

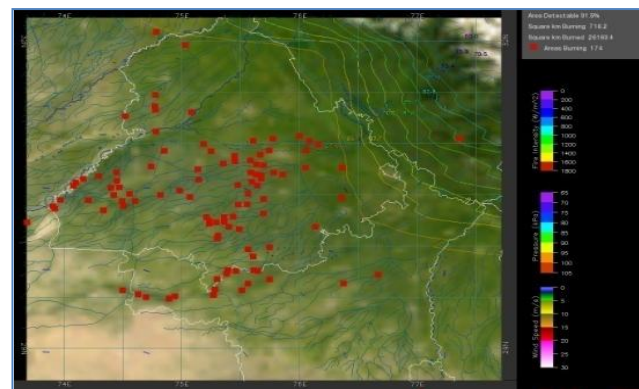
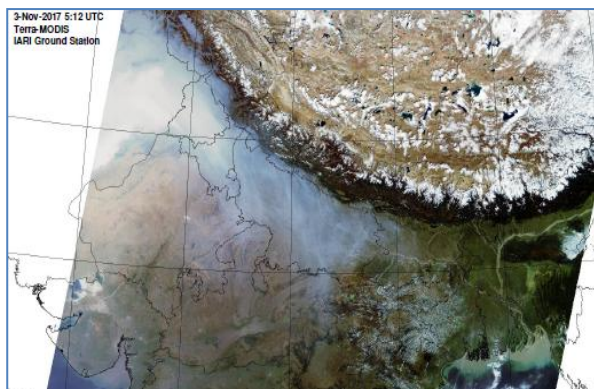


MONITORING PADDY RESIDUE BURNING IN NORTH INDIA USING SATELLITE REMOTE SENSING DURING 2018

**Bulletin
No. 59**

**Events Date:
29-Nov-2018**

**Issued on:
30-Nov-2018**



Prepared by:

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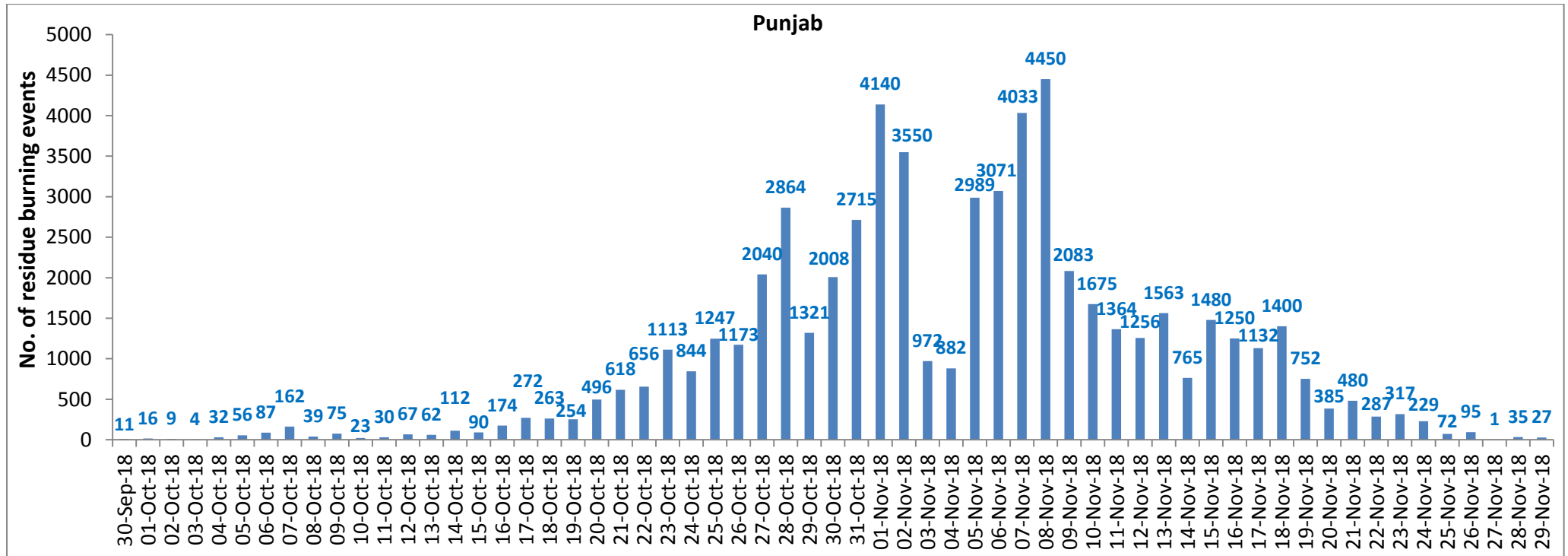
<http://creams.iari.res.in>



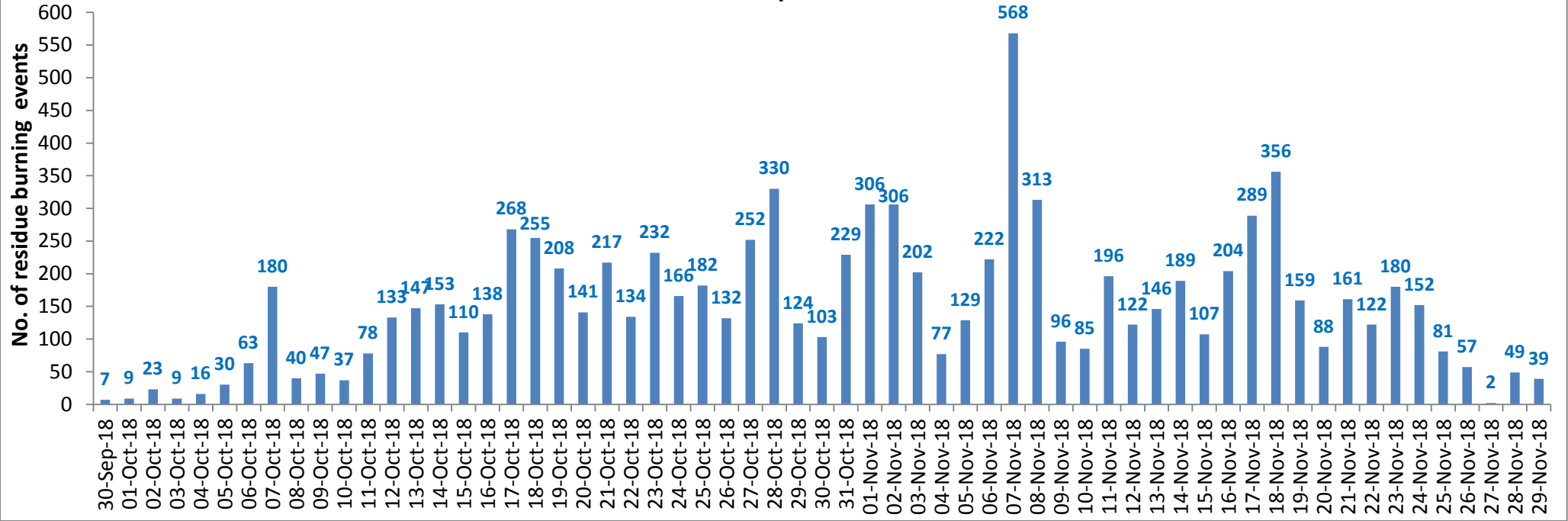
Highlights for 29-November-2018

- Satellites detected **170** residue burning events in the three States (Punjab, Haryana & UP) on **29-Nov-2018**.
- The burning events detected on **29-Nov-2018** are **27**, **39** and **104** in Punjab, Haryana, and UP, respectively.
- The number of events has increased from **119** on **28-Nov-2018** to **170** on **29-Nov-2018** in the three States.
- Total **75378** burning events were detected in the three States between **30-Sept-2018** and **29-Nov-2018**, which are distributed as **59668**, **9196** and **6514** in Punjab, Haryana and UP, respectively.
- Till **29-Nov-2018**, the burning events in the current year are about **85%** of the events detected in 2017 and about **59.1%** of the events detected in 2016.
- Overall, about **15%** and **41%** reduction in burning events are observed in current year (2018) till date as compared to that in 2017 and 2016, respectively.

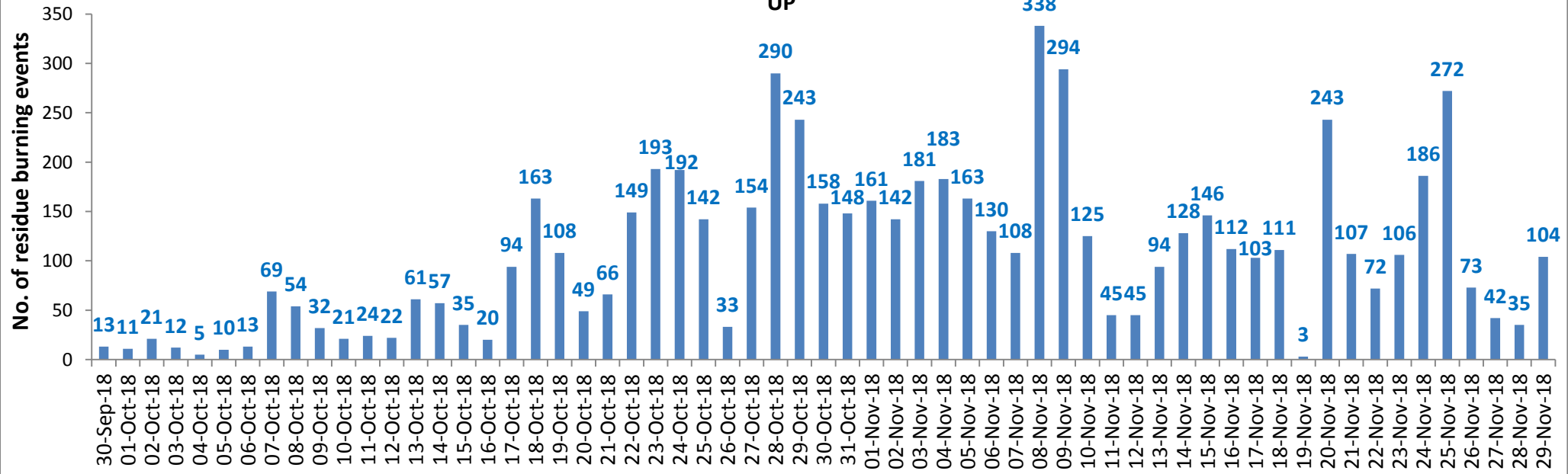
Temporal distribution of residue burning events for the three study States



Haryana

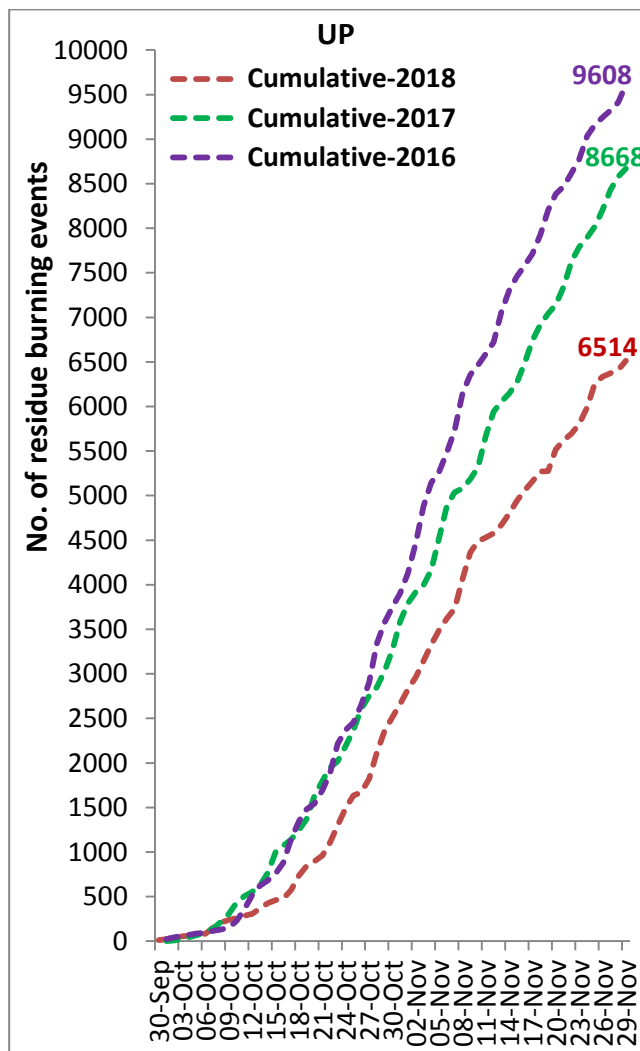
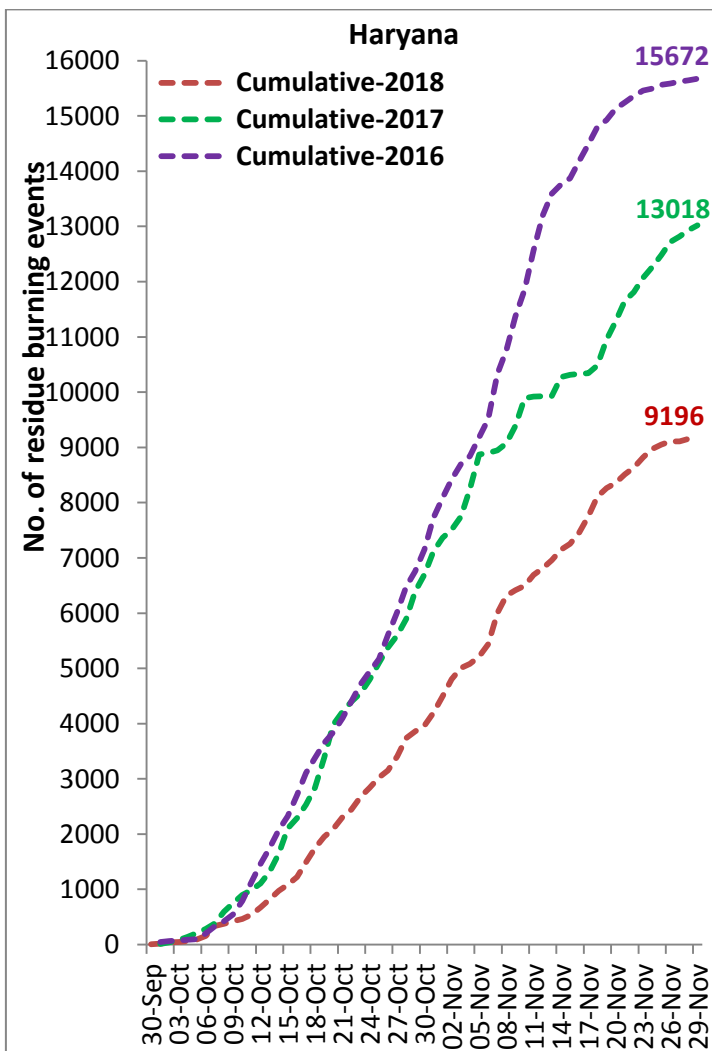
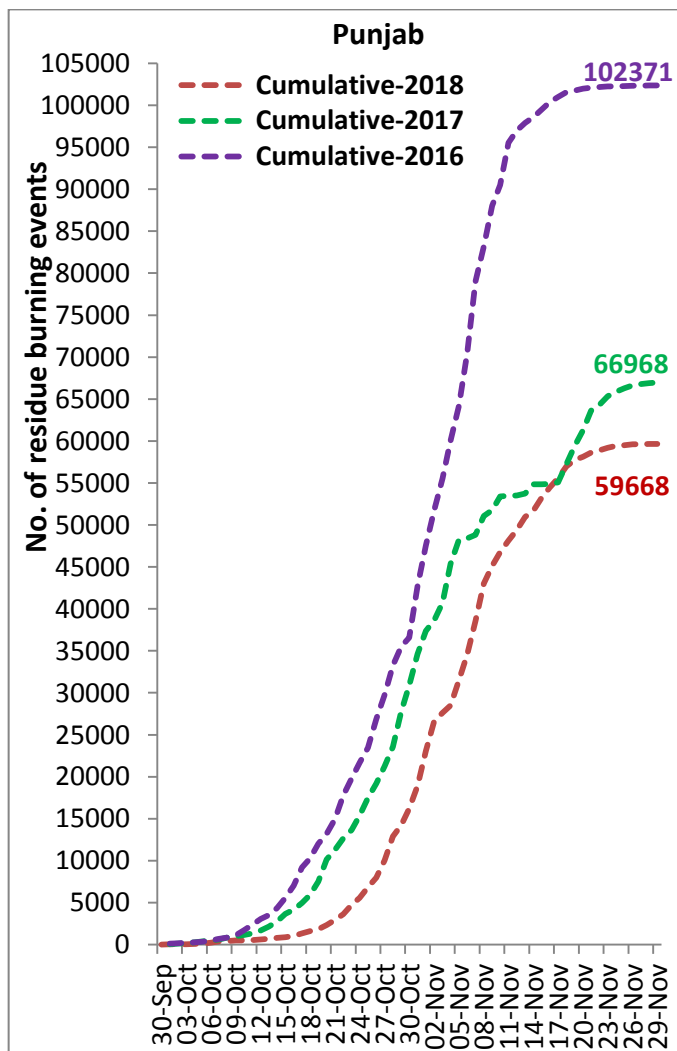


UP

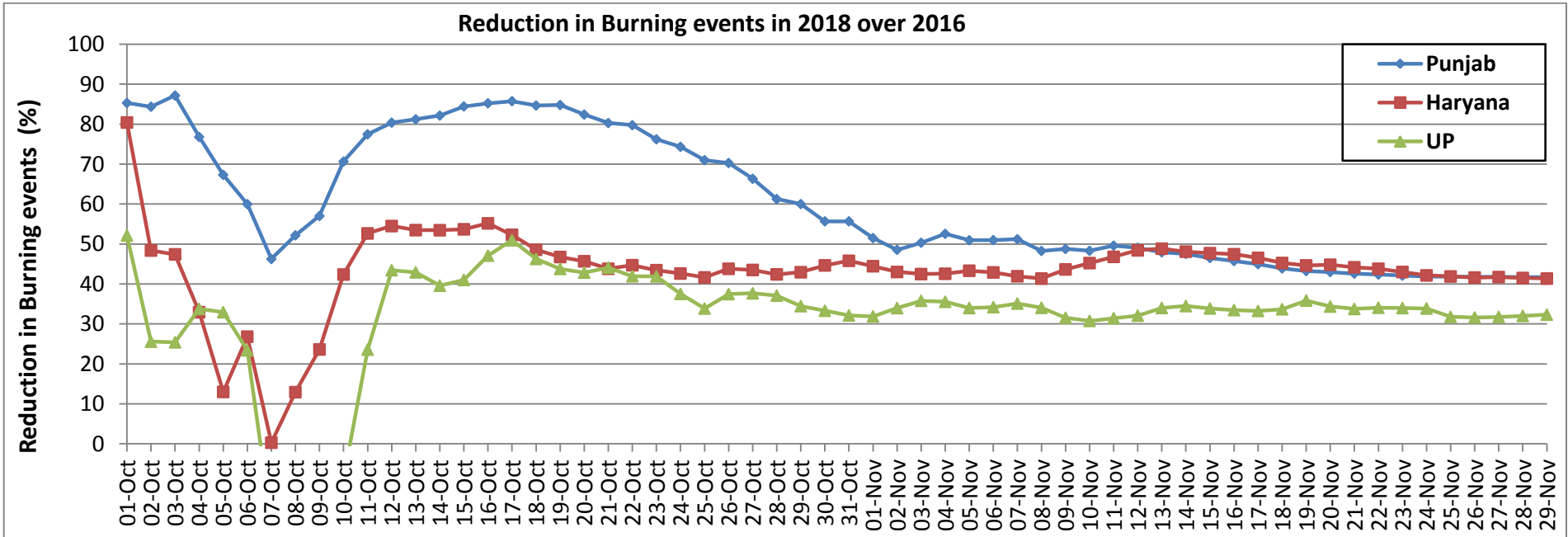
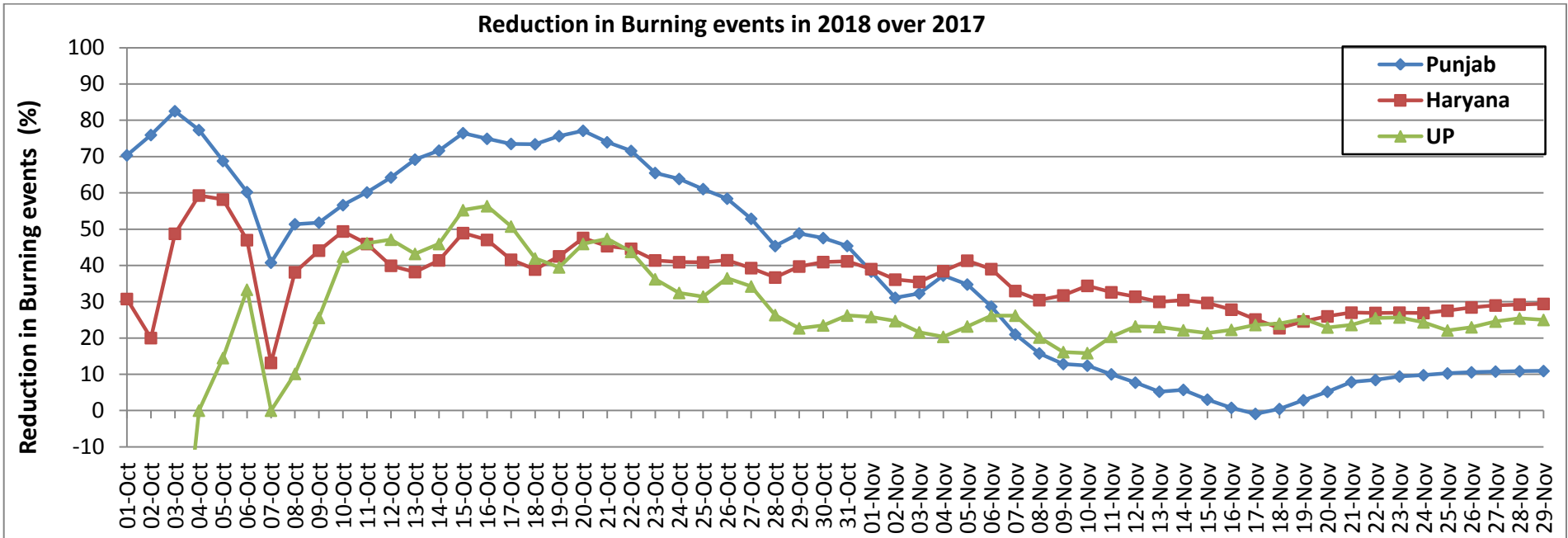


Comparison of residue burning events in current year (2018) with previous years (2017& 2016) for the three study States

(30-Sep to 29-Nov)

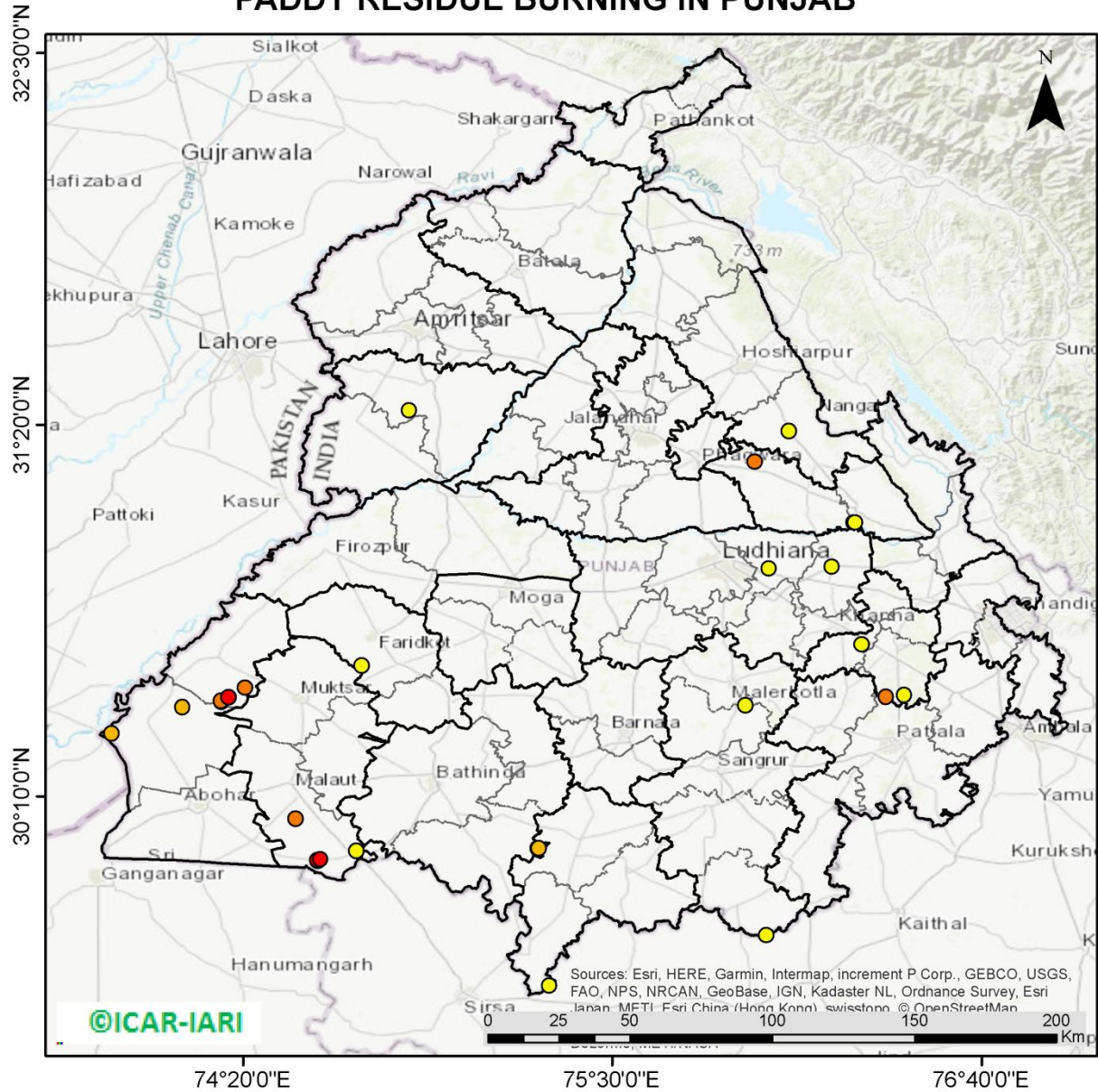


Percent Reduction in Burning events in 2018 over 2017 and 2016 (Daily Cumulative)



(a) Punjab

PADDY RESIDUE BURNING IN PUNJAB



27 burning events detected in Punjab on 29th November, 2018

Fire Intensity (W/m²)

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

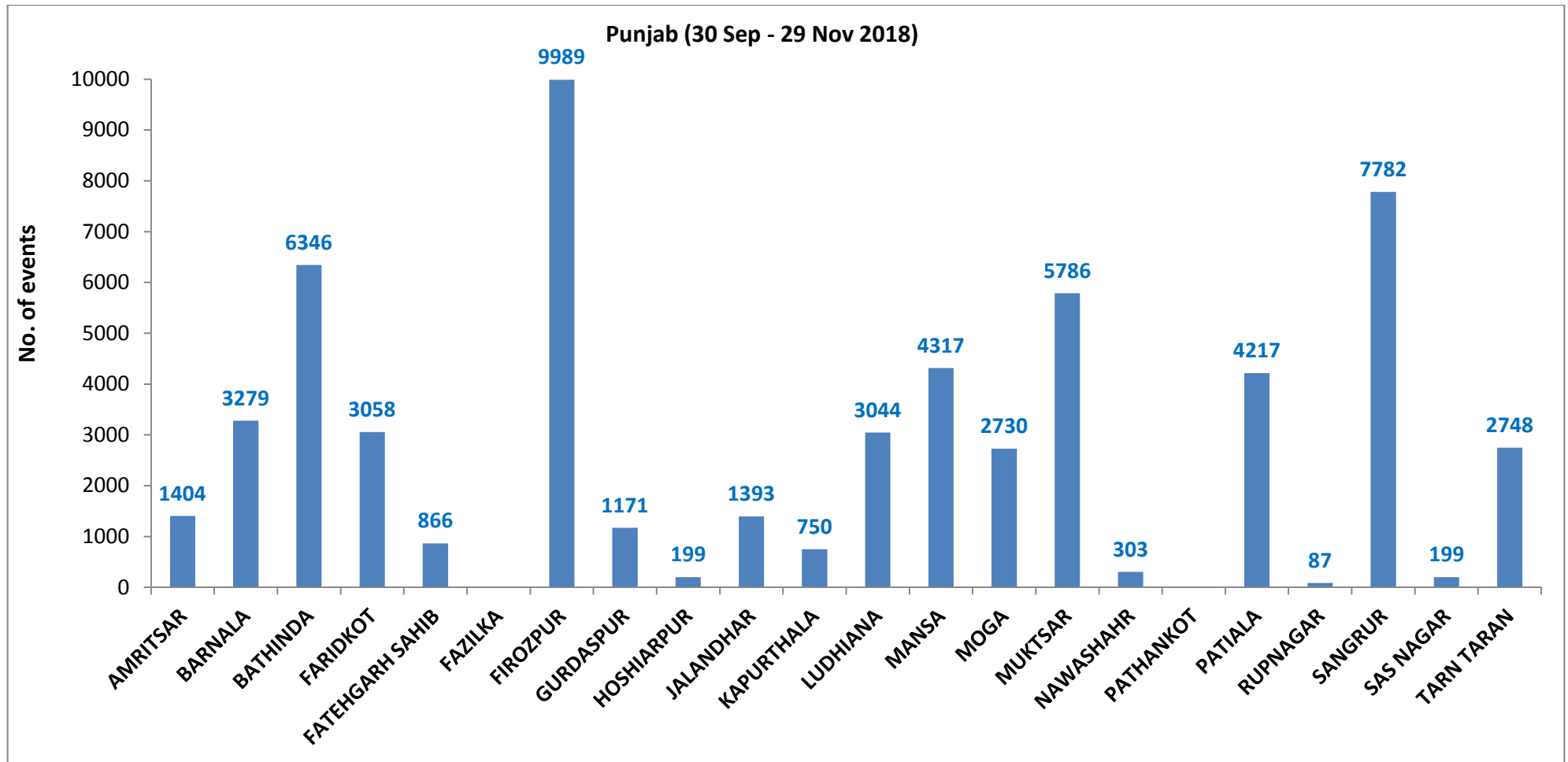


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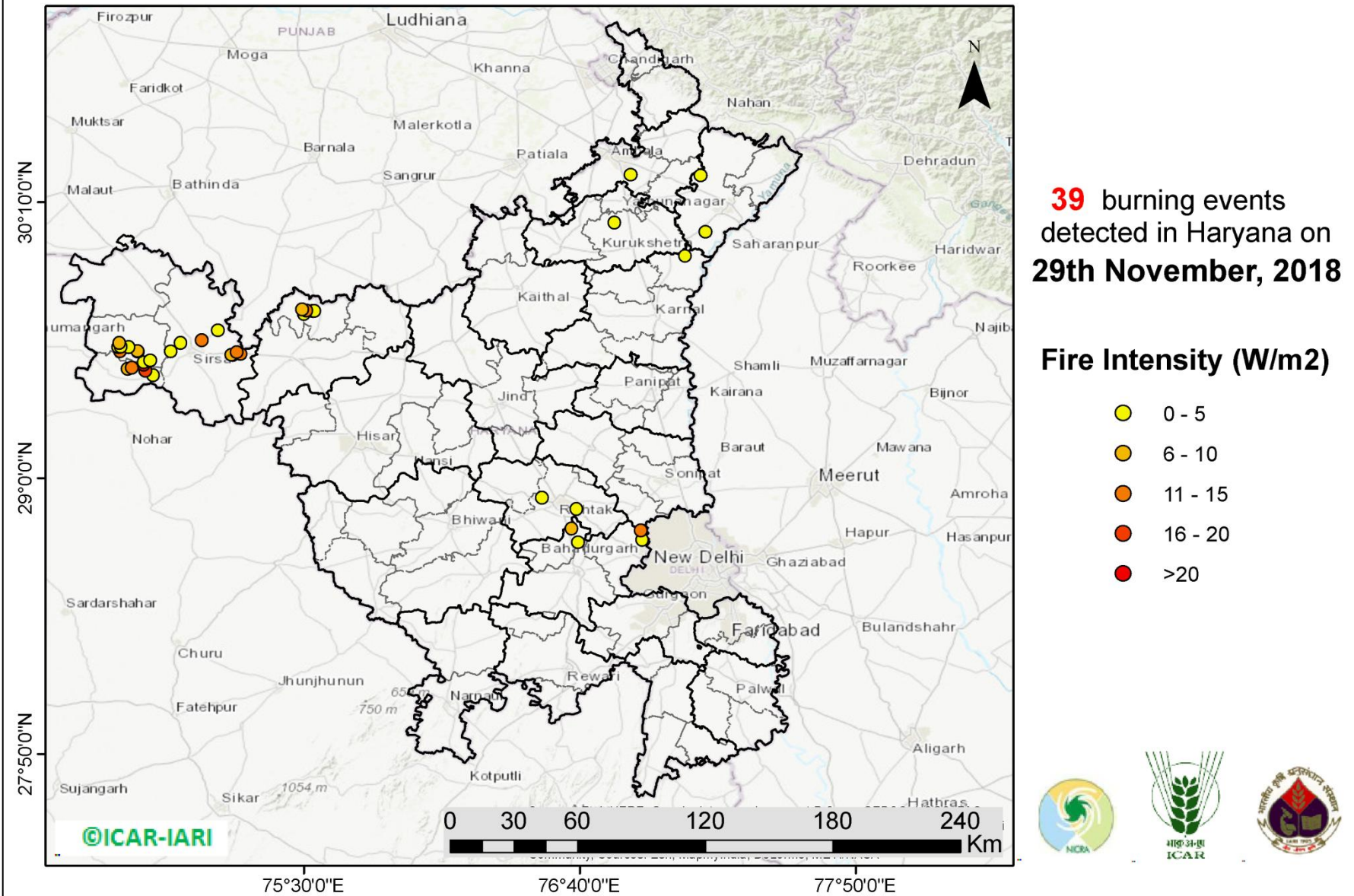
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residue burning events in Punjab (30-Sep-2018 to 29-Nov-2018)



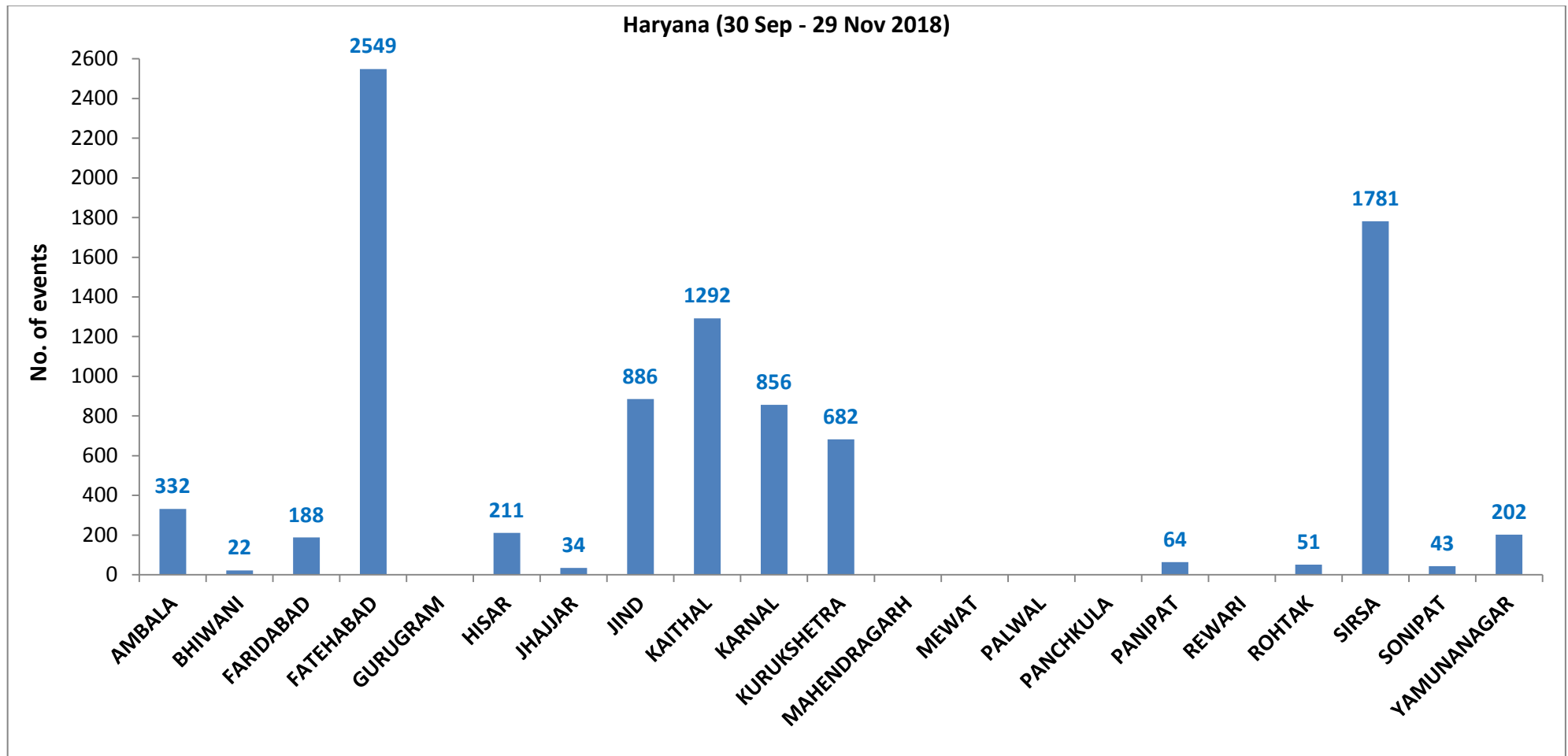
(b) Haryana

PADDY RESIDUE BURNING IN HARYANA

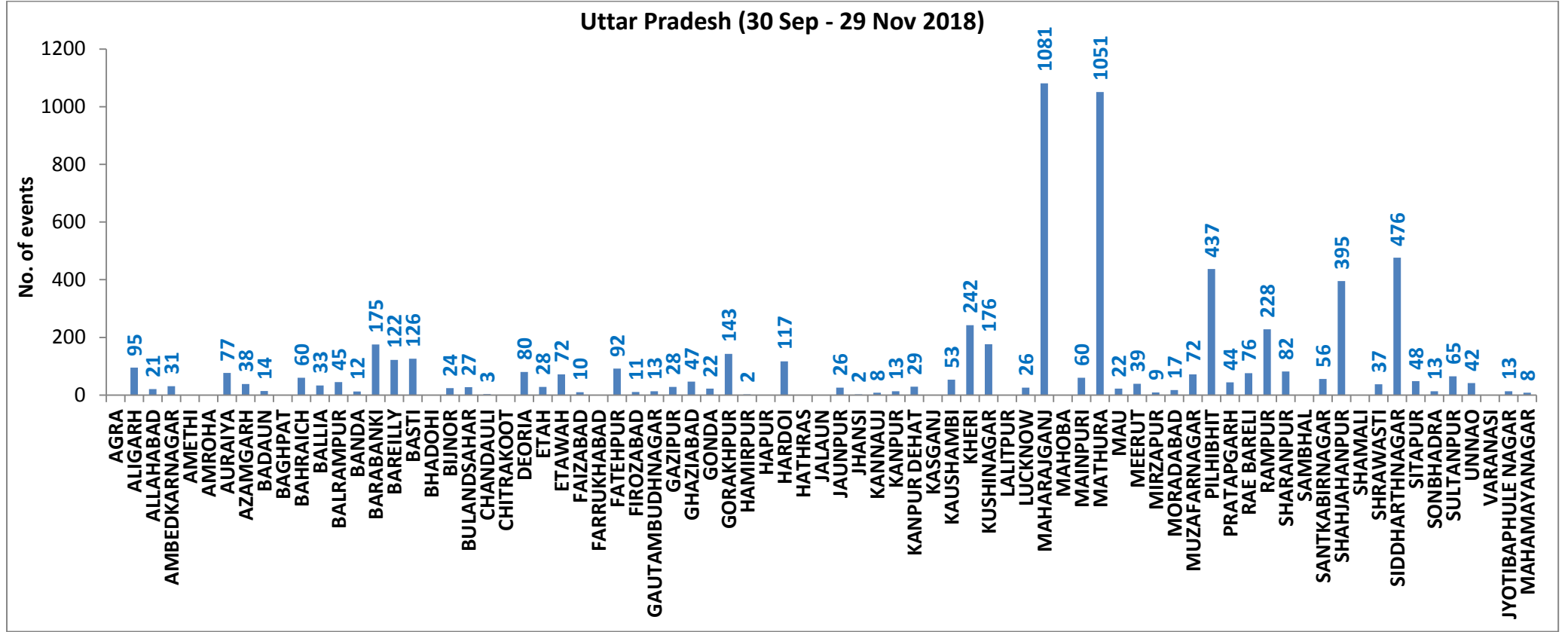


<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residue burning events in Haryana (30-Sep-2018 to 29-Nov-2018)



District-wise cumulative number of residue burning events in Uttar Pradesh (30-Sep-2018 to 29-Nov-2018)



State wise, date wise and district-wise number of residue burning events detected in 2016, 2017 and 2018
(Period: 30-Sep to 29-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
25-Oct	1813	2104	1247	229	303	182	83	175	142	2125	2582	1571
26-Oct	3390	1715	1173	434	276	132	195	240	33	4019	2231	1338
27-Oct	2904	2069	2040	417	224	252	255	145	154	3576	2438	2446
28-Oct	3493	2318	2864	458	292	330	435	99	290	4386	2709	3484

29-Oct	2258	4184	1321	278	502	124	237	180	243	2773	4866	1688
30-Oct	1076	3152	2008	395	307	103	175	238	158	1646	3697	2269
31-Oct	6132	3743	2715	575	413	229	153	321	148	6860	4447	3092
01-Nov	4843	2736	4140	362	250	306	223	199	161	5628	3185	4607
02-Nov	4183	1246	3550	332	145	306	345	131	142	4860	1522	3998
03-Nov	3806	2109	972	275	240	202	409	75	181	4409	2424	1355
04-Nov	4477	4603	882	146	499	77	265	168	183	4888	5270	1142
05-Nov	4137	2876	2989	345	625	129	125	367	163	4607	3868	3281
06-Nov	6303	171	3071	322	26	222	215	357	130	6840	327	3423
07-Nov	8575	420	4033	821	46	568	244	149	108	9640	615	4709
08-Nov	4129	2256	4450	432	128	313	419	43	338	4874	2427	5101
09-Nov	4857	675	2083	608	311	96	205	107	294	5670	1093	2473
10-Nov	2468	1642	1675	484	509	85	109	131	125	3061	2282	1885
11-Nov	5040	103	1364	716	29	196	129	358	45	5885	490	1605
12-Nov	1477	33	1256	634	3	122	129	269	45	2240	305	1423
13-Nov	885	237	1563	389	7	146	338	109	94	1612	353	1803
14-Nov	692	1101	765	171	340	189	247	95	128	1110	1536	1082
15-Nov	871	5	1480	107	40	107	154	123	146	1132	168	1733
16-Nov	911	8	1250	318	17	204	123	218	112	1352	243	1566
17-Nov	638	217	1132	299	12	289	130	249	103	1067	478	1524
18-Nov	568	2147	1400	312	139	356	217	180	111	1097	2466	1867
19-Nov	168	2200	752	125	471	159	273	122	3	566	2793	914
20-Nov	240	1857	385	204	325	88	183	101	243	627	2283	716
21-Nov	112	2310	480	115	378	161	86	205	107	313	2893	748
22-Nov	99	719	287	118	154	122	148	281	72	365	1154	481
23-Nov	54	1033	317	97	259	180	151	163	106	302	1455	603
24-Nov	21	507	229	36	192	152	265	105	186	322	794	567
25-Nov	33	443	72	68	219	81	123	124	272	224	786	425
26-Nov	27	334	95	25	240	57	85	186	73	137	760	225
27-Nov	22	151	1	34	99	2	80	227	42	136	477	45
28-Nov	13	95	35	23	114	49	87	145	35	123	354	119
29-Nov	10	86	27	28	87	39	197	91	104	235	264	170
Total	102371	66968	59668	15672	13018	9196	9608	8668	6514	127651	88654	75378

(a) Punjab

Districts	01 Oct - 29Nov		
	2016	2017	2018
AMRITSAR	2170	1362	1404
BARNALA	5701	3426	3279
BATHINDA	8846	5777	6346
FARIDKOT	4630	3472	3058
FATEHGARH SAHIB	2461	1642	866
FAZILKA	0	0	0
FIROZPUR	13643	9938	9989
GURDASPUR	2219	1594	1171
HOSHIARPUR	905	497	199
JALANDHAR	4662	2126	1393
KAPURTHALA	3136	1626	750
LUDHIANA	9546	4753	3044
MANSA	5652	4501	4317
MOGA	6393	2776	2730
MUKTSAR	7037	5441	5786
NAWASHAHR (SBS Nagar)	1366	686	303
PATHANKOT	0	0	0
PATIALA	6545	5034	4217
RUPNAGAR	719	328	87
SANGRUR	11862	8429	7782
SAS NAGAR	365	246	199
TARN TARAN	4513	3314	2748
Total	102371	66968	59668

(b) Haryana

Districts	01 Oct - 29Nov		
	2016	2017	2018
AMBALA	537	502	332
BHIWANI	93	47	22
FARIDABAD	288	343	188
FATEHABAD	4831	3734	2549
GURUGRAM	0	0	0
HISAR	414	192	211
JHAJJAR	43	19	34
JIND	861	945	886
KAITHAL	1748	1512	1292
KARNAL	1640	1513	856
KURUKSHETRA	1079	1150	682
MAHENDRAGARH	0	0	0
MEWAT	0	0	0
PALWAL	0	0	0
PANCHKULA	0	0	3
PANIPAT	102	110	64
REWARI	0	0	0
ROHTAK	103	98	51
SIRSA	3580	2444	1781
SONIPAT	100	86	43
YAMUNANAGAR	253	323	202
Total	15672	13018	9196

(c) Uttar Pradesh				FATEHPUR	88	73	92	MUZAFARNAGAR	186	192	72
				FIROZABAD	23	18	11	PILHIBHIT	964	746	437
Distrites	01 Oct - 29Nov			GAUTAMBUDH				PRATAPGARH	47	63	44
	2016	2017	2018	NAGAR	33	47	13	RAE BARELI	119	152	76
AGRA	0	0	0	GAZIPUR	16	23	28	RAMPUR	635	665	228
ALIGARH	59	82	95	GHAZIABAD	95	67	47	SHARANPUR	136	162	82
ALLAHABAD	8	20	21	GONDA	50	39	22	SAMBHAL	0	0	0
AMBEDKAR				GORAKHPUR	67	115	143	SANTKABIR			
NAGAR	79	71	31	HAMIRPUR	0	0	2	NAGAR	56	65	56
AMETHI	0	0	0	HAPUR	0	0	0	SHAHJAHANPUR	1159	713	395
AMROHA	0	0	0	HARDOI	259	211	117	SHAMALI	0	0	0
AURAIYA	289	254	77	HATHRAS	0	0	0	SHRAWASTI	37	32	37
AZAMGARH	38	56	38	JALAUN	0	0	0	SIDDHARTH			
BADAUN	13	12	14	JAUNPUR	26	44	26	NAGAR	264	188	476
BAGHPAT	0	0	0	JHANSI	0	0	2	SITAPUR	150	88	48
BAHRAICH	82	42	60	KANNAUJ	35	20	8	SONBHADRA	16	17	13
BALLIA	19	48	33	KANPUR	20	14	13	SULTANPUR	82	84	65
BALRAMPUR	38	28	45	KANPUR DEHAT	75	75	29	UNNAO	68	60	42
BANDA	2	23	12	KASGANJ	0	0	0	VARANASI	2	0	0
BARABANKI	222	168	175	KAUSHAMBI	36	55	53	JYOTIBAPHULE			
BAREILLY	270	239	122	KHERI	518	359	242	NAGAR	12	22	13
BASTI	146	187	126	KUSHINAGAR	68	157	176	MAHAMAYA			
BHADOHI	0	0	0	LALITPUR	0	0	0	NAGAR	4	3	8
BIJNOR	84	75	24	LUCKNOW	64	30	26	Total	9608	8668	6514
BULANDSAHAR	38	39	27	MAHARAJGANJ	733	1029	1081				
CHANDAULI	21	27	3	MAHOBA	0	0	0				
CHITRAKOOT	0	0	0	MAINPURI	97	96	60				
DEORIA	62	86	80	MATHURA	1462	1083	1051				
ETAH	24	33	28	MAU	15	24	22				
ETAWAH	189	148	72	MEERUT	113	117	39				
FAIZABAD	20	16	10	MIRZAPUR	6	21	9				
FARRUKHABAD	0	0	0	MORADABAD	69	45	17				

Details of residue burning events in Punjab on 29-Nov-2018

Event S. No.	District	Tehsil/Block	Satellite	Longitude	Latitude	Time (IST)	Day/Night	Fire Power (W/m²)
1	BATHINDA	TALWANDI SABO	S-NPP	75.26362	30.00392	13:30:00	D	3.30
2	BATHINDA	TALWANDI SABO	S-NPP	75.26758	30.00453	13:30:00	D	6.40
3	FARIDKOT	FARIDKOT	S-NPP	74.70675	30.57800	13:30:00	D	2.60
4	FATEHGARH SAHIB	ALMOH	S-NPP	76.28863	30.64370	02:12:00	N	1.70
5	FATEHGARH SAHIB	FATEHGARH SAHIB	S-NPP	76.36546	30.48000	13:30:00	D	11.20
6	FATEHGARH SAHIB	FATEHGARH SAHIB	S-NPP	76.42268	30.48482	13:30:00	D	1.80
7	FIROZPUR	FAZILKA	AQUA-1	73.91566	30.36519	14:00:00	D	9.98
8	FIROZPUR	FAZILKA	S-NPP	74.14104	30.44785	13:30:00	D	5.10
9	FIROZPUR	JALALABAD	S-NPP	74.26382	30.46417	13:30:00	D	11.10
10	FIROZPUR	JALALABAD	S-NPP	74.26311	30.46750	13:30:00	D	11.10
11	FIROZPUR	JALALABAD	S-NPP	74.28605	30.47805	13:30:00	D	20.30
12	FIROZPUR	JALALABAD	AQUA-1	74.33857	30.50742	14:00:00	D	11.54
13	HOSHIARPUR	GARHSHANKAR	S-NPP	76.05740	31.31432	13:30:00	D	2.50
14	LUDHIANA	LUDHIANA EAST	S-NPP	75.99538	30.88196	02:12:00	N	0.50
15	LUDHIANA	SAMRALA	S-NPP	76.19341	30.88719	02:12:00	N	0.60
16	MANSA	SARDULGARH	S-NPP	75.30061	29.57251	13:30:00	D	1.20
17	MUKTSAR	MALAUT	S-NPP	74.56822	29.96297	13:30:00	D	26.80
18	MUKTSAR	MALAUT	S-NPP	74.56753	29.96629	13:30:00	D	26.80
19	MUKTSAR	MALAUT	AQUA-1	74.57731	29.96843	14:00:00	D	20.65
20	MUKTSAR	MALAUT	S-NPP	74.68983	29.99597	13:30:00	D	2.70
21	MUKTSAR	MALAUT	S-NPP	74.49891	30.09705	13:30:00	D	10.60
22	NAWASHAHR	BALACHAUR	S-NPP	76.26228	31.02601	13:30:00	D	3.00
23	NAWASHAHR	BALACHAUR	S-NPP	76.26634	31.02659	13:30:00	D	3.00
24	NAWASHAHR	NAWASHAHR	S-NPP	75.95020	31.21754	13:30:00	D	12.60
25	SANGRUR	DHURI	S-NPP	75.92071	30.45241	13:30:00	D	2.20
26	SANGRUR	MOONAK	S-NPP	75.98572	29.73117	13:30:00	D	4.10
27	TARN TARAN	KHADOOR SAHIB	S-NPP	74.85744	31.37835	13:30:00	D	1.70

Details of residue burning events in Haryana on 29-Nov-2018

Event S. No.	District	Tehsil/Block	Satellite	Longitude	Latitude	Time (IST)	Day/Night	Fire Power (W/m²)
1	AMBALA	AMBALA	S-NPP	76.88092	30.28387	13:30:00	D	3.30
2	FATEHABAD	RATIA	S-NPP	75.50036	29.69493	13:30:00	D	2.10
3	FATEHABAD	RATIA	S-NPP	75.53857	29.70757	13:30:00	D	4.30
4	FATEHABAD	RATIA	S-NPP	75.54251	29.70818	13:30:00	D	4.30
5	FATEHABAD	RATIA	S-NPP	75.50957	29.70993	13:30:00	D	12.20
6	FATEHABAD	RATIA	METOP-2	75.49133	29.71391	21:04:00	N	8.00
7	JHAJJAR	BAHADURGARH	S-NPP	76.93030	28.74006	02:12:00	N	0.80
8	JHAJJAR	BAHADURGARH	METOP-2	76.92375	28.77966	21:04:00	N	15.00
9	JHAJJAR	BERI	S-NPP	76.65891	28.72803	13:30:00	D	2.00
10	JHAJJAR	BERI	S-NPP	76.63166	28.78812	13:30:00	D	8.70
11	KARNAL	INDRI	S-NPP	77.11105	29.94075	13:30:00	D	2.30
12	KURUKSHETRA	THANESAR	S-NPP	76.81310	30.08211	13:30:00	D	1.60
13	ROHTAK	ROHTAK	S-NPP	76.65294	28.86956	13:30:00	D	2.70
14	ROHTAK	ROHTAK	S-NPP	76.50555	28.91847	13:30:00	D	2.00
15	SIRSA	ELLENABAD	S-NPP	74.86201	29.43633	13:30:00	D	1.30
16	SIRSA	ELLENABAD	S-NPP	74.82933	29.45509	13:30:00	D	15.80
17	SIRSA	ELLENABAD	S-NPP	74.75339	29.46359	13:30:00	D	5.10
18	SIRSA	ELLENABAD	AQUA-1	74.77171	29.46837	14:00:00	D	13.19
19	SIRSA	ELLENABAD	AQUA-1	74.82218	29.47855	14:00:00	D	21.54
20	SIRSA	RANIA	S-NPP	74.82211	29.49044	13:30:00	D	1.80
21	SIRSA	RANIA	S-NPP	74.84930	29.49819	13:30:00	D	3.60
22	SIRSA	RANIA	S-NPP	74.79656	29.53428	13:30:00	D	10.90
23	SIRSA	RANIA	S-NPP	74.72192	29.53610	13:30:00	D	12.60
24	SIRSA	RANIA	S-NPP	74.79588	29.53759	13:30:00	D	8.50
25	SIRSA	RANIA	S-NPP	74.71378	29.55536	13:30:00	D	2.20
26	SIRSA	RANIA	S-NPP	74.75913	29.55572	13:30:00	D	3.00
27	SIRSA	RANIA	S-NPP	74.72578	29.55727	13:30:00	D	4.70
28	SIRSA	RANIA	S-NPP	74.71884	29.57244	13:30:00	D	8.20

29	SIRSA	SIRSA	AQUA-1	75.19973	29.52077	14:00:00	D	13.58
30	SIRSA	SIRSA	S-NPP	75.19256	29.52236	13:30:00	D	5.60
31	SIRSA	SIRSA	AQUA-1	75.23042	29.52527	14:00:00	D	13.62
32	SIRSA	SIRSA	S-NPP	75.21495	29.53266	13:30:00	D	14.70
33	SIRSA	SIRSA	S-NPP	74.93606	29.53587	13:30:00	D	3.20
34	SIRSA	SIRSA	S-NPP	74.93060	29.55967	02:12:00	N	0.30
35	SIRSA	SIRSA	S-NPP	74.97764	29.57315	13:30:00	D	4.40
36	SIRSA	SIRSA	AQUA-1	75.06672	29.58366	14:00:00	D	12.41
37	SIRSA	SIRSA	S-NPP	75.13490	29.62505	13:30:00	D	2.50
38	YAMUNANAGAR	JAGADHRI	S-NPP	77.19802	30.04261	13:30:00	D	1.90
39	YAMUNANAGAR	JAGADHRI	S-NPP	77.17771	30.28058	13:30:00	D	3.20

Details of residue burning events in Uttar Pradesh on 29-Nov-2018

Event S. No.	District	Tehsil/Block	Satellite	Longitude	Latitude	Time (IST)	Day/Night	Fire Power (W/m²)
1	ALIGARH	ATRAULI	S-NPP	78.48299	28.05123	13:30:00	D	5.90
2	ALIGARH	KHAIR	S-NPP	77.80489	28.08343	13:30:00	D	1.70
3	ALLAHABAD	BARA	S-NPP	81.68242	25.09392	13:30:00	D	3.80
4	AMBEDKARNAGAR	AKBARPUR	S-NPP	82.33009	26.39328	13:30:00	D	2.50
5	AMBEDKARNAGAR	AKBARPUR	S-NPP	82.32010	26.47388	13:30:00	D	2.00
6	AMBEDKARNAGAR	AKBARPUR	S-NPP	82.57138	26.47688	13:30:00	D	1.60
7	AURAIYA	AURAIYA	S-NPP	79.56901	26.47650	13:30:00	D	4.00
8	AURAIYA	AURAIYA	S-NPP	79.54568	26.48064	13:30:00	D	2.80
9	AURAIYA	AURAIYA	S-NPP	79.32027	26.64088	13:30:00	D	1.10
10	AURAIYA	BIDHUNA	S-NPP	79.38815	26.66428	13:30:00	D	2.60
11	AZAMGARH	SAGRI	S-NPP	83.12943	26.27003	13:30:00	D	3.20
12	AZAMGARH	SAGRI	S-NPP	83.12980	26.27182	13:30:00	D	2.80
13	BALLIA	BALLIA	S-NPP	83.99760	25.63791	13:30:00	D	5.20
14	BALLIA	BELTHARA ROAD	S-NPP	83.94698	26.02500	13:30:00	D	4.50
15	BAREILLY	AONLA	TERRA-1	79.26473	28.22271	10:48:00	D	8.02
16	BAREILLY	BAHERI	S-NPP	79.62317	28.78011	13:30:00	D	1.40
17	BIJNOR	NAJIBABAD	S-NPP	78.18636	29.49942	13:30:00	D	1.70
18	BIJNOR	NAJIBABAD	S-NPP	78.39287	29.65586	13:30:00	D	5.60
19	BIJNOR	NAJIBABAD	S-NPP	78.39227	29.65934	13:30:00	D	5.60
20	BULANDSAHAR	SHIKARPUR	S-NPP	78.06110	28.30988	13:30:00	D	1.10
21	BULANDSAHAR	SIYANA	S-NPP	78.01259	28.65454	13:30:00	D	2.70
22	ETAWAH	BHARTHNA	S-NPP	79.15376	26.68691	13:30:00	D	1.60
23	ETAWAH	BHARTHNA	S-NPP	79.26890	26.83150	13:30:00	D	1.90
24	GAUTAMBUDHNAGAR	DADRI	S-NPP	77.66505	28.55470	13:30:00	D	1.90
25	GAZIPUR	JAKHANIA	S-NPP	83.43233	25.68578	13:30:00	D	4.50
26	GHAZIABAD	GARHMUKTESAR	S-NPP	78.02747	28.79953	13:30:00	D	3.40
27	GHAZIABAD	HAPUR	S-NPP	77.69933	28.69496	13:30:00	D	2.10
28	GHAZIABAD	HAPUR	S-NPP	77.92440	28.84829	13:30:00	D	3.00
29	GHAZIABAD	MODINAGAR	S-NPP	77.60018	28.83472	13:30:00	D	10.80

30	GORAKHPUR	GORAKHPUR	S-NPP	83.46136	26.92388	13:30:00	D	3.20
31	HARDOI	SHAHABAD	S-NPP	79.89408	27.53558	13:30:00	D	6.20
32	HARDOI	SHAHABAD	S-NPP	80.14562	27.67021	13:30:00	D	2.40
33	HARDOI	SIWAJIPUR	S-NPP	79.88294	27.20781	13:30:00	D	3.40
34	JYOTIBAPHULE NAGAR	DHANAURA	S-NPP	78.19379	28.81496	13:30:00	D	1.70
35	JYOTIBAPHULE NAGAR	DHANAURA	S-NPP	78.25063	28.91955	13:30:00	D	3.50
36	JYOTIBAPHULE NAGAR	DHANAURA	S-NPP	78.15572	29.01834	13:30:00	D	1.60
37	JYOTIBAPHULE NAGAR	HASANPUR	S-NPP	78.26028	28.61882	13:30:00	D	2.70
38	KHERI	DHAURAHRA	S-NPP	81.13010	27.96205	13:30:00	D	2.80
39	KHERI	GOLA	TERRA-1	80.37520	27.91129	10:48:00	D	11.68
40	KHERI	GOLA	TERRA-1	80.31040	27.96669	10:48:00	D	13.22
41	KHERI	LAKHIMPUR	S-NPP	80.72359	28.01638	13:30:00	D	5.10
42	KHERI	MOHMADI	S-NPP	80.11858	27.87034	13:30:00	D	3.70
43	KHERI	MOHMADI	S-NPP	80.27895	27.87841	13:30:00	D	2.40
44	KHERI	MOHMADI	S-NPP	80.16711	27.96112	13:30:00	D	5.50
45	KHERI	MOHMADI	S-NPP	80.16465	27.96268	13:30:00	D	5.10
46	KHERI	NIGHASAN	S-NPP	80.86640	28.33182	13:30:00	D	6.10
47	KHERI	PALIA KALAN	S-NPP	80.56406	28.49872	13:30:00	D	4.30
48	KHERI	PALIA KALAN	S-NPP	80.55765	28.50570	13:30:00	D	3.20
49	KUSHINAGAR	HATA	S-NPP	83.70963	26.87034	13:30:00	D	4.50
50	KUSHINAGAR	HATA	S-NPP	83.71143	26.87255	13:30:00	D	9.50
51	KUSHINAGAR	HATA	S-NPP	83.55486	26.88406	13:30:00	D	8.40
52	KUSHINAGAR	HATA	S-NPP	83.57005	26.92173	13:30:00	D	6.10
53	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.65359	26.98664	13:30:00	D	7.90
54	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.65749	27.03703	13:30:00	D	9.00
55	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.56583	27.07548	13:30:00	D	3.30
56	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.60042	27.07891	13:30:00	D	2.70
57	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.67967	27.09130	13:30:00	D	4.40
58	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.52271	27.15475	13:30:00	D	2.90
59	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.52092	27.15677	13:30:00	D	1.70
60	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.51606	27.20829	13:30:00	D	8.90
61	MAHARAJGANJ	PHARENDA	S-NPP	83.36518	27.19291	13:30:00	D	2.70

62	MEERUT	MAWANA	S-NPP	78.08808	28.90131	13:30:00	D	2.30
63	MEERUT	MAWANA	S-NPP	77.94951	28.92799	13:30:00	D	2.70
64	MEERUT	MAWANA	S-NPP	77.94497	29.00745	13:30:00	D	1.70
65	MEERUT	MAWANA	S-NPP	78.05553	29.04347	13:30:00	D	2.60
66	MEERUT	MEERUT	S-NPP	77.72731	28.78273	13:30:00	D	1.70
67	MEERUT	MEERUT	S-NPP	77.82707	28.84505	13:30:00	D	5.30
68	MEERUT	MEERUT	S-NPP	77.52695	29.03697	13:30:00	D	8.50
69	MEERUT	MEERUT	S-NPP	77.81738	29.04926	13:30:00	D	1.70
70	MEERUT	MEERUT	S-NPP	77.79568	29.07736	13:30:00	D	3.30
71	MEERUT	SARDHANA	S-NPP	77.61985	29.08446	13:30:00	D	3.50
72	MEERUT	SARDHANA	S-NPP	77.68947	29.20219	13:30:00	D	1.60
73	MORADABAD	MORADABAD	S-NPP	78.86987	28.85248	02:12:00	N	0.60
74	MORADABAD	THAKUR DWARA	S-NPP	78.78207	29.17966	13:30:00	D	2.80
75	MUZAFARNAGAR	BUDHANA	S-NPP	77.38708	29.26107	13:30:00	D	7.40
76	MUZAFARNAGAR	BUDHANA	S-NPP	77.50533	29.35798	13:30:00	D	2.30
77	MUZAFARNAGAR	BUDHANA	S-NPP	77.54320	29.35973	13:30:00	D	1.60
78	MUZAFARNAGAR	BUDHANA	S-NPP	77.57702	29.36090	13:30:00	D	2.20
79	MUZAFARNAGAR	JANSATH	S-NPP	77.80650	29.44452	13:30:00	D	1.50
80	MUZAFARNAGAR	KHATOLI	S-NPP	77.64960	29.36041	13:30:00	D	1.90
81	MUZAFARNAGAR	KHATOLI	S-NPP	77.73144	29.38198	13:30:00	D	4.10
82	MUZAFARNAGAR	KHATOLI	S-NPP	77.73083	29.38538	13:30:00	D	4.10
83	MUZAFARNAGAR	SHAMLI	S-NPP	77.35744	29.35821	13:30:00	D	4.00
84	PILHIBHIT	PURANPUR	S-NPP	80.07658	28.55458	13:30:00	D	4.70
85	PRATAPGARH	PATTI	TERRA-1	82.10297	26.00746	10:48:00	D	8.20
86	RAIBEARELI	MAHARAJGANG	S-NPP	81.37552	26.35149	13:30:00	D	1.20
87	RAIBEARELI	MAHARAJGANG	S-NPP	81.30647	26.49082	13:30:00	D	2.10
88	RAIBEARELI	SALON	S-NPP	81.47472	26.14894	13:30:00	D	3.40
89	RAMPUR	TANDA	S-NPP	78.96902	29.11358	13:30:00	D	2.70
90	RAMPUR	TANDA	S-NPP	78.97359	29.11416	13:30:00	D	2.70
91	SANTKABIRNAGAR	GHANGHATA	S-NPP	83.04955	26.64460	13:30:00	D	2.80
92	SANTKABIRNAGAR	MEHDawal	S-NPP	82.93644	26.93938	13:30:00	D	7.90
93	SHAHJAHANPUR	PUWANYA	S-NPP	80.09135	27.96328	13:30:00	D	3.00

94	SHAHJAHANPUR	SHAHJAHANPUR	S-NPP	79.71484	27.82054	13:30:00	D	2.00
95	SHAHJAHANPUR	SHAHJAHANPUR	S-NPP	79.83170	27.87589	13:30:00	D	4.50
96	SHAHJAHANPUR	TILHAR	S-NPP	79.88695	28.11261	13:30:00	D	8.60
97	SHARANPUR	NAKUR	S-NPP	77.21692	29.70032	13:30:00	D	2.10
98	SHARANPUR	NAKUR	S-NPP	77.21631	29.70368	13:30:00	D	2.60
99	SHARANPUR	NAKUR	S-NPP	77.18513	29.71308	13:30:00	D	7.40
100	SHARANPUR	NAKUR	S-NPP	77.18559	29.85329	13:30:00	D	2.20
101	SHARANPUR	RAMPUR MANIHARRAN	S-NPP	77.53992	29.79789	13:30:00	D	2.50
102	SHARANPUR	SHARANPUR	S-NPP	77.53243	30.08575	13:30:00	D	4.00
103	SULTANPUR	GAURIGANJ	S-NPP	81.73089	26.32923	13:30:00	D	5.10
104	SULTANPUR	JAISINGHPUR	S-NPP	82.16145	26.41036	13:30:00	D	3.20

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

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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/>
