BARNALA	BARNALA	S-NPP	75.53577	30.55305	13:00:00	D	5.70
31	BARNALA	BARNALA	AQUA-1	75.50838	30.50143	14:06:00	D	19.97
32	BARNALA	TAPPA	S-NPP	75.41650	30.25479	13:00:00	D	14.70
33	BARNALA	TAPPA	S-NPP	75.41926	30.25574	13:00:00	D	48.70
34	BARNALA	TAPPA	S-NPP	75.42180	30.25592	13:00:00	D	26.90
35	BARNALA	TAPPA	S-NPP	75.41011	30.26805	13:00:00	D	5.10
36	BARNALA	TAPPA	S-NPP	75.41541	30.26922	13:00:00	D	5.10
37	BARNALA	TAPPA	AQUA-1	75.34467	30.30381	14:06:00	D	23.66
38	BATHINDA	BATHINDA	S-NPP	74.69145	30.12747	13:00:00	D	5.30
39	BATHINDA	BATHINDA	S-NPP	74.72244	30.14943	13:00:00	D	31.80
40	BATHINDA	BATHINDA	S-NPP	75.10995	30.23075	13:00:00	D	3.70
41	BATHINDA	BATHINDA	AQUA-1	74.83992	30.15708	14:06:00	D	20.35
42	BATHINDA	BATHINDA	AQUA-1	75.20825	30.26787	14:06:00	D	18.01
43	BATHINDA	RAMPURA PHUL	S-NPP	75.15645	30.17942	13:00:00	D	5.50
44	BATHINDA	RAMPURA PHUL	S-NPP	75.15514	30.18399	13:00:00	D	8.60
45	BATHINDA	RAMPURA PHUL	S-NPP	75.21401	30.23435	13:00:00	D	4.70
46	BATHINDA	RAMPURA PHUL	S-NPP	75.31950	30.37677	13:00:00	D	10.60
47	BATHINDA	RAMPURA PHUL	S-NPP	75.32486	30.37794	13:00:00	D	16.60
48	BATHINDA	RAMPURA PHUL	S-NPP	75.19604	30.40747	13:00:00	D	4.00
49	BATHINDA	RAMPURA PHUL	S-NPP	75.07501	30.50089	13:00:00	D	6.70
50	BATHINDA	RAMPURA PHUL	S-NPP	75.15015	30.50272	13:00:00	D	7.40
51	BATHINDA	RAMPURA PHUL	S-NPP	75.15559	30.50390	13:00:00	D	23.50
52	BATHINDA	RAMPURA PHUL	S-NPP	75.07704	30.50417	13:00:00	D	4.70
53	BATHINDA	RAMPURA PHUL	S-NPP	75.14884	30.50726	13:00:00	D	7.40
54	BATHINDA	RAMPURA PHUL	S-NPP	75.14929	30.51551	13:00:00	D	9.30
55	BATHINDA	RAMPURA PHUL	S-NPP	75.15473	30.51673	13:00:00	D	16.20
56	BATHINDA	RAMPURA PHUL	S-NPP	75.11401	30.51729	13:00:00	D	4.60
57	BATHINDA	RAMPURA PHUL	S-NPP	75.15166	30.51751	13:00:00	D	24.60
58	BATHINDA	RAMPURA PHUL	S-NPP	75.11079	30.51832	13:00:00	D	2.50
59	BATHINDA	RAMPURA PHUL	S-NPP	75.16184	30.55207	13:00:00	D	7.80

60	BATHINDA	RAMPURA PHUL	S-NPP	75.15510	30.55540	13:00:00	D	3.80
61	BATHINDA	RAMPURA PHUL	AQUA-1	75.23554	30.21360	14:06:00	D	37.37
62	BATHINDA	RAMPURA PHUL	AQUA-1	75.11617	30.41160	14:06:00	D	20.08
63	BATHINDA	RAMPURA PHUL	AQUA-1	75.18146	30.46593	14:06:00	D	22.30
64	BATHINDA	RAMPURA PHUL	AQUA-1	75.14345	30.54485	14:06:00	D	23.71
65	BATHINDA	TALWANDI SABO	S-NPP	75.23991	29.96849	13:00:00	D	6.20
66	BATHINDA	TALWANDI SABO	AQUA-1	75.17415	30.10692	14:06:00	D	37.22
67	FARIDKOT	FARIDKOT	S-NPP	74.79277	30.51905	13:00:00	D	4.80
68	FARIDKOT	FARIDKOT	S-NPP	74.72665	30.57007	13:00:00	D	15.40
69	FARIDKOT	FARIDKOT	S-NPP	74.67099	30.59227	13:00:00	D	6.90
70	FARIDKOT	FARIDKOT	S-NPP	74.73838	30.59247	13:00:00	D	8.80
71	FARIDKOT	FARIDKOT	S-NPP	74.79269	30.61444	13:00:00	D	4.70
72	FARIDKOT	FARIDKOT	S-NPP	74.66752	30.63663	13:00:00	D	5.00
73	FARIDKOT	FARIDKOT	S-NPP	74.67010	30.63667	13:00:00	D	9.10
74	FARIDKOT	FARIDKOT	S-NPP	74.67328	30.63794	13:00:00	D	5.70
75	FARIDKOT	FARIDKOT	S-NPP	74.84132	30.67425	13:00:00	D	4.20
76	FARIDKOT	FARIDKOT	S-NPP	74.83827	30.67532	13:00:00	D	3.00
77	FARIDKOT	FARIDKOT	AQUA-1	74.77102	30.52958	14:06:00	D	28.40
78	FARIDKOT	FARIDKOT	AQUA-1	74.80172	30.63199	14:06:00	D	25.64
79	FARIDKOT	FARIDKOT	AQUA-1	74.61482	30.66912	14:06:00	D	17.34
80	FARIDKOT	JAITO	S-NPP	74.82273	30.42608	13:00:00	D	7.80
81	FARIDKOT	JAITO	S-NPP	74.81908	30.47070	13:00:00	D	7.30
82	FARIDKOT	JAITO	S-NPP	74.80500	30.47740	13:00:00	D	2.80
83	FARIDKOT	JAITO	S-NPP	75.00446	30.48067	13:00:00	D	7.10
84	FARIDKOT	JAITO	S-NPP	74.96964	30.50933	13:00:00	D	2.60
85	FATEHGARH SAHIB	FATEHGARH SAHIB	S-NPP	76.40578	30.49634	13:00:00	D	2.70
86	FATEHGARH SAHIB	FATEHGARH SAHIB	S-NPP	76.37561	30.49896	13:00:00	D	6.10
87	FATEHGARH SAHIB	FATEHGARH SAHIB	AQUA-1	76.38659	30.50443	14:06:00	D	25.94
88	FATEHGARH SAHIB	FATEHGARH SAHIB	AQUA-1	76.33616	30.53523	14:06:00	D	24.40
89	FATEHGARH SAHIB	FATEHGARH SAHIB	AQUA-1	76.42752	30.55384	14:06:00	D	25.59
90	FIROZPUR	ABOHAR	S-NPP	74.24613	30.07783	14:42:00	D	7.50

91	FIROZPUR	ABOHAR	S-NPP	74.09657	30.17402	13:00:00	D	3.40
92	FIROZPUR	ABOHAR	S-NPP	74.35379	30.22485	13:00:00	D	4.00
93	FIROZPUR	ABOHAR	AQUA-1	74.25842	30.06875	14:06:00	D	26.01
94	FIROZPUR	ABOHAR	AQUA-1	74.26354	30.11366	14:06:00	D	26.52
95	FIROZPUR	ABOHAR	AQUA-1	74.16804	30.14211	14:06:00	D	14.76
96	FIROZPUR	ABOHAR	AQUA-1	74.30787	30.17804	14:06:00	D	37.37
97	FIROZPUR	FAZILKA	S-NPP	73.99691	30.22440	14:42:00	D	5.60
98	FIROZPUR	FAZILKA	S-NPP	74.00627	30.25320	14:42:00	D	11.90
99	FIROZPUR	FAZILKA	S-NPP	74.00431	30.25378	14:42:00	D	7.70
100	FIROZPUR	FAZILKA	S-NPP	74.01172	30.28319	14:42:00	D	8.00
101	FIROZPUR	FAZILKA	S-NPP	74.24117	30.31671	13:00:00	D	7.30
102	FIROZPUR	FAZILKA	S-NPP	74.23852	30.31811	13:00:00	D	6.60
103	FIROZPUR	FAZILKA	S-NPP	74.29192	30.32299	13:00:00	D	8.90
104	FIROZPUR	FAZILKA	S-NPP	74.28912	30.32470	13:00:00	D	10.60
105	FIROZPUR	FAZILKA	S-NPP	74.12896	30.32881	13:00:00	D	4.40
106	FIROZPUR	FAZILKA	S-NPP	74.24655	30.33533	13:00:00	D	8.10
107	FIROZPUR	FAZILKA	S-NPP	74.24158	30.33726	13:00:00	D	19.70
108	FIROZPUR	FAZILKA	S-NPP	74.23895	30.33870	13:00:00	D	7.60
109	FIROZPUR	FAZILKA	S-NPP	73.90869	30.37785	13:00:00	D	6.00
110	FIROZPUR	FAZILKA	S-NPP	74.05675	30.38978	13:00:00	D	4.60
111	FIROZPUR	FAZILKA	S-NPP	73.91862	30.39059	13:00:00	D	5.90
112	FIROZPUR	FAZILKA	S-NPP	73.92358	30.39695	13:00:00	D	12.10
113	FIROZPUR	FAZILKA	S-NPP	74.15482	30.41428	13:00:00	D	4.30
114	FIROZPUR	FAZILKA	S-NPP	74.16103	30.41572	13:00:00	D	5.10
115	FIROZPUR	FAZILKA	S-NPP	74.15572	30.41720	13:00:00	D	14.50
116	FIROZPUR	FAZILKA	S-NPP	74.15337	30.41908	13:00:00	D	3.60
117	FIROZPUR	FAZILKA	S-NPP	74.13359	30.42699	14:42:00	D	16.80
118	FIROZPUR	FAZILKA	S-NPP	74.13526	30.42725	14:42:00	D	8.10
119	FIROZPUR	FAZILKA	S-NPP	74.11617	30.43382	14:42:00	D	17.90
120	FIROZPUR	FAZILKA	S-NPP	74.11790	30.43398	14:42:00	D	20.50
121	FIROZPUR	FAZILKA	S-NPP	74.05779	30.44650	14:42:00	D	4.70

122	FIROZPUR	FAZILKA	S-NPP	74.05589	30.44667	14:42:00	D	5.50
123	FIROZPUR	FAZILKA	S-NPP	73.97318	30.45070	14:42:00	D	5.30
124	FIROZPUR	FAZILKA	S-NPP	73.97122	30.45134	14:42:00	D	7.60
125	FIROZPUR	FAZILKA	S-NPP	74.01526	30.45226	14:42:00	D	8.30
126	FIROZPUR	FAZILKA	S-NPP	74.01335	30.45266	14:42:00	D	9.90
127	FIROZPUR	FAZILKA	S-NPP	73.93950	30.45672	14:42:00	D	6.90
128	FIROZPUR	FAZILKA	S-NPP	73.93740	30.45753	14:42:00	D	7.20
129	FIROZPUR	FAZILKA	S-NPP	74.01382	30.45923	13:00:00	D	5.90
130	FIROZPUR	FAZILKA	S-NPP	73.93149	30.46123	13:00:00	D	20.50
131	FIROZPUR	FAZILKA	S-NPP	73.93585	30.46264	13:00:00	D	12.70
132	FIROZPUR	FAZILKA	S-NPP	73.98745	30.47912	13:00:00	D	4.10
133	FIROZPUR	FAZILKA	S-NPP	73.99160	30.48088	13:00:00	D	7.40
134	FIROZPUR	FAZILKA	S-NPP	74.16602	30.49412	14:42:00	D	10.40
135	FIROZPUR	FAZILKA	S-NPP	74.03334	30.52163	13:00:00	D	3.70
136	FIROZPUR	FAZILKA	AQUA-1	74.04356	30.21697	14:06:00	D	20.46
137	FIROZPUR	FAZILKA	AQUA-1	73.97364	30.22895	14:06:00	D	18.87
138	FIROZPUR	FAZILKA	AQUA-1	74.21443	30.29422	14:06:00	D	14.43
139	FIROZPUR	FAZILKA	AQUA-1	73.97296	30.30500	14:06:00	D	19.35
140	FIROZPUR	FAZILKA	AQUA-1	74.26865	30.32027	14:06:00	D	30.17
141	FIROZPUR	FAZILKA	AQUA-1	74.08278	30.32776	14:06:00	D	23.69
142	FIROZPUR	FAZILKA	AQUA-1	74.30037	30.40741	14:06:00	D	24.47
143	FIROZPUR	FAZILKA	AQUA-1	74.05160	30.41075	14:06:00	D	21.76
144	FIROZPUR	FAZILKA	AQUA-1	74.11347	30.42059	14:06:00	D	19.83
145	FIROZPUR	FAZILKA	AQUA-1	74.19874	30.42059	14:06:00	D	18.76
146	FIROZPUR	FAZILKA	AQUA-1	74.05379	30.45951	14:06:00	D	11.26
147	FIROZPUR	FAZILKA	AQUA-1	74.06232	30.51641	14:06:00	D	18.53
148	FIROZPUR	FIROZPUR	S-NPP	74.52834	30.84486	13:00:00	D	3.60
149	FIROZPUR	FIROZPUR	S-NPP	74.55762	30.87138	13:00:00	D	7.80
150	FIROZPUR	JALALABAD	S-NPP	74.17468	30.49440	14:42:00	D	11.80
151	FIROZPUR	JALALABAD	S-NPP	74.32468	30.50430	13:00:00	D	10.50
152	FIROZPUR	JALALABAD	S-NPP	74.36983	30.50442	13:00:00	D	3.70

153	FIROZPUR	JALALABAD	S-NPP	74.33072	30.50568	13:00:00	D	12.40
154	FIROZPUR	JALALABAD	S-NPP	74.35350	30.51591	13:00:00	D	18.60
155	FIROZPUR	JALALABAD	S-NPP	74.39284	30.53490	13:00:00	D	5.90
156	FIROZPUR	JALALABAD	S-NPP	74.38398	30.54301	13:00:00	D	8.20
157	FIROZPUR	JALALABAD	S-NPP	74.12125	30.55141	14:42:00	D	7.60
158	FIROZPUR	JALALABAD	S-NPP	74.11281	30.55154	14:42:00	D	9.90
159	FIROZPUR	JALALABAD	S-NPP	74.07830	30.55784	14:42:00	D	9.80
160	FIROZPUR	JALALABAD	S-NPP	74.36945	30.57006	13:00:00	D	6.10
161	FIROZPUR	JALALABAD	S-NPP	74.36625	30.57278	13:00:00	D	7.50
162	FIROZPUR	JALALABAD	S-NPP	74.18136	30.65606	14:42:00	D	5.10
163	FIROZPUR	JALALABAD	S-NPP	74.17901	30.65660	14:42:00	D	5.80
164	FIROZPUR	JALALABAD	S-NPP	74.43647	30.69924	13:00:00	D	12.60
165	FIROZPUR	JALALABAD	S-NPP	74.43678	30.69951	13:00:00	D	5.30
166	FIROZPUR	JALALABAD	AQUA-1	74.28855	30.46999	14:06:00	D	38.41
167	FIROZPUR	JALALABAD	AQUA-1	74.35221	30.50143	14:06:00	D	65.77
168	FIROZPUR	JALALABAD	AQUA-1	74.22602	30.50742	14:06:00	D	37.80
169	FIROZPUR	JALALABAD	AQUA-1	74.33004	30.52240	14:06:00	D	26.48
170	FIROZPUR	JALALABAD	AQUA-1	74.12712	30.53737	14:06:00	D	33.90
171	FIROZPUR	JALALABAD	AQUA-1	74.37267	30.54036	14:06:00	D	27.97
172	FIROZPUR	JALALABAD	AQUA-1	74.32720	30.59825	14:06:00	D	23.32
173	FIROZPUR	JALALABAD	AQUA-1	74.21749	30.60774	14:06:00	D	21.87
174	FIROZPUR	JALALABAD	AQUA-1	74.37097	30.64367	14:06:00	D	15.23
175	FIROZPUR	JALALABAD	AQUA-1	74.30617	30.67361	14:06:00	D	20.97
176	FIROZPUR	JALALABAD	AQUA-1	74.47328	30.71553	14:06:00	D	103.16
177	FIROZPUR	ZIRA	S-NPP	75.26449	30.88495	13:00:00	D	5.60
178	FIROZPUR	ZIRA	S-NPP	75.26314	30.88542	13:00:00	D	5.30
179	FIROZPUR	ZIRA	S-NPP	74.84599	30.90935	13:00:00	D	2.70
180	FIROZPUR	ZIRA	S-NPP	75.27246	30.91125	13:00:00	D	6.70
181	FIROZPUR	ZIRA	S-NPP	74.84830	30.91218	13:00:00	D	10.20
182	FIROZPUR	ZIRA	S-NPP	75.26460	30.91902	13:00:00	D	6.30
183	FIROZPUR	ZIRA	S-NPP	75.28972	30.96719	13:00:00	D	6.70

184	FIROZPUR	ZIRA	S-NPP	75.15472	30.99487	13:00:00	D	5.30
185	FIROZPUR	ZIRA	AQUA-1	75.19802	30.89969	14:06:00	D	23.00
186	FIROZPUR	ZIRA	AQUA-1	74.85902	31.06138	14:06:00	D	23.18
187	GURDASPUR	DERA BABA NANAK	S-NPP	74.99206	32.03049	13:00:00	D	12.60
188	GURDASPUR	DERA BABA NANAK	S-NPP	74.99387	32.03442	13:00:00	D	9.50
189	GURDASPUR	DERA BABA NANAK	S-NPP	74.94215	32.04777	13:00:00	D	6.40
190	GURDASPUR	GURDASPUR	S-NPP	75.21117	31.96162	13:00:00	D	3.20
191	GURDASPUR	GURDASPUR	S-NPP	75.13939	32.02831	13:00:00	D	2.80
192	GURDASPUR	GURDASPUR	S-NPP	75.12387	32.04366	13:00:00	D	3.30
193	GURDASPUR	GURDASPUR	AQUA-1	75.22190	31.89981	14:06:00	D	26.63
194	HOSHIARPUR	DASUYA	S-NPP	75.67117	31.60657	13:00:00	D	4.90
195	JALANDHAR	NAKODAR	S-NPP	75.41210	30.98419	13:00:00	D	3.10
196	JALANDHAR	PHILLAUR	S-NPP	75.81416	31.05191	13:00:00	D	2.40
197	JALANDHAR	PHILLAUR	S-NPP	75.71935	31.09151	13:00:00	D	3.50
198	JALANDHAR	PHILLAUR	S-NPP	75.85826	31.13883	13:00:00	D	7.00
199	JALANDHAR	PHILLAUR	AQUA-1	75.84602	31.12726	14:06:00	D	18.23
200	KAPURTHALA	PHAGWARA	S-NPP	75.76965	31.25739	13:00:00	D	1.50
201	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.21061	31.35620	13:00:00	D	1.50
202	LUDHIANA	JAGRAON	S-NPP	75.37306	30.64616	13:00:00	D	2.20
203	LUDHIANA	JAGRAON	S-NPP	75.40739	30.70090	13:00:00	D	9.80
204	LUDHIANA	JAGRAON	S-NPP	75.40446	30.70155	13:00:00	D	8.40
205	LUDHIANA	JAGRAON	S-NPP	75.43323	30.73622	13:00:00	D	3.30
206	LUDHIANA	JAGRAON	S-NPP	75.48252	30.77518	13:00:00	D	3.50
207	LUDHIANA	JAGRAON	S-NPP	75.55055	30.78515	13:00:00	D	5.20
208	LUDHIANA	JAGRAON	S-NPP	75.37451	30.83293	13:00:00	D	7.50
209	LUDHIANA	JAGRAON	S-NPP	75.37323	30.83738	13:00:00	D	7.50
210	LUDHIANA	JAGRAON	TERRA-1	75.57659	30.83980	10:54:00	D	15.89
211	LUDHIANA	JAGRAON	S-NPP	75.55861	30.85897	13:00:00	D	3.90
212	LUDHIANA	JAGRAON	S-NPP	75.50122	30.86992	13:00:00	D	3.50
213	LUDHIANA	JAGRAON	S-NPP	75.45763	30.92620	13:00:00	D	2.60
214	LUDHIANA	JAGRAON	S-NPP	75.45579	30.92791	13:00:00	D	2.80

215	LUDHIANA	JAGRAON	S-NPP	75.65837	30.94095	13:00:00	D	8.70
216	LUDHIANA	JAGRAON	AQUA-1	75.45040	30.76494	14:06:00	D	24.33
217	LUDHIANA	JAGRAON	AQUA-1	75.54504	30.89407	14:06:00	D	31.97
218	LUDHIANA	LUDHIANA EAST	S-NPP	75.75475	30.75592	13:00:00	D	1.80
219	LUDHIANA	LUDHIANA EAST	AQUA-1	75.79316	30.72901	14:06:00	D	24.58
220	LUDHIANA	LUDHIANA WEST	S-NPP	75.68967	30.75002	13:00:00	D	2.80
221	LUDHIANA	LUDHIANA WEST	S-NPP	75.90240	30.81462	13:00:00	D	15.10
222	LUDHIANA	LUDHIANA WEST	S-NPP	75.84735	30.82574	13:00:00	D	5.10
223	LUDHIANA	LUDHIANA WEST	S-NPP	75.62063	30.84917	13:00:00	D	4.90
224	LUDHIANA	LUDHIANA WEST	S-NPP	75.61803	30.85089	13:00:00	D	4.60
225	LUDHIANA	LUDHIANA WEST	S-NPP	75.63071	30.85137	13:00:00	D	6.40
226	LUDHIANA	LUDHIANA WEST	S-NPP	75.63319	30.85410	13:00:00	D	6.30
227	LUDHIANA	LUDHIANA WEST	S-NPP	75.71853	30.87211	13:00:00	D	9.70
228	LUDHIANA	LUDHIANA WEST	S-NPP	75.71958	30.87539	13:00:00	D	12.90
229	LUDHIANA	LUDHIANA WEST	S-NPP	75.71728	30.87647	13:00:00	D	9.70
230	LUDHIANA	LUDHIANA WEST	S-NPP	75.64455	30.87765	13:00:00	D	4.20
231	LUDHIANA	LUDHIANA WEST	S-NPP	75.64957	30.87874	13:00:00	D	4.20
232	LUDHIANA	LUDHIANA WEST	TERRA-1	75.69084	30.94011	10:54:00	D	13.84
233	LUDHIANA	PAYAL	S-NPP	75.87971	30.70419	13:00:00	D	3.50
234	LUDHIANA	PAYAL	S-NPP	75.95657	30.74359	13:00:00	D	4.90
235	LUDHIANA	PAYAL	S-NPP	76.00142	30.74858	13:00:00	D	3.50
236	LUDHIANA	PAYAL	S-NPP	75.99414	30.77439	13:00:00	D	2.50
237	LUDHIANA	PAYAL	S-NPP	75.96265	30.77686	13:00:00	D	7.70
238	LUDHIANA	PAYAL	S-NPP	75.96750	30.77788	13:00:00	D	7.70
239	LUDHIANA	PAYAL	S-NPP	75.96143	30.78117	13:00:00	D	7.70
240	LUDHIANA	RAIKOT	S-NPP	75.53992	30.61508	13:00:00	D	12.40
241	LUDHIANA	RAIKOT	S-NPP	75.54173	30.61677	13:00:00	D	9.70
242	LUDHIANA	RAIKOT	S-NPP	75.66043	30.67540	13:00:00	D	4.60
243	LUDHIANA	RAIKOT	S-NPP	75.63898	30.69410	13:00:00	D	5.40
244	LUDHIANA	RAIKOT	S-NPP	75.67818	30.70716	13:00:00	D	11.00
245	LUDHIANA	RAIKOT	S-NPP	75.62636	30.71938	13:00:00	D	2.20

246	LUDHIANA	RAIKOT	S-NPP	75.62511	30.72378	13:00:00	D	5.00
247	LUDHIANA	RAIKOT	AQUA-1	75.60046	30.62420	14:06:00	D	30.07
248	LUDHIANA	RAIKOT	AQUA-1	75.64480	30.64367	14:06:00	D	19.14
249	LUDHIANA	SAMRALA	AQUA-1	76.16150	30.84130	14:06:00	D	23.13
250	MANSA	BUDHLADA	S-NPP	75.58907	29.81994	13:00:00	D	3.20
251	MANSA	BUDHLADA	S-NPP	75.70311	29.89770	13:00:00	D	3.00
252	MANSA	BUDHLADA	S-NPP	75.65695	29.99708	13:00:00	D	2.90
253	MANSA	MANSA	S-NPP	75.45686	29.93407	13:00:00	D	1.70
254	MANSA	MANSA	S-NPP	75.50391	30.13562	13:00:00	D	2.10
255	MANSA	SARDULGARH	S-NPP	75.29147	29.56320	13:00:00	D	5.60
256	MANSA	SARDULGARH	S-NPP	75.24680	29.61684	13:00:00	D	6.10
257	MANSA	SARDULGARH	S-NPP	75.32186	29.69415	13:00:00	D	5.20
258	MANSA	SARDULGARH	S-NPP	75.33611	29.69466	13:00:00	D	15.00
259	MANSA	SARDULGARH	S-NPP	75.32381	29.69688	13:00:00	D	8.40
260	MANSA	SARDULGARH	S-NPP	75.33829	29.69779	13:00:00	D	11.70
261	MANSA	SARDULGARH	S-NPP	75.32056	29.69872	13:00:00	D	5.20
262	MANSA	SARDULGARH	S-NPP	75.42094	29.79326	13:00:00	D	4.30
263	MANSA	SARDULGARH	AQUA-1	75.30204	29.64654	14:06:00	D	18.68
264	MANSA	SARDULGARH	AQUA-1	75.42482	29.77230	14:06:00	D	17.72
265	MOGA	BAGHA PURANA	S-NPP	75.02773	30.51256	13:00:00	D	7.40
266	MOGA	BAGHA PURANA	S-NPP	75.04322	30.61175	13:00:00	D	7.40
267	MOGA	BAGHA PURANA	S-NPP	75.03973	30.61228	13:00:00	D	3.80
268	MOGA	BAGHA PURANA	S-NPP	75.04129	30.69849	13:00:00	D	12.20
269	MOGA	BAGHA PURANA	S-NPP	74.95401	30.70626	13:00:00	D	4.30
270	MOGA	BAGHA PURANA	S-NPP	74.95602	30.70901	13:00:00	D	5.40
271	MOGA	BAGHA PURANA	S-NPP	75.11909	30.72988	13:00:00	D	20.00
272	MOGA	BAGHA PURANA	S-NPP	75.00001	30.76988	13:00:00	D	2.90
273	MOGA	BAGHA PURANA	AQUA-1	75.03602	30.68858	14:06:00	D	24.74
274	MOGA	MOGA	S-NPP	75.26774	30.70957	13:00:00	D	24.00
275	MOGA	MOGA	S-NPP	75.26643	30.71405	13:00:00	D	24.00
276	MOGA	MOGA	S-NPP	75.27175	30.71521	13:00:00	D	23.80



277	MOGA	MOGA	S-NPP	75.12204	30.72939	13:00:00	D	29.90
278	MOGA	MOGA	S-NPP	75.12452	30.73106	13:00:00	D	20.00
279	MOGA	MOGA	S-NPP	75.20671	30.75310	13:00:00	D	9.80
280	MOGA	MOGA	S-NPP	75.20940	30.75420	13:00:00	D	11.00
281	MOGA	MOGA	S-NPP	75.36033	30.75823	13:00:00	D	5.30
282	MOGA	MOGA	S-NPP	75.08327	30.78339	13:00:00	D	19.80
283	MOGA	MOGA	S-NPP	75.15203	30.78412	13:00:00	D	2.20
284	MOGA	MOGA	S-NPP	75.08194	30.78792	13:00:00	D	13.90
285	MOGA	MOGA	S-NPP	75.35651	30.79056	13:00:00	D	3.00
286	MOGA	MOGA	S-NPP	75.13749	30.81451	13:00:00	D	3.60
287	MOGA	MOGA	AQUA-1	75.14175	30.71404	14:06:00	D	27.29
288	MOGA	MOGA	AQUA-1	75.30204	30.75596	14:06:00	D	17.47
289	MOGA	MOGA	AQUA-1	75.36343	30.84130	14:06:00	D	37.29
290	MOGA	NIHAL SINGH WALA	S-NPP	75.20309	30.51904	13:00:00	D	4.70
291	MOGA	NIHAL SINGH WALA	S-NPP	75.20178	30.52356	13:00:00	D	6.90
292	MOGA	NIHAL SINGH WALA	S-NPP	75.22762	30.55313	13:00:00	D	2.80
293	MOGA	NIHAL SINGH WALA	S-NPP	75.24180	30.63202	13:00:00	D	5.50
294	MOGA	NIHAL SINGH WALA	S-NPP	75.24049	30.63652	13:00:00	D	5.50
295	MOGA	NIHAL SINGH WALA	S-NPP	75.24585	30.63768	13:00:00	D	10.50
296	MOGA	NIHAL SINGH WALA	AQUA-1	75.23213	30.69008	14:06:00	D	59.43
297	MOGA	NIHAL SINGH WALA	AQUA-1	75.25600	30.69757	14:06:00	D	28.41
298	MUKTSAR	GIDDARBAHA	S-NPP	74.56596	30.18980	13:00:00	D	2.70
299	MUKTSAR	GIDDARBAHA	S-NPP	74.67797	30.31382	13:00:00	D	3.00
300	MUKTSAR	GIDDARBAHA	S-NPP	74.67745	30.31418	13:00:00	D	2.90
301	MUKTSAR	GIDDARBAHA	S-NPP	74.74353	30.38379	13:00:00	D	4.90
302	MUKTSAR	GIDDARBAHA	S-NPP	74.72953	30.41043	13:00:00	D	11.70
303	MUKTSAR	GIDDARBAHA	AQUA-1	74.50398	30.32027	14:06:00	D	21.17
304	MUKTSAR	GIDDARBAHA	AQUA-1	74.57560	30.37417	14:06:00	D	21.76
305	MUKTSAR	MALAUT	S-NPP	74.54797	29.96134	13:00:00	D	9.10
306	MUKTSAR	MALAUT	S-NPP	74.54505	29.96383	13:00:00	D	6.70
307	MUKTSAR	MALAUT	S-NPP	74.61994	29.97724	13:00:00	D	2.80

308	MUKTSAR	MALAUT	S-NPP	74.56629	29.97879	13:00:00	D	3.50
309	MUKTSAR	MALAUT	S-NPP	74.61408	29.98964	13:00:00	D	3.60
310	MUKTSAR	MALAUT	S-NPP	74.59341	29.99505	13:00:00	D	6.90
311	MUKTSAR	MALAUT	S-NPP	74.46453	29.99634	13:00:00	D	3.10
312	MUKTSAR	MALAUT	S-NPP	74.47711	30.01950	13:00:00	D	11.00
313	MUKTSAR	MALAUT	S-NPP	74.48785	30.02697	13:00:00	D	4.80
314	MUKTSAR	MALAUT	S-NPP	74.52270	30.03982	13:00:00	D	7.10
315	MUKTSAR	MALAUT	S-NPP	74.37251	30.24955	13:00:00	D	5.10
316	MUKTSAR	MALAUT	S-NPP	74.37860	30.25095	13:00:00	D	5.10
317	MUKTSAR	MALAUT	S-NPP	74.37213	30.25118	13:00:00	D	3.70
318	MUKTSAR	MALAUT	S-NPP	74.36346	30.32378	13:00:00	D	9.00
319	MUKTSAR	MALAUT	AQUA-1	74.56025	29.94298	14:06:00	D	19.98
320	MUKTSAR	MALAUT	AQUA-1	74.60410	29.97956	14:06:00	D	16.37
321	MUKTSAR	MALAUT	AQUA-1	74.40337	30.07623	14:06:00	D	16.42
322	MUKTSAR	MALAUT	AQUA-1	74.52615	30.10618	14:06:00	D	17.28
323	MUKTSAR	MALAUT	AQUA-1	74.42497	30.20699	14:06:00	D	41.49
324	MUKTSAR	MALAUT	AQUA-1	74.41701	30.24751	14:06:00	D	32.00
325	MUKTSAR	MALAUT	AQUA-1	74.31128	30.26787	14:06:00	D	21.14
326	MUKTSAR	MUKTSAR	S-NPP	74.34141	30.43337	13:00:00	D	6.70
327	MUKTSAR	MUKTSAR	S-NPP	74.51788	30.44274	13:00:00	D	9.40
328	MUKTSAR	MUKTSAR	S-NPP	74.51054	30.44612	13:00:00	D	9.40
329	MUKTSAR	MUKTSAR	S-NPP	74.51648	30.44745	13:00:00	D	9.40
330	MUKTSAR	MUKTSAR	S-NPP	74.49511	30.49790	13:00:00	D	11.00
331	MUKTSAR	MUKTSAR	S-NPP	74.49918	30.49857	13:00:00	D	6.70
332	MUKTSAR	MUKTSAR	S-NPP	74.69429	30.54180	13:00:00	D	4.60
333	MUKTSAR	MUKTSAR	S-NPP	74.40942	30.54367	13:00:00	D	7.00
334	MUKTSAR	MUKTSAR	S-NPP	74.41540	30.54502	13:00:00	D	7.00
335	MUKTSAR	MUKTSAR	S-NPP	74.39458	30.55044	13:00:00	D	26.60
336	MUKTSAR	MUKTSAR	S-NPP	74.56319	30.55817	13:00:00	D	4.60
337	MUKTSAR	MUKTSAR	S-NPP	74.42767	30.56792	13:00:00	D	9.50
338	MUKTSAR	MUKTSAR	S-NPP	74.42433	30.57099	13:00:00	D	20.50

339	MUKTSAR	MUKTSAR	S-NPP	74.42625	30.57264	13:00:00	D	16.20
340	MUKTSAR	MUKTSAR	S-NPP	74.42187	30.60066	13:00:00	D	5.60
341	MUKTSAR	MUKTSAR	AQUA-1	74.35221	30.43556	14:06:00	D	26.12
342	MUKTSAR	MUKTSAR	AQUA-1	74.53297	30.48347	14:06:00	D	15.32
343	MUKTSAR	MUKTSAR	AQUA-1	74.48011	30.54934	14:06:00	D	23.31
344	MUKTSAR	MUKTSAR	AQUA-1	74.57731	30.56132	14:06:00	D	58.68
345	NAWASHAHR	NAWASHAHR	S-NPP	76.05489	31.08499	13:00:00	D	3.30
346	NAWASHAHR	NAWASHAHR	S-NPP	76.10089	31.09925	13:00:00	D	2.50
347	PATIALA	SAMANA	S-NPP	76.17544	29.83075	13:00:00	D	7.70
348	RUPNAGAR	RUPNAGAR	S-NPP	76.58033	31.13790	13:00:00	D	4.40
349	SANGRUR	DHURI	S-NPP	75.78403	30.46393	13:00:00	D	3.20
350	SANGRUR	MALERKOTLA	S-NPP	75.82918	30.54777	13:00:00	D	2.20
351	SANGRUR	MALERKOTLA	S-NPP	75.72555	30.55207	13:00:00	D	1.80
352	SANGRUR	MOONAK	S-NPP	75.98526	29.84411	13:00:00	D	21.60
353	SANGRUR	MOONAK	S-NPP	75.98405	29.84850	13:00:00	D	5.30
354	SANGRUR	MOONAK	AQUA-1	75.92446	29.93250	14:06:00	D	22.08
355	SANGRUR	SANGRUR	S-NPP	75.95998	30.29153	13:00:00	D	8.70
356	TARN TARAN	KHADOOR SAHIB	S-NPP	74.99317	31.25093	13:00:00	D	2.70
357	TARN TARAN	KHADOOR SAHIB	S-NPP	74.99414	31.25117	13:00:00	D	3.60
358	TARN TARAN	KHADOOR SAHIB	S-NPP	74.89715	31.26313	13:00:00	D	3.20
359	TARN TARAN	KHADOOR SAHIB	S-NPP	75.09988	31.27886	13:00:00	D	4.80
360	TARN TARAN	KHADOOR SAHIB	S-NPP	75.09864	31.27930	13:00:00	D	3.20
361	TARN TARAN	KHADOOR SAHIB	S-NPP	74.92060	31.34052	13:00:00	D	2.70
362	TARN TARAN	KHADOOR SAHIB	S-NPP	74.79827	31.35071	13:00:00	D	2.70
363	TARN TARAN	KHADOOR SAHIB	S-NPP	74.81892	31.36017	13:00:00	D	4.10
364	TARN TARAN	KHADOOR SAHIB	S-NPP	74.98823	31.36481	13:00:00	D	4.00
365	TARN TARAN	KHADOOR SAHIB	S-NPP	74.99102	31.36496	13:00:00	D	2.50
366	TARN TARAN	KHADOOR SAHIB	S-NPP	75.19332	31.46199	13:00:00	D	3.00
367	TARN TARAN	KHADOOR SAHIB	S-NPP	75.02724	31.48352	13:00:00	D	2.60
368	TARN TARAN	KHADOOR SAHIB	S-NPP	75.03938	31.49009	13:00:00	D	5.60
369	TARN TARAN	KHADOOR SAHIB	S-NPP	75.03655	31.49036	13:00:00	D	5.00

370	TARN TARAN	KHADOOR SAHIB	S-NPP	74.71428	31.52479	13:00:00	D	4.60
371	TARN TARAN	KHADOOR SAHIB	S-NPP	74.71982	31.52601	13:00:00	D	4.60
372	TARN TARAN	KHADOOR SAHIB	S-NPP	74.71632	31.52830	13:00:00	D	7.80
373	TARN TARAN	KHADOOR SAHIB	AQUA-1	74.92177	31.36681	14:06:00	D	25.99
374	TARN TARAN	KHADOOR SAHIB	AQUA-1	74.92518	31.51354	14:06:00	D	19.10
375	TARN TARAN	PATTI	S-NPP	74.72113	31.12317	13:00:00	D	5.00
376	TARN TARAN	PATTI	S-NPP	74.91930	31.19152	13:00:00	D	3.10
377	TARN TARAN	PATTI	S-NPP	74.67289	31.22269	13:00:00	D	2.90
378	TARN TARAN	PATTI	S-NPP	74.56310	31.27815	13:00:00	D	5.10
379	TARN TARAN	PATTI	S-NPP	74.55878	31.28071	13:00:00	D	6.40
380	TARN TARAN	PATTI	S-NPP	74.56448	31.28196	13:00:00	D	9.00
381	TARN TARAN	PATTI	S-NPP	74.56173	31.28276	13:00:00	D	9.40
382	TARN TARAN	PATTI	S-NPP	74.70854	31.37441	13:00:00	D	3.30
383	TARN TARAN	PATTI	S-NPP	74.66646	31.40720	13:00:00	D	2.40
384	TARN TARAN	PATTI	AQUA-1	74.54491	31.12876	14:06:00	D	17.75
385	TARN TARAN	PATTI	AQUA-1	74.65575	31.20811	14:06:00	D	20.50

**Details of residue burning events in Haryana on 20-Nov-2018**

<b>Event S. No.</b>	<b>District</b>	<b>Tehsil/Block</b>	<b>Satellite</b>	<b>Longitude</b>	<b>Latitude</b>	<b>Time (IST)</b>	<b>Day/Night</b>	<b>Fire Power (W/m<sup>2</sup>)</b>
1	FATEHABAD	FATEHABAD	AQUA-1	75.39242	29.53125	14:06:00	D	20.75
2	FATEHABAD	FATEHABAD	AQUA-1	75.33054	29.57531	14:06:00	D	37.47
3	FATEHABAD	FATEHABAD	AQUA-1	75.33274	29.60162	14:06:00	D	32.09
4	FATEHABAD	FATEHABAD	S-NPP	75.48624	29.52052	13:00:00	D	4.30
5	FATEHABAD	FATEHABAD	S-NPP	75.47287	29.52724	13:00:00	D	3.40
6	FATEHABAD	FATEHABAD	S-NPP	75.57400	29.57339	13:00:00	D	19.00
7	FATEHABAD	FATEHABAD	S-NPP	75.35954	29.58008	13:00:00	D	2.30
8	FATEHABAD	FATEHABAD	S-NPP	75.33301	29.58221	13:00:00	D	3.10
9	FATEHABAD	FATEHABAD	S-NPP	75.75024	29.58307	13:00:00	D	5.30
10	FATEHABAD	FATEHABAD	S-NPP	75.71664	29.60427	13:00:00	D	10.30
11	FATEHABAD	FATEHABAD	S-NPP	75.71539	29.60875	13:00:00	D	6.20
12	FATEHABAD	FATEHABAD	S-NPP	75.29929	29.61861	13:00:00	D	3.80
13	FATEHABAD	RATIA	AQUA-1	75.61922	29.58366	14:06:00	D	46.88
14	FATEHABAD	RATIA	AQUA-1	75.57659	29.61510	14:06:00	D	22.71
15	FATEHABAD	RATIA	AQUA-1	75.47768	29.72888	14:06:00	D	22.47
16	FATEHABAD	RATIA	AQUA-1	75.65942	29.74856	14:06:00	D	29.91
17	FATEHABAD	RATIA	S-NPP	75.53212	29.61188	13:00:00	D	5.50
18	FATEHABAD	RATIA	S-NPP	75.53452	29.61285	13:00:00	D	4.50
19	FATEHABAD	RATIA	S-NPP	75.52122	29.61961	13:00:00	D	2.20
20	FATEHABAD	RATIA	S-NPP	75.53443	29.68442	13:00:00	D	7.80
21	FATEHABAD	RATIA	S-NPP	75.64235	29.76008	13:00:00	D	6.70
22	FATEHABAD	RATIA	S-NPP	75.64481	29.76061	13:00:00	D	6.90
23	FATEHABAD	RATIA	S-NPP	75.63831	29.76395	13:00:00	D	5.20
24	FATEHABAD	RATIA	S-NPP	75.64108	29.76456	13:00:00	D	6.70
25	FATEHABAD	RATIA	S-NPP	75.64355	29.76510	13:00:00	D	5.20
26	HISAR	HANSI	S-NPP	76.12010	29.11954	13:00:00	D	3.70
27	HISAR	HANSI	S-NPP	76.12514	29.12061	13:00:00	D	4.90
28	HISAR	HISAR	S-NPP	75.76988	29.09105	01:42:00	N	0.30

29	HISAR	HISAR	S-NPP	75.91122	29.54149	13:00:00	D	4.30
30	HISAR	NARNAUND	S-NPP	76.17140	29.23054	13:00:00	D	4.10
31	JHAJJAR	BAHADURGARH	S-NPP	76.94066	28.62970	01:42:00	N	0.50
32	JHAJJAR	BERI	S-NPP	76.60696	28.75253	13:00:00	D	12.20
33	JHAJJAR	BERI	S-NPP	76.60994	28.75314	13:00:00	D	17.70
34	JHAJJAR	BERI	S-NPP	76.61176	28.75351	13:00:00	D	12.20
35	JIND	JIND	S-NPP	76.33739	29.34885	13:00:00	D	4.80
36	JIND	JIND	S-NPP	76.33939	29.34885	13:00:00	D	4.10
37	JIND	NARWANA	AQUA-1	76.04554	29.73337	14:06:00	D	24.95
38	JIND	NARWANA	S-NPP	76.14542	29.49537	13:00:00	D	3.70
39	JIND	NARWANA	S-NPP	75.97366	29.67815	13:00:00	D	15.10
40	JIND	NARWANA	S-NPP	76.08137	29.71025	13:00:00	D	6.70
41	KAITHAL	KAITHAL	S-NPP	76.37267	29.63476	13:00:00	D	8.40
42	PANIPAT	PANIPAT	S-NPP	76.82623	29.43603	13:00:00	D	2.30
43	ROHTAK	MAHAM	S-NPP	76.40567	28.95657	13:00:00	D	7.00
44	SIRSA	ELLENABAD	AQUA-1	74.85185	29.43543	14:06:00	D	15.90
45	SIRSA	ELLENABAD	AQUA-1	74.64722	29.51179	14:06:00	D	30.34
46	SIRSA	ELLENABAD	S-NPP	74.83297	29.46492	13:00:00	D	4.30
47	SIRSA	ELLENABAD	S-NPP	74.83485	29.46590	13:00:00	D	4.50
48	SIRSA	ELLENABAD	S-NPP	74.67886	29.47048	13:00:00	D	3.20
49	SIRSA	ELLENABAD	S-NPP	74.69465	29.50447	13:00:00	D	5.00
50	SIRSA	RANIA	AQUA-1	74.80070	29.50281	14:06:00	D	20.35
51	SIRSA	RANIA	AQUA-1	74.71884	29.52976	14:06:00	D	33.39
52	SIRSA	RANIA	AQUA-1	74.77853	29.53724	14:06:00	D	17.77
53	SIRSA	RANIA	AQUA-1	74.60703	29.55221	14:06:00	D	31.70
54	SIRSA	RANIA	AQUA-1	74.69262	29.56850	14:06:00	D	27.95
55	SIRSA	RANIA	S-NPP	74.72467	29.51118	13:00:00	D	7.10
56	SIRSA	RANIA	S-NPP	74.93353	29.52769	13:00:00	D	2.50
57	SIRSA	RANIA	S-NPP	74.65539	29.55046	01:42:00	N	0.90
58	SIRSA	RANIA	S-NPP	74.74079	29.56526	13:00:00	D	8.50
59	SIRSA	RANIA	S-NPP	74.64825	29.56801	13:00:00	D	8.60
60	SIRSA	RANIA	S-NPP	74.73769	29.56802	13:00:00	D	5.20

61	SIRSA	RANIA	S-NPP	74.58816	29.57479	13:00:00	D	5.90
62	SIRSA	RANIA	S-NPP	74.58677	29.57957	13:00:00	D	4.90
63	SIRSA	SIRSA	AQUA-1	74.95587	29.43244	14:06:00	D	17.64
64	SIRSA	SIRSA	AQUA-1	74.91222	29.43723	14:06:00	D	26.99
65	SIRSA	SIRSA	AQUA-1	75.09639	29.51628	14:06:00	D	41.37
66	SIRSA	SIRSA	AQUA-1	75.22190	29.51928	14:06:00	D	22.96
67	SIRSA	SIRSA	AQUA-1	75.28670	29.52527	14:06:00	D	20.21
68	SIRSA	SIRSA	AQUA-1	74.97463	29.55671	14:06:00	D	43.45
69	SIRSA	SIRSA	AQUA-1	75.13322	29.55671	14:06:00	D	27.57
70	SIRSA	SIRSA	AQUA-1	75.08718	29.59264	14:06:00	D	29.67
71	SIRSA	SIRSA	AQUA-1	75.20143	29.61809	14:06:00	D	16.42
72	SIRSA	SIRSA	S-NPP	75.07350	29.51812	13:00:00	D	4.90
73	SIRSA	SIRSA	S-NPP	75.07670	29.51999	13:00:00	D	4.90
74	SIRSA	SIRSA	S-NPP	75.19265	29.52004	01:42:00	N	0.70
75	SIRSA	SIRSA	S-NPP	75.19366	29.52116	01:42:00	N	1.40
76	SIRSA	SIRSA	S-NPP	75.07215	29.52277	13:00:00	D	4.90
77	SIRSA	SIRSA	S-NPP	75.06966	29.52337	13:00:00	D	6.10
78	SIRSA	SIRSA	S-NPP	75.12082	29.54321	13:00:00	D	3.70
79	SIRSA	SIRSA	S-NPP	75.11121	29.54751	13:00:00	D	5.60
80	SIRSA	SIRSA	S-NPP	75.07824	29.59949	13:00:00	D	5.50
81	SIRSA	SIRSA	S-NPP	75.14581	29.66968	13:00:00	D	8.80
82	SIRSA	SIRSA	S-NPP	75.15143	29.67093	13:00:00	D	8.80
83	YAMUNANAGAR	CHHACHHRAULII	S-NPP	77.45620	30.24070	13:00:00	D	2.60
84	YAMUNANAGAR	CHHACHHRAULII	S-NPP	77.45670	30.24072	13:00:00	D	3.70
85	YAMUNANAGAR	CHHACHHRAULII	S-NPP	77.46030	30.24151	13:00:00	D	4.50
86	YAMUNANAGAR	CHHACHHRAULII	S-NPP	77.46080	30.24156	13:00:00	D	3.30
87	YAMUNANAGAR	JAGADHRI	S-NPP	77.35103	30.19440	13:00:00	D	2.20
88	YAMUNANAGAR	JAGADHRI	S-NPP	77.19591	30.30514	13:00:00	D	3.20

**Details of residue burning events in Uttar Pradesh on 20-Nov-2018**

<b>Event S. No.</b>	<b>District</b>	<b>Tehsil/Block</b>	<b>Satellite</b>	<b>Longitude</b>	<b>Latitude</b>	<b>Time (IST)</b>	<b>Day/Night</b>	<b>Fire Power (W/m<sup>2</sup>)</b>
1	ALLAHABAD	BARA	S-NPP	81.70641	25.04439	12:54:00	D	2.90
2	ALLAHABAD	HADIYA	S-NPP	82.31171	25.42732	12:54:00	D	3.10
3	AMBEDKARNAGAR	JALALPUR	S-NPP	82.59553	26.29127	12:54:00	D	1.70
4	AURAIYA	AURAIYA	S-NPP	79.38499	26.49080	13:00:00	D	3.10
5	AURAIYA	AURAIYA	TERRA-1	79.35545	26.49495	10:54:00	D	8.00
6	AZAMGARH	AZAMGARH	S-NPP	83.19060	25.96863	12:54:00	D	3.30
7	AZAMGARH	BURHANPUR	S-NPP	82.96629	26.21857	12:54:00	D	1.60
8	AZAMGARH	LALGANJ	S-NPP	83.08170	25.73375	12:54:00	D	1.90
9	BALLIA	BANSDIH	S-NPP	84.14029	25.97390	12:54:00	D	2.10
10	BALLIA	RASRA	S-NPP	83.87963	25.86854	12:54:00	D	2.10
11	BASTI	BHANPUR	S-NPP	82.72049	26.96384	13:00:00	D	4.70
12	BASTI	BHANPUR	S-NPP	82.66521	27.09486	13:00:00	D	5.70
13	BASTI	HARRAIYA	S-NPP	82.60958	26.78751	13:00:00	D	3.20
14	BASTI	RUDHAULI	S-NPP	82.80941	26.92896	13:00:00	D	5.30
15	BASTI	RUDHAULI	S-NPP	82.83114	26.96815	13:00:00	D	3.10
16	BULANSAHAR	SIKANDARABAD	S-NPP	77.71861	28.33113	13:00:00	D	3.50
17	CHANDAULI	SHAKALDIHA	S-NPP	83.39602	25.47313	12:54:00	D	4.80
18	DEORIA	DEORIA	S-NPP	83.78453	26.55189	12:54:00	D	2.60
19	DEORIA	DEORIA	S-NPP	83.76164	26.62967	12:54:00	D	2.60
20	DEORIA	DEORIA	S-NPP	83.71399	26.66997	12:54:00	D	2.80
21	DEORIA	DEORIA	S-NPP	83.71400	26.67243	12:54:00	D	2.40
22	ETAH	JALESAR	S-NPP	78.43488	27.48194	01:42:00	N	0.90
23	FAIZABAD	BIKAPUR	S-NPP	82.17436	26.46971	12:54:00	D	2.40
24	FATEHPUR	FATEHPUR	S-NPP	80.85630	25.73438	12:54:00	D	4.10
25	FATEHPUR	FATEHPUR	S-NPP	80.83204	25.78956	12:54:00	D	3.70
26	GAUTAMBUDHNAGAR	GAUTAMBUDHNAGAR	S-NPP	77.71831	28.32927	13:00:00	D	3.10
27	GAZIPUR	MUHAMMADBAD	S-NPP	83.92947	25.60587	12:54:00	D	1.80



28	GAZIPUR	MUHAMMADBAD	S-NPP	83.87322	25.67115	12:54:00	D	3.20
29	GHAZIABAD	HAPUR	S-NPP	77.77768	28.64333	13:00:00	D	1.90
30	GORAKHPUR	CAMPIERGANJ	S-NPP	83.34918	27.08619	13:00:00	D	2.40
31	GORAKHPUR	CHAURI CHAURA	S-NPP	83.60617	26.69299	12:54:00	D	2.40
32	GORAKHPUR	CHAURI CHAURA	S-NPP	83.56412	26.72394	12:54:00	D	4.40
33	GORAKHPUR	CHAURI CHAURA	S-NPP	83.55052	26.73205	12:54:00	D	2.90
34	GORAKHPUR	CHAURI CHAURA	S-NPP	83.61008	26.73458	12:54:00	D	4.50
35	GORAKHPUR	CHAURI CHAURA	S-NPP	83.52979	26.73562	12:54:00	D	1.10
36	GORAKHPUR	GOLA	S-NPP	83.40261	26.31487	12:54:00	D	2.90
37	GORAKHPUR	GOLA	S-NPP	83.30370	26.44850	12:54:00	D	1.90
38	GORAKHPUR	GORAKHPUR	S-NPP	83.54794	26.74531	12:54:00	D	3.00
39	GORAKHPUR	GORAKHPUR	S-NPP	83.59521	26.74932	12:54:00	D	2.10
40	GORAKHPUR	GORAKHPUR	S-NPP	83.52875	26.76211	13:00:00	D	2.70
41	GORAKHPUR	GORAKHPUR	S-NPP	83.50346	26.78888	13:00:00	D	3.70
42	GORAKHPUR	GORAKHPUR	S-NPP	83.48335	26.78911	13:00:00	D	2.40
43	GORAKHPUR	GORAKHPUR	S-NPP	83.54948	26.79957	13:00:00	D	1.60
44	GORAKHPUR	GORAKHPUR	S-NPP	83.49632	26.80485	13:00:00	D	3.50
45	GORAKHPUR	GORAKHPUR	S-NPP	83.49567	26.80816	13:00:00	D	2.60
46	GORAKHPUR	GORAKHPUR	S-NPP	83.49957	26.80878	13:00:00	D	2.60
47	GORAKHPUR	GORAKHPUR	S-NPP	83.51059	26.81394	13:00:00	D	2.20
48	GORAKHPUR	GORAKHPUR	S-NPP	83.53393	26.81762	13:00:00	D	5.50
49	GORAKHPUR	GORAKHPUR	S-NPP	83.47684	26.82229	13:00:00	D	1.70
50	GORAKHPUR	GORAKHPUR	S-NPP	83.51254	26.82450	13:00:00	D	2.70
51	GORAKHPUR	GORAKHPUR	S-NPP	83.47620	26.82561	13:00:00	D	1.90
52	GORAKHPUR	GORAKHPUR	S-NPP	83.43526	26.82940	13:00:00	D	2.00
53	GORAKHPUR	GORAKHPUR	S-NPP	83.50086	26.84317	13:00:00	D	3.40
54	GORAKHPUR	GORAKHPUR	S-NPP	83.42636	26.85409	13:00:00	D	3.10
55	GORAKHPUR	GORAKHPUR	S-NPP	83.48742	26.87064	13:00:00	D	1.90
56	GORAKHPUR	GORAKHPUR	S-NPP	83.42310	26.87069	13:00:00	D	1.80
57	GORAKHPUR	GORAKHPUR	S-NPP	83.49390	26.87851	13:00:00	D	8.40
58	GORAKHPUR	GORAKHPUR	S-NPP	83.42309	26.89122	13:00:00	D	3.20

59	GORAKHPUR	GORAKHPUR	S-NPP	83.45168	26.90944	13:00:00	D	2.50
60	GORAKHPUR	GORAKHPUR	S-NPP	83.45363	26.92001	13:00:00	D	1.90
61	GORAKHPUR	GORAKHPUR	S-NPP	83.46532	26.92185	13:00:00	D	2.50
62	JAUNPUR	JAUNPUR	S-NPP	82.76187	25.84936	12:54:00	D	2.80
63	JAUNPUR	SHHGANJ	S-NPP	82.68661	25.89286	12:54:00	D	2.60
64	KANPUR	BILHAUR	S-NPP	80.04571	26.65806	13:00:00	D	2.00
65	KANPUR	KANPUR NAGAR	S-NPP	80.16954	26.47829	13:00:00	D	2.60
66	KAUSHAMBI	MANJHANPUR	S-NPP	81.29841	25.42244	12:54:00	D	10.20
67	KAUSHAMBI	MANJHANPUR	S-NPP	81.27370	25.50117	12:54:00	D	3.50
68	KHERI	DHAURAHRA	S-NPP	81.04802	28.11520	13:00:00	D	2.60
69	KHERI	GOLA	S-NPP	80.45601	28.20200	13:00:00	D	5.00
70	KHERI	GOLA	S-NPP	80.45519	28.20558	13:00:00	D	5.00
71	KHERI	LAKHIMPUR	S-NPP	80.63092	27.95815	13:00:00	D	2.40
72	KHERI	LAKHIMPUR	S-NPP	80.70499	28.01773	13:00:00	D	5.90
73	KHERI	LAKHIMPUR	S-NPP	80.70779	28.01974	13:00:00	D	6.30
74	KHERI	MOHMADI	S-NPP	80.25611	27.88728	13:00:00	D	3.30
75	KHERI	NIGHASAN	S-NPP	80.80637	28.20701	13:00:00	D	3.90
76	KUSHINAGAR	HATA	S-NPP	83.62429	26.70267	12:54:00	D	3.10
77	KUSHINAGAR	HATA	S-NPP	83.78304	26.72758	12:54:00	D	5.90
78	KUSHINAGAR	HATA	S-NPP	83.67170	26.78811	13:00:00	D	1.10
79	KUSHINAGAR	HATA	S-NPP	83.61549	26.78949	13:00:00	D	1.30
80	KUSHINAGAR	HATA	S-NPP	83.62196	26.79734	13:00:00	D	3.90
81	KUSHINAGAR	HATA	S-NPP	83.62585	26.81844	13:00:00	D	1.80
82	KUSHINAGAR	HATA	S-NPP	83.71757	26.81919	13:00:00	D	5.70
83	KUSHINAGAR	HATA	S-NPP	83.71629	26.82581	13:00:00	D	2.40
84	KUSHINAGAR	HATA	S-NPP	83.66787	26.82845	13:00:00	D	2.80
85	KUSHINAGAR	HATA	S-NPP	83.60646	26.83587	13:00:00	D	5.10
86	KUSHINAGAR	HATA	S-NPP	83.70081	26.84384	13:00:00	D	5.00
87	KUSHINAGAR	HATA	S-NPP	83.64527	26.86243	13:00:00	D	3.20
88	KUSHINAGAR	HATA	S-NPP	83.60518	26.86298	13:00:00	D	3.00
89	KUSHINAGAR	HATA	S-NPP	83.57621	26.86762	13:00:00	D	8.60

90	KUSHINAGAR	HATA	S-NPP	83.63622	26.86784	13:00:00	D	2.00
91	KUSHINAGAR	HATA	S-NPP	83.73118	26.87245	13:00:00	D	2.40
92	KUSHINAGAR	HATA	S-NPP	83.61957	26.89153	13:00:00	D	1.90
93	KUSHINAGAR	HATA	S-NPP	83.60663	26.89632	13:00:00	D	11.20
94	KUSHINAGAR	HATA	S-NPP	83.70809	26.90886	13:00:00	D	1.80
95	KUSHINAGAR	HATA	S-NPP	83.65514	26.91418	13:00:00	D	2.10
96	KUSHINAGAR	HATA	S-NPP	83.58594	26.92037	13:00:00	D	14.30
97	KUSHINAGAR	HATA	S-NPP	83.64868	26.92682	13:00:00	D	6.20
98	KUSHINAGAR	HATA	S-NPP	83.63382	26.94154	13:00:00	D	2.20
99	KUSHINAGAR	KASAYA	S-NPP	84.06186	26.67973	12:54:00	D	1.50
100	KUSHINAGAR	TAMKUIH RAJ	S-NPP	84.04786	26.71157	12:54:00	D	1.90
101	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.50622	26.91806	13:00:00	D	1.50
102	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.49324	26.92284	13:00:00	D	2.20
103	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.52827	26.92837	13:00:00	D	1.50
104	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.55486	26.93597	13:00:00	D	6.00
105	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.47375	26.94028	13:00:00	D	1.50
106	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.53735	26.94346	13:00:00	D	1.10
107	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.59695	26.94600	13:00:00	D	2.00
108	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.53671	26.94678	13:00:00	D	1.10
109	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.35437	26.95477	13:00:00	D	2.70
110	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.57299	26.96613	13:00:00	D	1.70
111	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.40839	26.96680	13:00:00	D	7.40
112	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.41619	26.96804	13:00:00	D	2.60
113	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.41879	26.97530	13:00:00	D	2.60
114	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.41033	26.97738	13:00:00	D	4.70
115	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.57387	26.98277	13:00:00	D	2.50
116	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.46817	26.98997	13:00:00	D	6.30
117	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.64828	26.99108	13:00:00	D	6.70
118	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.63987	26.99317	13:00:00	D	2.90
119	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.44802	27.01072	13:00:00	D	2.60
120	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.56351	27.01528	13:00:00	D	2.60

121	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.56740	27.01589	13:00:00	D	5.40
122	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.43047	27.01820	13:00:00	D	2.30
123	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.46036	27.02976	13:00:00	D	4.00
124	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.46360	27.03369	13:00:00	D	2.30
125	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.61144	27.03646	13:00:00	D	3.20
126	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.55510	27.03785	13:00:00	D	11.80
127	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.47009	27.04155	13:00:00	D	2.10
128	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.65025	27.04255	13:00:00	D	1.80
129	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.58165	27.04543	13:00:00	D	5.80
130	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.46490	27.04757	13:00:00	D	1.30
131	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.52397	27.05345	13:00:00	D	4.60
132	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.41547	27.05346	13:00:00	D	2.30
133	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.54797	27.05380	13:00:00	D	3.00
134	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.66384	27.05490	13:00:00	D	4.00
135	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.66772	27.05551	13:00:00	D	4.00
136	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.56741	27.05685	13:00:00	D	2.30
137	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.56935	27.06740	13:00:00	D	1.10
138	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.54083	27.06975	13:00:00	D	1.20
139	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.46500	27.07038	13:00:00	D	4.40
140	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.59203	27.07436	13:00:00	D	1.70
141	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.56352	27.07672	13:00:00	D	2.70
142	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.57519	27.07855	13:00:00	D	2.90
143	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.53962	27.07877	13:00:00	D	1.70
144	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.60628	27.08341	13:00:00	D	4.40
145	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.61405	27.08463	13:00:00	D	4.50
146	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.61793	27.08524	13:00:00	D	3.60
147	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.59404	27.08736	13:00:00	D	6.90
148	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.69296	27.09013	13:00:00	D	1.90
149	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.56943	27.09031	13:00:00	D	2.50
150	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.51433	27.10551	13:00:00	D	3.20
151	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.58562	27.10992	13:00:00	D	4.20

152	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.63289	27.11394	13:00:00	D	7.90
153	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.48447	27.11446	13:00:00	D	2.90
154	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.52859	27.11459	13:00:00	D	1.60
155	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.63612	27.11785	13:00:00	D	2.20
156	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.63548	27.12116	13:00:00	D	2.60
157	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.52276	27.12392	13:00:00	D	2.80
158	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.51173	27.13925	13:00:00	D	1.50
159	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.66330	27.14257	13:00:00	D	1.10
160	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.53313	27.15286	13:00:00	D	2.60
161	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.61868	27.16627	13:00:00	D	1.60
162	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.62127	27.17349	13:00:00	D	2.50
163	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.59860	27.18700	13:00:00	D	4.50
164	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.67822	27.18920	13:00:00	D	3.20
165	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.60509	27.19484	13:00:00	D	3.00
166	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.57227	27.19944	13:00:00	D	2.20
167	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.53468	27.20716	13:00:00	D	1.70
168	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.52171	27.21195	13:00:00	D	3.20
169	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.54441	27.21894	13:00:00	D	1.80
170	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.60014	27.22087	13:00:00	D	4.80
171	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.55154	27.22347	13:00:00	D	6.60
172	MAHARAJGANJ	NAUTANWA	S-NPP	83.46270	27.30747	13:00:00	D	2.20
173	MAHARAJGANJ	NAUTANWA	S-NPP	83.46595	27.31140	13:00:00	D	5.00
174	MAHARAJGANJ	NAUTANWA	S-NPP	83.44384	27.32157	13:00:00	D	3.10
175	MAHARAJGANJ	NAUTANWA	S-NPP	83.40019	27.37961	13:00:00	D	3.90
176	MAHARAJGANJ	NAUTANWA	S-NPP	83.43892	27.40897	13:00:00	D	1.70
177	MAHARAJGANJ	NAUTANWA	S-NPP	83.44541	27.43731	13:00:00	D	1.30
178	MAHARAJGANJ	NAUTANWA	S-NPP	83.44020	27.44331	13:00:00	D	7.90
179	MAHARAJGANJ	NAUTANWA	S-NPP	83.57983	27.46864	13:00:00	D	1.10
180	MAHARAJGANJ	NICHLAUL	S-NPP	83.71896	27.20576	13:00:00	D	1.80
181	MAHARAJGANJ	NICHLAUL	S-NPP	83.69265	27.21833	13:00:00	D	2.50
182	MAHARAJGANJ	NICHLAUL	S-NPP	83.69138	27.24539	13:00:00	D	2.10

183	MAHARAJGANJ	NICHLAUL	S-NPP	83.67006	27.25228	13:00:00	D	2.40
184	MAHARAJGANJ	NICHLAUL	S-NPP	83.66296	27.26820	13:00:00	D	3.30
185	MAHARAJGANJ	NICHLAUL	S-NPP	83.66683	27.26881	13:00:00	D	3.30
186	MAHARAJGANJ	PHARENDA	S-NPP	83.22658	27.21653	13:00:00	D	2.80
187	MAU	MAU	S-NPP	83.67297	25.99248	12:54:00	D	1.60
188	MEERUT	MAWANA	S-NPP	77.84254	29.14332	13:00:00	D	4.50
189	MEERUT	SARDHANA	S-NPP	77.56868	29.09673	13:00:00	D	1.90
190	MIRZAPUR	MIRZAPUR	S-NPP	82.67911	25.12075	12:54:00	D	2.60
191	MUZAFARNAGAR	KAIRANA	S-NPP	77.28819	29.60912	13:00:00	D	1.70
192	MUZAFARNAGAR	KHATOLI	S-NPP	77.60864	29.28534	13:00:00	D	2.70
193	MUZAFARNAGAR	KHATOLI	S-NPP	77.60790	29.28691	13:00:00	D	2.80
194	MUZAFARNAGAR	KHATOLI	S-NPP	77.77040	29.37728	13:00:00	D	2.10
195	MUZAFARNAGAR	MUZAFFARNAGAR	S-NPP	77.75225	29.45386	13:00:00	D	1.20
196	PILHIBHIT	PURANPUR	S-NPP	80.16862	28.37906	13:00:00	D	2.80
197	PILHIBHIT	PURANPUR	S-NPP	80.10574	28.43551	13:00:00	D	2.90
198	PRATAPGARH	<Null>	S-NPP	81.62841	25.91959	12:54:00	D	2.70
199	PRATAPGARH	KUNDA	S-NPP	81.34963	25.84856	12:54:00	D	1.90
200	PRATAPGARH	PATTI	S-NPP	82.20638	25.96029	12:54:00	D	1.80
201	RAIBEARELI	MAHARAJGANG	S-NPP	81.30292	26.53755	13:00:00	D	2.80
202	RAIBEARELI	SALON	S-NPP	81.41589	26.22739	12:54:00	D	3.10
203	RAIBEARELI	TILOI	S-NPP	81.40995	26.23367	12:54:00	D	4.90
204	RAIBEARELI	TILOI	S-NPP	81.40092	26.27599	12:54:00	D	2.50
205	RAIBEARELI	TILOI	S-NPP	81.49512	26.35705	12:54:00	D	7.60
206	RAIBEARELI	TILOI	S-NPP	81.51267	26.36010	12:54:00	D	4.50
207	RAIBEARELI	UNCHA HAR	S-NPP	81.32400	25.92514	12:54:00	D	2.00
208	RAMPUR	SUAR	S-NPP	79.04199	29.14701	13:00:00	D	5.70
209	SANTKABIRNAGAR	KHALILABAD	S-NPP	83.06999	26.66935	12:54:00	D	1.80
210	SHAHJAHANPUR	SHAHJAHANPUR	S-NPP	80.00900	27.81944	13:00:00	D	1.90
211	SHARANPUR	NAKUR	S-NPP	77.20387	29.79799	13:00:00	D	2.70
212	SHARANPUR	NAKUR	S-NPP	77.18865	29.85543	13:00:00	D	3.00
213	SHARANPUR	NAKUR	S-NPP	77.36712	29.85680	13:00:00	D	4.50

214	SHARANPUR	NAKUR	S-NPP	77.19003	29.85683	13:00:00	D	2.40
215	SHARANPUR	NAKUR	S-NPP	77.22835	29.89925	13:00:00	D	2.70
216	SHARANPUR	NAKUR	S-NPP	77.36569	29.90157	13:00:00	D	9.50
217	SHRAWASTI	IKAUNA	S-NPP	81.77097	27.62612	13:00:00	D	4.40
218	SIDDHARTHANAGAR	BANSI	S-NPP	82.94669	27.10965	13:00:00	D	1.50
219	SIDDHARTHANAGAR	BANSI	S-NPP	82.86047	27.13018	13:00:00	D	1.40
220	SIDDHARTHANAGAR	DOMARIYAGANJ	S-NPP	82.68579	27.13640	13:00:00	D	1.50
221	SIDDHARTHANAGAR	DOMARIYAGANJ	S-NPP	82.61938	27.15751	13:00:00	D	2.70
222	SIDDHARTHANAGAR	DOMARIYAGANJ	S-NPP	82.56429	27.16232	13:00:00	D	1.20
223	SIDDHARTHANAGAR	DOMARIYAGANJ	S-NPP	82.57396	27.23697	13:00:00	D	4.10
224	SIDDHARTHANAGAR	ITWA	S-NPP	82.55843	27.31541	13:00:00	D	3.30
225	SIDDHARTHANAGAR	ITWA	S-NPP	82.62828	27.31989	13:00:00	D	2.50
226	SIDDHARTHANAGAR	ITWA	S-NPP	82.53143	27.32490	13:00:00	D	3.50
227	SIDDHARTHANAGAR	ITWA	S-NPP	82.53952	27.32622	13:00:00	D	2.70
228	SIDDHARTHANAGAR	ITWA	S-NPP	82.60522	27.37243	13:00:00	D	2.20
229	SIDDHARTHANAGAR	ITWA	S-NPP	82.67960	27.37332	13:00:00	D	2.10
230	SIDDHARTHANAGAR	ITWA	S-NPP	82.67954	27.37427	13:00:00	D	2.30
231	SIDDHARTHANAGAR	NAUGARH	S-NPP	83.20793	27.41339	13:00:00	D	2.70
232	SIDDHARTHANAGAR	NAUGARH	S-NPP	83.15152	27.43184	13:00:00	D	1.30
233	SIDDHARTHANAGAR	SHOHRATGARH	S-NPP	82.94296	27.35374	13:00:00	D	1.40
234	SIDDHARTHANAGAR	SHOHRATGARH	S-NPP	82.95417	27.35900	13:00:00	D	1.40
235	SIDDHARTHANAGAR	SHOHRATGARH	S-NPP	82.96999	27.38220	13:00:00	D	2.10
236	SITAPUR	MISRIK	S-NPP	80.58543	27.33767	13:00:00	D	4.10
237	SITAPUR	MISRIK	S-NPP	80.58234	27.33771	13:00:00	D	1.70
238	SITAPUR	MISRIK	S-NPP	80.34976	27.63344	13:00:00	D	2.60
239	SONBHADRA	REBUTSHGANJ	S-NPP	83.23121	24.62322	12:54:00	D	4.60
240	SULTANPUR	JAISINGHPUR	S-NPP	82.35879	26.25159	12:54:00	D	2.00
241	SULTANPUR	JAISINGHPUR	S-NPP	82.36995	26.36592	12:54:00	D	3.70
242	UNNAO	HASANGANJ	S-NPP	80.63120	26.81257	13:00:00	D	1.90
243	UNNAO	SAFIPUR	S-NPP	80.15253	26.87243	13:00:00	D	4.30

## 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 / 1000	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

### Study Team

ICAR – HQ	Dr K. Alagusundaram	DDG (Agril. Engg.)	<a href="mailto:ddgengg@icar.org.in">ddgengg@icar.org.in</a>
	Dr S. Bhaskar	ADG (NRM)	<a href="mailto:adgagroandaf@gmail.com">adgagroandaf@gmail.com</a>
ICAR - IARI	Dr V.K. Sehgal	Professor & Nodal Scientist	<a href="mailto:iaricreams@gmail.com">iaricreams@gmail.com</a> <a href="mailto:vk.sehgal@icar.gov.in">vk.sehgal@icar.gov.in</a>
	Dr Rajkumar Dhakar	Scientist	<a href="mailto:rajdhakar.iari@gmail.com">rajdhakar.iari@gmail.com</a>
	Shri Rakeshwar Verma	Chief Technical Officer	<a href="mailto:rakeshwar.verma@icar.gov.in">rakeshwar.verma@icar.gov.in</a>
	Mr Aakash Chhabra	SRF (NICRA)	<a href="mailto:aakash.chhabra7489@gmail.com">aakash.chhabra7489@gmail.com</a>
ICAR - ATARI	Dr Rajbir Singh	Director ATARI (Zone-1)	<a href="mailto:rajbirsingh.zpd@gmail.com">rajbirsingh.zpd@gmail.com</a>
	Dr U.S. Gautam	Director ATARI (Zone-IV)	<a href="mailto:zpdicarkanpur@gmail.com">zpdicarkanpur@gmail.com</a>
ICAR - IASRI	Dr RajenderParsad	Principal Scientist	<a href="mailto:rajender.parsad@icar.gov.in">rajender.parsad@icar.gov.in</a>

GIS Maps of fire events can be visualized online on ICAR KRISHI & CREAMS Geoportal

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

<http://creams.iari.res.in:8080/geoexplorer/composer/>

\*\*\*