



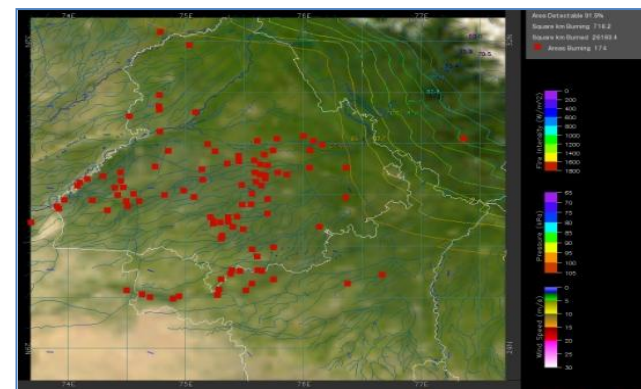
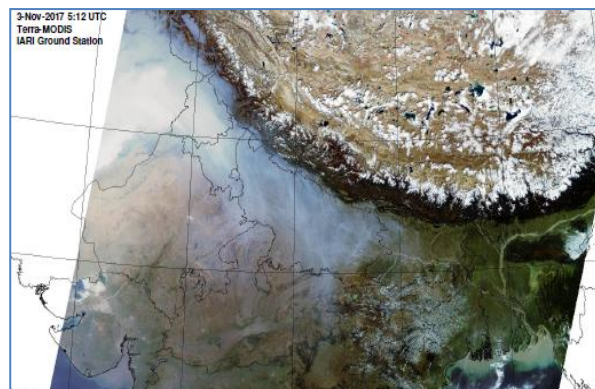
Bulletin No. 15

Events Date:
15-Oct-2018

Issued on:
16-Oct-2018



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



Prepared by:

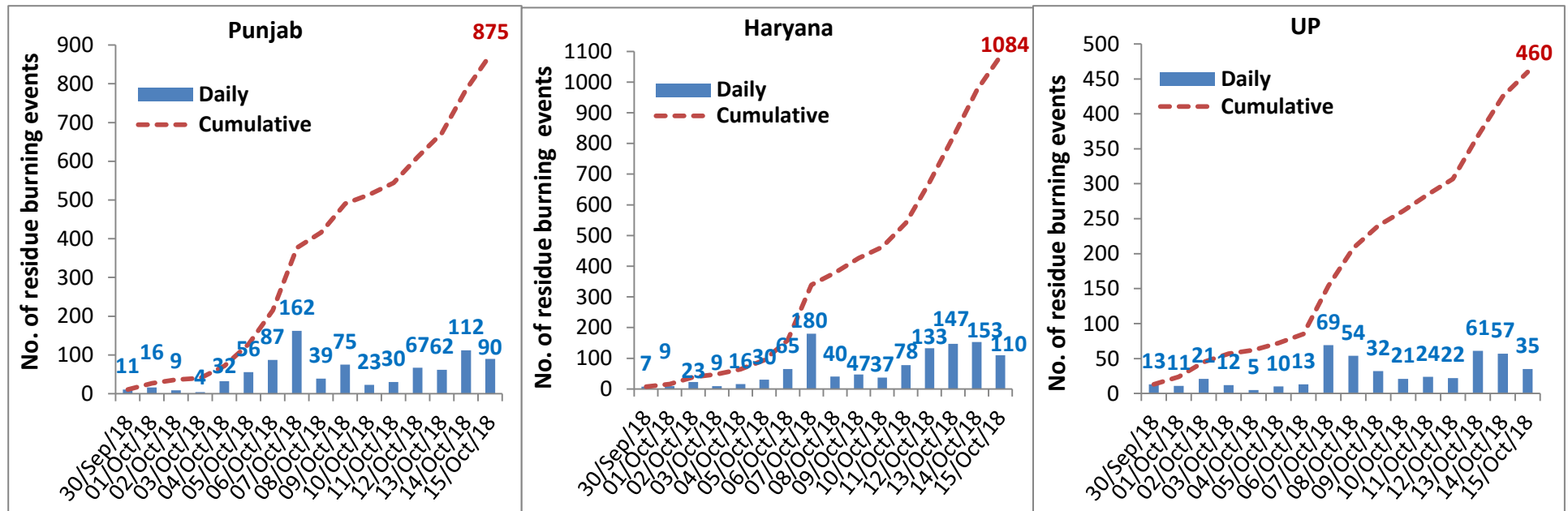
Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS) Laboratory,
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012

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

Highlights for 15-October-2018

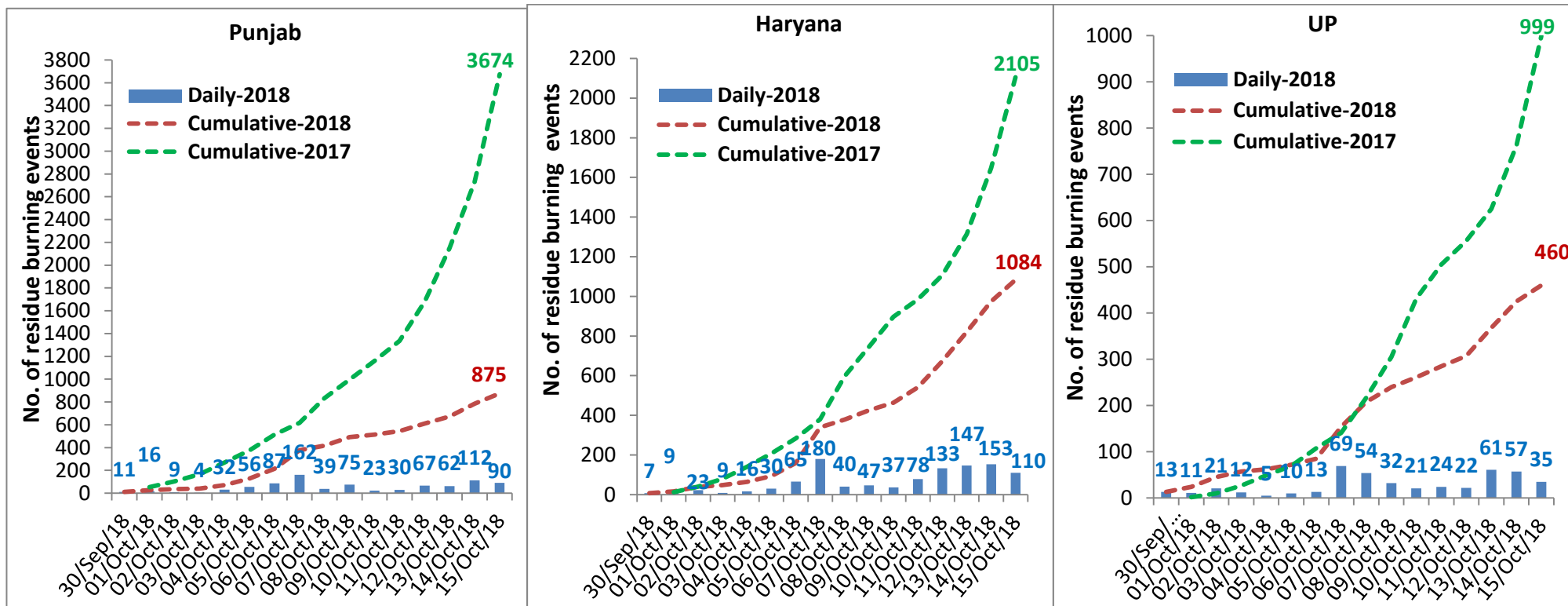
- Satellites detected 235 residue burning events in the three States (Punjab, Haryana & UP) on 15-Oct-2018.
- The burning events detected on 15-Oct-2018 are 90, 110 and 35 in Punjab, Haryana, and UP, respectively.
- The number of events decreased from 322 on 14-Oct-2018 to 235 on 15-Oct-2018 in the three States.
- Total 2419 burning events were detected in three States between 30-Sept-2018 and 15-Oct-2018, which were distributed as 875, 1084 and 460 in Punjab, Haryana and UP, respectively.
- Till 15-Oct-2018, the burning events in the current year are about 35.6% of the events detected in 2017.

Temporal distribution of residue burning events for the three study States

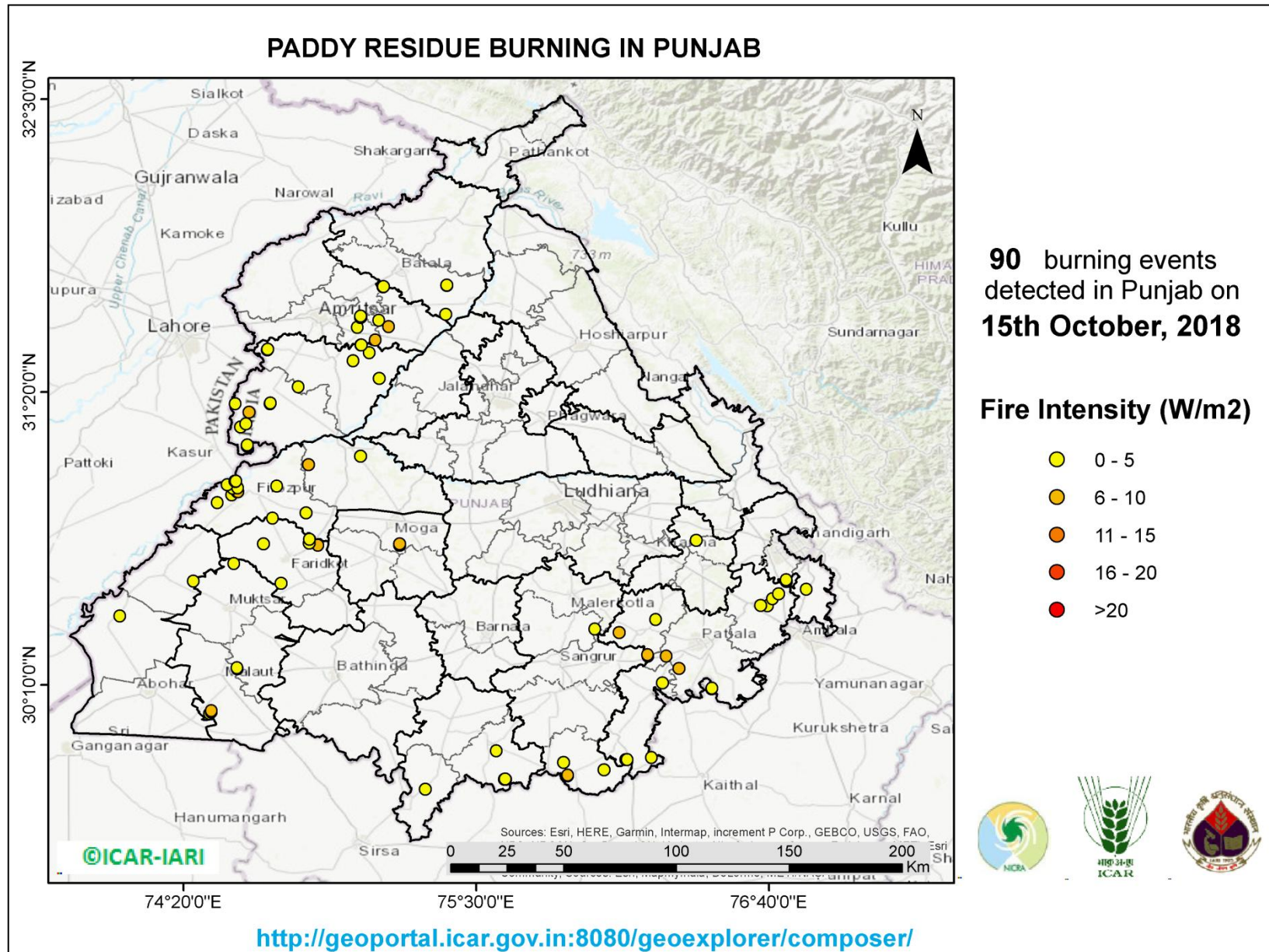


Comparison of residue burning events in current year (2018) with previous year (2017) for the three study States

(30-Sep-2018 to 15-Oct-2018)



(a) Punjab



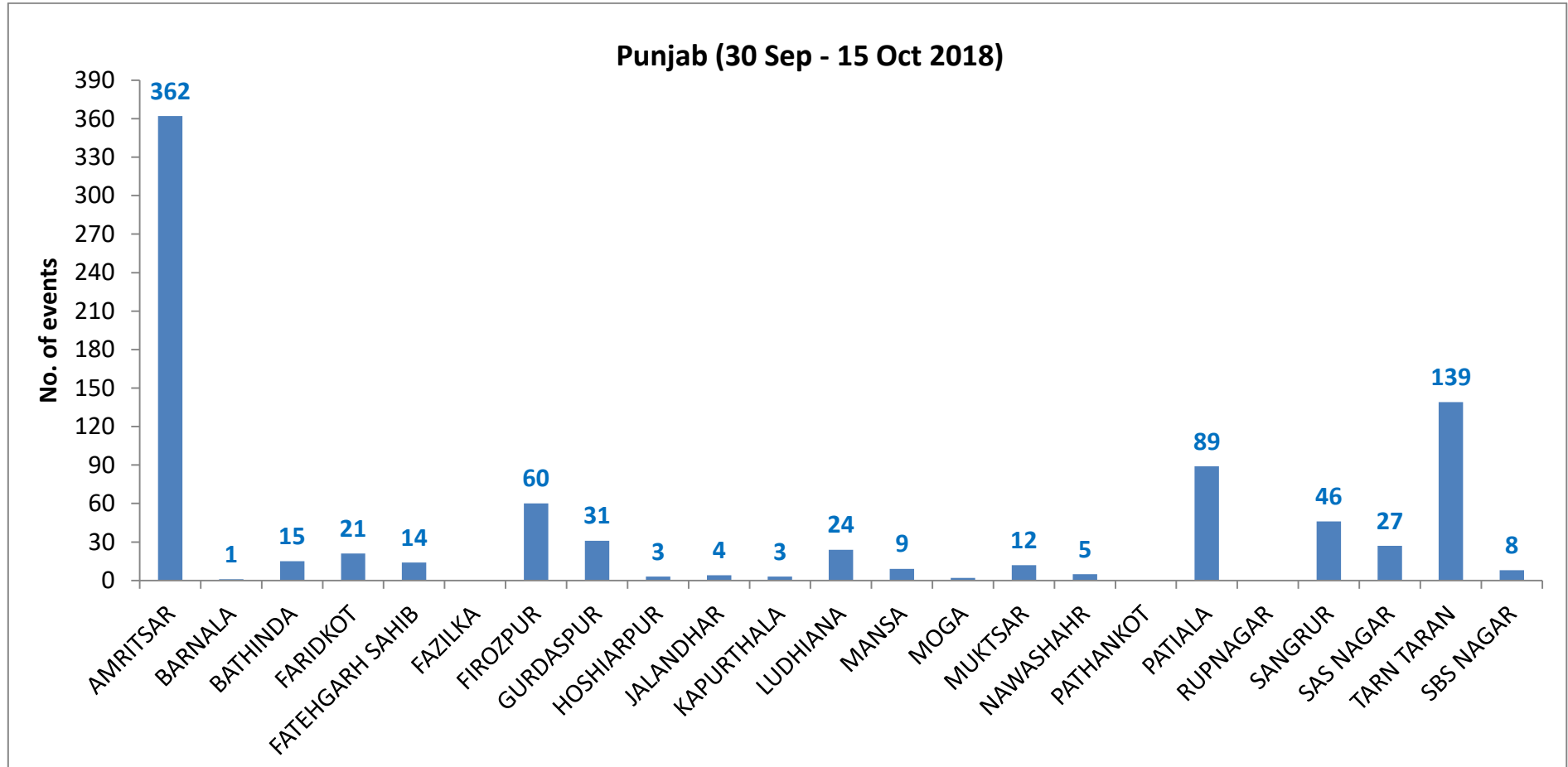
Details of residue burning events in Punjab on 15-Oct-2018

Event S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day/Night	Fire Power (W/m²)
1	MANSA	SARDULGARH	S-NPP	75.29624	29.75098	14:12:00	D	1.20
2	MANSA	BUDHLADA	S-NPP	75.61159	29.79014	14:12:00	D	3.20
3	MANSA	BUDHLADA	S-NPP	75.61579	29.79042	14:12:00	D	3.20
4	MANSA	BUDHLADA	S-NPP	75.61530	29.79163	14:12:00	D	4.60
5	SANGRUR	MOONAK	S-NPP	75.86406	29.80424	14:12:00	D	5.80
6	SANGRUR	MOONAK	S-NPP	75.86451	29.80706	14:12:00	D	7.60
7	SANGRUR	MOONAK	S-NPP	76.00920	29.82800	14:12:00	D	4.50
8	SANGRUR	MOONAK	S-NPP	75.84713	29.85709	14:12:00	D	3.80
9	PATIALA	SAMANA	S-NPP	76.09619	29.86828	14:12:00	D	2.90
10	PATIALA	SAMANA	S-NPP	76.10071	29.86858	14:12:00	D	2.90
11	PATIALA	SAMANA	S-NPP	76.19815	29.87740	12:36:00	D	4.80
12	MANSA	BUDHLADA	S-NPP	75.58002	29.90394	14:12:00	D	3.90
13	MUKTSAR	MALAUT	S-NPP	74.43717	30.05257	14:12:00	D	4.40
14	MUKTSAR	MALAUT	S-NPP	74.44384	30.05834	14:12:00	D	5.30
15	MUKTSAR	MALAUT	S-NPP	74.44334	30.06355	14:12:00	D	5.30
16	PATIALA	PATIALA	S-NPP	76.43800	30.15126	14:12:00	D	3.50
17	PATIALA	PATIALA	S-NPP	76.43976	30.15319	14:12:00	D	4.60
18	PATIALA	SAMANA	S-NPP	76.24149	30.17432	14:12:00	D	3.80
19	MUKTSAR	GIDDARBAHA	S-NPP	74.54736	30.23023	14:12:00	D	1.60
20	PATIALA	PATIALA	S-NPP	76.30772	30.23124	14:12:00	D	8.90
21	MUKTSAR	GIDDARBAHA	S-NPP	74.54537	30.23475	14:12:00	D	1.20
22	PATIALA	PATIALA	S-NPP	76.25649	30.28088	12:36:00	D	5.60
23	SANGRUR	SANGRUR	S-NPP	76.18388	30.28132	12:36:00	D	5.00
24	SANGRUR	SANGRUR	S-NPP	76.18252	30.28724	14:12:00	D	9.60
25	PATIALA	NABHA	S-NPP	76.06898	30.37466	12:36:00	D	5.40
26	SANGRUR	DHURI	S-NPP	75.97185	30.38970	14:12:00	D	2.70
27	PATIALA	NABHA	S-NPP	76.21491	30.42687	12:36:00	D	3.30
28	FIROZPUR	FAZILKA	S-NPP	74.07890	30.44147	14:12:00	D	2.80

29	PATIALA	RAJPURA	S-NPP	76.66064	30.48131	14:12:00	D	2.20
30	PATIALA	RAJPURA	S-NPP	76.63253	30.48273	14:12:00	D	1.90
31	PATIALA	RAJPURA	S-NPP	76.68055	30.50948	14:12:00	D	2.50
32	PATIALA	RAJPURA	S-NPP	76.70435	30.52889	14:12:00	D	3.10
33	SAS NAGAR	DERABASSI	S-NPP	76.81476	30.54749	14:12:00	D	2.30
34	FARIDKOT	FARIDKOT	S-NPP	74.72088	30.57075	14:12:00	D	2.30
35	SBS NAGAR	MOHALI	S-NPP	76.73617	30.57892	14:12:00	D	1.70
36	MUKTSAR	MUKTSAR	S-NPP	74.37153	30.58027	14:12:00	D	1.60
37	SBS NAGAR	MOHALI	S-NPP	76.73447	30.58073	14:12:00	D	4.00
38	SBS NAGAR	MOHALI	S-NPP	76.73571	30.58492	14:12:00	D	1.70
39	MUKTSAR	MUKTSAR	S-NPP	74.53352	30.64991	14:12:00	D	1.80
40	FARIDKOT	FARIDKOT	S-NPP	74.86841	30.72236	14:12:00	D	7.10
41	MOGA	MOGA	S-NPP	75.19431	30.72344	14:12:00	D	6.60
42	FARIDKOT	FARIDKOT	S-NPP	74.65096	30.72786	14:12:00	D	1.90
43	MOGA	MOGA	S-NPP	75.19382	30.72893	14:12:00	D	6.60
44	FARIDKOT	FARIDKOT	S-NPP	74.83356	30.73160	12:36:00	D	3.90
45	FATEHGARH SAHIB	KHAMANOH	S-NPP	76.37683	30.74192	14:12:00	D	3.10
46	FARIDKOT	FARIDKOT	S-NPP	74.83486	30.74698	14:12:00	D	2.30
47	FIROZPUR	FIROZPUR	S-NPP	74.68696	30.83074	14:12:00	D	3.20
48	FIROZPUR	FIROZPUR	S-NPP	74.82110	30.85146	14:12:00	D	1.20
49	FIROZPUR	FIROZPUR	S-NPP	74.46712	30.89279	14:12:00	D	3.80
50	FIROZPUR	FIROZPUR	S-NPP	74.52435	30.92362	14:12:00	D	3.40
51	FIROZPUR	FIROZPUR	S-NPP	74.54593	30.93590	14:12:00	D	6.00
52	FIROZPUR	FIROZPUR	S-NPP	74.54968	30.93618	14:12:00	D	6.00
53	FIROZPUR	FIROZPUR	S-NPP	74.52940	30.95063	14:12:00	D	2.60
54	FIROZPUR	FIROZPUR	S-NPP	74.54820	30.95206	14:12:00	D	2.00
55	FIROZPUR	FIROZPUR	S-NPP	74.70472	30.95858	14:12:00	D	2.30
56	FIROZPUR	FIROZPUR	S-NPP	74.50716	30.96408	14:12:00	D	3.00
57	FIROZPUR	FIROZPUR	S-NPP	74.53996	30.97707	14:12:00	D	4.30
58	FIROZPUR	FIROZPUR	S-NPP	74.53822	30.97795	14:12:00	D	4.40
59	FIROZPUR	FIROZPUR	S-NPP	74.54198	30.97824	14:12:00	D	4.70

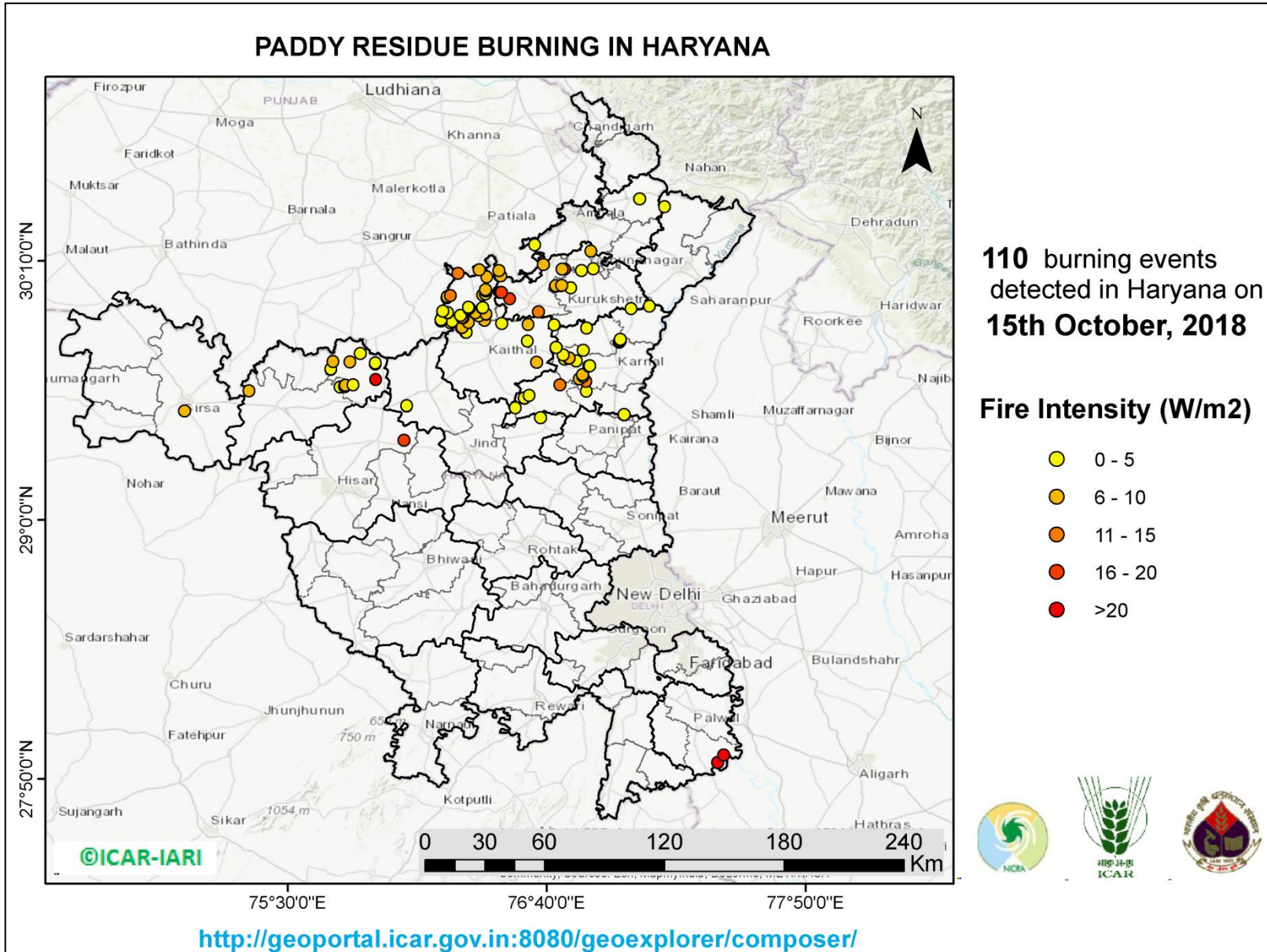
60	FIROZPUR	ZIRA	S-NPP	74.83036	31.04361	12:36:00	D	5.80
61	FIROZPUR	ZIRA	S-NPP	75.03794	31.07759	14:12:00	D	3.70
62	TARN TARAN	PATTI	S-NPP	74.58648	31.11755	14:12:00	D	7.60
63	TARN TARAN	PATTI	S-NPP	74.58595	31.12286	14:12:00	D	2.20
64	TARN TARAN	PATTI	S-NPP	74.55967	31.19439	14:12:00	D	3.30
65	TARN TARAN	PATTI	S-NPP	74.58156	31.20665	14:12:00	D	4.60
66	TARN TARAN	PATTI	S-NPP	74.59300	31.25295	12:36:00	D	5.90
67	TARN TARAN	PATTI	S-NPP	74.67773	31.28613	14:12:00	D	5.60
68	TARN TARAN	PATTI	S-NPP	74.53827	31.28721	14:12:00	D	2.80
69	TARN TARAN	PATTI	S-NPP	74.67860	31.28896	14:12:00	D	3.90
70	TARN TARAN	KHADOOR SAHIB	S-NPP	74.78984	31.35342	14:12:00	D	2.70
71	TARN TARAN	KHADOOR SAHIB	S-NPP	75.11230	31.38696	14:12:00	D	3.50
72	TARN TARAN	KHADOOR SAHIB	S-NPP	75.00922	31.45765	14:12:00	D	3.50
73	TARN TARAN	KHADOOR SAHIB	S-NPP	75.07262	31.48955	14:12:00	D	1.70
74	TARN TARAN	KHADOOR SAHIB	S-NPP	74.66660	31.50108	14:12:00	D	3.70
75	TARN TARAN	KHADOOR SAHIB	S-NPP	74.66753	31.50412	14:12:00	D	4.10
76	TARN TARAN	KHADOOR SAHIB	S-NPP	75.04005	31.52040	14:12:00	D	4.20
77	TARN TARAN	KHADOOR SAHIB	S-NPP	75.04084	31.52044	14:12:00	D	4.80
78	AMRITSAR	BABA BAKALA	S-NPP	75.09654	31.54064	14:12:00	D	5.50
79	AMRITSAR	BABA BAKALA	S-NPP	75.09734	31.54105	14:12:00	D	6.40
80	AMRITSAR	AMRITSAR I	S-NPP	75.02560	31.59111	14:12:00	D	1.80
81	AMRITSAR	BABA BAKALA	S-NPP	75.15063	31.59412	14:12:00	D	8.60
82	AMRITSAR	BABA BAKALA	S-NPP	75.11067	31.61912	14:12:00	D	2.50
83	AMRITSAR	AMRITSAR I	S-NPP	75.03876	31.63065	14:12:00	D	2.50
84	AMRITSAR	AMRITSAR I	S-NPP	75.03897	31.63111	14:12:00	D	2.70
85	AMRITSAR	AMRITSAR I	S-NPP	75.03829	31.63614	14:12:00	D	2.50
86	GURDASPUR	BATALA	S-NPP	75.37778	31.64306	14:12:00	D	2.80
87	AMRITSAR	AMRITSAR I	S-NPP	75.12844	31.75266	14:12:00	D	2.80
88	AMRITSAR	AMRITSAR I	S-NPP	75.12901	31.75348	14:12:00	D	2.10
89	GURDASPUR	BATALA	S-NPP	75.38170	31.75739	14:12:00	D	3.20
90	GURDASPUR	BATALA	S-NPP	75.38179	31.75983	14:12:00	D	1.60

District-wise cumulative number of residue burning events in Punjab (30-Sep-2018 to 15-Oct-2018)



(b) Haryana

PADDY RESIDUE BURNING IN HARYANA



Details of residue burning events in Haryana on 15-Oct-2018

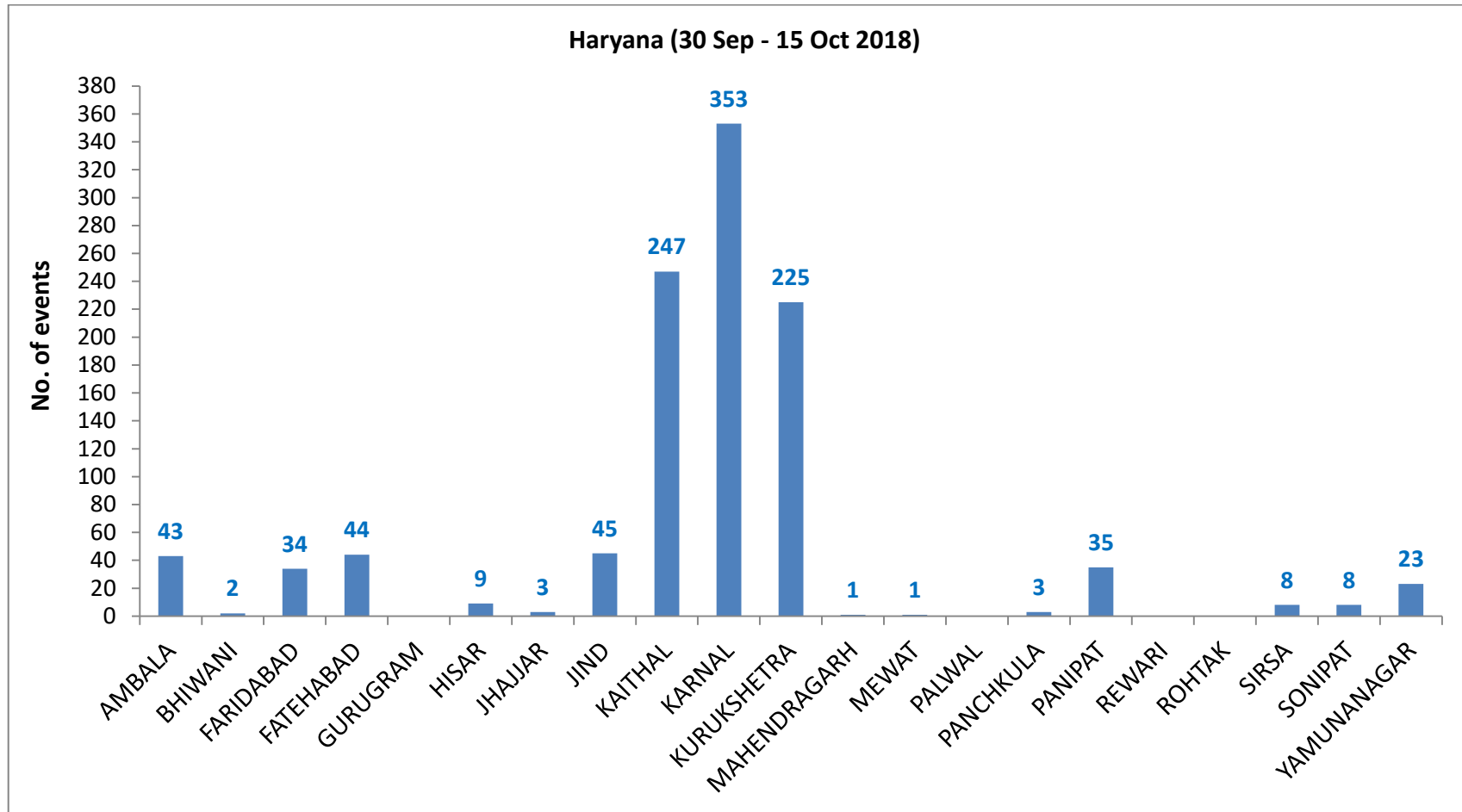
Event S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day/Night	Fire Power (W/m²)
1	FARIDABAD	HODAL	AQUA-1	77.435326	27.90830	0.53681	D	39.38
2	FARIDABAD	HODAL	TERRA-1	77.462611	27.94124	0.47222	D	36.19
3	HISAR	HISAR	TERRA-1	76.023368	29.35908	0.47222	D	19.92
4	JIND	SAFIDON	S-NPP	76.63874	29.46098	0.59167	D	4.50
5	KARNAL	GHARAUNDA	S-NPP	77.01478	29.47574	0.525	D	6.40
6	KARNAL	GHARAUNDA	S-NPP	77.01412	29.47642	0.525	D	4.90
7	SIRSA	SIRSA	TERRA-1	75.034316	29.49233	0.47222	D	7.61
8	KARNAL	ASSANDH	S-NPP	76.52477	29.50679	0.59167	D	2.00
9	JIND	NARWANA	S-NPP	76.03608	29.51333	0.59167	D	3.10
10	JIND	NARWANA	S-NPP	76.03558	29.51480	0.59167	D	3.00
11	KARNAL	ASSANDH	S-NPP	76.5648	29.54892	0.59167	D	3.70
12	KARNAL	ASSANDH	S-NPP	76.56443	29.55081	0.59167	D	4.60
13	KARNAL	ASSANDH	S-NPP	76.58782	29.56219	0.59167	D	3.60
14	KARNAL	GHARAUNDA	S-NPP	76.84492	29.58073	0.525	D	3.00
15	FATEHABAD	FATEHABAD	S-NPP	75.32449	29.58200	0.59167	D	5.60
16	FATEHABAD	FATEHABAD	S-NPP	75.73445	29.59966	0.59167	D	2.30
17	FATEHABAD	TOHANA	S-NPP	75.75578	29.60111	0.59167	D	4.20
18	FATEHABAD	FATEHABAD	S-NPP	75.7553	29.60673	0.59167	D	5.20
19	FATEHABAD	FATEHABAD	S-NPP	75.75957	29.60702	0.59167	D	5.20
20	KARNAL	ASSANDH	TERRA-1	76.725937	29.60911	0.47222	D	12.00
21	FATEHABAD	FATEHABAD	S-NPP	75.79385	29.60937	0.59167	D	2.90
22	KARNAL	KARNAL	S-NPP	76.84367	29.62606	0.525	D	2.40
23	KARNAL	KARNAL	S-NPP	76.84323	29.62608	0.59167	D	10.60
24	FATEHABAD	TOHANA	TERRA-1	75.895474	29.63306	0.47222	D	27.82
25	KARNAL	KARNAL	S-NPP	76.81255	29.63612	0.59167	D	6.90
26	KARNAL	KARNAL	S-NPP	76.82803	29.64782	0.525	D	1.90
27	KARNAL	KARNAL	TERRA-1	76.826547	29.65552	0.47222	D	8.46

28	FATEHABAD	TOHANA	S-NPP	75.693	29.67912	0.59167	D	4.60
29	FATEHABAD	TOHANA	S-NPP	75.69335	29.68125	0.59167	D	3.30
30	KARNAL	KARNAL	S-NPP	76.85518	29.69402	0.525	D	3.10
31	KARNAL	KARNAL	S-NPP	76.86041	29.69539	0.525	D	4.90
32	FATEHABAD	TOHANA	S-NPP	75.89436	29.70385	0.59167	D	2.10
33	FATEHABAD	TOHANA	S-NPP	75.89445	29.70729	0.59167	D	3.30
34	KAITHAL	KAITHAL	TERRA-1	76.62021	29.71092	0.47222	D	9.84
35	FATEHABAD	TOHANA	S-NPP	75.78024	29.71323	0.59167	D	5.10
36	FATEHABAD	TOHANA	S-NPP	75.70283	29.71358	0.59167	D	5.40
37	KARNAL	KARNAL	S-NPP	76.79782	29.71730	0.525	D	3.30
38	KARNAL	KARNAL	S-NPP	76.74581	29.72470	0.59167	D	4.50
39	KARNAL	KARNAL	S-NPP	76.76543	29.72822	0.525	D	4.60
40	KARNAL	KARNAL	S-NPP	76.76851	29.72993	0.525	D	5.20
41	KARNAL	KARNAL	S-NPP	76.73998	29.74504	0.59167	D	3.30
42	FATEHABAD	TOHANA	S-NPP	75.82483	29.75030	0.59167	D	3.20
43	KARNAL	NILOKHERI	S-NPP	76.831	29.76551	0.525	D	2.40
44	KARNAL	KARNAL	S-NPP	76.7082	29.77833	0.525	D	3.30
45	KARNAL	KARNAL	S-NPP	76.99313	29.80218	0.59167	D	15.90
46	KAITHAL	KAITHAL	S-NPP	76.57836	29.80653	0.59167	D	2.80
47	KARNAL	KARNAL	S-NPP	76.99779	29.80853	0.59167	D	13.50
48	KARNAL	INDRI	S-NPP	76.99735	29.81457	0.59167	D	3.90
49	KAITHAL	KAITHAL	S-NPP	76.3006	29.84676	0.59167	D	4.30
50	KAITHAL	KAITHAL	S-NPP	76.30407	29.84700	0.59167	D	4.10
51	KARNAL	NILOKHERI	S-NPP	76.84596	29.86559	0.59167	D	3.00
52	KAITHAL	KAITHAL	S-NPP	76.28186	29.86629	0.525	D	3.10
53	KAITHAL	KAITHAL	S-NPP	76.28483	29.86909	0.59167	D	6.80
54	KAITHAL	KAITHAL	S-NPP	76.69952	29.88018	0.525	D	3.70
55	KAITHAL	KAITHAL	TERRA-1	76.582695	29.88160	0.47222	D	9.25
56	KAITHAL	KAITHAL	S-NPP	76.46301	29.88639	0.59167	D	3.60
57	KAITHAL	GUHLA	S-NPP	76.23212	29.88893	0.59167	D	3.90
58	KAITHAL	KAITHAL	TERRA-1	76.313263	29.89058	0.47222	D	8.63
59	KAITHAL	GUHLA	S-NPP	76.24118	29.89549	0.525	D	4.10

60	KAITHAL	GUHLA	S-NPP	76.18984	29.89772	0.59167	D	2.60
61	KAITHAL	KAITHAL	S-NPP	76.38539	29.90050	0.525	D	5.40
62	KAITHAL	GUHLA	S-NPP	76.1894	29.90349	0.59167	D	2.30
63	KAITHAL	KAITHAL	S-NPP	76.28754	29.91192	0.525	D	8.80
64	KAITHAL	KAITHAL	S-NPP	76.28394	29.91347	0.525	D	13.90
65	KAITHAL	KAITHAL	S-NPP	76.36052	29.92085	0.59167	D	2.90
66	KAITHAL	KAITHAL	S-NPP	76.2778	29.92262	0.525	D	4.70
67	KAITHAL	GUHLA	S-NPP	76.39342	29.92765	0.59167	D	7.60
68	KAITHAL	GUHLA	S-NPP	76.393	29.92888	0.59167	D	6.00
69	KAITHAL	GUHLA	TERRA-1	76.345663	29.93400	0.47222	D	9.64
70	KAITHAL	GUHLA	S-NPP	76.21931	29.93445	0.59167	D	3.10
71	KAITHAL	GUHLA	S-NPP	76.21925	29.93459	0.59167	D	3.70
72	KURUKSHETRA	PEHOWA	S-NPP	76.62857	29.93849	0.59167	D	10.60
73	KAITHAL	GUHLA	S-NPP	76.19791	29.94117	0.525	D	5.00
74	KURUKSHETRA	THANESAR	S-NPP	77.04659	29.95274	0.59167	D	1.70
75	KAITHAL	GUHLA	S-NPP	76.316	29.95287	0.525	D	5.60
76	KAITHAL	GUHLA	S-NPP	76.37542	29.95556	0.525	D	3.50
77	KAITHAL	GUHLA	S-NPP	76.318	29.95564	0.525	D	7.90
78	KAITHAL	GUHLA	S-NPP	76.3776	29.95800	0.525	D	3.30
79	KAITHAL	GUHLA	S-NPP	76.31392	29.95896	0.525	D	3.50
80	KARNAL	INDRI	S-NPP	77.12963	29.96390	0.59167	D	2.10
81	KURUKSHETRA	PEHOWA	TERRA-1	76.499137	29.99688	0.47222	D	15.77
82	KAITHAL	GUHLA	S-NPP	76.21626	30.00261	0.525	D	5.80
83	KAITHAL	GUHLA	S-NPP	76.21825	30.00668	0.525	D	5.50
84	KAITHAL	GUHLA	S-NPP	76.2318	30.01090	0.59167	D	11.50
85	KAITHAL	GUHLA	S-NPP	76.3771	30.01470	0.59167	D	5.30
86	KAITHAL	GUHLA	S-NPP	76.38967	30.01890	0.525	D	5.00
87	KURUKSHETRA	PEHOWA	S-NPP	76.45736	30.02584	0.59167	D	17.10
88	KURUKSHETRA	PEHOWA	S-NPP	76.46214	30.02615	0.59167	D	17.10
89	KAITHAL	GUHLA	S-NPP	76.39161	30.03238	0.59167	D	6.20
90	KAITHAL	GUHLA	S-NPP	76.38949	30.03901	0.59167	D	6.70
91	KURUKSHETRA	THANESAR	S-NPP	76.77498	30.04621	0.59167	D	1.80

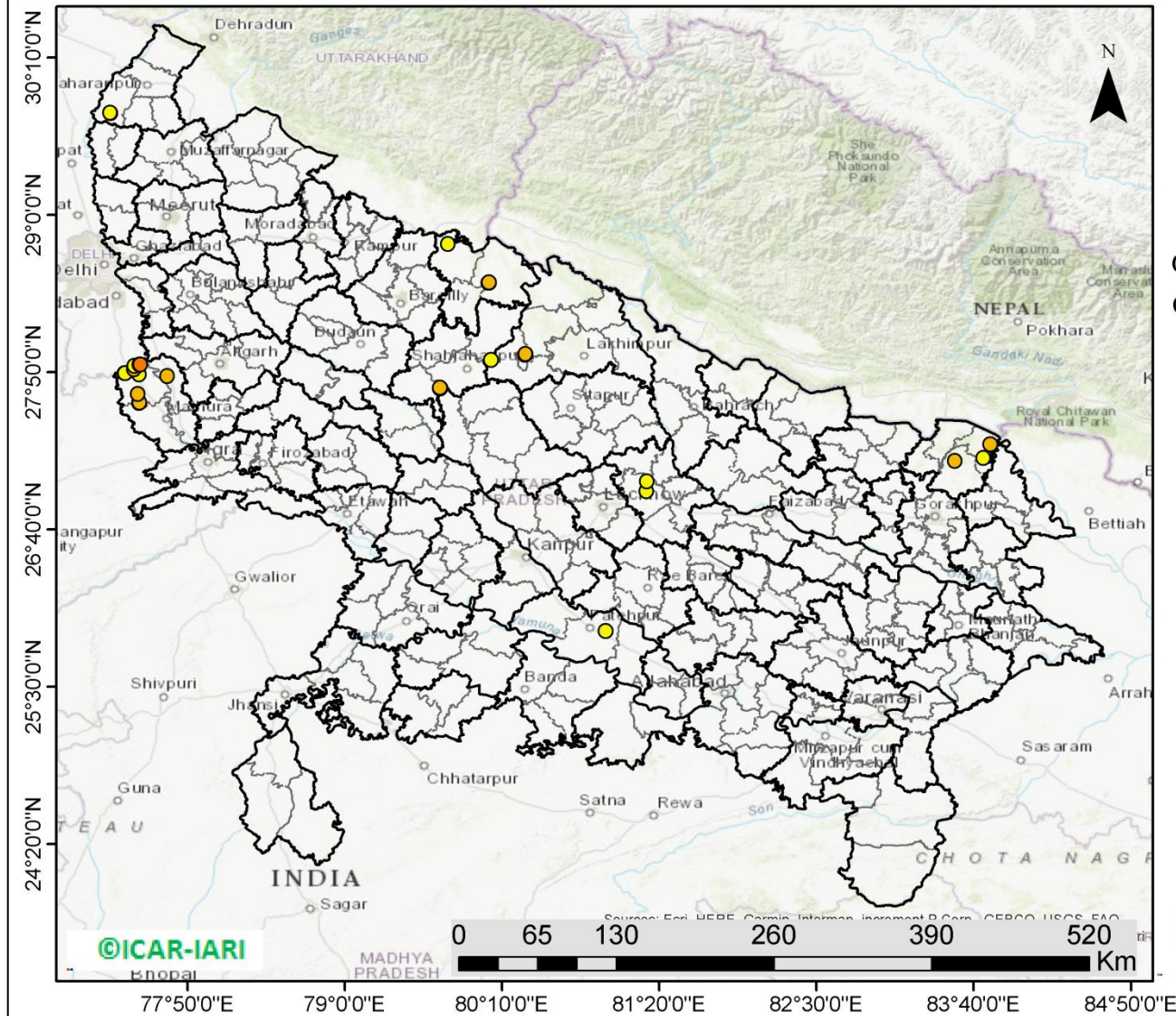
92	KURUKSHETRA	THANESAR	S-NPP	76.70448	30.05372	0.59167	D	3.70
93	KURUKSHETRA	THANESAR	S-NPP	76.73048	30.05638	0.525	D	3.90
94	KURUKSHETRA	THANESAR	S-NPP	76.7063	30.05689	0.59167	D	5.40
95	KURUKSHETRA	THANESAR	S-NPP	76.73257	30.05746	0.525	D	5.70
96	KAITHAL	GUHLA	TERRA-1	76.396821	30.09570	0.47222	D	6.21
97	KAITHAL	GUHLA	S-NPP	76.45331	30.10097	0.59167	D	5.30
98	KAITHAL	GUHLA	S-NPP	76.45808	30.10127	0.59167	D	5.30
99	KAITHAL	GUHLA	TERRA-1	76.265516	30.11216	0.47222	D	11.39
100	KURUKSHETRA	THANESAR	S-NPP	76.82185	30.12377	0.59167	D	1.80
101	KAITHAL	GUHLA	S-NPP	76.45065	30.12518	0.525	D	6.60
102	KAITHAL	GUHLA	S-NPP	76.36072	30.12766	0.525	D	5.20
103	KURUKSHETRA	PEHOWA	S-NPP	76.74569	30.13115	0.59167	D	17.70
104	KURUKSHETRA	PEHOWA	TERRA-1	76.734463	30.13163	0.47222	D	9.94
105	KURUKSHETRA	THANESAR	S-NPP	76.87715	30.13315	0.59167	D	3.50
106	AMBALA	AMBALA	TERRA-1	76.650905	30.15109	0.47222	D	9.85
107	KURUKSHETRA	SHAHABAD	S-NPP	76.86478	30.21241	0.59167	D	5.90
108	AMBALA	AMBALA	S-NPP	76.61218	30.23978	0.525	D	3.60
109	YAMUNANAGAR	JAGADHRI	S-NPP	77.19726	30.41296	0.525	D	1.70
110	AMBALA	NARAYANGARH	S-NPP	77.08517	30.44678	0.525	D	2.90

District-wise cumulative number of residue burning events in Haryana (30-Sep-2018 to 15-Oct-2018)



(c) Uttar Pradesh

PADDY RESIDUE BURNING IN UTTAR PRADESH



35 burning events detected in Uttar Pradesh on **15th October, 2018**

Fire Intensity (W/m²)

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



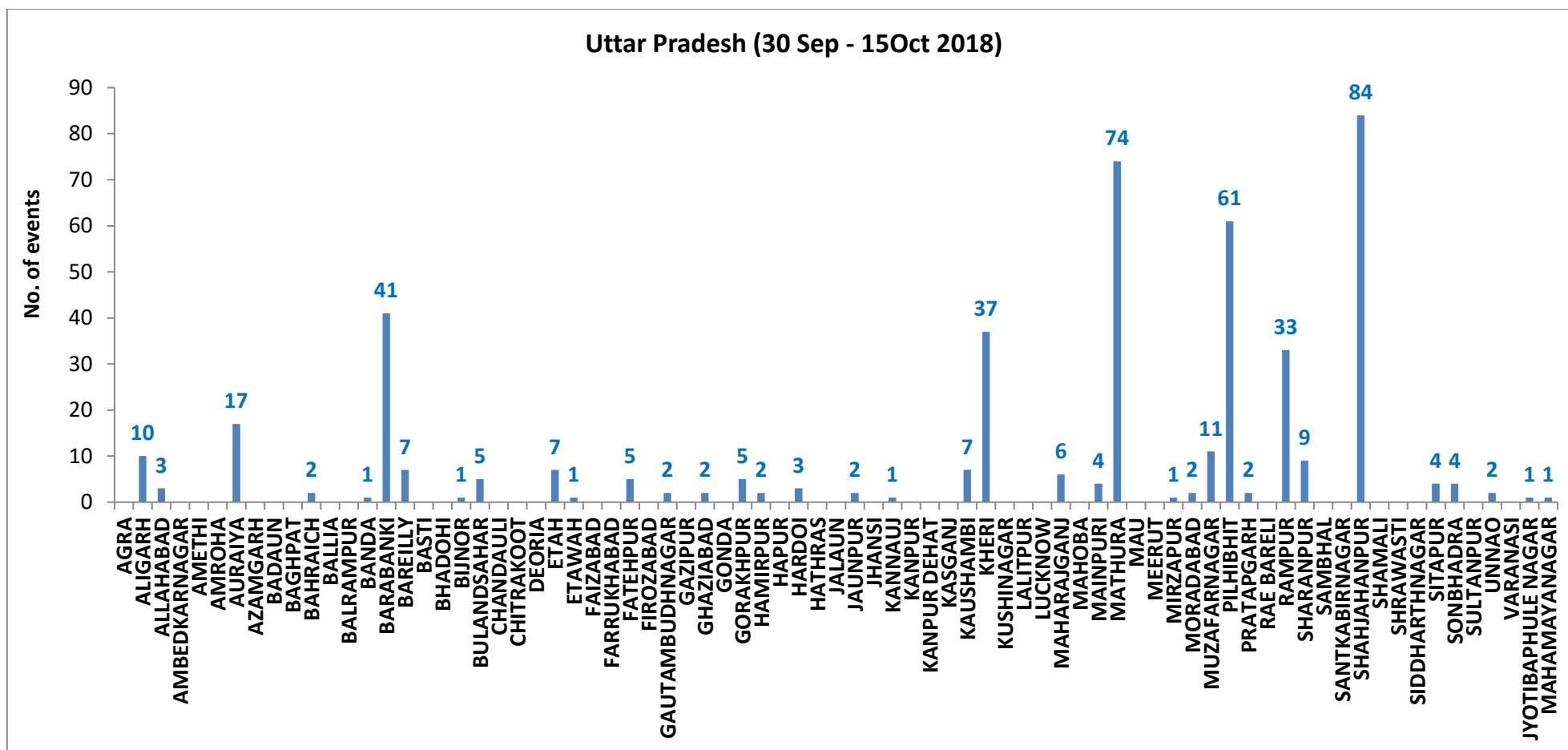
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

Details of residue burning events in Uttar Pradesh on 15-Oct-2018

Event S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day/Night	Fire Power (W/m²)
1	FATEHPUR	FATEHPUR	S-NPP	80.93449	25.91468	12:30:00	D	2.9
2	BARABANKI	NAWABGANJ	S-NPP	81.23829	26.95130	12:30:00	D	2.6
3	BARABANKI	NAWABGANJ	S-NPP	81.24104	27.02461	12:30:00	D	3.7
4	MAHARAJGANJ	MAHARAJGANJ	S-NPP	83.52607	27.17472	12:30:00	D	6.3
5	MAHARAJGANJ	NICHLAUL	S-NPP	83.73781	27.19584	12:30:00	D	3.6
6	MAHARAJGANJ	NICHLAUL	S-NPP	83.79066	27.29849	12:30:00	D	5.6
7	MATHURA	CHHATA	S-NPP	77.47375	27.60580	14:12:00	D	8.5
8	MATHURA	CHHATA	S-NPP	77.47564	27.60676	14:12:00	D	8
9	MATHURA	CHHATA	S-NPP	77.46499	27.67227	12:30:00	D	9.7
10	SHAHJAHANPUR	JALALABAD	S-NPP	79.7063	27.71354	12:30:00	D	3.8
11	SHAHJAHANPUR	JALALABAD	S-NPP	79.71022	27.71446	12:30:00	D	3.8
12	SHAHJAHANPUR	JALALABAD	S-NPP	79.70771	27.71494	12:30:00	D	12.8
13	SHAHJAHANPUR	JALALABAD	S-NPP	79.70471	27.71891	12:30:00	D	7.7
14	MATHURA	CHHATA	S-NPP	77.6823	27.80440	14:12:00	D	5.4
15	MATHURA	CHHATA	S-NPP	77.47359	27.81564	14:12:00	D	4.3
16	MATHURA	CHHATA	S-NPP	77.3679	27.82611	14:12:00	D	6.6
17	MATHURA	CHHATA	S-NPP	77.36478	27.82712	14:12:00	D	4.4
18	MATHURA	CHHATA	S-NPP	77.36985	27.82745	14:12:00	D	5
19	MATHURA	CHHATA	S-NPP	77.43434	27.85603	14:12:00	D	7.2
20	MATHURA	CHHATA	S-NPP	77.43764	27.88072	14:12:00	D	4.5
21	MATHURA	CHHATA	S-NPP	77.47775	27.88837	12:30:00	D	14.2
22	MATHURA	CHHATA	S-NPP	77.48299	27.88971	12:30:00	D	14.2
23	KHERI	MOHMADI	S-NPP	80.08346	27.92525	12:30:00	D	3.3
24	KHERI	GOLA	S-NPP	80.33874	27.96337	12:30:00	D	7.2
25	KHERI	GOLA	S-NPP	80.33981	27.96416	12:30:00	D	8.7
26	KHERI	GOLA	S-NPP	80.34228	27.96420	12:30:00	D	5.9
27	KHERI	GOLA	S-NPP	80.34335	27.96497	12:30:00	D	10
28	KHERI	GOLA	S-NPP	80.3408	27.96935	12:30:00	D	5.9

29	PILHIBHIT	PURANPUR	S-NPP	80.0692	28.49676	14:12:00	D	4.2
30	PILHIBHIT	PURANPUR	S-NPP	80.06512	28.49791	12:30:00	D	3.8
31	PILHIBHIT	PURANPUR	S-NPP	80.06872	28.49876	12:30:00	D	6.2
32	PILHIBHIT	PURANPUR	S-NPP	80.06782	28.49996	14:12:00	D	5.3
33	PILHIBHIT	PILHIBHIT	S-NPP	79.76437	28.78401	12:30:00	D	2.9
34	SHARANPUR	NAKUR	S-NPP	77.26092	29.75502	12:36:00	D	4.5
35	SHARANPUR	NAKUR	S-NPP	77.25811	29.75765	12:36:00	D	4.3

District-wise cumulative number of residue burning events in Uttar Pradesh (30-Sep-2018 to 15-Oct-2018)



State wise, date wise and district-wise number of residue burning events detected in 2017 and 2018
(Period: 30-Sep-2018 to 15-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
13-Oct-18	470	62	207	147	69	61	746	270
14-Oct-18	582	112	333	153	137	57	1052	322
15-Oct-18	943	90	458	110	237	35	1638	235
Total	3674	875	2105	1084	999	460	6778	2419

(a) Punjab

Districts	01 - 15 Oct	
	2017	2018
AMRITSAR	481	362
BARNALA	11	1
BATHINDA	231	15
FARIDKOT	512	21
FATEHGARH SAHIB	131	14
FAZILKA	0	0
FIROZPUR	423	60
GURDASPUR	99	31
HOSHIARPUR	14	3
JALANDHAR	147	4
KAPURTHALA	40	3
LUDHIANA	244	24
MANSA	62	9
MOGA	49	2
MUKTSAR	128	12
NAWASHAHR	27	5
PATHANKOT	0	0
PATIALA	446	89
RUPNAGAR	5	0
SANGRUR	140	46
SAS NAGAR	41	27
TARN TARAN	427	139
SBS NAGAR	16	8
Total	3674	875

(b) Haryana

Districts	01 - 15 Oct	
	2017	2018
AMBALA	150	43
BHIWANI	2	2
FARIDABAD	32	34
FATEHABAD	89	44
GURUGRAM	0	0
HISAR	17	9
JHAJJAR	0	3
JIND	97	45
KAITHAL	441	247
KARNAL	682	353
KURUKSHETRA	471	225
MAHENDRAGARH	0	1
MEWAT	0	1
PALWAL	0	0
PANCHKULA	0	3
PANIPAT	31	35
REWARI	0	0
ROHTAK	1	0
SIRSA	17	8
SONIPAT	11	8
YAMUNANAGAR	64	23
Total	2105	1084

(c) Uttar Pradesh

Districts	01 - 15 Oct		FIROZABAD	0	0	PRATAPGARH	0	2
	2017	2018						
AGRA	0	0	GAZIPUR	0	0	RAMPUR	151	33
ALIGARH	11	10	GHAZIABAD	2	2	SHARANPUR	16	9
ALLAHABAD	0	3	GONDA	0	0	SAMBHAL	0	0
AMBEDKAR NAGAR	1	0	GORAKHPUR	2	5	SANTKABIR NAGAR	0	0
AMETHI	0	0	HAMIRPUR	0	2	SHAHJAHANPUR	309	84
AMROHA	0	0	HAPUR	0	0	SHAMALI	0	0
AURAIYA	37	17	HARDOI	8	3	SHRAWASTI	2	0
AZAMGARH	0	0	HATHRAS	0	0	SIDDHARTH NAGAR	0	0
BADAUN	1	0	JALAUN	0	0	SITAPUR	6	4
BAGHPAT	0	0	JAUNPUR	0	2	SONBHADRA	1	4
BAHRAICH	2	2	JHANSI	0	0	SULTANPUR	0	0
BALLIA	0	0	KANNAUJ	0	1	UNNAO	1	2
BALRAMPUR	0	0	KANPUR	2	0	VARANASI	0	0
BANDA	0	1	KANPUR DEHAT	1	0	JYOTIBAPHULE NAGAR	0	1
BARABANKI	21	41	KASGANJ	0	0	MAHAMAYA NAGAR	0	1
BAREILLY	28	7	KAUSHAMBI	3	7	Total	999	460
BASTI	0	0	KHERI	89	37			
BHADOHI	0	0	KUSHINAGAR	1	0			
BIJNOR	0	1	LALITPUR	0	0			
BULANDSAHAR	6	5	LUCKNOW	4	0			
CHANDAULI	0	0	MAHARAJGANJ	5	6			
CHITRAKOOT	0	0	MAHOBA	0	0			
DEORIA	0	0	MAINPURI	3	4			
ETAH	4	7	MATHURA	29	74			
ETAWAH	3	1	MAU	0	0			
FAIZABAD	1	0	MEERUT	6	0			
FARRUKHABAD	0	0	MIRZAPUR	1	1			
FATEHPUR	4	5	MORADABAD	7	2			
			MUZAFARNAGAR	41	11			
			PILHIBHIT	187	61			

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/>
