

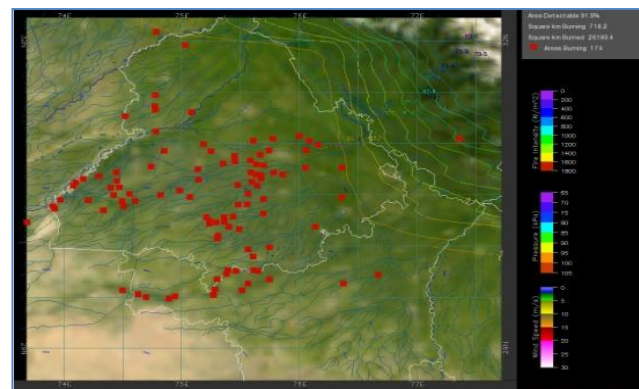
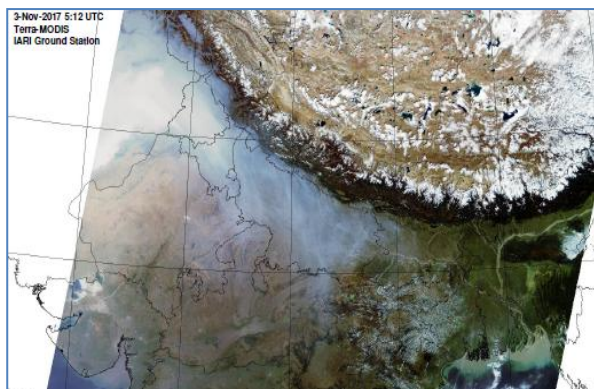


MONITORING PADDY RESIDUE BURNING IN NORTH INDIA USING SATELLITE REMOTE SENSING DURING 2018

**Bulletin
No. 7**

**Events Date:
07-Oct-2018**

**Issued on:
08-Oct-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**

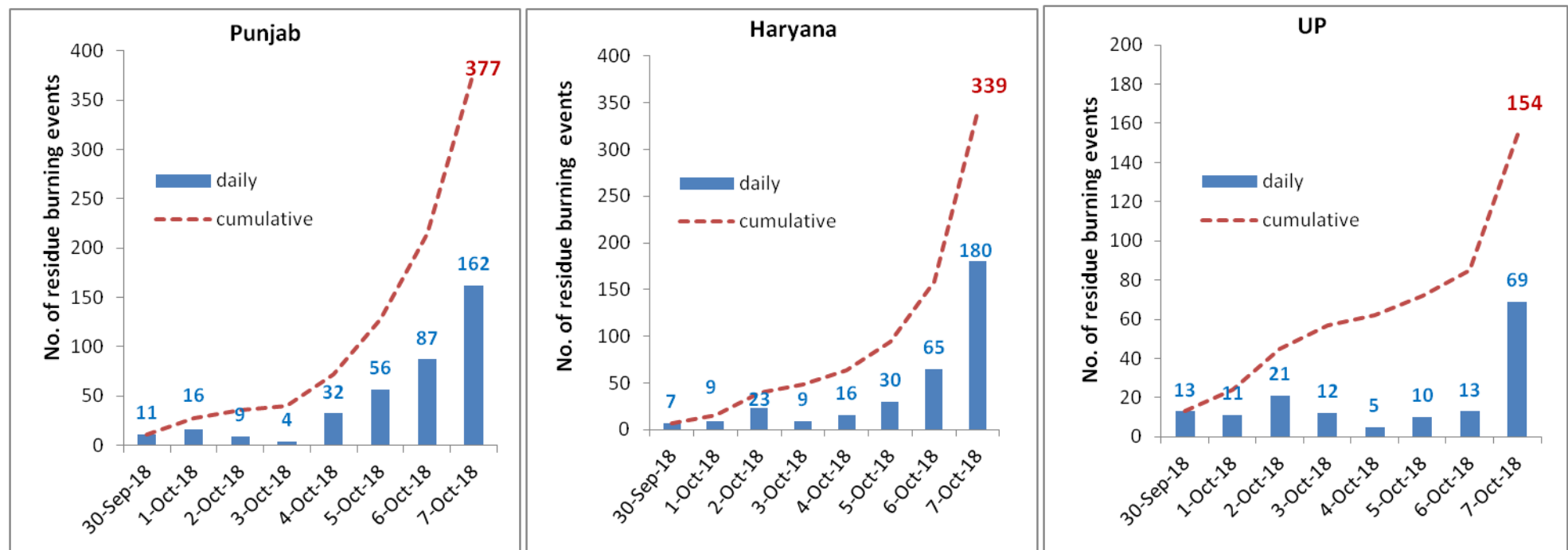
<http://creams.iari.res.in>



Highlights for 07-October-2018

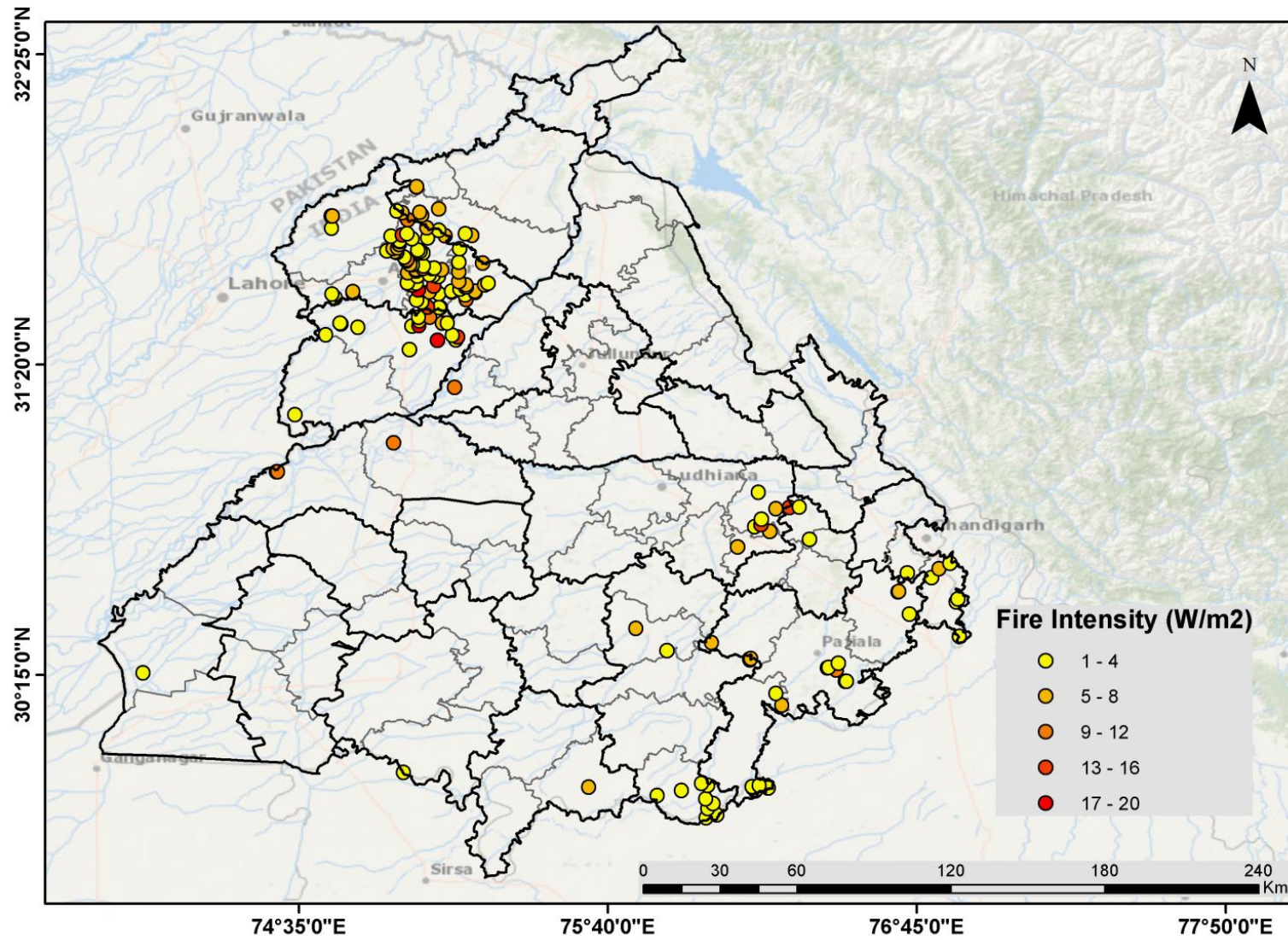
- Satellites detected 411 residue burning events in the three States (Punjab, Haryana & UP) on 07-Oct-2018.
- The burning events detected on 07-Oct-2018 are 162, 180 and 69 in Punjab, Haryana, and UP, respectively.
- The number of events increased from 165 on 06-Oct-2018 to 411 on 07-Oct-2018 in the three States.
- Total 870 burning events were detected in three States between 30-Sept-2018 and 07-Oct-2018, which were distributed as 377, 339 and 154 in Punjab, Haryana and UP, respectively.
- A spurt in burning events was observed on 07-Oct-2018 in all the three States.

Temporal distribution of residue burning events for the three study States



(a) Punjab

Paddy Residue Burning in Punjab on 7th Oct 2018



Details of residue burning events in Punjab on 07-Oct-2018

Event S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day/Night	Fire Power (W/m²)
1	AMRITSAR	AJNALA	S-NPP	74.90626	31.78177	13:24:00	D	1.50
2	AMRITSAR	AJNALA	S-NPP	74.69730	31.80968	13:24:00	D	2.90
3	AMRITSAR	AJNALA	S-NPP	74.69650	31.85170	13:24:00	D	4.20
4	AMRITSAR	AJNALA	S-NPP	74.70079	31.85242	13:24:00	D	4.10
5	AMRITSAR	AJNALA	S-NPP	74.92641	31.86927	13:24:00	D	3.20
6	AMRITSAR	AMRITSAR I	S-NPP	75.07424	31.53299	13:24:00	D	2.50
7	AMRITSAR	AMRITSAR I	AQUA-1	75.03432	31.53450	13:41:00	D	15.42
8	AMRITSAR	AMRITSAR I	S-NPP	75.01351	31.55072	13:24:00	D	2.80
9	AMRITSAR	AMRITSAR I	S-NPP	74.99436	31.55799	13:24:00	D	1.90
10	AMRITSAR	AMRITSAR I	S-NPP	75.07204	31.58140	13:24:00	D	3.80
11	AMRITSAR	AMRITSAR I	S-NPP	75.04034	31.58659	13:24:00	D	4.50
12	AMRITSAR	AMRITSAR I	AQUA-1	75.00021	31.59396	13:41:00	D	16.19
13	AMRITSAR	AMRITSAR I	AQUA-1	75.05546	31.60756	13:41:00	D	15.99
14	AMRITSAR	AMRITSAR I	S-NPP	74.97794	31.61112	13:24:00	D	3.50
15	AMRITSAR	AMRITSAR I	S-NPP	74.98215	31.61182	13:24:00	D	4.10
16	AMRITSAR	AMRITSAR I	S-NPP	74.99406	31.61727	13:24:00	D	2.30
17	AMRITSAR	AMRITSAR I	S-NPP	74.96298	31.61911	13:24:00	D	1.60
18	AMRITSAR	AMRITSAR I	S-NPP	75.06802	31.64050	13:24:00	D	8.90
19	AMRITSAR	AMRITSAR I	S-NPP	75.07175	31.64055	13:24:00	D	3.90
20	AMRITSAR	AMRITSAR I	S-NPP	74.99770	31.64268	13:24:00	D	1.50
21	AMRITSAR	AMRITSAR I	S-NPP	75.05390	31.64511	13:24:00	D	2.30
22	AMRITSAR	AMRITSAR I	S-NPP	75.04054	31.64636	13:24:00	D	1.70
23	AMRITSAR	AMRITSAR I	S-NPP	74.99389	31.65948	13:24:00	D	3.70
24	AMRITSAR	AMRITSAR I	S-NPP	74.99237	31.66621	13:24:00	D	4.40
25	AMRITSAR	AMRITSAR I	S-NPP	75.04860	31.66861	13:24:00	D	3.50
26	AMRITSAR	AMRITSAR I	AQUA-1	75.01863	31.66865	13:41:00	D	9.06
27	AMRITSAR	AMRITSAR I	S-NPP	75.05701	31.67001	13:24:00	D	2.70

28	AMRITSAR	AMRITSAR I	S-NPP	75.02032	31.67784	13:24:00	D	1.20
29	AMRITSAR	AMRITSAR I	S-NPP	75.01884	31.72290	13:24:00	D	2.80
30	AMRITSAR	AMRITSAR I	S-NPP	74.92641	31.72505	13:24:00	D	4.90
31	AMRITSAR	AMRITSAR I	S-NPP	74.92773	31.72599	13:24:00	D	6.10
32	AMRITSAR	AMRITSAR I	S-NPP	74.91852	31.72793	13:24:00	D	6.90
33	AMRITSAR	AMRITSAR I	S-NPP	75.00889	31.72823	13:24:00	D	3.10
34	AMRITSAR	AMRITSAR I	S-NPP	74.99895	31.73356	13:24:00	D	2.80
35	AMRITSAR	AMRITSAR I	AQUA-1	74.91324	31.73961	13:41:00	D	7.93
36	AMRITSAR	AMRITSAR I	S-NPP	74.92890	31.74016	13:24:00	D	6.70
37	AMRITSAR	AMRITSAR I	S-NPP	74.93505	31.75167	13:24:00	D	4.50
38	AMRITSAR	AMRITSAR I	S-NPP	74.93697	31.76246	13:24:00	D	2.40
39	AMRITSAR	AMRITSAR I	S-NPP	74.93621	31.76583	13:24:00	D	2.40
40	AMRITSAR	AMRITSAR I	S-NPP	74.97842	31.77287	13:24:00	D	2.80
41	AMRITSAR	AMRITSAR I	S-NPP	75.03468	31.77528	13:24:00	D	3.50
42	AMRITSAR	AMRITSAR I	AQUA-1	75.09571	31.78303	13:41:00	D	7.26
43	AMRITSAR	AMRITSAR I	AQUA-1	74.94564	31.78603	13:41:00	D	12.99
44	AMRITSAR	AMRITSAR I	S-NPP	74.96119	31.79092	13:24:00	D	1.90
45	AMRITSAR	AMRITSAR I	S-NPP	75.07214	31.80237	13:24:00	D	2.30
46	AMRITSAR	AMRITSAR I	AQUA-1	75.03091	31.81148	13:41:00	D	7.33
47	AMRITSAR	AMRITSAR I	AQUA-1	74.96440	31.83843	13:41:00	D	10.71
48	AMRITSAR	AMRITSAR II	S-NPP	74.71007	31.56645	13:24:00	D	3.10
49	AMRITSAR	AMRITSAR II	S-NPP	74.69838	31.57857	13:24:00	D	1.50
50	AMRITSAR	AMRITSAR II	S-NPP	74.77266	31.58396	13:24:00	D	1.60
51	AMRITSAR	AMRITSAR II	S-NPP	74.77188	31.58734	13:24:00	D	5.90
52	AMRITSAR	AMRITSAR II	AQUA-1	74.96440	31.65427	13:41:00	D	6.13
53	AMRITSAR	AMRITSAR II	S-NPP	74.98013	31.68161	13:24:00	D	3.70
54	AMRITSAR	AMRITSAR II	S-NPP	74.97092	31.68357	13:24:00	D	4.70
55	AMRITSAR	AMRITSAR II	S-NPP	74.95942	31.69562	13:24:00	D	2.30
56	AMRITSAR	AMRITSAR II	S-NPP	74.95866	31.69898	13:24:00	D	4.60
57	AMRITSAR	AMRITSAR II	AQUA-1	74.96114	31.69919	13:41:00	D	8.68
58	AMRITSAR	AMRITSAR II	S-NPP	74.95214	31.70837	13:24:00	D	3.00
59	AMRITSAR	AMRITSAR II	S-NPP	74.89159	31.73039	13:24:00	D	3.90
60	AMRITSAR	BABA BAKALA	S-NPP	75.07792	31.53263	13:24:00	D	3.30

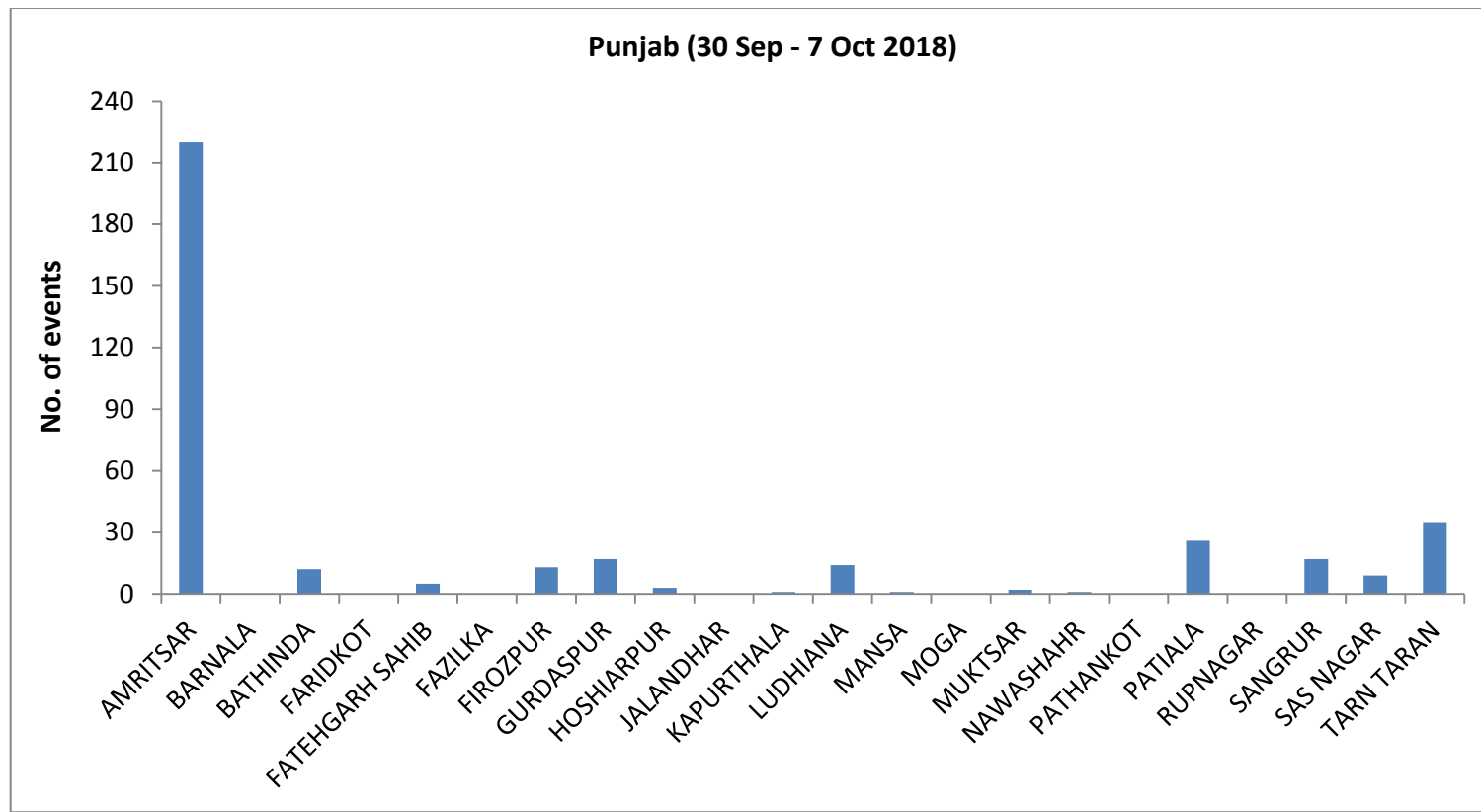
61	AMRITSAR	BABA BAKALA	S-NPP	75.16824	31.53705	13:24:00	D	21.40
62	AMRITSAR	BABA BAKALA	AQUA-1	75.16903	31.55995	13:41:00	D	8.04
63	AMRITSAR	BABA BAKALA	S-NPP	75.16459	31.57588	13:24:00	D	2.50
64	AMRITSAR	BABA BAKALA	S-NPP	75.20144	31.58546	13:24:00	D	1.60
65	AMRITSAR	BABA BAKALA	AQUA-1	75.11958	31.58690	13:41:00	D	9.32
66	AMRITSAR	BABA BAKALA	S-NPP	75.20070	31.58881	13:24:00	D	5.40
67	AMRITSAR	BABA BAKALA	S-NPP	75.11820	31.58905	13:24:00	D	2.80
68	AMRITSAR	BABA BAKALA	S-NPP	75.14677	31.59727	13:24:00	D	2.90
69	AMRITSAR	BABA BAKALA	S-NPP	75.16694	31.60407	13:24:00	D	2.90
70	AMRITSAR	BABA BAKALA	S-NPP	75.17111	31.60476	13:24:00	D	2.90
71	AMRITSAR	BABA BAKALA	S-NPP	75.16961	31.61146	13:24:00	D	7.00
72	AMRITSAR	BABA BAKALA	S-NPP	75.23450	31.61174	13:24:00	D	4.30
73	AMRITSAR	BABA BAKALA	S-NPP	75.24625	31.61715	13:24:00	D	1.60
74	AMRITSAR	BABA BAKALA	AQUA-1	75.14345	31.62283	13:41:00	D	7.03
75	AMRITSAR	BABA BAKALA	S-NPP	75.14272	31.65644	13:24:00	D	4.70
76	AMRITSAR	BABA BAKALA	S-NPP	75.08447	31.66414	13:24:00	D	4.20
77	AMRITSAR	BABA BAKALA	S-NPP	75.22665	31.68772	13:24:00	D	4.60
78	AMRITSAR	BABA BAKALA	S-NPP	75.14354	31.69134	13:24:00	D	2.70
79	AMRITSAR	BABA BAKALA	S-NPP	75.14628	31.73695	13:24:00	D	2.80
80	BATHINDA	TALWANDI SABO	S-NPP	74.94994	29.90915	02:06:00	N	2.60
81	FATEHGARH SAHIB	KHAMANOH	S-NPP	76.37309	30.72271	13:24:00	D	1.20
82	FATEHGARH SAHIB	KHAMANOH	AQUA-1	76.30303	30.83381	13:41:00	D	14.28
83	FATEHGARH SAHIB	KHAMANOH	S-NPP	76.33707	30.83555	13:24:00	D	3.10
84	FIROZPUR	FAZILKA	S-NPP	74.03687	30.25709	13:24:00	D	4.00
85	FIROZPUR	FIROZPUR	S-NPP	74.50324	30.95873	13:24:00	D	8.40
86	FIROZPUR	FIROZPUR	S-NPP	74.50761	30.95948	13:24:00	D	8.40
87	FIROZPUR	ZIRA	S-NPP	74.91374	31.06001	13:24:00	D	8.80
88	GURDASPUR	BATALA	AQUA-1	75.18950	31.78453		D	6.48
89	GURDASPUR	BATALA	S-NPP	75.16612	31.79013		D	2.80
90	GURDASPUR	BATALA	AQUA-1	75.01385	31.85490		D	6.86
91	GURDASPUR	BATALA	AQUA-1	74.94564	31.86388		D	5.99
92	GURDASPUR	BATALA	S-NPP	75.00613	31.86515		D	7.70
93	GURDASPUR	BATALA	S-NPP	75.07336	31.87635		D	4.50

94	GURDASPUR	DERA BABA NANAK	S-NPP	74.99471	31.95378		D	4.90
95	GURDASPUR	DERA BABA NANAK	S-NPP	74.99529	31.95493		D	6.00
96	GURDASPUR	PATHANKOT	S-NPP	75.62880	32.33574		N	0.30
97	KAPURTHALA	SULTANPUR LODHI	AQUA-1	75.12811	31.25452	13:41:00	D	11.31
98	LUDHIANA	KHANNA	S-NPP	76.12049	30.69646	13:24:00	D	6.00
99	LUDHIANA	SAMRALA	AQUA-1	76.23312	30.75147	13:41:00	D	7.19
100	LUDHIANA	SAMRALA	S-NPP	76.18099	30.76644	13:24:00	D	3.80
101	LUDHIANA	SAMRALA	AQUA-1	76.20242	30.77392	13:41:00	D	13.67
102	LUDHIANA	SAMRALA	S-NPP	76.20432	30.79410	13:24:00	D	3.50
103	LUDHIANA	SAMRALA	S-NPP	76.25514	30.82950	13:24:00	D	4.80
104	LUDHIANA	SAMRALA	S-NPP	76.19453	30.88803	02:06:00	N	0.40
105	MANSA	BUDHLADA	S-NPP	75.59950	29.85871	13:24:00	D	7.90
106	PATIALA	NABHA	S-NPP	76.16800	30.30614	13:24:00	D	5.30
107	PATIALA	NABHA	S-NPP	76.03056	30.36308	13:24:00	D	4.20
108	PATIALA	PATIALA	S-NPP	76.49928	30.22717	13:24:00	D	2.80
109	PATIALA	PATIALA	S-NPP	76.50327	30.22780	13:24:00	D	3.00
110	PATIALA	PATIALA	AQUA-1	76.46674	30.26787	13:41:00	D	10.99
111	PATIALA	PATIALA	S-NPP	76.43604	30.27468	13:24:00	D	3.40
112	PATIALA	PATIALA	S-NPP	76.44004	30.27531	13:24:00	D	3.40
113	PATIALA	PATIALA	S-NPP	76.47400	30.29091	13:24:00	D	3.70
114	PATIALA	RAJPURA	S-NPP	76.72329	30.46196	13:24:00	D	4.00
115	PATIALA	RAJPURA	S-NPP	76.68342	30.54060	13:24:00	D	3.90
116	PATIALA	RAJPURA	S-NPP	76.68741	30.54122	13:24:00	D	5.90
117	PATIALA	SAMANA	S-NPP	76.18387	29.84505	13:24:00	D	1.90
118	PATIALA	SAMANA	S-NPP	76.18720	29.84902	13:24:00	D	3.90
119	PATIALA	SAMANA	S-NPP	76.22746	29.85544	13:24:00	D	3.00
120	PATIALA	SAMANA	S-NPP	76.17300	29.85705	13:24:00	D	1.80
121	PATIALA	SAMANA	S-NPP	76.17230	29.86038	13:24:00	D	1.80
122	PATIALA	SAMANA	S-NPP	76.19649	29.86424	13:24:00	D	3.10
123	PATIALA	SAMANA	S-NPP	76.27644	30.14406	13:24:00	D	7.90
124	PATIALA	SAMANA	S-NPP	76.25533	30.18525	13:24:00	D	3.60
125	SANGRUR	DHURI	S-NPP	75.87287	30.33428	13:24:00	D	2.50
126	SANGRUR	DHURI	S-NPP	75.76453	30.41178	13:24:00	D	5.00

127	SANGRUR	MOONAK	S-NPP	76.01135	29.75182	13:24:00	D	1.90
128	SANGRUR	MOONAK	S-NPP	76.04710	29.76108	13:24:00	D	2.10
129	SANGRUR	MOONAK	S-NPP	76.01715	29.78380	13:24:00	D	2.50
130	SANGRUR	MOONAK	AQUA-1	75.84432	29.79925	13:41:00	D	27.10
131	SANGRUR	MOONAK	S-NPP	76.03458	29.80041	13:24:00	D	3.40
132	SANGRUR	MOONAK	S-NPP	76.01007	29.81713	13:24:00	D	1.60
133	SANGRUR	MOONAK	S-NPP	75.83957	29.82873	13:24:00	D	2.30
134	SANGRUR	MOONAK	S-NPP	75.92439	29.84606	13:24:00	D	2.40
135	SANGRUR	MOONAK	S-NPP	76.01704	29.86459	13:24:00	D	2.40
136	SANGRUR	MOONAK	S-NPP	75.99464	29.87130	13:24:00	D	2.60
137	SANGRUR	SANGRUR	S-NPP	76.16467	30.30218	13:24:00	D	2.80
138	SANGRUR	SANGRUR	S-NPP	76.16396	30.30549	13:24:00	D	5.30
139	SAS NAGAR	DERABASSI	S-NPP	76.89951	30.38435	13:24:00	D	1.80
140	SAS NAGAR	DERABASSI	S-NPP	76.88743	30.50429	13:24:00	D	1.50
141	SAS NAGAR	DERABASSI	S-NPP	76.89338	30.51541	13:24:00	D	1.80
142	SAS NAGAR	DERABASSI	S-NPP	76.80109	30.58943	13:24:00	D	3.60
143	SAS NAGAR	DERABASSI	S-NPP	76.82790	30.62008	13:24:00	D	4.90
144	SAS NAGAR	DERABASSI	S-NPP	76.86512	30.63942	13:24:00	D	3.80
145	SBS NAGAR	MOHALI	S-NPP	76.71542	30.60610	13:24:00	D	2.30
146	TARN TARAN	KHADOOR SAHIB	S-NPP	74.97072	31.38543	13:24:00	D	2.50
147	TARN TARAN	KHADOOR SAHIB	AQUA-1	75.06842	31.41772	13:41:00	D	16.44
148	TARN TARAN	KHADOOR SAHIB	S-NPP	75.13339	31.41934	13:24:00	D	1.90
149	TARN TARAN	KHADOOR SAHIB	AQUA-1	75.13834	31.42969	13:41:00	D	13.81
150	TARN TARAN	KHADOOR SAHIB	S-NPP	75.12159	31.43538	13:24:00	D	1.90
151	TARN TARAN	KHADOOR SAHIB	S-NPP	74.67633	31.43766	13:24:00	D	3.20
152	TARN TARAN	KHADOOR SAHIB	S-NPP	74.79037	31.46387	13:24:00	D	2.60
153	TARN TARAN	KHADOOR SAHIB	S-NPP	74.97904	31.46740	13:24:00	D	2.90
154	TARN TARAN	KHADOOR SAHIB	AQUA-1	75.00362	31.46862	13:41:00	D	17.43
155	TARN TARAN	KHADOOR SAHIB	AQUA-1	74.72907	31.47461	13:41:00	D	6.16
156	TARN TARAN	KHADOOR SAHIB	AQUA-1	75.08547	31.47760	13:41:00	D	7.95
157	TARN TARAN	KHADOOR SAHIB	S-NPP	75.10339	31.47763	13:24:00	D	2.00
158	TARN TARAN	KHADOOR SAHIB	S-NPP	74.72601	31.47765	13:24:00	D	3.50
159	TARN TARAN	KHADOOR SAHIB	S-NPP	75.00554	31.48578	13:24:00	D	5.10

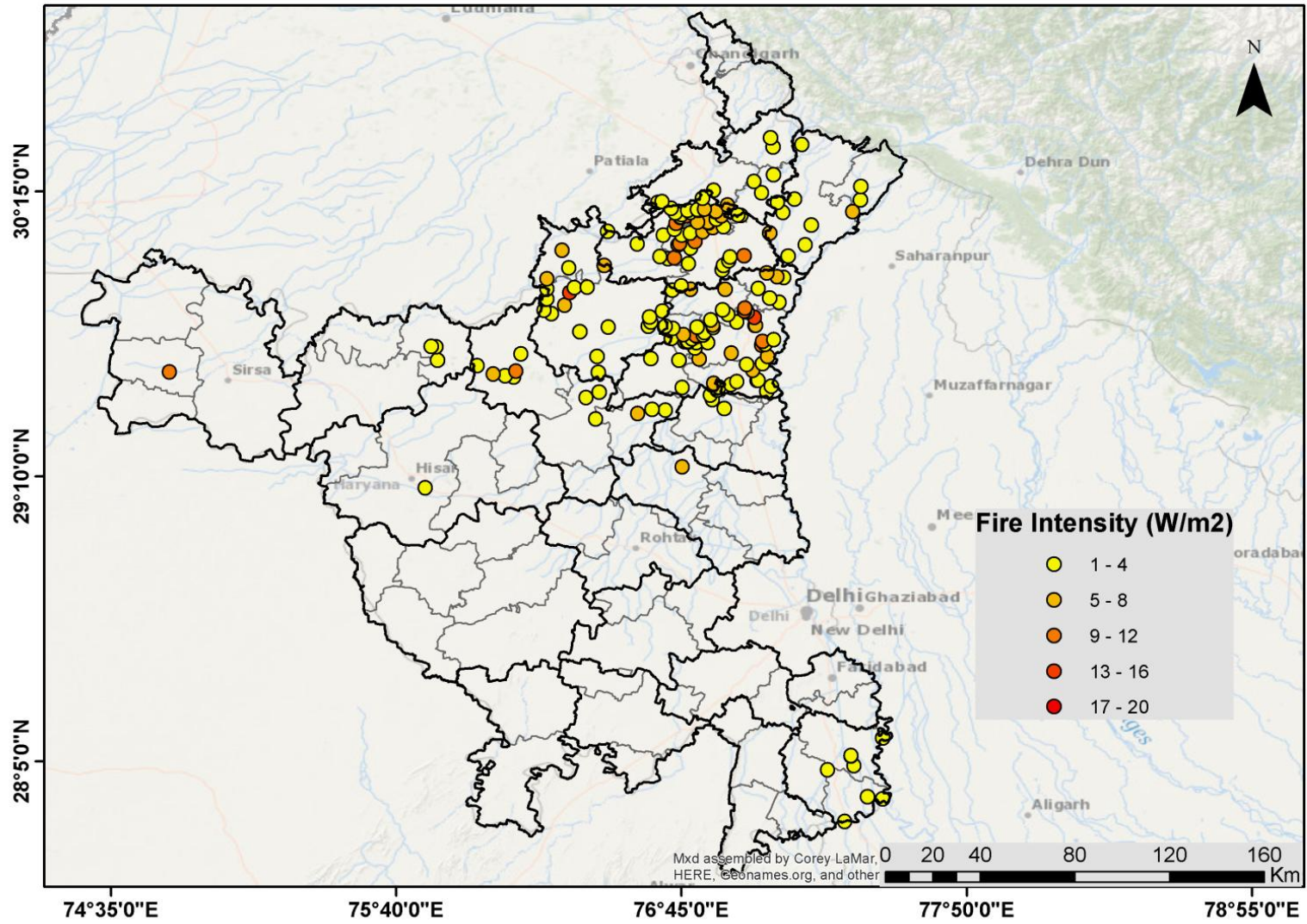
160	TARN TARAN	KHADOOR SAHIB	S-NPP	75.04195	31.49880	13:24:00	D	10.30
161	TARN TARAN	KHADOOR SAHIB	S-NPP	75.00249	31.49924	13:24:00	D	4.00
162	TARN TARAN	PATTI	S-NPP	74.56824	31.15914	13:24:00	D	1.70

District-wise cumulative number of residue burning events in Punjab (30-Sep-2018 to 07-Oct-2018)



(b) Haryana

Paddy Residue Burning in Haryana on 7th Oct 2018



Details of residue burning events in Haryana on 07-Oct-2018

Event S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day/Night	Fire Power (W/m²)
1	AMBALA	AMBALA	S-NPP	76.65991	30.20795	13:24:00	D	2.40
2	AMBALA	AMBALA	S-NPP	76.67587	30.21044	13:24:00	D	2.70
3	AMBALA	AMBALA	S-NPP	76.87228	30.25453	13:24:00	D	1.90
4	AMBALA	BARARA	S-NPP	76.96505	30.16063	13:24:00	D	1.90
5	AMBALA	BARARA	S-NPP	77.05457	30.24511	13:24:00	D	2.60
6	AMBALA	BARARA	S-NPP	77.02540	30.28826	13:24:00	D	3.00
7	AMBALA	BARARA	S-NPP	77.09826	30.31300	13:24:00	D	2.00
8	AMBALA	NARAYANGARH	S-NPP	77.09791	30.41809	13:24:00	D	2.60
9	AMBALA	NARAYANGARH	S-NPP	77.08678	30.45317	13:24:00	D	2.30
10	FARIDABAD	HODAL	S-NPP	77.37025	27.85553	13:24:00	D	3.50
11	FARIDABAD	HODAL	S-NPP	77.51377	27.94162	13:24:00	D	1.90
12	FARIDABAD	HODAL	S-NPP	77.45603	27.94973	13:24:00	D	1.80
13	FARIDABAD	HODAL	S-NPP	77.30376	28.05176	13:24:00	D	1.40
14	FARIDABAD	PALWAL	S-NPP	77.40514	28.06746	13:24:00	D	1.80
15	FARIDABAD	PALWAL	S-NPP	77.39413	28.10319	13:24:00	D	2.30
16	FARIDABAD	PALWAL	S-NPP	77.39361	28.10578	13:24:00	D	3.70
17	FARIDABAD	PALWAL	S-NPP	77.51321	28.17184	13:24:00	D	3.20
18	FATEHABAD	TOHANA	S-NPP	75.82243	29.60856	13:24:00	D	2.40
19	FATEHABAD	TOHANA	S-NPP	75.81578	29.65946	13:24:00	D	2.60
20	FATEHABAD	TOHANA	S-NPP	75.79871	29.66013	13:24:00	D	2.40
21	HISAR	HISAR	S-NPP	75.77688	29.12348	02:06:00	N	1.00
22	JIND	JIND	S-NPP	76.38676	29.46581	13:24:00	D	3.50
23	JIND	JIND	S-NPP	76.43597	29.48741	13:24:00	D	0.90
24	JIND	NARWANA	S-NPP	76.11317	29.54424	13:24:00	D	2.80
25	JIND	NARWANA	S-NPP	76.07874	29.54899	13:24:00	D	3.50
26	JIND	NARWANA	S-NPP	76.03546	29.55576	13:24:00	D	4.90
27	JIND	NARWANA	S-NPP	76.12108	29.56620	13:24:00	D	8.80
28	JIND	NARWANA	S-NPP	75.97424	29.58725	13:24:00	D	2.60
29	JIND	NARWANA	S-NPP	76.14075	29.63134	13:24:00	D	2.50
30	JIND	SAFIDON	S-NPP	76.42356	29.38394	13:24:00	D	4.00

31	JIND	SAFIDON	S-NPP	76.58379	29.40604	13:24:00	D	4.20
32	JIND	SAFIDON	S-NPP	76.68954	29.41857	02:06:00	N	0.50
33	JIND	SAFIDON	S-NPP	76.63810	29.42148	13:24:00	D	2.70
34	KAITHAL	GUHLA	S-NPP	76.23917	29.87985	13:24:00	D	2.90
35	KAITHAL	GUHLA	S-NPP	76.23955	29.91766	13:24:00	D	5.80
36	KAITHAL	GUHLA	S-NPP	76.32237	29.95831	13:24:00	D	3.10
37	KAITHAL	GUHLA	S-NPP	76.29704	30.02531	13:24:00	D	5.30
38	KAITHAL	KAITHAL	S-NPP	76.43285	29.56229	13:24:00	D	2.80
39	KAITHAL	KAITHAL	S-NPP	76.42897	29.62249	13:24:00	D	2.70
40	KAITHAL	KAITHAL	S-NPP	76.71113	29.69095	13:24:00	D	2.70
41	KAITHAL	KAITHAL	S-NPP	76.36395	29.71699	13:24:00	D	2.40
42	KAITHAL	KAITHAL	S-NPP	76.68598	29.73381	13:24:00	D	6.40
43	KAITHAL	KAITHAL	S-NPP	76.47196	29.73417	13:24:00	D	1.60
44	KAITHAL	KAITHAL	S-NPP	76.62360	29.73765	13:24:00	D	3.50
45	KAITHAL	KAITHAL	S-NPP	76.68929	29.73775	13:24:00	D	1.50
46	KAITHAL	KAITHAL	S-NPP	76.63282	29.75275	13:24:00	D	2.00
47	KAITHAL	KAITHAL	S-NPP	76.62874	29.77260	13:24:00	D	4.00
48	KAITHAL	KAITHAL	S-NPP	76.25486	29.78431	13:24:00	D	2.50
49	KAITHAL	KAITHAL	S-NPP	76.67775	29.79394	13:24:00	D	2.50
50	KAITHAL	KAITHAL	S-NPP	76.22726	29.79704	13:24:00	D	2.30
51	KAITHAL	KAITHAL	S-NPP	76.30622	29.81656	13:24:00	D	6.20
52	KAITHAL	KAITHAL	S-NPP	76.23498	29.83948	13:24:00	D	2.70
53	KAITHAL	KAITHAL	S-NPP	76.23900	29.84012	13:24:00	D	2.70
54	KAITHAL	KAITHAL	S-NPP	76.32529	29.86417	13:24:00	D	12.60
55	KAITHAL	KAITHAL	S-NPP	76.71488	29.87435	13:24:00	D	2.80
56	KAITHAL	KAITHAL	S-NPP	76.34189	29.88393	13:24:00	D	2.90
57	KAITHAL	KAITHAL	S-NPP	76.39138	29.88492	13:24:00	D	3.00
58	KARNAL	ASSANDH	S-NPP	76.75230	29.50432	13:24:00	D	3.20
59	KARNAL	ASSANDH	S-NPP	76.74021	29.60728	13:24:00	D	2.00
60	KARNAL	ASSANDH	S-NPP	76.63257	29.61373	13:24:00	D	3.90
61	KARNAL	GHARAUNDA	S-NPP	77.07360	29.48953	13:24:00	D	1.80
62	KARNAL	GHARAUNDA	S-NPP	76.88515	29.49437	13:24:00	D	2.20
63	KARNAL	GHARAUNDA	S-NPP	76.88104	29.50320	02:06:00	N	0.70
64	KARNAL	GHARAUNDA	S-NPP	76.89106	29.50550	13:24:00	D	3.00
65	KARNAL	GHARAUNDA	S-NPP	77.09005	29.50908	13:24:00	D	2.00
66	KARNAL	GHARAUNDA	S-NPP	76.93788	29.51618	13:24:00	D	1.80

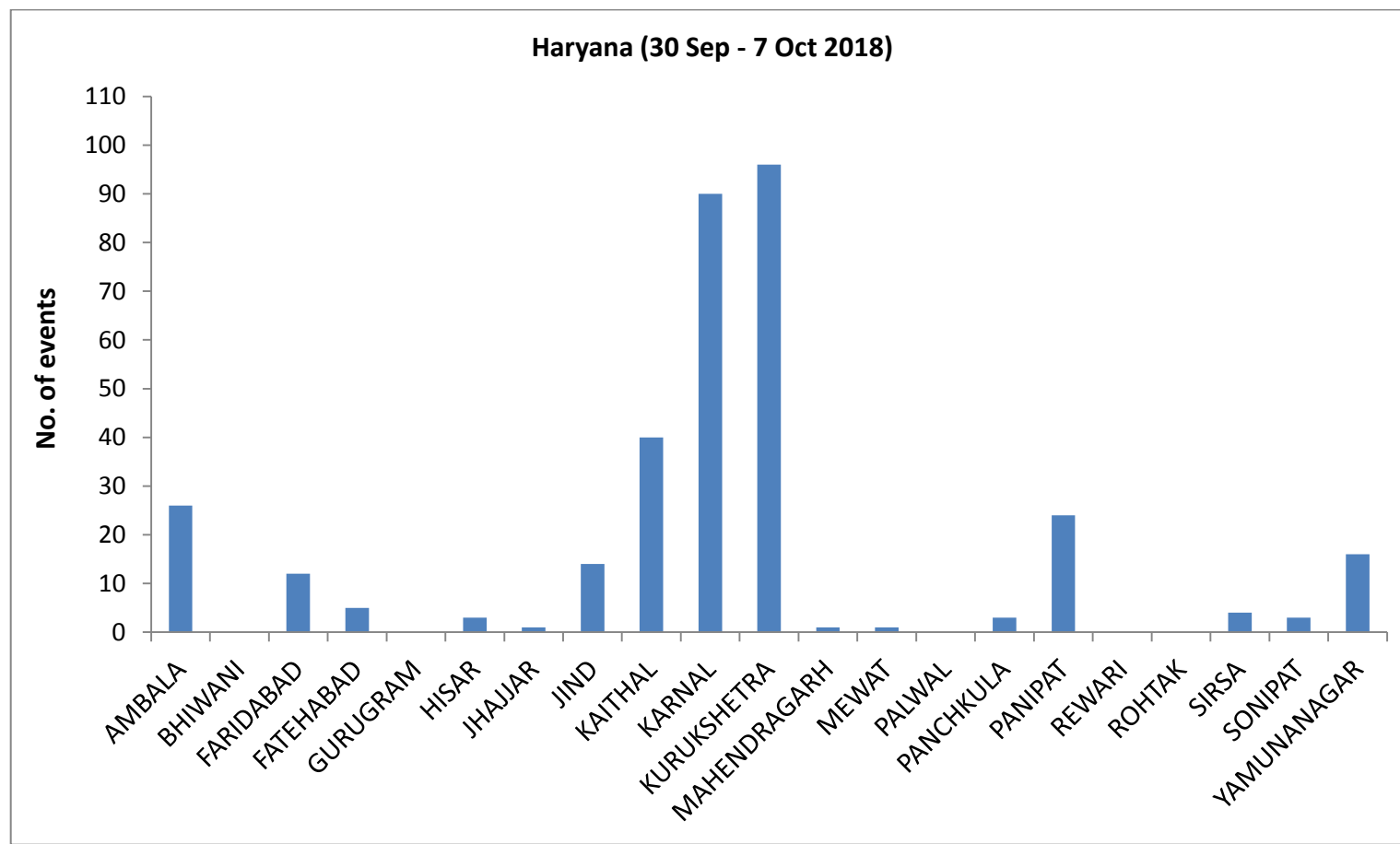
67	KARNAL	GHARAUNDA	S-NPP	76.87187	29.51956	13:24:00	D	6.20
68	KARNAL	GHARAUNDA	S-NPP	76.96027	29.52647	13:24:00	D	2.80
69	KARNAL	GHARAUNDA	S-NPP	77.03665	29.53148	13:24:00	D	2.50
70	KARNAL	GHARAUNDA	S-NPP	77.04060	29.53209	13:24:00	D	2.50
71	KARNAL	GHARAUNDA	AQUA-1	77.02095	29.57018	13:41:00	D	7.82
72	KARNAL	GHARAUNDA	S-NPP	77.05716	29.59519	13:24:00	D	2.40
73	KARNAL	INDRI	S-NPP	77.12069	29.82854	13:24:00	D	1.90
74	KARNAL	INDRI	S-NPP	77.08503	29.84348	13:24:00	D	1.40
75	KARNAL	INDRI	S-NPP	77.04072	29.88091	13:24:00	D	2.00
76	KARNAL	INDRI	S-NPP	77.13873	29.92290	13:24:00	D	2.10
77	KARNAL	INDRI	S-NPP	77.11363	29.92587	13:24:00	D	4.80
78	KARNAL	INDRI	S-NPP	77.07397	29.94020	13:24:00	D	4.70
79	KARNAL	KARNAL	S-NPP	76.99659	29.59265	13:24:00	D	1.90
80	KARNAL	KARNAL	S-NPP	76.81696	29.61243	13:24:00	D	4.90
81	KARNAL	KARNAL	S-NPP	77.07623	29.62196	13:24:00	D	4.40
82	KARNAL	KARNAL	S-NPP	76.93910	29.63481	13:24:00	D	4.40
83	KARNAL	KARNAL	S-NPP	76.80065	29.65380	13:24:00	D	2.40
84	KARNAL	KARNAL	AQUA-1	77.05335	29.66600	13:41:00	D	9.55
85	KARNAL	KARNAL	S-NPP	77.06694	29.66817	13:24:00	D	3.70
86	KARNAL	KARNAL	S-NPP	76.80454	29.67486	13:24:00	D	2.10
87	KARNAL	KARNAL	S-NPP	76.84951	29.67506	13:24:00	D	2.90
88	KARNAL	KARNAL	S-NPP	76.77542	29.67713	13:24:00	D	2.20
89	KARNAL	KARNAL	S-NPP	76.76284	29.67858	13:24:00	D	3.50
90	KARNAL	KARNAL	S-NPP	76.77078	29.67982	13:24:00	D	2.20
91	KARNAL	KARNAL	S-NPP	77.05672	29.67994	13:24:00	D	11.00
92	KARNAL	KARNAL	S-NPP	76.77474	29.68044	13:24:00	D	2.20
93	KARNAL	KARNAL	S-NPP	77.10023	29.68664	13:24:00	D	1.80
94	KARNAL	KARNAL	S-NPP	76.78928	29.68953	13:24:00	D	2.20
95	KARNAL	KARNAL	S-NPP	76.80776	29.69923	13:24:00	D	3.40
96	KARNAL	KARNAL	AQUA-1	76.80438	29.70193	13:41:00	D	9.92
97	KARNAL	KARNAL	S-NPP	76.83156	29.70294	13:24:00	D	2.70
98	KARNAL	KARNAL	S-NPP	76.75743	29.70502	13:24:00	D	4.80
99	KARNAL	KARNAL	S-NPP	76.83748	29.71408	13:24:00	D	2.20
100	KARNAL	KARNAL	S-NPP	76.71560	29.72918	13:24:00	D	2.30
101	KARNAL	KARNAL	S-NPP	76.87048	29.73284	13:24:00	D	2.80
102	KARNAL	KARNAL	S-NPP	76.80896	29.73350	13:24:00	D	1.60

103	KARNAL	KARNAL	S-NPP	77.02825	29.74022	13:24:00	D	5.20
104	KARNAL	KARNAL	S-NPP	77.03221	29.74083	13:24:00	D	5.20
105	KARNAL	KARNAL	S-NPP	76.86847	29.74274	13:24:00	D	5.10
106	KARNAL	KARNAL	S-NPP	77.02621	29.77053	13:24:00	D	12.30
107	KARNAL	KARNAL	AQUA-1	76.99878	29.79177	13:41:00	D	7.98
108	KARNAL	KARNAL	S-NPP	76.98868	29.79461	13:24:00	D	9.40
109	KARNAL	KARNAL	S-NPP	76.99264	29.79523	13:24:00	D	28.90
110	KARNAL	KARNAL	S-NPP	76.99660	29.79584	13:24:00	D	28.90
111	KARNAL	KARNAL	S-NPP	76.99064	29.80513	13:24:00	D	9.40
112	KARNAL	NILOKHERI	S-NPP	76.96030	29.75355	13:24:00	D	1.80
113	KARNAL	NILOKHERI	S-NPP	76.86065	29.76115	13:24:00	D	2.50
114	KARNAL	NILOKHERI	S-NPP	76.92604	29.78152	13:24:00	D	2.60
115	KARNAL	NILOKHERI	S-NPP	76.90617	29.79887	13:24:00	D	2.20
116	KARNAL	NILOKHERI	S-NPP	76.91485	29.87823	13:24:00	D	6.90
117	KURUKSHETRA	PEHOWA	AQUA-1	76.45651	29.96843	13:41:00	D	6.57
118	KURUKSHETRA	PEHOWA	S-NPP	76.69872	29.99371	13:24:00	D	2.50
119	KURUKSHETRA	PEHOWA	S-NPP	76.66812	30.00257	13:24:00	D	2.50
120	KURUKSHETRA	PEHOWA	S-NPP	76.58127	30.04984	13:24:00	D	3.00
121	KURUKSHETRA	PEHOWA	S-NPP	76.68151	30.08262	13:24:00	D	3.50
122	KURUKSHETRA	PEHOWA	S-NPP	76.46839	30.09696	13:24:00	D	1.10
123	KURUKSHETRA	PEHOWA	S-NPP	76.72192	30.10597	13:24:00	D	2.40
124	KURUKSHETRA	PEHOWA	AQUA-1	76.72935	30.12863	13:41:00	D	9.02
125	KURUKSHETRA	PEHOWA	S-NPP	76.74564	30.15055	13:24:00	D	4.40
126	KURUKSHETRA	PEHOWA	S-NPP	76.74962	30.15117	13:24:00	D	3.30
127	KURUKSHETRA	PEHOWA	S-NPP	76.75156	30.16170	13:24:00	D	3.10
128	KURUKSHETRA	PEHOWA	S-NPP	76.72564	30.16790	13:24:00	D	1.80
129	KURUKSHETRA	PEHOWA	S-NPP	76.70987	30.18507	13:24:00	D	3.10
130	KURUKSHETRA	SHAHABAD	S-NPP	76.90892	30.11455	13:24:00	D	2.60
131	KURUKSHETRA	SHAHABAD	S-NPP	76.81075	30.13340	13:24:00	D	7.00
132	KURUKSHETRA	SHAHABAD	S-NPP	76.88232	30.14448	13:24:00	D	2.70
133	KURUKSHETRA	SHAHABAD	AQUA-1	76.76686	30.15708	13:41:00	D	9.93
134	KURUKSHETRA	SHAHABAD	S-NPP	76.90018	30.15745	13:24:00	D	6.20
135	KURUKSHETRA	SHAHABAD	S-NPP	76.97367	30.15856	13:24:00	D	1.60
136	KURUKSHETRA	SHAHABAD	S-NPP	76.78274	30.16994	13:24:00	D	3.90
137	KURUKSHETRA	SHAHABAD	AQUA-1	76.87771	30.17205	13:41:00	D	10.22
138	KURUKSHETRA	SHAHABAD	S-NPP	76.87627	30.17418	13:24:00	D	4.90

139	KURUKSHETRA	SHAHABAD	S-NPP	76.88025	30.17479	13:24:00	D	4.90
140	KURUKSHETRA	SHAHABAD	S-NPP	76.77299	30.17787	13:24:00	D	4.00
141	KURUKSHETRA	SHAHABAD	S-NPP	76.81390	30.17817	13:24:00	D	2.30
142	KURUKSHETRA	SHAHABAD	S-NPP	76.80925	30.18085	13:24:00	D	2.30
143	KURUKSHETRA	SHAHABAD	S-NPP	76.83778	30.18185	13:24:00	D	4.60
144	KURUKSHETRA	SHAHABAD	S-NPP	76.92461	30.19864	13:24:00	D	5.00
145	KURUKSHETRA	SHAHABAD	S-NPP	76.82925	30.22405	13:24:00	D	1.90
146	KURUKSHETRA	THANESAR	S-NPP	76.78381	29.87830	13:24:00	D	4.30
147	KURUKSHETRA	THANESAR	S-NPP	76.74863	29.88985	13:24:00	D	1.50
148	KURUKSHETRA	THANESAR	S-NPP	76.90407	29.95146	13:24:00	D	2.00
149	KURUKSHETRA	THANESAR	S-NPP	76.90865	29.96919	13:24:00	D	1.60
150	KURUKSHETRA	THANESAR	S-NPP	76.77640	29.97516	13:24:00	D	1.40
151	KURUKSHETRA	THANESAR	S-NPP	76.93002	29.98539	13:24:00	D	2.60
152	KURUKSHETRA	THANESAR	S-NPP	76.72260	29.99744	13:24:00	D	11.40
153	KURUKSHETRA	THANESAR	S-NPP	76.93518	29.99979	13:24:00	D	2.60
154	KURUKSHETRA	THANESAR	S-NPP	76.98746	30.00445	13:24:00	D	8.80
155	KURUKSHETRA	THANESAR	S-NPP	76.78480	30.03438	13:24:00	D	2.00
156	KURUKSHETRA	THANESAR	S-NPP	76.73698	30.04740	13:24:00	D	3.50
157	KURUKSHETRA	THANESAR	AQUA-1	76.74250	30.05142	13:41:00	D	10.33
158	KURUKSHETRA	THANESAR	AQUA-1	76.80097	30.05976	13:41:00	D	8.82
159	KURUKSHETRA	THANESAR	S-NPP	76.75122	30.08327	13:24:00	D	3.30
160	KURUKSHETRA	THANESAR	S-NPP	76.78237	30.09154	13:24:00	D	1.60
161	KURUKSHETRA	THANESAR	S-NPP	76.83077	30.09564	13:24:00	D	7.70
162	KURUKSHETRA	THANESAR	S-NPP	76.86851	30.11171	13:24:00	D	5.10
163	KURUKSHETRA	THANESAR	S-NPP	76.85254	30.12967	13:24:00	D	5.80
164	KURUKSHETRA	THANESAR	S-NPP	76.85186	30.13296	13:24:00	D	5.80
165	PANIPAT	PANIPAT	S-NPP	76.91148	29.42389	13:24:00	D	2.70
166	PANIPAT	PANIPAT	S-NPP	76.86741	29.45767	02:06:00	N	0.90
167	PANIPAT	PANIPAT	S-NPP	76.85903	29.47605	02:06:00	N	2.40
168	SIRSA	RANIA	S-NPP	74.80535	29.56365	13:24:00	D	8.50
169	SONIPAT	GOHANA	S-NPP	76.75228	29.20209	13:24:00	D	4.50
170	YAMUNANAGAR	CHHACHHRAULII	S-NPP	77.40076	30.17248	13:24:00	D	4.70
171	YAMUNANAGAR	CHHACHHRAULII	S-NPP	77.42870	30.21746	13:24:00	D	3.60
172	YAMUNANAGAR	CHHACHHRAULII	S-NPP	77.43082	30.26876	13:24:00	D	3.20
173	YAMUNANAGAR	JAGADHRI	S-NPP	77.15522	30.00364	13:24:00	D	3.00
174	YAMUNANAGAR	JAGADHRI	S-NPP	77.22021	30.04688	13:24:00	D	1.70

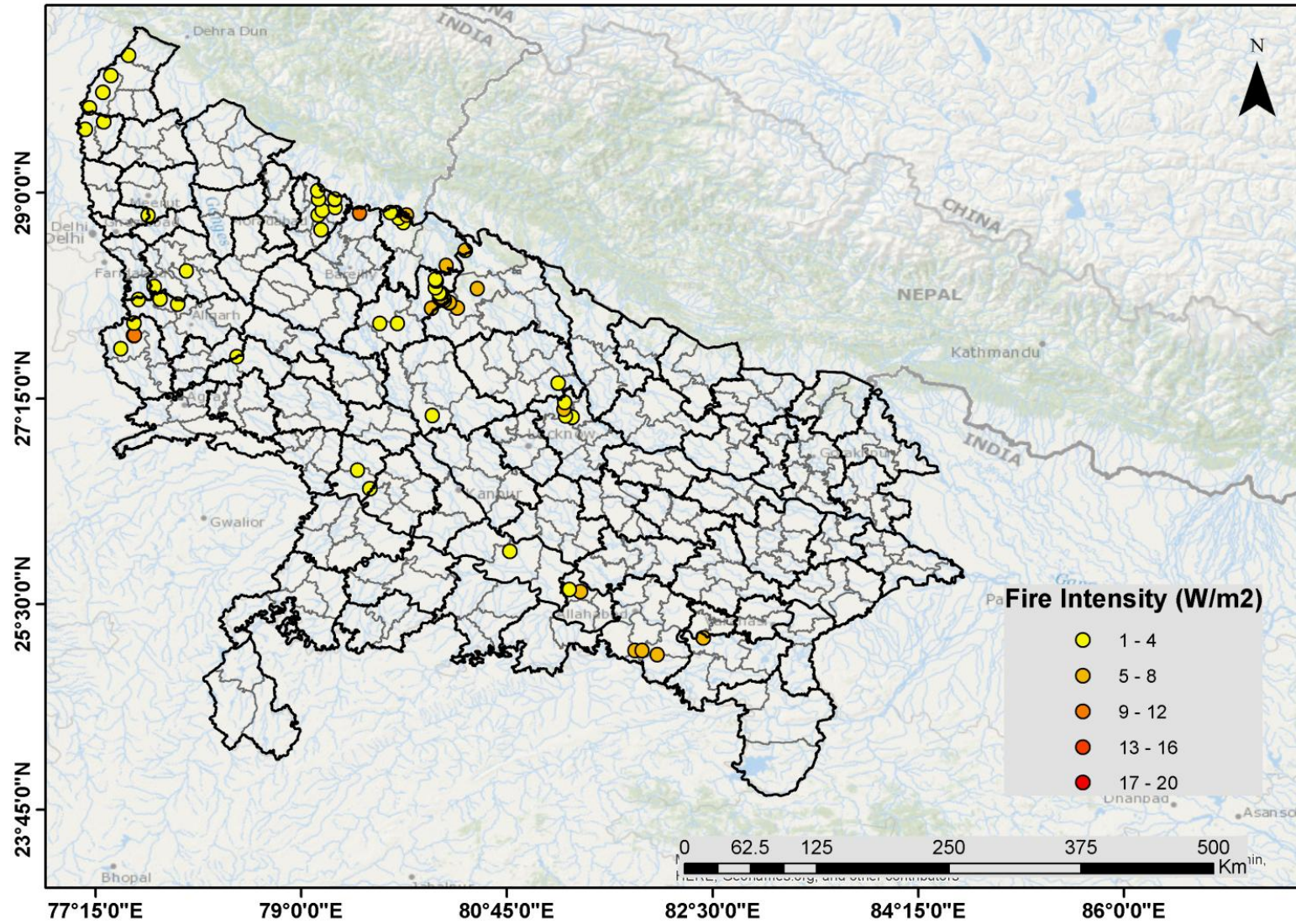
175	YAMUNANAGAR	JAGADHRI	S-NPP	77.08458	30.09081	13:24:00	D	7.70
176	YAMUNANAGAR	JAGADHRI	S-NPP	77.24207	30.12160	13:24:00	D	2.10
177	YAMUNANAGAR	JAGADHRI	S-NPP	77.13527	30.16968	13:24:00	D	2.60
178	YAMUNANAGAR	JAGADHRI	S-NPP	77.11538	30.20746	13:24:00	D	3.10
179	YAMUNANAGAR	JAGADHRI	S-NPP	77.17830	30.22044	13:24:00	D	2.50
180	YAMUNANAGAR	JAGADHRI	S-NPP	77.20674	30.42781	13:24:00	D	2.00

District-wise cumulative number of residue burning events in Haryana (30-Sep-2018 to 07-Oct-2018)



(c) Uttar Pradesh

Paddy Residue Burning in Uttar Pradesh on 7th Oct 2018



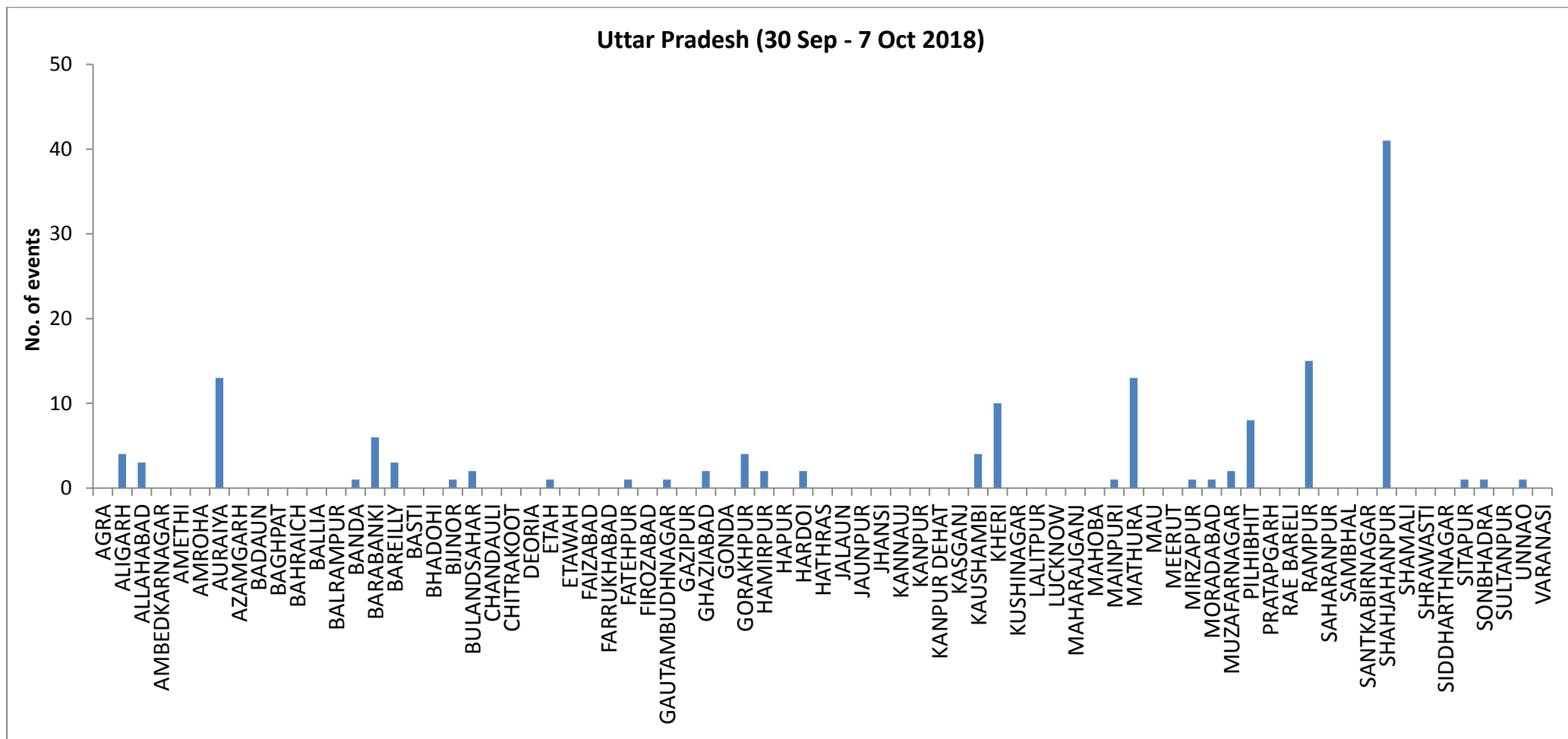
Details of residue burning events in Uttar Pradesh on 07-Oct-2018

Event S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day/Night	Fire Power (W/m²)
1	ALIGARH	GABHANA	S-NPP	77.94923	28.05212	13:24:00	D	1.20
2	ALIGARH	KHAIR	S-NPP	77.61688	28.09319	13:24:00	D	3.50
3	ALIGARH	KHAIR	S-NPP	77.79661	28.09677	13:24:00	D	2.20
4	ALLAHABAD	MEZA	METOP-2	82.02931	25.06962	21:03:00	N	6.00
5	ALLAHABAD	MEZA	METOP-2	81.84002	25.10555	21:03:00	N	6.00
6	ALLAHABAD	MEZA	NOAA-18	81.90141	25.10555	19:59:00	N	6.00
7	AURAIYA	AURAIYA	S-NPP	79.58212	26.48194	13:24:00	D	1.50
8	AURAIYA	BIDHUNA	S-NPP	79.48082	26.64186	02:06:00	N	1.30
9	BARABANKI	FATEHPUR	S-NPP	81.24934	27.10116	13:24:00	D	2.30
10	BARABANKI	FATEHPUR	S-NPP	81.23648	27.15948	13:24:00	D	4.10
11	BARABANKI	FATEHPUR	S-NPP	81.24157	27.21477	13:24:00	D	1.90
12	BARABANKI	RAMNAGAR	S-NPP	81.30671	27.09035	13:24:00	D	3.40
13	BAREILLY	BAHERI	S-NPP	79.49734	28.82686	13:24:00	D	8.80
14	BAREILLY	BAHERI	S-NPP	79.49674	28.83026	13:24:00	D	8.80
15	BULANSAHAR	KHURJA	S-NPP	77.74777	28.20425	13:24:00	D	2.00
16	BULANSAHAR	SHIKARPUR	S-NPP	78.02439	28.33741	13:24:00	D	2.80
17	ETAH	ETAH	S-NPP	78.45282	27.60676	13:24:00	D	1.90
18	FATEHPUR	FATEHPUR	S-NPP	80.77435	25.95045	13:24:00	D	2.50
19	GHAZIABAD	MODINAGAR	S-NPP	77.69697	28.80905	13:24:00	D	3.20
20	HARDOI	BILGRAM	S-NPP	80.11545	27.10563	13:24:00	D	1.80
21	KAUSHAMBI	SIRATHU	S-NPP	81.37428	25.60693	13:24:00	D	4.10
22	KAUSHAMBI	SIRATHU	S-NPP	81.28248	25.62352	13:24:00	D	2.20

23	KHERI	GOLA	S-NPP	80.49886	28.18666	13:24:00	D	7.80
24	KHERI	MOHMADI	S-NPP	80.32590	28.02065	13:24:00	D	4.50
25	KHERI	MOHMADI	S-NPP	80.26128	28.06514	13:24:00	D	3.80
26	KHERI	MOHMADI	S-NPP	80.26069	28.06860	13:24:00	D	7.30
27	MATHURA	CHHATA	S-NPP	77.46507	27.67389	13:24:00	D	3.30
28	MATHURA	CHHATA	S-NPP	77.57545	27.78545	13:24:00	D	4.80
29	MATHURA	CHHATA	S-NPP	77.57481	27.78876	13:24:00	D	3.70
30	MATHURA	CHHATA	S-NPP	77.57869	27.78935	13:24:00	D	8.10
31	MATHURA	MAT	S-NPP	77.57586	27.89066	13:24:00	D	3.20
32	MIRZAPUR	MIRZAPUR	METOP-2	82.41811	25.21335	21:03:00	N	6.00
33	MUZAFARNAGAR	KAIRANA	S-NPP	77.16114	29.54044	13:24:00	D	3.10
34	MUZAFARNAGAR	SHAMLI	S-NPP	77.31915	29.60539	13:24:00	D	2.30
35	PILHIBHIT	PILHIBHIT	S-NPP	79.86739	28.74853	13:24:00	D	3.00
36	PILHIBHIT	PILHIBHIT	S-NPP	79.83144	28.78495	13:24:00	D	2.90
37	PILHIBHIT	PILHIBHIT	S-NPP	79.89654	28.81121	13:24:00	D	5.00
38	PILHIBHIT	PILHIBHIT	S-NPP	79.75777	28.83467	13:24:00	D	3.20
39	PILHIBHIT	PURANPUR	S-NPP	80.23304	28.38084	13:24:00	D	4.60
40	PILHIBHIT	PURANPUR	S-NPP	80.39487	28.51040	13:24:00	D	6.20
41	RAMPUR	BILASPUR	S-NPP	79.18054	28.85242	13:24:00	D	2.30
42	RAMPUR	BILASPUR	S-NPP	79.29007	28.87461	13:24:00	D	3.20
43	RAMPUR	BILASPUR	S-NPP	79.28667	28.94419	13:24:00	D	1.90
44	RAMPUR	BILASPUR	S-NPP	79.28606	28.94757	13:24:00	D	1.90
45	RAMPUR	MILAK	S-NPP	79.16783	28.68642	13:24:00	D	1.60
46	RAMPUR	RAMPUR	S-NPP	79.14169	28.81247	13:24:00	D	2.10
47	RAMPUR	SUAR	S-NPP	79.14755	28.94564	13:24:00	D	2.80

48	RAMPUR	SUAR	S-NPP	79.13972	29.01779	13:24:00	D	1.30
49	SHAHJAHANPUR	PUWANYA	S-NPP	80.10818	28.01623	13:24:00	D	5.20
50	SHAHJAHANPUR	PUWANYA	S-NPP	80.21905	28.08569	13:24:00	D	2.30
51	SHAHJAHANPUR	PUWANYA	S-NPP	80.19531	28.09667	13:24:00	D	3.00
52	SHAHJAHANPUR	PUWANYA	S-NPP	80.17645	28.10475	13:24:00	D	5.50
53	SHAHJAHANPUR	PUWANYA	S-NPP	80.20699	28.10529	13:24:00	D	2.10
54	SHAHJAHANPUR	PUWANYA	S-NPP	80.18073	28.10532	13:24:00	D	3.80
55	SHAHJAHANPUR	PUWANYA	S-NPP	80.19238	28.11394	13:24:00	D	7.00
56	SHAHJAHANPUR	PUWANYA	S-NPP	80.17429	28.14330	13:24:00	D	3.50
57	SHAHJAHANPUR	PUWANYA	S-NPP	80.17855	28.14388	13:24:00	D	3.50
58	SHAHJAHANPUR	PUWANYA	S-NPP	80.19139	28.14561	13:24:00	D	6.40
59	SHAHJAHANPUR	PUWANYA	S-NPP	80.17370	28.14676	13:24:00	D	3.50
60	SHAHJAHANPUR	PUWANYA	S-NPP	80.14111	28.19383	13:24:00	D	2.00
61	SHAHJAHANPUR	PUWANYA	S-NPP	80.14882	28.25135	13:24:00	D	8.90
62	SHAHJAHANPUR	PUWANYA	S-NPP	80.14221	28.26459	13:24:00	D	3.60
63	SHAHJAHANPUR	SHAHJAHANPUR	S-NPP	79.66848	27.88962	13:24:00	D	1.30
64	SHAHJAHANPUR	SHAHJAHANPUR	S-NPP	79.82050	27.88985	13:24:00	D	1.90
65	SHARANPUR	BEHAT	S-NPP	77.53085	30.17189	13:24:00	D	3.50
66	SHARANPUR	NAKUR	S-NPP	77.19910	29.72222	13:24:00	D	1.10
67	SHARANPUR	NAKUR	S-NPP	77.31142	29.85423	13:24:00	D	2.60
68	SHARANPUR	NAKUR	S-NPP	77.38063	30.00045	13:24:00	D	2.00
69	SITAPUR	MAHMUDABAD	S-NPP	81.18570	27.38261	13:24:00	D	3.20

District-wise cumulative number of residue burning events in Uttar Pradesh (30-Sep-2018 to 07-Oct-2018)



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

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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/>
