



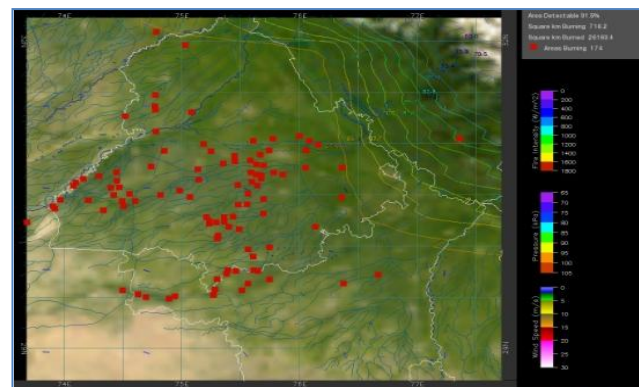
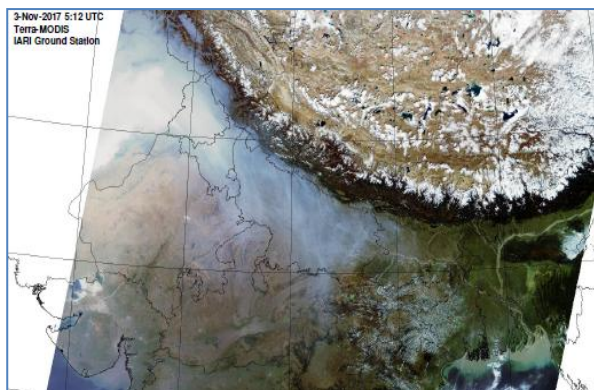
**Bulletin
No. 12**

**Events Date:
12-Oct-2018**

**Issued on:
13-Oct-2018**



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



Prepared by:

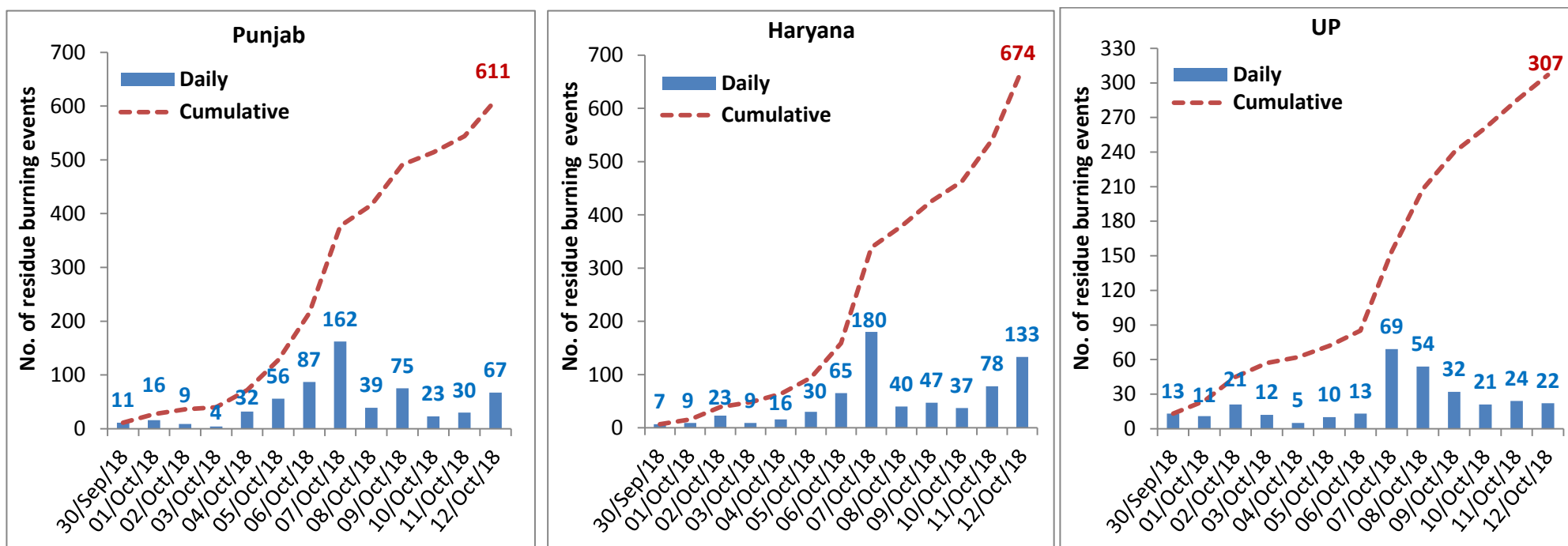
**Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS) Laboratory,
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012**

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

Highlights for 12-October-2018

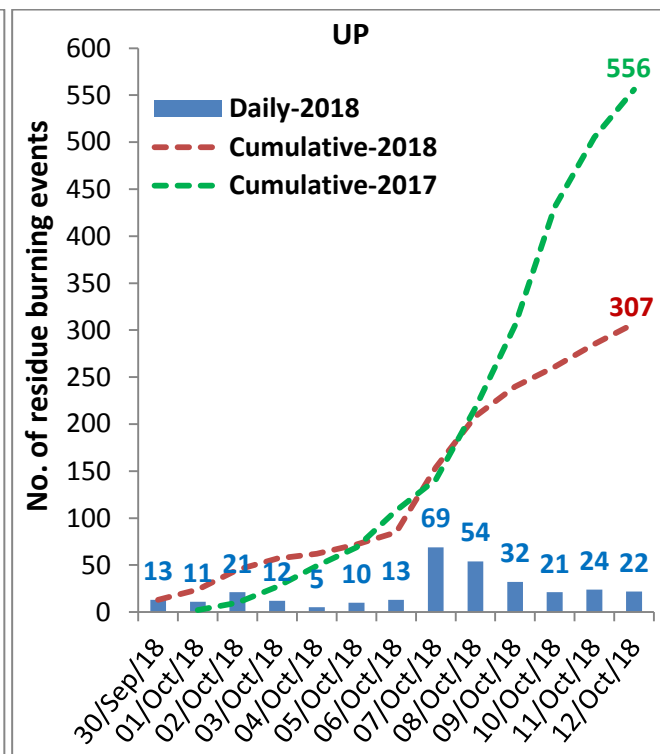
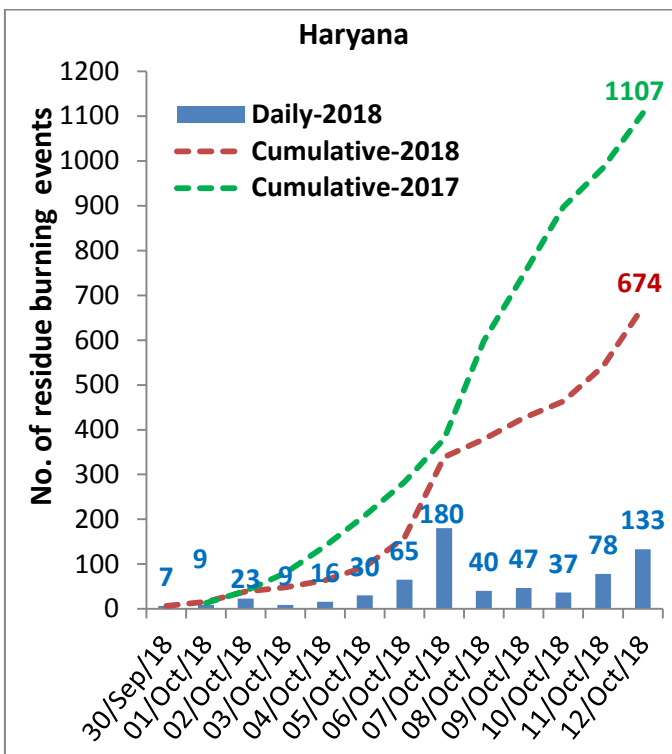
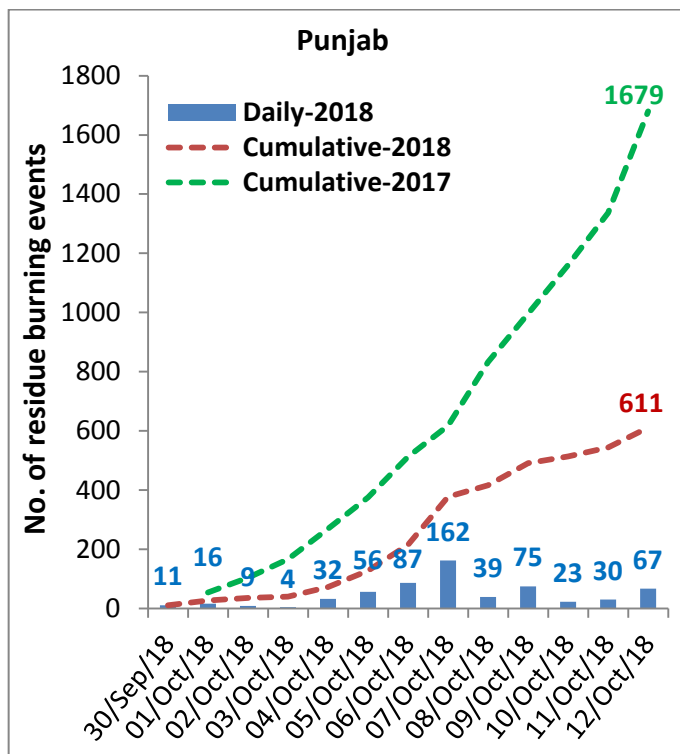
- Satellites detected 222 residue burning events in the three States (Punjab, Haryana & UP) on 12-Oct-2018.
- The burning events detected on 12-Oct-2018 are 67, 133 and 22 in Punjab, Haryana, and UP, respectively.
- The number of events increased from 132 on 11-Oct-2018 to 222 on 12-Oct-2018 in the three States.
- Total 1592 burning events were detected in three States between 30-Sept-2018 and 12-Oct-2018, which were distributed as 611, 674 and 307 in Punjab, Haryana and UP, respectively.
- Till 12-Oct-2018, the burning events in the current year are about 47.6% of the events detected in 2017.

Temporal distribution of residue burning events for the three study States



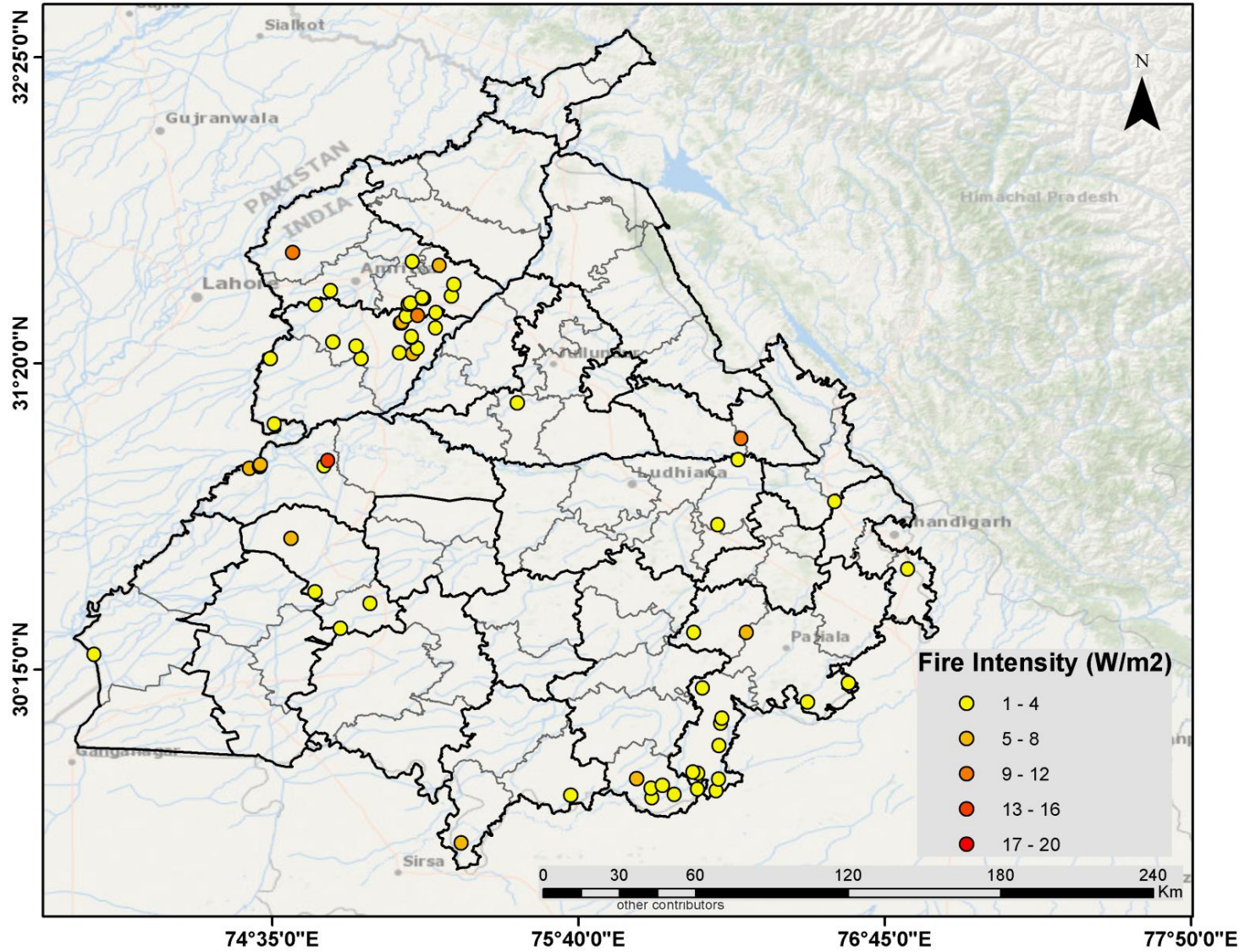
Comparison of residue burning events in current year (2018) with previous year (2017) for the three study States

(30-Sep-2018 to 12-Oct-2018)



(a) Punjab

Paddy Residue Burning in Punjab on 12th October 2018



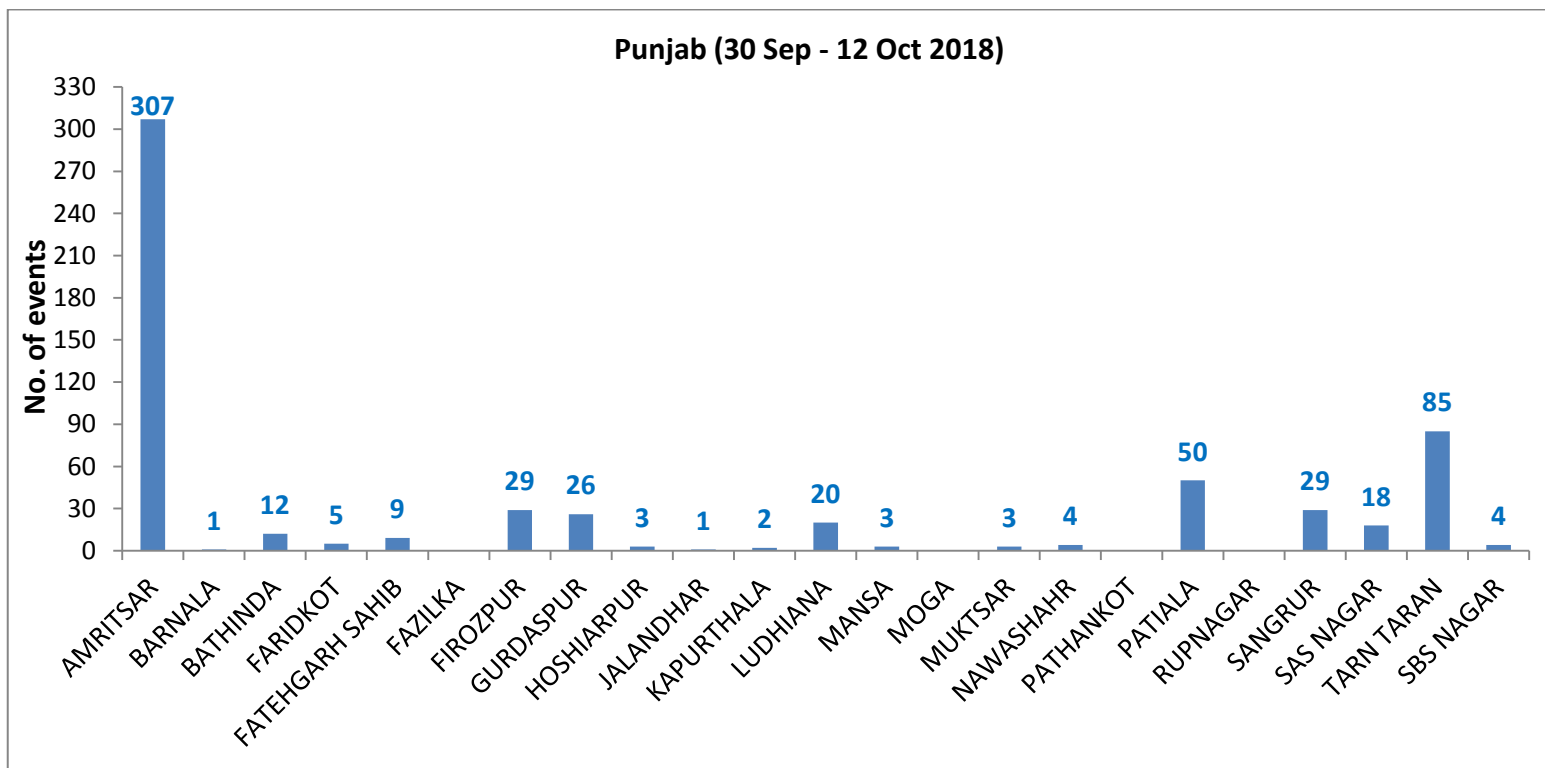
Details of residue burning events in Punjab on 12-Oct-2018

Event S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day/Night	Fire Power (W/m²)
1	AMRITSAR	AJNALA	S-NPP	74.65473	31.72624	13:30:00	D	12.00
2	AMRITSAR	AMRITSAR I	S-NPP	75.06391	31.54200	13:30:00	D	3.60
3	AMRITSAR	AMRITSAR I	S-NPP	75.07129	31.54653	13:30:00	D	3.60
4	AMRITSAR	AMRITSAR I	S-NPP	75.11356	31.56321	13:30:00	D	6.60
5	AMRITSAR	AMRITSAR I	S-NPP	75.07848	31.69368	13:30:00	D	1.80
6	AMRITSAR	AMRITSAR II	S-NPP	74.78761	31.59097	13:30:00	D	2.50
7	AMRITSAR	BABA BAKALA	S-NPP	75.16145	31.51268	13:30:00	D	2.10
8	AMRITSAR	BABA BAKALA	S-NPP	75.11758	31.56382	13:30:00	D	6.60
9	AMRITSAR	BABA BAKALA	S-NPP	75.11287	31.56651	13:30:00	D	2.90
10	AMRITSAR	BABA BAKALA	S-NPP	75.21568	31.57197	13:30:00	D	1.90
11	AMRITSAR	BABA BAKALA	S-NPP	75.22405	31.61378	13:30:00	D	2.10
12	AMRITSAR	BABA BAKALA	S-NPP	75.17274	31.68082	13:30:00	D	6.20
13	FARIDKOT	FARIDKOT	S-NPP	74.73335	30.52485	13:30:00	D	3.30
14	FARIDKOT	FARIDKOT	S-NPP	74.64823	30.71472	13:30:00	D	7.00
15	FARIDKOT	JAITO	S-NPP	74.82226	30.39599	13:30:00	D	2.10
16	FARIDKOT	JAITO	S-NPP	74.92832	30.48382	13:30:00	D	3.10
17	FIROZPUR	FAZILKA	S-NPP	73.95139	30.30407	13:30:00	D	3.40
18	FIROZPUR	FIROZPUR	S-NPP	74.50125	30.96199	13:30:00	D	5.00
19	FIROZPUR	FIROZPUR	S-NPP	74.53764	30.96779	13:30:00	D	3.40
20	FIROZPUR	FIROZPUR	S-NPP	74.76609	30.97072	13:30:00	D	2.50
21	FIROZPUR	FIROZPUR	S-NPP	74.53694	30.97110	13:30:00	D	3.40
22	FIROZPUR	FIROZPUR	S-NPP	74.54028	30.97506	13:30:00	D	4.50
23	FIROZPUR	FIROZPUR	S-NPP	74.77872	30.98976	13:30:00	D	15.50
24	JALANDHAR	NAKODAR	S-NPP	75.44893	31.19422	13:30:00	D	2.20
25	LUDHIANA	SAMRALA	S-NPP	76.15800	30.76215	13:30:00	D	3.40
26	LUDHIANA	SAMRALA	S-NPP	76.23006	30.99245	13:30:00	D	3.20
27	MANSA	BUDHLADA	S-NPP	75.63825	29.80447	13:30:00	D	2.40
28	MANSA	SARDULGARH	S-NPP	75.25147	29.63629	13:30:00	D	7.90

29	NAWASHAHR	BALACHAUR	S-NPP	76.24133	31.06787	13:30:00	D	10.30
30	PATIALA	NABHA	S-NPP	76.07420	30.38071	13:30:00	D	3.10
31	PATIALA	NABHA	S-NPP	76.25964	30.38073	13:30:00	D	6.40
32	PATIALA	PATIALA	S-NPP	76.47559	30.13559	13:30:00	D	3.50
33	PATIALA	PATIALA	S-NPP	76.62018	30.20295	13:30:00	D	2.10
34	PATIALA	SAMANA	S-NPP	76.15326	29.82073	13:30:00	D	2.60
35	PATIALA	SAMANA	S-NPP	76.16145	29.86276	13:30:00	D	2.30
36	PATIALA	SAMANA	S-NPP	76.08809	29.88246	13:30:00	D	3.30
37	PATIALA	SAMANA	S-NPP	76.07099	29.88673	13:30:00	D	1.90
38	PATIALA	SAMANA	S-NPP	76.15288	29.94913	13:30:00	D	22.70
39	PATIALA	SAMANA	S-NPP	76.16302	29.98126	13:30:00	D	3.80
40	PATIALA	SAMANA	S-NPP	76.16920	30.06000	13:30:00	D	2.50
41	PATIALA	SAMANA	S-NPP	76.17397	30.07771	13:30:00	D	1.30
42	PATIALA	SAMANA	S-NPP	76.10371	30.18558	13:30:00	D	2.10
43	SANGRUR	MOONAK	S-NPP	75.92525	29.79690	13:30:00	D	3.40
44	SANGRUR	MOONAK	S-NPP	76.00453	29.80878	13:30:00	D	1.90
45	SANGRUR	MOONAK	S-NPP	76.08658	29.82783	13:30:00	D	1.90
46	SANGRUR	MOONAK	S-NPP	75.92271	29.83052	13:30:00	D	2.30
47	SANGRUR	MOONAK	S-NPP	75.96171	29.83977	13:30:00	D	1.60
48	SANGRUR	MOONAK	S-NPP	75.87130	29.86358	13:30:00	D	4.20
49	SAS NAGAR	DERABASSI	S-NPP	76.82957	30.60520	13:30:00	D	1.60
50	SBS NAGAR	KHARAR	S-NPP	76.57153	30.84449	13:30:00	D	3.20
51	TARN TARAN	KHADOOR SAHIB	S-NPP	75.07874	31.36827	13:30:00	D	7.20
52	TARN TARAN	KHADOOR SAHIB	S-NPP	75.03289	31.37113	13:30:00	D	3.90
53	TARN TARAN	KHADOOR SAHIB	S-NPP	75.09589	31.38762	13:30:00	D	4.00
54	TARN TARAN	KHADOOR SAHIB	S-NPP	74.87839	31.39493	13:30:00	D	2.90
55	TARN TARAN	KHADOOR SAHIB	S-NPP	74.79623	31.40944	13:30:00	D	2.70
56	TARN TARAN	KHADOOR SAHIB	S-NPP	75.07559	31.42535	13:30:00	D	2.70
57	TARN TARAN	KHADOOR SAHIB	S-NPP	75.07491	31.42865	13:30:00	D	2.70
58	TARN TARAN	KHADOOR SAHIB	S-NPP	75.16004	31.45869	13:30:00	D	3.00
59	TARN TARAN	KHADOOR SAHIB	S-NPP	75.03600	31.47644	13:30:00	D	3.50

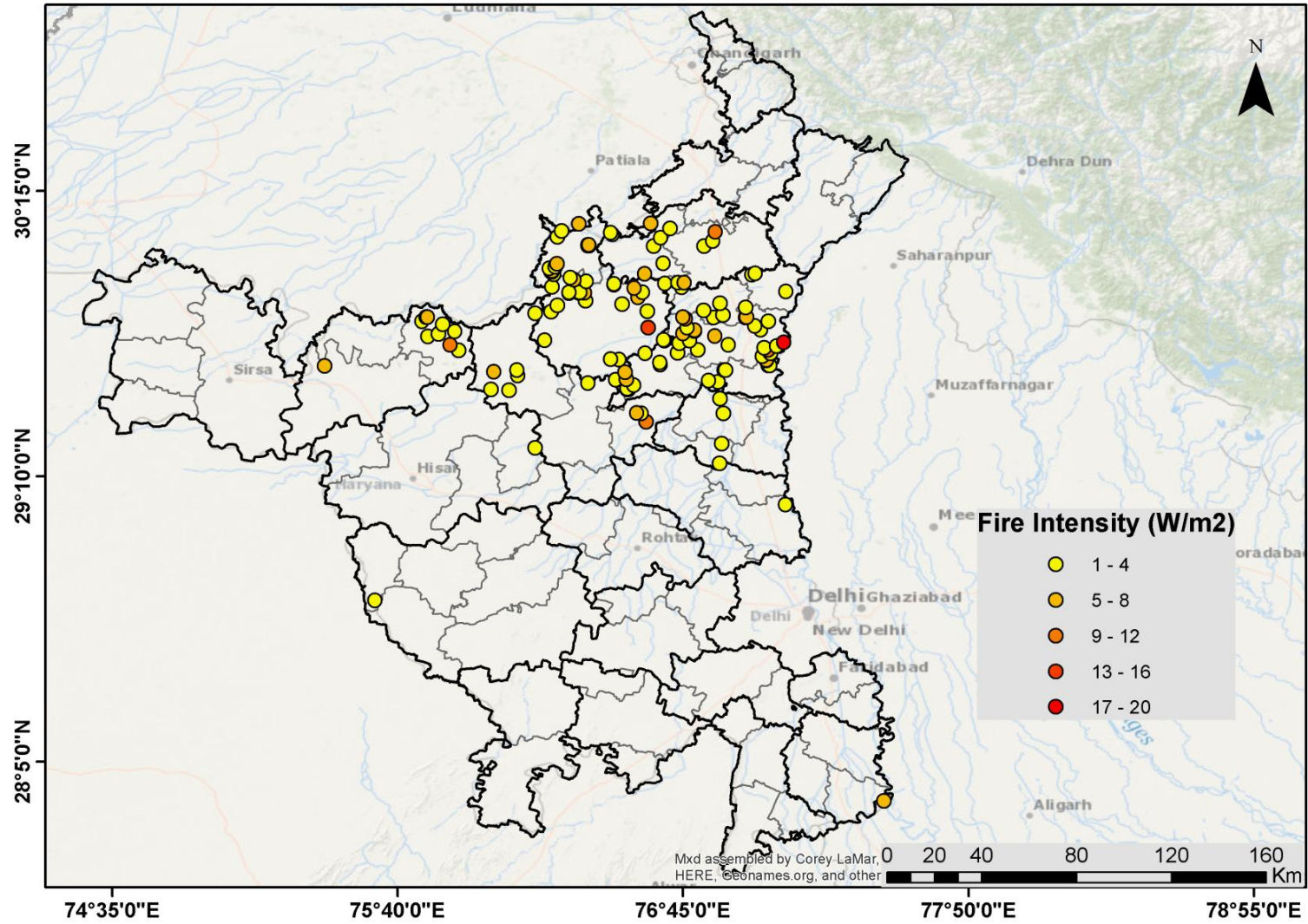
60	TARN TARAN	KHADOOR SAHIB	S-NPP	75.04002	31.47706	13:30:00	D	5.40
61	TARN TARAN	KHADOOR SAHIB	S-NPP	75.03934	31.48036	13:30:00	D	6.90
62	TARN TARAN	KHADOOR SAHIB	S-NPP	75.05604	31.49994	13:30:00	D	2.70
63	TARN TARAN	KHADOOR SAHIB	S-NPP	75.09700	31.50282	13:30:00	D	11.50
64	TARN TARAN	KHADOOR SAHIB	S-NPP	74.73541	31.54193	13:30:00	D	2.80
65	TARN TARAN	PATTI	S-NPP	74.58948	31.11905	13:30:00	D	2.10
66	TARN TARAN	PATTI	S-NPP	74.89604	31.34996	13:30:00	D	1.70
67	TARN TARAN	PATTI	S-NPP	74.57497	31.35092	13:30:00	D	1.70

District-wise cumulative number of residue burning events in Punjab (30-Sep-2018 to 12-Oct-2018)



(b) Haryana

Paddy Residue Burning in Haryana on 12th October 2018



Details of residue burning events in Haryana on 12-Oct-2018

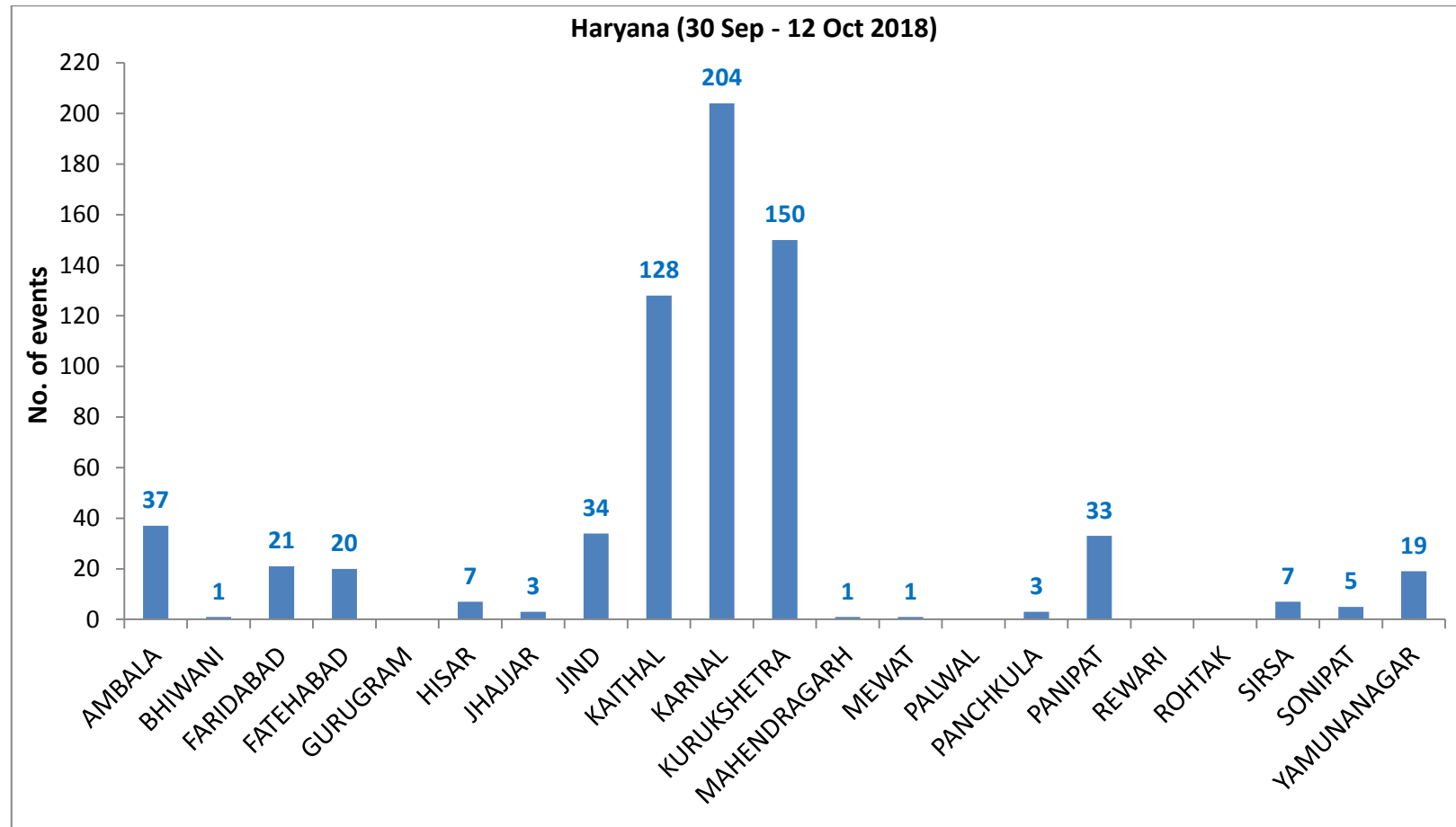
Event S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day/Night	Fire Power (W/m²)
1	AMBALA	AMBALA	S-NPP	76.62625	30.12666	13:30:00	D	6.00
2	BHIWANI	SIWANI	S-NPP	75.58078	28.69487	13:30:00	D	1.40
3	FARIDABAD	HODAL	S-NPP	77.51247	27.93441	13:30:00	D	4.50
4	FATEHABAD	FATEHABAD	S-NPP	75.38821	29.58599	13:30:00	D	5.10
5	FATEHABAD	TOHANA	S-NPP	75.89798	29.64424	13:30:00	D	3.80
6	FATEHABAD	TOHANA	S-NPP	75.86520	29.66576	13:30:00	D	8.10
7	FATEHABAD	TOHANA	S-NPP	75.78159	29.69731	13:30:00	D	3.90
8	FATEHABAD	TOHANA	S-NPP	75.82048	29.70660	13:30:00	D	4.00
9	FATEHABAD	TOHANA	S-NPP	75.88378	29.71616	13:30:00	D	2.60
10	FATEHABAD	TOHANA	S-NPP	75.83770	29.74320	13:30:00	D	2.80
11	FATEHABAD	TOHANA	S-NPP	75.75826	29.75471	13:30:00	D	2.20
12	FATEHABAD	TOHANA	S-NPP	75.77542	29.77091	13:30:00	D	4.50
13	FATEHABAD	TOHANA	S-NPP	75.77939	29.77151	13:30:00	D	4.50
14	HISAR	NARNAUND	S-NPP	76.18852	29.27441	13:30:00	D	1.90
15	JIND	JIND	S-NPP	76.38968	29.52063	13:30:00	D	4.00
16	JIND	NARWANA	S-NPP	76.08945	29.49314	13:30:00	D	2.00
17	JIND	NARWANA	S-NPP	76.01968	29.49628	13:30:00	D	2.10
18	JIND	NARWANA	S-NPP	76.12331	29.54920	13:30:00	D	1.50
19	JIND	NARWANA	S-NPP	76.03113	29.56260	13:30:00	D	5.00
20	JIND	NARWANA	S-NPP	76.11945	29.56903	13:30:00	D	3.30
21	JIND	NARWANA	S-NPP	76.18839	29.78553	13:30:00	D	3.40
22	JIND	SAFIDON	S-NPP	76.60936	29.37391	13:30:00	D	9.00
23	JIND	SAFIDON	S-NPP	76.59113	29.40534	13:30:00	D	3.50
24	JIND	SAFIDON	S-NPP	76.57458	29.40633	13:30:00	D	4.20
25	KAITHAL	GUHLA	S-NPP	76.33617	29.91240	13:30:00	D	4.70
26	KAITHAL	GUHLA	S-NPP	76.32229	29.92058	13:30:00	D	1.80
27	KAITHAL	GUHLA	S-NPP	76.25823	29.93406	13:30:00	D	2.60
28	KAITHAL	GUHLA	S-NPP	76.24834	29.94281	13:30:00	D	5.40
29	KAITHAL	GUHLA	S-NPP	76.25233	29.94340	13:30:00	D	5.40
30	KAITHAL	GUHLA	S-NPP	76.25169	29.94671	13:30:00	D	5.40
31	KAITHAL	GUHLA	S-NPP	76.24180	29.95547	13:30:00	D	3.30

32	KAITHAL	GUHLA	S-NPP	76.26508	29.96230	13:30:00	D	3.00
33	KAITHAL	GUHLA	S-NPP	76.27113	29.97340	13:30:00	D	7.10
34	KAITHAL	GUHLA	S-NPP	76.38942	30.04188	13:30:00	D	2.70
35	KAITHAL	GUHLA	S-NPP	76.39342	30.04247	13:30:00	D	3.70
36	KAITHAL	GUHLA	S-NPP	76.38878	30.04520	13:30:00	D	11.10
37	KAITHAL	GUHLA	S-NPP	76.39278	30.04579	13:30:00	D	4.20
38	KAITHAL	GUHLA	S-NPP	76.27299	30.07529	13:30:00	D	2.60
39	KAITHAL	GUHLA	S-NPP	76.28914	30.09809	13:30:00	D	2.00
40	KAITHAL	GUHLA	S-NPP	76.35397	30.12464	13:30:00	D	5.60
41	KAITHAL	KAITHAL	S-NPP	76.49371	29.53246	13:30:00	D	1.10
42	KAITHAL	KAITHAL	S-NPP	76.50769	29.60947	13:30:00	D	2.80
43	KAITHAL	KAITHAL	S-NPP	76.47454	29.61143	13:30:00	D	1.80
44	KAITHAL	KAITHAL	S-NPP	76.60558	29.63403	13:30:00	D	1.40
45	KAITHAL	KAITHAL	S-NPP	76.67992	29.68145	13:30:00	D	2.00
46	KAITHAL	KAITHAL	S-NPP	76.22462	29.68293	13:30:00	D	1.40
47	KAITHAL	KAITHAL	S-NPP	76.67528	29.68420	13:30:00	D	2.00
48	KAITHAL	KAITHAL	S-NPP	76.61711	29.73040	13:30:00	D	14.60
49	KAITHAL	KAITHAL	S-NPP	76.24864	29.79107	13:30:00	D	2.70
50	KAITHAL	KAITHAL	S-NPP	76.61346	29.79338	13:30:00	D	3.30
51	KAITHAL	KAITHAL	S-NPP	76.27265	29.81504	13:30:00	D	1.10
52	KAITHAL	KAITHAL	S-NPP	76.51775	29.82041	13:30:00	D	3.10
53	KAITHAL	KAITHAL	S-NPP	76.38004	29.83368	13:30:00	D	2.40
54	KAITHAL	KAITHAL	S-NPP	76.57867	29.84636	13:30:00	D	4.50
55	KAITHAL	KAITHAL	S-NPP	76.58881	29.85808	13:30:00	D	21.70
56	KAITHAL	KAITHAL	S-NPP	76.31719	29.86193	13:30:00	D	4.90
57	KAITHAL	KAITHAL	S-NPP	76.37431	29.86350	13:30:00	D	5.20
58	KAITHAL	KAITHAL	S-NPP	76.35371	29.86389	13:30:00	D	2.00
59	KAITHAL	KAITHAL	S-NPP	76.35770	29.86448	13:30:00	D	2.00
60	KAITHAL	KAITHAL	S-NPP	76.59613	29.86506	13:30:00	D	1.90
61	KAITHAL	KAITHAL	S-NPP	76.31655	29.86525	13:30:00	D	2.70
62	KAITHAL	KAITHAL	S-NPP	76.37367	29.86682	13:30:00	D	27.10
63	KAITHAL	KAITHAL	S-NPP	76.56425	29.88093	13:30:00	D	5.90
64	KAITHAL	KAITHAL	S-NPP	76.25103	29.88623	13:30:00	D	3.30
65	KAITHAL	KAITHAL	S-NPP	76.48769	29.89370	13:30:00	D	2.40
66	KAITHAL	KAITHAL	S-NPP	76.48706	29.89701	13:30:00	D	3.80

67	KAITHAL	KAITHAL	S-NPP	76.68079	29.89774	13:30:00	D	1.40
68	KAITHAL	KAITHAL	S-NPP	76.38264	29.90561	13:30:00	D	2.20
69	KARNAL	ASSANDH	S-NPP	76.53748	29.49566	13:30:00	D	3.40
70	KARNAL	ASSANDH	S-NPP	76.54146	29.49624	13:30:00	D	3.40
71	KARNAL	ASSANDH	S-NPP	76.53684	29.49898	13:30:00	D	2.60
72	KARNAL	ASSANDH	S-NPP	76.56284	29.51301	13:30:00	D	3.40
73	KARNAL	ASSANDH	S-NPP	76.53418	29.53495	13:30:00	D	5.80
74	KARNAL	ASSANDH	S-NPP	76.52913	29.56148	13:30:00	D	4.30
75	KARNAL	ASSANDH	S-NPP	76.66302	29.59118	13:30:00	D	1.90
76	KARNAL	ASSANDH	S-NPP	76.66177	29.59783	13:30:00	D	2.80
77	KARNAL	ASSANDH	S-NPP	76.72887	29.63488	13:30:00	D	3.80
78	KARNAL	GHARAUNDA	S-NPP	76.88139	29.52504	13:30:00	D	2.60
79	KARNAL	GHARAUNDA	S-NPP	76.84734	29.53041	13:30:00	D	1.50
80	KARNAL	GHARAUNDA	S-NPP	76.90615	29.56968	13:30:00	D	2.50
81	KARNAL	GHARAUNDA	S-NPP	76.91019	29.57027	13:30:00	D	3.70
82	KARNAL	GHARAUNDA	S-NPP	77.07317	29.58676	13:30:00	D	3.60
83	KARNAL	GHARAUNDA	S-NPP	77.07724	29.58735	13:30:00	D	3.60
84	KARNAL	GHARAUNDA	S-NPP	77.06541	29.60626	13:30:00	D	3.90
85	KARNAL	GHARAUNDA	S-NPP	77.06536	29.60763	13:30:00	D	7.00
86	KARNAL	INDRI	S-NPP	77.13985	29.86844	13:30:00	D	1.60
87	KARNAL	INDRI	S-NPP	77.01139	29.93108	13:30:00	D	4.00
88	KARNAL	INDRI	S-NPP	77.02300	29.93615	13:30:00	D	3.30
89	KARNAL	KARNAL	S-NPP	77.05009	29.62264	13:30:00	D	2.00
90	KARNAL	KARNAL	S-NPP	77.08134	29.63393	13:30:00	D	1.70
91	KARNAL	KARNAL	S-NPP	76.80520	29.64591	13:30:00	D	2.60
92	KARNAL	KARNAL	TERRA	77.07211	29.64654	10:49:00	D	10.05
93	KARNAL	KARNAL	S-NPP	77.05669	29.65447	13:30:00	D	1.90
94	KARNAL	KARNAL	S-NPP	77.10548	29.66139	13:30:00	D	1.90
95	KARNAL	KARNAL	S-NPP	76.92147	29.66606	13:30:00	D	1.40
96	KARNAL	KARNAL	S-NPP	76.73524	29.67234	13:30:00	D	2.10
97	KARNAL	KARNAL	AQUA	77.13179	29.67498	14:00:00	D	17.79
98	KARNAL	KARNAL	S-NPP	76.77482	29.68143	13:30:00	D	2.70
99	KARNAL	KARNAL	S-NPP	76.87090	29.69859	13:30:00	D	4.30
100	KARNAL	KARNAL	S-NPP	76.74907	29.70850	13:30:00	D	4.70
101	KARNAL	KARNAL	S-NPP	76.79270	29.71820	13:30:00	D	4.60

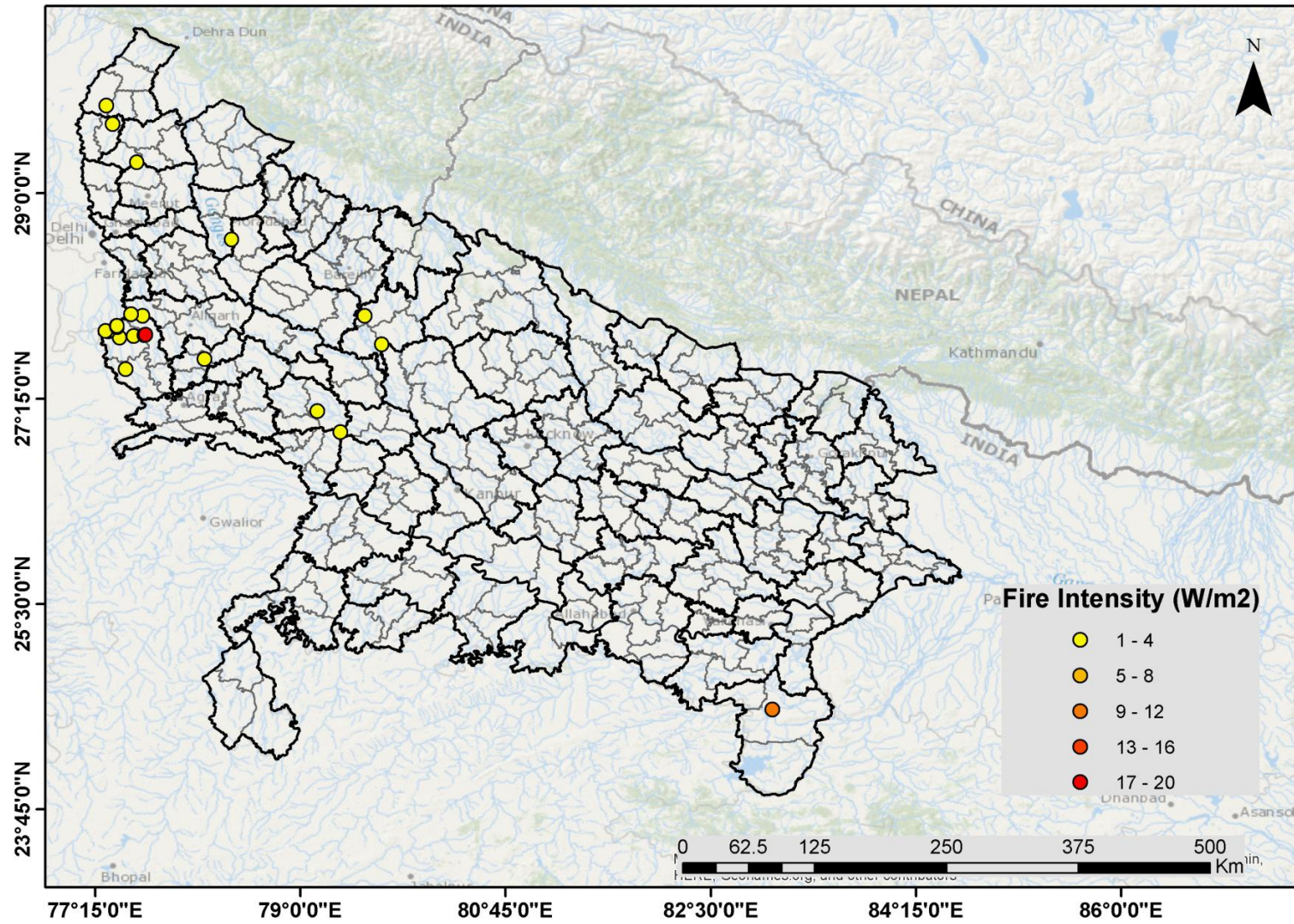
102	KARNAL	KARNAL	S-NPP	76.79208	29.72153	13:30:00	D	4.60
103	KARNAL	KARNAL	S-NPP	77.04509	29.72328	13:30:00	D	3.30
104	KARNAL	KARNAL	S-NPP	76.76542	29.73137	13:30:00	D	3.10
105	KARNAL	KARNAL	S-NPP	77.02167	29.73714	13:30:00	D	2.50
106	KARNAL	KARNAL	S-NPP	77.07269	29.75466	13:30:00	D	3.50
107	KARNAL	KARNAL	S-NPP	76.75916	29.76466	13:30:00	D	9.40
108	KARNAL	KARNAL	S-NPP	76.98641	29.76988	13:30:00	D	7.50
109	KARNAL	KARNAL	S-NPP	76.74986	29.77016	13:30:00	D	5.30
110	KARNAL	KARNAL	S-NPP	76.99046	29.77046	13:30:00	D	5.50
111	KARNAL	KARNAL	S-NPP	76.98769	29.80782	13:30:00	D	1.40
112	KARNAL	NILOKHERI	S-NPP	76.86588	29.76978	13:30:00	D	3.90
113	KARNAL	NILOKHERI	S-NPP	76.90163	29.77834	13:30:00	D	2.10
114	KARNAL	NILOKHERI	S-NPP	76.82773	29.79682	13:30:00	D	1.20
115	KARNAL	NILOKHERI	S-NPP	76.88931	29.82272	13:30:00	D	1.20
116	KURUKSHETRA	PEHOWA	S-NPP	76.60359	29.93442	13:30:00	D	6.20
117	KURUKSHETRA	PEHOWA	S-NPP	76.67436	29.97544	13:30:00	D	1.30
118	KURUKSHETRA	PEHOWA	S-NPP	76.63735	30.04044	13:30:00	D	1.90
119	KURUKSHETRA	PEHOWA	S-NPP	76.66457	30.07171	13:30:00	D	2.10
120	KURUKSHETRA	PEHOWA	S-NPP	76.48110	30.08520	13:30:00	D	3.00
121	KURUKSHETRA	PEHOWA	S-NPP	76.47582	30.09126	13:30:00	D	2.00
122	KURUKSHETRA	PEHOWA	S-NPP	76.70061	30.10656	13:30:00	D	3.50
123	KURUKSHETRA	THANESAR	S-NPP	76.74500	29.88417	13:30:00	D	2.00
124	KURUKSHETRA	THANESAR	S-NPP	76.72977	29.90136	13:30:00	D	1.00
125	KURUKSHETRA	THANESAR	S-NPP	76.75461	29.90149	13:30:00	D	4.50
126	KURUKSHETRA	THANESAR	S-NPP	76.82837	30.04047	13:30:00	D	3.70
127	KURUKSHETRA	THANESAR	S-NPP	76.86240	30.05902	13:30:00	D	1.80
128	KURUKSHETRA	THANESAR	S-NPP	76.87239	30.09475	13:30:00	D	8.80
129	PANIPAT	ISRANA	S-NPP	76.88894	29.21531	13:30:00	D	1.60
130	PANIPAT	ISRANA	S-NPP	76.89581	29.29038	13:30:00	D	2.50
131	PANIPAT	PANIPAT	S-NPP	76.90319	29.40617	13:30:00	D	2.30
132	PANIPAT	PANIPAT	S-NPP	76.88932	29.46109	02:12:00	N	1.50
133	SONIPAT	SONIPAT	S-NPP	77.13911	29.05906	13:30:00	D	2.90

District-wise cumulative number of residue burning events in Haryana (30-Sep-2018 to 12-Oct-2018)



(c) Uttar Pradesh

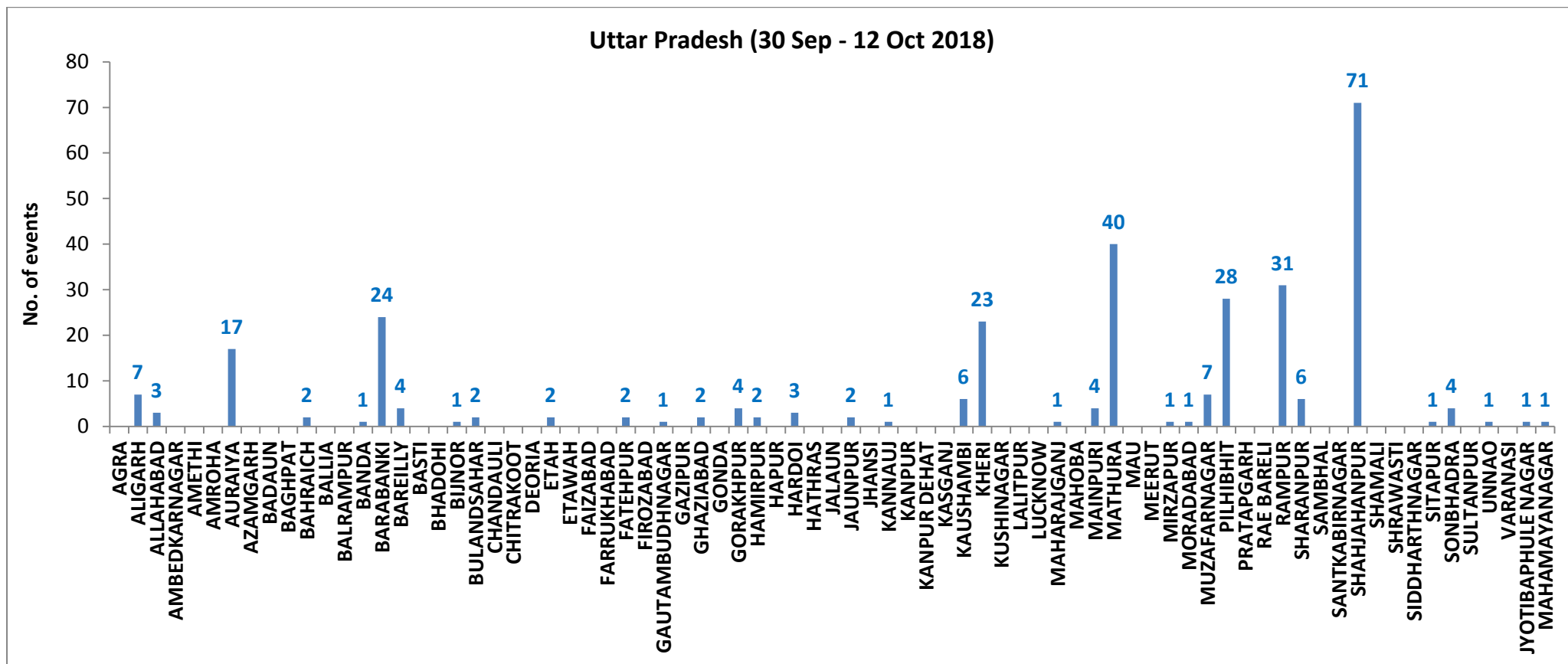
Paddy Residue Burning in Uttar Pradesh on 12th October 2018



Details of residue burning events in Uttar Pradesh on 12-Oct-2018

Event S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day/Night	Fire Power (W/m²)
1	ALIGARH	KHAIR	S-NPP	77.55492	27.97270	13:30:00	D	2.00
2	JYOTIBAPHULE NAGAR	HASANPUR	S-NPP	78.41483	28.60700	13:30:00	D	2.70
3	MAHAMAYANAGAR	HATHRAS	S-NPP	78.18085	27.59002	13:30:00	D	2.90
4	MAINPURI	BHOGAON	S-NPP	79.34046	26.96443	13:30:00	D	3.20
5	MAINPURI	BHOGAON	S-NPP	79.14383	27.14656	13:30:00	D	2.40
6	MATHURA	CHHATA	S-NPP	77.45918	27.77048	13:30:00	D	2.00
7	MATHURA	CHHATA	S-NPP	77.57539	27.78362	13:30:00	D	3.20
8	MATHURA	CHHATA	S-NPP	77.66811	27.79332	13:30:00	D	2.40
9	MATHURA	CHHATA	S-NPP	77.68016	27.79502	13:30:00	D	17.40
10	MATHURA	CHHATA	S-NPP	77.35694	27.82303	13:30:00	D	1.90
11	MATHURA	CHHATA	S-NPP	77.33590	27.82686	13:30:00	D	1.90
12	MATHURA	CHHATA	S-NPP	77.43555	27.86166	13:30:00	D	6.80
13	MATHURA	CHHATA	S-NPP	77.43374	27.87169	13:30:00	D	4.00
14	MATHURA	CHHATA	S-NPP	77.43771	27.87225	13:30:00	D	2.60
15	MATHURA	MAT	S-NPP	77.65620	27.95838	13:30:00	D	1.80
16	MATHURA	MATHURA	S-NPP	77.50718	27.50138	13:30:00	D	4.00
17	MUZAFARNAGAR	KHATOLI	S-NPP	77.60487	29.26476	13:30:00	D	1.90
18	MUZAFARNAGAR	SHAMLI	S-NPP	77.39932	29.59142	13:30:00	D	3.80
19	SHAHJAHANPUR	JALALABAD	S-NPP	79.69527	27.71262	13:30:00	D	3.40
20	SHAHJAHANPUR	TILHAR	S-NPP	79.54595	27.95633	13:30:00	D	3.90
21	SHARANPUR	NAKUR	S-NPP	77.34599	29.74700	13:30:00	D	2.90
22	SONBHADRA	REBUTSHGANJ	METOP-2	83.02177	24.60250	20:59:00	N	11.00

District-wise cumulative number of residue burning events in Uttar Pradesh (30-Sep-2018 to 12-Oct-2018)



State wise, date wise and district-wise number of residue burning events detected in 2017 and 2018
(Period: 30-Sep-2018 to 12-Oct-2018)

Date	Punjab		Haryana		UP		Total	
	2017	2018	2017	2018	2017	2018	2017	2018
30-Sep-18	--	11	---	7	---	13	---	31
1-Oct-18	54	16	13	9	2	11	69	36
2-Oct-18	50	9	27	23	8	21	85	53
3-Oct-18	62	4	40	9	17	12	119	25
4-Oct-18	103	32	60	16	22	5	185	53
5-Oct-18	106	56	68	30	20	10	194	96
6-Oct-18	138	87	75	65	39	13	252	165
7-Oct-18	105	162	97	180	31	69	233	411
8-Oct-18	215	39	218	40	75	54	508	133
9-Oct-18	163	75	148	47	87	32	398	154
10-Oct-18	164	23	151	37	126	21	441	81
11-Oct-18	177	30	87	78	74	24	338	132
12-Oct-18	342	67	123	133	51	22	516	222
Total	1679	611	1107	674	556	307	3342	1592

(a) Punjab

Districts	01 - 12 Oct	
	2017	2018
AMRITSAR	345	307
BARNALA	6	1
BATHINDA	67	12
FARIDKOT	241	5
FATEHGARH SAHIB	50	9
FAZILKA	0	0
FIROZPUR	165	29
GURDASPUR	34	26
HOSHIARPUR	4	3
JALANDHAR	82	1
KAPURTHALA	20	2
LUDHIANA	99	20
MANSA	25	3
MOGA	17	0
MUKTSAR	21	3
NAWASHAHR	7	4
PATHANKOT	0	0
PATIALA	198	50
RUPNAGAR	2	0
SANGRUR	75	29
SAS NAGAR	22	18
TARN TARAN	191	85
SBS NAGAR	8	4
Total	1679	611

(b) Haryana

Districts	01 - 12 Oct	
	2017	2018
AMBALA	88	37
BHIWANI	2	1
FARIDABAD	9	21
FATEHABAD	45	20
GURUGRAM	0	0
HISAR	11	7
JHAJJAR	0	3
JIND	53	34
KAITHAL	213	128
KARNAL	373	204
KURUKSHETRA	245	150
MAHENDRAGARH	0	1
MEWAT	0	1
PALWAL	0	0
PANCHKULA	0	3
PANIPAT	18	33
REWARI	0	0
ROHTAK	1	0
SIRSA	11	7
SONIPAT	7	5
YAMUNANAGAR	31	19
Total	1107	674

(c) Uttar Pradesh

Districts	01 - 12 Oct		FIROZABAD	0	0	PRATAPGARH	0	0
	2017	2018						
AGRA	0	0	GAZIPUR	0	0	RAMPUR	73	31
ALIGARH	8	7	GHAZIABAD	1	2	SHARANPUR	7	6
ALLAHABAD	0	3	GONDA	0	0	SAMBHAL	0	0
AMBEDKAR NAGAR	1	0	GORAKHPUR	0	4	SANTKABIR NAGAR	0	0
AMETHI	0	0	HAMIRPUR	0	2	SHAHJAHANPUR	193	71
AMROHA	0	0	HAPUR	0	0	SHAMALI	0	0
AURAIYA	31	17	HARDOI	2	3	SHRAWASTI	0	0
AZAMGARH	0	0	HATHRAS	0	0	SIDDHARTH NAGAR	0	0
BADAUN	0	0	JALAUN	0	0	SITAPUR	4	1
BAGHPAT	0	0	JAUNPUR	0	2	SONBHADRA	1	4
BAHRAICH	0	2	JHANSI	0	0	SULTANPUR	0	0
BALLIA	0	0	KANNAUJ	0	1	UNNAO	0	1
BALRAMPUR	0	0	KANPUR	0	0	VARANASI	0	0
BANDA	0	1	KANPUR DEHAT	1	0	JYOTIBAPHULE NAGAR	0	1
BARABANKI	13	24	KASGANJ	0	0	MAHAMAYA NAGAR	0	1
BAREILLY	16	4	KAUSHAMBI	2	6	Total	556	307
BASTI	0	0	KHERI	57	23			
BHADOHI	0	0	KUSHINAGAR	1	0			
BIJNOR	0	1	LALITPUR	0	0			
BULANDSAHAR	2	2	LUCKNOW	4	0			
CHANDAULI	0	0	MAHARAJGANJ	1	1			
CHITRAKOOT	0	0	MAHOBA	0	0			
DEORIA	0	0	MAINPURI	2	4			
ETAH	1	2	MATHURA	10	40			
ETAWAH	2	0	MAU	0	0			
FAIZABAD	1	0	MEERUT	2	0			
FARRUKHABAD	0	0	MIRZAPUR	1	1			
FATEHPUR	2	2	MORADABAD	3	1			
			MUZAFARNAGAR	27	7			
			PILHIBHIT	87	28			

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 Geoportal websites:

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

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