



**Bulletin
No. 17**

**Events Date:
17-Oct-2019**

**Issued on:
18-Oct-2019**



MONITORING PADDY RESIDUE BURNING IN NORTH INDIA USING SATELLITE REMOTE SENSING DURING 2019



Prepared by:

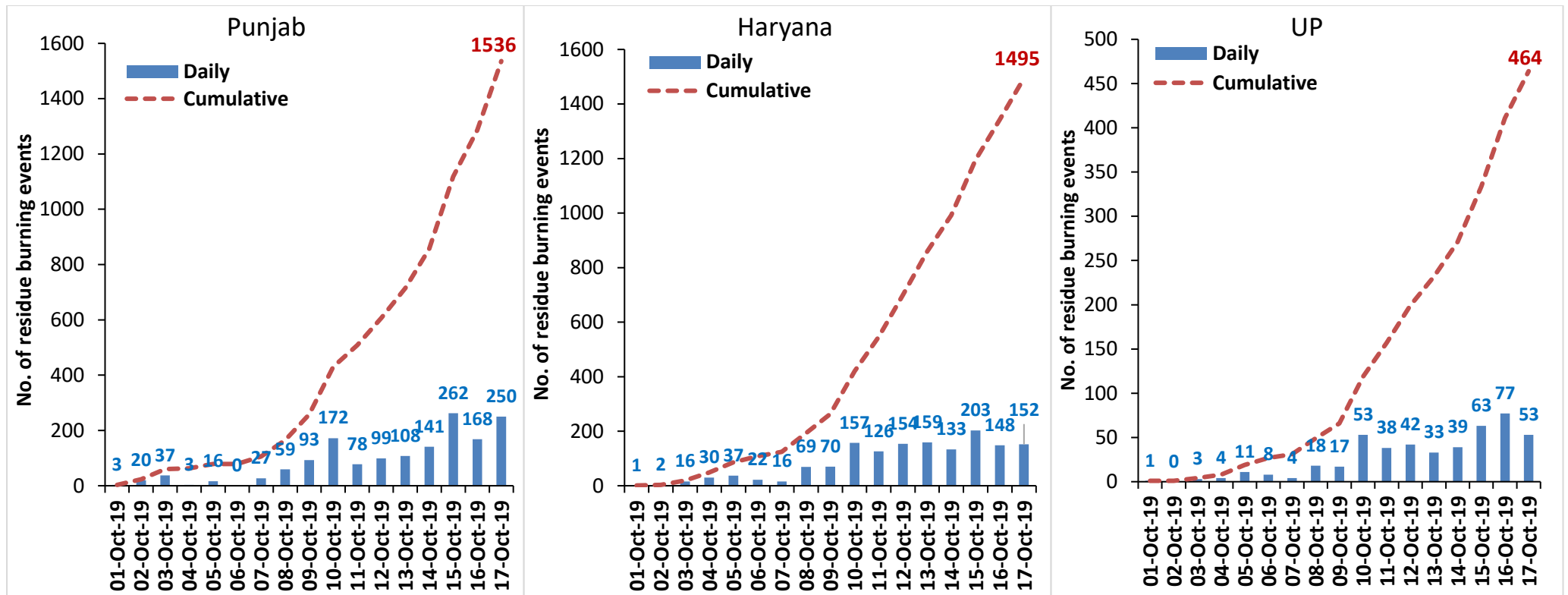
**Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS) Laboratory,
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012**

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

Highlights for 17-October-2019

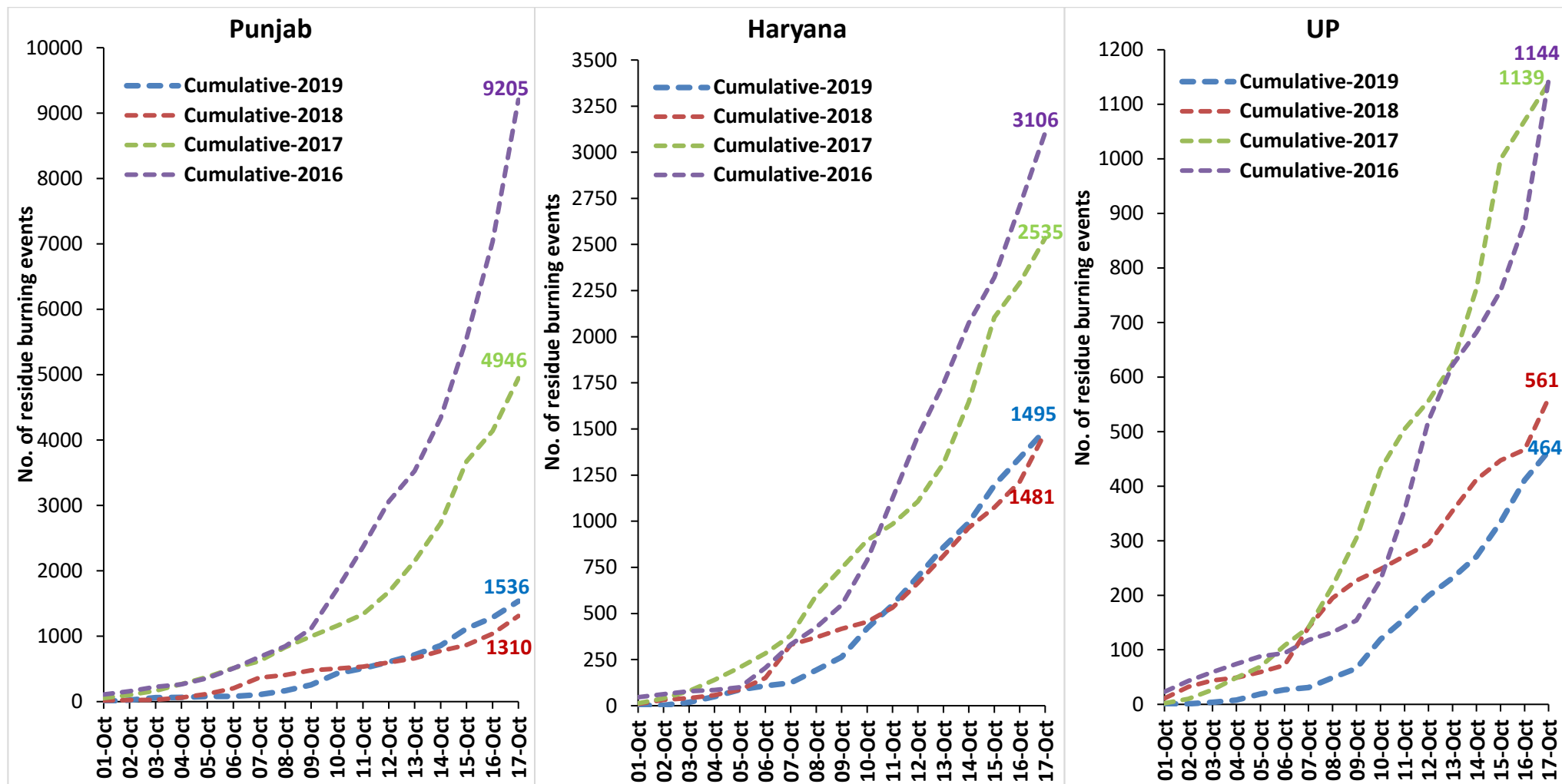
- Satellites detected **455** residue burning events in the three study States on 17-Oct-2019.
- The burning events detected on **17-Oct-2019** are **250**, **152** and **53** in Punjab, Haryana and UP, respectively.
- The number of events has increased from **393** on **16-Oct-2019** to **455** on **17-Oct-2019** in the three states.
- Total **3495** burning events were detected in the three States between **01-Oct-2019** and **17-Oct-2019**, which are distributed as **1536**, **1495** and **464** in Punjab, Haryana and UP, respectively.
- Overall, the total burning events recorded in the three states are **4.3%** more than in 2018 till date. UP recorded **17.3%** reduction while Punjab and Haryana recorded **17.3%** and **0.9%** increase, respectively, in the current season than in 2018.

Temporal distribution of residue burning events for the three study States in 2019

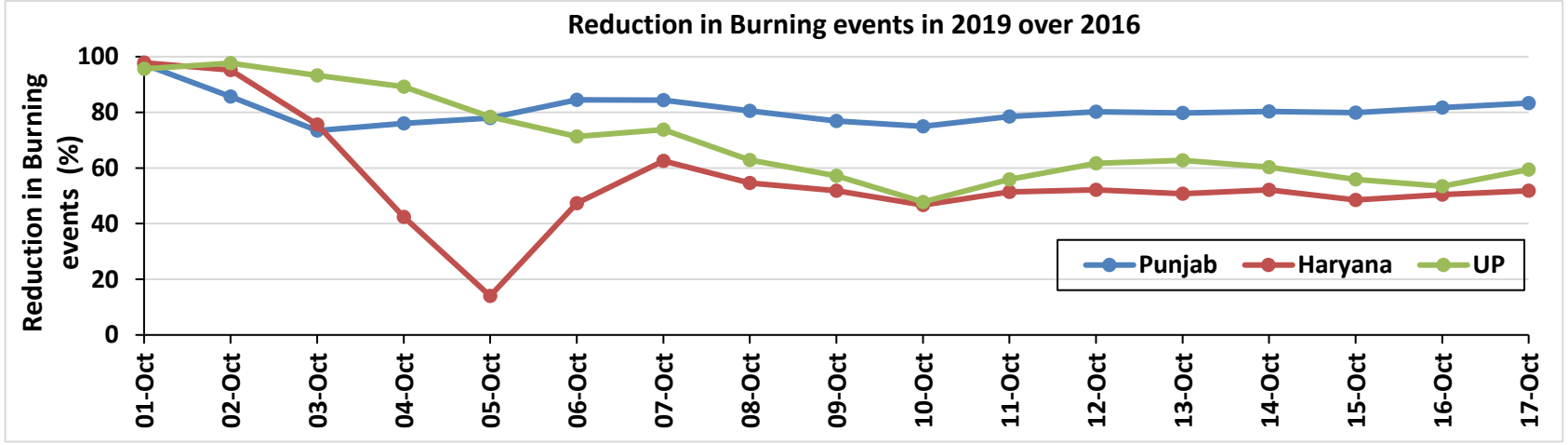
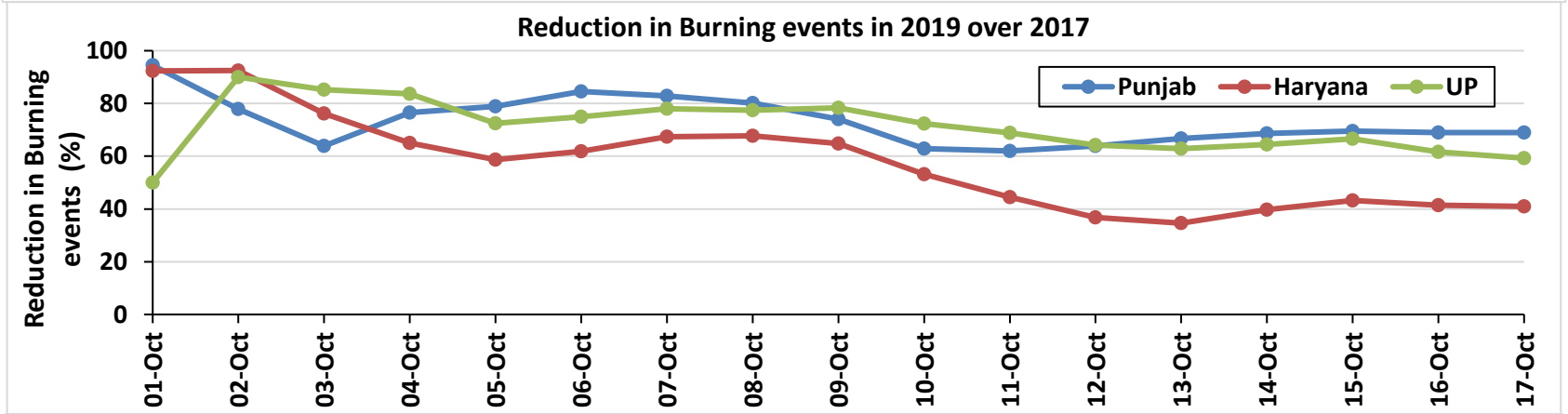
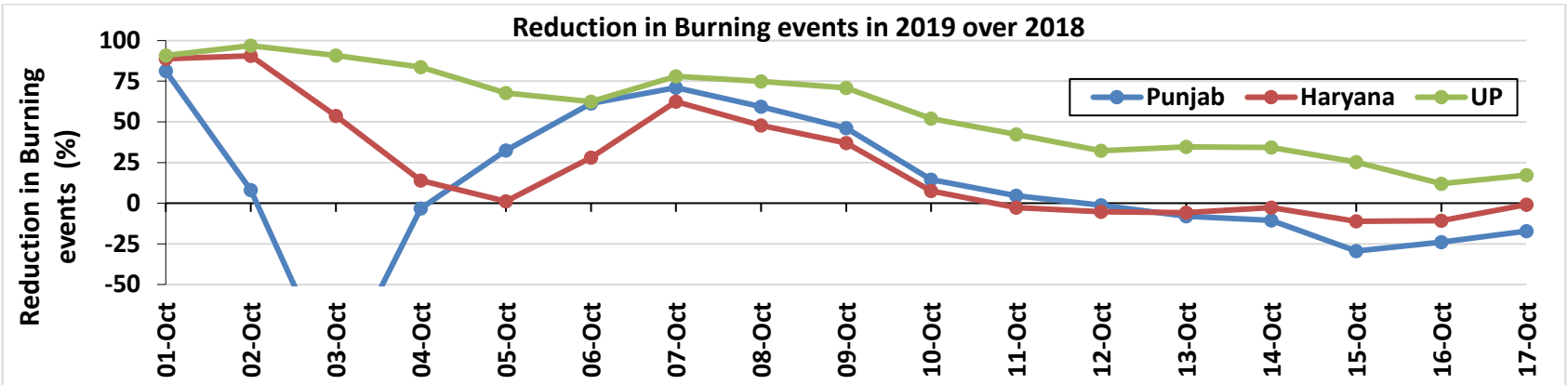


Comparison of residue burning events in current year (2019) with previous years (2018, 2017 & 2016) for the three study States

(01-Oct to 17-Oct)

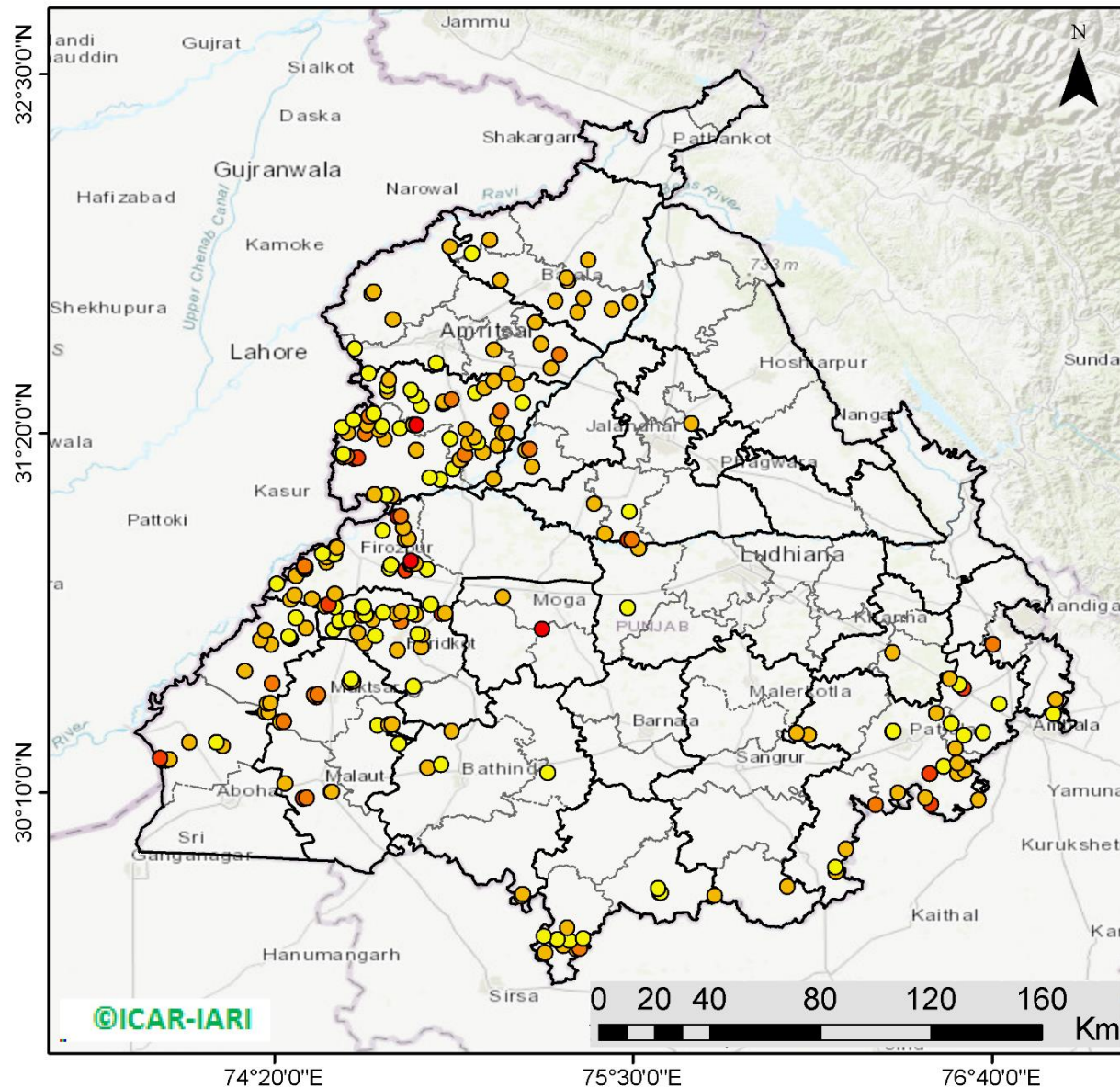


Percent Reduction in Burning events in 2019 over 2018, 2017 and 2016 (Daily Cumulative)



(a) Punjab

RICE RESIDUE BURNING IN PUNJAB



250 burning events detected in Punjab on 17th October 2019

Fire Intensity (W/m²)

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



Details of residue burning events in Punjab on 17-Oct-2019

S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m2)
1	AMRITSAR	AJNALA	AQUA	74.71900	31.70200	13:50:00	D	6.60
2	AMRITSAR	AJNALA	AQUA	74.65100	31.78600	13:50:00	D	5.10
3	AMRITSAR	AJNALA	AQUA	74.65600	31.79200	13:50:00	D	6.10
4	AMRITSAR	AJNALA	S-NPP	74.90422	31.93863	12:54:00	D	9.30
5	AMRITSAR	AMRITSAR I	AQUA	75.04700	31.60400	13:50:00	D	6.00
6	AMRITSAR	AMRITSAR II	S-NPP	74.86014	31.55959	12:54:00	D	3.20
7	AMRITSAR	AMRITSAR II	S-NPP	74.85976	31.56081	12:54:00	D	3.20
8	AMRITSAR	AMRITSAR II	S-NPP	74.59528	31.60895	12:54:00	D	1.70
9	AMRITSAR	BABA BAKALA	AQUA	75.09100	31.52700	13:50:00	D	8.10
10	AMRITSAR	BABA BAKALA	AQUA	75.23200	31.54500	13:50:00	D	6.90
11	AMRITSAR	BABA BAKALA	AQUA	75.26100	31.58700	13:50:00	D	10.80
12	AMRITSAR	BABA BAKALA	AQUA	75.20000	31.62300	13:50:00	D	8.10
13	AMRITSAR	BABA BAKALA	AQUA	75.18200	31.69300	13:50:00	D	5.60
14	BATHINDA	BATHINDA	AQUA	74.83100	30.24700	13:50:00	D	9.90
15	BATHINDA	BATHINDA	S-NPP	74.87629	30.25682	12:54:00	D	2.20
16	BATHINDA	BATHINDA	AQUA	74.91100	30.36600	13:50:00	D	9.50
17	BATHINDA	RAMPURA PHUL	S-NPP	75.22212	30.22999	12:54:00	D	1.30
18	BATHINDA	TALWANDI SABO	AQUA	75.13700	29.82800	13:50:00	D	8.10
19	BATHINDA	TALWANDI SABO	AQUA	75.14100	29.83500	13:50:00	D	9.60
20	FARIDKOT	FARIDKOT	S-NPP	74.78635	30.51058	12:54:00	D	2.80
21	FARIDKOT	FARIDKOT	AQUA	74.73300	30.62800	13:50:00	D	5.80
22	FARIDKOT	FARIDKOT	AQUA	74.81100	30.63800	13:50:00	D	8.70
23	FARIDKOT	FARIDKOT	AQUA	74.62800	30.65200	13:50:00	D	6.00
24	FARIDKOT	FARIDKOT	S-NPP	74.66199	30.67395	12:54:00	D	1.90
25	FARIDKOT	FARIDKOT	AQUA	74.81500	30.67700	13:50:00	D	5.70
26	FARIDKOT	FARIDKOT	S-NPP	74.80091	30.67997	12:54:00	D	4.60
27	FARIDKOT	FARIDKOT	AQUA	74.60500	30.68400	13:50:00	D	5.90
28	FARIDKOT	FARIDKOT	AQUA	74.52600	30.69300	13:50:00	D	4.70
29	FARIDKOT	FARIDKOT	S-NPP	74.54747	30.71805	12:54:00	D	4.70
30	FARIDKOT	FARIDKOT	S-NPP	74.54670	30.71836	12:54:00	D	6.10

31	FARIDKOT	FARIDKOT	AQUA	74.74500	30.72100	13:50:00	D	12.00
32	FARIDKOT	FARIDKOT	S-NPP	74.54585	30.72317	12:54:00	D	6.40
33	FARIDKOT	FARIDKOT	S-NPP	74.54509	30.72347	12:54:00	D	3.20
34	FARIDKOT	FARIDKOT	AQUA	74.65400	30.72800	13:50:00	D	8.90
35	FARIDKOT	FARIDKOT	S-NPP	74.57842	30.73082	12:54:00	D	4.60
36	FARIDKOT	FARIDKOT	S-NPP	74.57757	30.73134	12:54:00	D	5.00
37	FARIDKOT	FARIDKOT	AQUA	74.61800	30.74200	13:50:00	D	10.80
38	FARIDKOT	FARIDKOT	S-NPP	74.63237	30.74349	12:54:00	D	1.70
39	FARIDKOT	FARIDKOT	S-NPP	74.63139	30.74435	12:54:00	D	1.30
40	FARIDKOT	FARIDKOT	S-NPP	74.79243	30.74480	14:30:00	D	7.70
41	FARIDKOT	FARIDKOT	AQUA	74.72900	30.74700	13:50:00	D	6.10
42	FARIDKOT	FARIDKOT	S-NPP	74.77870	30.75063	12:54:00	D	1.30
43	FARIDKOT	FARIDKOT	S-NPP	74.68752	30.75096	12:54:00	D	2.50
44	FARIDKOT	FARIDKOT	S-NPP	74.74735	30.75412	12:54:00	D	5.20
45	FARIDKOT	FARIDKOT	S-NPP	74.61979	30.76893	12:54:00	D	2.80
46	FARIDKOT	FARIDKOT	S-NPP	74.53056	30.76950	12:54:00	D	1.80
47	FARIDKOT	FARIDKOT	S-NPP	74.62337	30.76978	12:54:00	D	2.80
48	FATEHGARH SAHIB	FATEHGARH SAHIB	AQUA	76.34300	30.62100	13:50:00	D	8.10
49	FAZILKA	FAZILKA	AQUA	73.97100	30.27000	13:50:00	D	8.90
50	FAZILKA	FAZILKA	AQUA	73.98200	30.27100	13:50:00	D	26.10
51	FAZILKA	FAZILKA	AQUA	73.99200	30.27300	13:50:00	D	6.90
52	FAZILKA	FAZILKA	S-NPP	73.96295	30.27833	12:54:00	D	17.10
53	FAZILKA	FAZILKA	S-NPP	74.16664	30.31691	12:54:00	D	9.20
54	FAZILKA	FAZILKA	AQUA	74.05800	30.32800	13:50:00	D	5.40
55	FAZILKA	FAZILKA	S-NPP	74.14612	30.32894	12:54:00	D	2.60
56	FAZILKA	FAZILKA	AQUA	74.35400	30.39500	13:50:00	D	8.80
57	FAZILKA	JALALABAD	AQUA	74.31000	30.45400	13:50:00	D	6.30
58	FAZILKA	JALALABAD	AQUA	74.32100	30.45600	13:50:00	D	5.70
59	FAZILKA	JALALABAD	AQUA	74.32600	30.52000	13:50:00	D	10.20
60	FAZILKA	JALALABAD	S-NPP	74.23831	30.56054	12:54:00	D	7.20
61	FAZILKA	JALALABAD	AQUA	74.32300	30.64800	13:50:00	D	5.80
62	FAZILKA	JALALABAD	AQUA	74.28800	30.66200	13:50:00	D	7.10
63	FAZILKA	JALALABAD	AQUA	74.38600	30.66500	13:50:00	D	8.60

64	FAZILKA	JALALABAD	S-NPP	74.38198	30.66782	12:54:00	D	2.90
65	FAZILKA	JALALABAD	S-NPP	74.38007	30.67224	12:54:00	D	4.40
66	FAZILKA	JALALABAD	S-NPP	74.38033	30.67299	12:54:00	D	4.60
67	FAZILKA	JALALABAD	AQUA	74.30500	30.69200	13:50:00	D	7.30
68	FAZILKA	JALALABAD	AQUA	74.43600	30.70000	13:50:00	D	6.00
69	FAZILKA	JALALABAD	S-NPP	74.40435	30.73369	12:54:00	D	3.20
70	FAZILKA	JALALABAD	S-NPP	74.38584	30.79190	14:30:00	D	6.50
71	FIROZPUR	FIROZPUR	AQUA	74.87700	30.74700	13:50:00	D	15.80
72	FIROZPUR	FIROZPUR	AQUA	74.88900	30.74900	13:50:00	D	8.00
73	FIROZPUR	FIROZPUR	S-NPP	74.49829	30.77280	12:54:00	D	6.80
74	FIROZPUR	FIROZPUR	S-NPP	74.50923	30.77616	14:30:00	D	16.00
75	FIROZPUR	FIROZPUR	S-NPP	74.84193	30.77626	12:54:00	D	1.50
76	FIROZPUR	FIROZPUR	AQUA	74.45600	30.79500	13:50:00	D	7.20
77	FIROZPUR	FIROZPUR	AQUA	74.39900	30.80600	13:50:00	D	5.50
78	FIROZPUR	FIROZPUR	S-NPP	74.52961	30.81151	14:30:00	D	6.80
79	FIROZPUR	FIROZPUR	AQUA	74.34200	30.84300	13:50:00	D	4.90
80	FIROZPUR	FIROZPUR	AQUA	74.40400	30.87000	13:50:00	D	8.70
81	FIROZPUR	FIROZPUR	AQUA	74.76100	30.88800	13:50:00	D	18.20
82	FIROZPUR	FIROZPUR	S-NPP	74.82981	30.89098	12:54:00	D	2.00
83	FIROZPUR	FIROZPUR	AQUA	74.43300	30.89200	13:50:00	D	24.70
84	FIROZPUR	FIROZPUR	S-NPP	74.70872	30.89441	12:54:00	D	4.30
85	FIROZPUR	FIROZPUR	S-NPP	74.42980	30.89909	12:54:00	D	2.70
86	FIROZPUR	FIROZPUR	S-NPP	74.43346	30.89995	12:54:00	D	2.70
87	FIROZPUR	FIROZPUR	AQUA	74.43200	30.90200	13:50:00	D	10.60
88	FIROZPUR	FIROZPUR	S-NPP	74.77679	30.90527	12:54:00	D	2.30
89	FIROZPUR	FIROZPUR	S-NPP	74.71257	30.90619	12:54:00	D	2.30
90	FIROZPUR	FIROZPUR	AQUA	74.78000	30.90900	13:50:00	D	9.60
91	FIROZPUR	FIROZPUR	AQUA	74.79100	30.91000	13:50:00	D	6.10
92	FIROZPUR	FIROZPUR	S-NPP	74.50280	30.91422	14:30:00	D	8.80
93	FIROZPUR	FIROZPUR	S-NPP	74.77782	30.91797	14:30:00	D	20.50
94	FIROZPUR	FIROZPUR	AQUA	74.50500	30.93000	13:50:00	D	5.80
95	FIROZPUR	FIROZPUR	S-NPP	74.52646	30.93841	12:54:00	D	3.30
96	FIROZPUR	FIROZPUR	S-NPP	74.52576	30.93874	12:54:00	D	3.40

97	FIROZPUR	FIROZPUR	S-NPP	74.53006	30.93926	12:54:00	D	3.30
98	FIROZPUR	FIROZPUR	S-NPP	74.52934	30.93961	12:54:00	D	3.40
99	FIROZPUR	FIROZPUR	S-NPP	74.49016	30.94110	12:54:00	D	3.20
100	FIROZPUR	FIROZPUR	AQUA	74.53800	30.96100	13:50:00	D	6.20
101	FIROZPUR	FIROZPUR	AQUA	74.75900	30.98900	13:50:00	D	7.60
102	FIROZPUR	FIROZPUR	AQUA	74.77000	30.99100	13:50:00	D	8.10
103	FIROZPUR	FIROZPUR	AQUA	74.68600	31.01800	13:50:00	D	4.80
104	FIROZPUR	FIROZPUR	AQUA	74.75300	31.02600	13:50:00	D	8.50
105	FIROZPUR	FIROZPUR	AQUA	74.73500	31.06200	13:50:00	D	25.90
106	FIROZPUR	FIROZPUR	AQUA	74.74600	31.06300	13:50:00	D	13.70
107	GURDASPUR	BATALA	S-NPP	75.32090	31.72617	14:36:00	D	6.70
108	GURDASPUR	BATALA	S-NPP	75.43153	31.73571	12:54:00	D	7.40
109	GURDASPUR	BATALA	AQUA	75.49000	31.75900	13:50:00	D	8.40
110	GURDASPUR	BATALA	S-NPP	75.24699	31.76230	12:54:00	D	5.70
111	GURDASPUR	BATALA	AQUA	75.34000	31.77000	13:50:00	D	7.30
112	GURDASPUR	BATALA	AQUA	75.28700	31.82700	13:50:00	D	7.90
113	GURDASPUR	BATALA	AQUA	75.06800	31.82900	13:50:00	D	9.80
114	GURDASPUR	BATALA	AQUA	75.28500	31.83700	13:50:00	D	6.90
115	GURDASPUR	BATALA	AQUA	74.97500	31.91800	13:50:00	D	4.90
116	GURDASPUR	DERA BABA NANAK	S-NPP	75.03314	31.95963	14:36:00	D	5.90
117	GURDASPUR	GURDASPUR	AQUA	75.35500	31.89700	13:50:00	D	6.00
118	JALANDHAR	JALANDHAR I	S-NPP	75.69008	31.36471	12:54:00	D	5.10
119	JALANDHAR	NAKODAR	AQUA	75.48400	30.98700	13:50:00	D	18.20
120	JALANDHAR	NAKODAR	AQUA	75.49600	30.98800	13:50:00	D	12.60
121	JALANDHAR	NAKODAR	S-NPP	75.48875	31.07832	12:54:00	D	4.80
122	JALANDHAR	SHAHKOT	AQUA	75.40800	31.00700	13:50:00	D	7.60
123	JALANDHAR	SHAHKOT	AQUA	75.37300	31.10400	13:50:00	D	5.10
124	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.04493	31.18432	14:30:00	D	9.50
125	KAPURTHALA	SULTANPUR LODHI	AQUA	75.17200	31.22400	13:50:00	D	6.40
126	KAPURTHALA	SULTANPUR LODHI	AQUA	75.15100	31.27900	13:50:00	D	7.50
127	KAPURTHALA	SULTANPUR LODHI	AQUA	75.16300	31.28100	13:50:00	D	14.30
128	LUDHIANA	JAGRAON	S-NPP	75.48172	30.76672	14:30:00	D	4.30
129	LUDHIANA	JAGRAON	AQUA	75.51800	30.95800	13:50:00	D	8.80

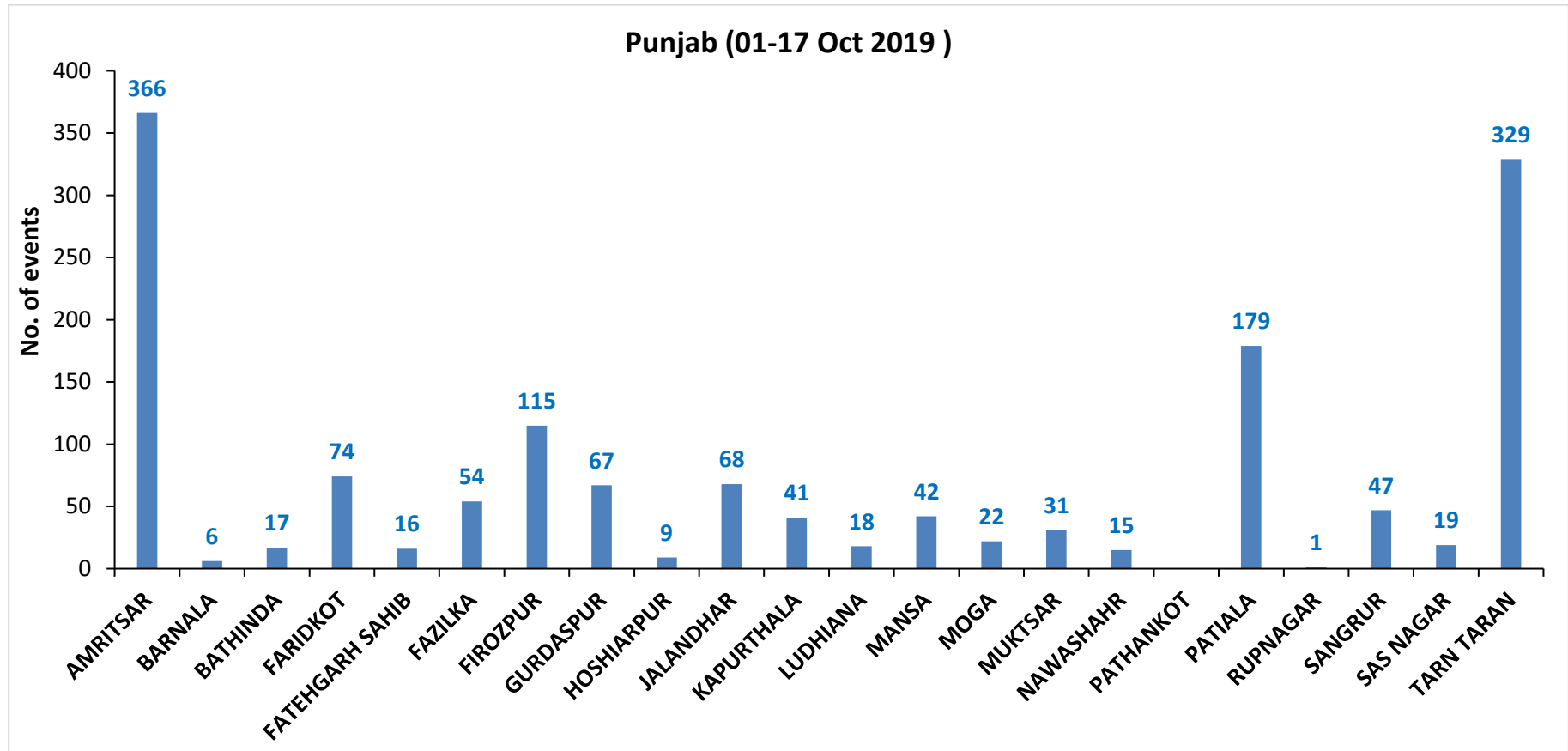
130	MANSA	BUDHLADA	AQUA	75.76600	29.83100	13:50:00	D	5.90
131	MANSA	BUDHLADA	S-NPP	75.58588	29.83949	12:54:00	D	4.30
132	MANSA	BUDHLADA	S-NPP	75.58916	29.84023	12:54:00	D	4.90
133	MANSA	BUDHLADA	S-NPP	75.58143	29.85427	12:54:00	D	1.50
134	MANSA	SARDULGARH	AQUA	75.21400	29.64500	13:50:00	D	6.30
135	MANSA	SARDULGARH	AQUA	75.31500	29.65800	13:50:00	D	6.60
136	MANSA	SARDULGARH	AQUA	75.32600	29.66000	13:50:00	D	11.60
137	MANSA	SARDULGARH	AQUA	75.27300	29.66800	13:50:00	D	7.20
138	MANSA	SARDULGARH	S-NPP	75.29356	29.68408	12:54:00	D	3.30
139	MANSA	SARDULGARH	S-NPP	75.25262	29.68545	12:54:00	D	1.60
140	MANSA	SARDULGARH	S-NPP	75.25408	29.68771	12:54:00	D	2.90
141	MANSA	SARDULGARH	S-NPP	75.33733	29.69125	12:54:00	D	4.90
142	MANSA	SARDULGARH	S-NPP	75.21000	29.69892	12:54:00	D	4.90
143	MANSA	SARDULGARH	AQUA	75.28600	29.72700	13:50:00	D	6.80
144	MOGA	MOGA	AQUA	75.20400	30.69700	13:50:00	D	37.90
145	MOGA	MOGA	AQUA	75.07600	30.80100	13:50:00	D	5.20
146	MUKTSAR	GIDDARBAHA	S-NPP	74.73868	30.32379	12:54:00	D	2.80
147	MUKTSAR	GIDDARBAHA	S-NPP	74.66956	30.38420	12:54:00	D	4.90
148	MUKTSAR	GIDDARBAHA	AQUA	74.70500	30.38600	13:50:00	D	8.50
149	MUKTSAR	GIDDARBAHA	AQUA	74.71600	30.38800	13:50:00	D	6.20
150	MUKTSAR	MALAUT	AQUA	74.42800	30.14700	13:50:00	D	17.70
151	MUKTSAR	MALAUT	AQUA	74.43800	30.14900	13:50:00	D	10.60
152	MUKTSAR	MALAUT	S-NPP	74.51807	30.16745	12:54:00	D	5.30
153	MUKTSAR	MALAUT	S-NPP	74.52180	30.16833	12:54:00	D	8.20
154	MUKTSAR	MALAUT	AQUA	74.36900	30.19500	13:50:00	D	7.00
155	MUKTSAR	MUKTSAR	AQUA	74.36400	30.39700	13:50:00	D	10.20
156	MUKTSAR	MUKTSAR	AQUA	74.30400	30.42600	13:50:00	D	7.90
157	MUKTSAR	MUKTSAR	AQUA	74.31500	30.42700	13:50:00	D	7.60
158	MUKTSAR	MUKTSAR	AQUA	74.47100	30.47600	13:50:00	D	11.60
159	MUKTSAR	MUKTSAR	AQUA	74.46400	30.48200	13:50:00	D	12.50
160	MUKTSAR	MUKTSAR	AQUA	74.47500	30.48400	13:50:00	D	13.70
161	MUKTSAR	MUKTSAR	AQUA	74.57900	30.52500	13:50:00	D	5.80
162	MUKTSAR	MUKTSAR	AQUA	74.59000	30.52700	13:50:00	D	6.00

163	MUKTSAR	MUKTSAR	S-NPP	74.58339	30.53431	12:54:00	D	2.80
164	PATIALA	NABHA	AQUA	76.07000	30.35400	13:50:00	D	6.20
165	PATIALA	NABHA	AQUA	76.03100	30.35900	13:50:00	D	9.20
166	PATIALA	PATIALA	S-NPP	76.46848	30.12817	12:54:00	D	16.10
167	PATIALA	PATIALA	S-NPP	76.62214	30.14256	12:54:00	D	5.50
168	PATIALA	PATIALA	S-NPP	76.45013	30.14892	12:54:00	D	7.60
169	PATIALA	PATIALA	AQUA	76.36100	30.16500	13:50:00	D	8.20
170	PATIALA	PATIALA	AQUA	76.46300	30.22700	13:50:00	D	15.40
171	PATIALA	PATIALA	AQUA	76.55500	30.22800	13:50:00	D	7.00
172	PATIALA	PATIALA	S-NPP	76.57999	30.23767	12:54:00	D	6.00
173	PATIALA	PATIALA	S-NPP	76.50946	30.25157	12:54:00	D	4.50
174	PATIALA	PATIALA	S-NPP	76.55497	30.26163	12:54:00	D	8.60
175	PATIALA	PATIALA	S-NPP	76.34337	30.36426	12:54:00	D	3.60
176	PATIALA	PATIALA	S-NPP	76.34554	30.36490	12:54:00	D	3.10
177	PATIALA	PATIALA	AQUA	76.48600	30.42300	13:50:00	D	9.70
178	PATIALA	RAJPURA	AQUA	76.54900	30.30900	13:50:00	D	7.50
179	PATIALA	RAJPURA	S-NPP	76.57479	30.35143	12:54:00	D	2.60
180	PATIALA	RAJPURA	S-NPP	76.63783	30.36054	12:54:00	D	2.90
181	PATIALA	RAJPURA	S-NPP	76.53313	30.39132	12:54:00	D	3.00
182	PATIALA	RAJPURA	S-NPP	76.69125	30.45252	12:54:00	D	2.50
183	PATIALA	RAJPURA	AQUA	76.57300	30.50500	13:50:00	D	15.50
184	PATIALA	RAJPURA	S-NPP	76.56014	30.51621	12:54:00	D	3.50
185	PATIALA	RAJPURA	S-NPP	76.52956	30.53617	12:54:00	D	6.20
186	PATIALA	SAMANA	AQUA	76.15900	29.90800	13:50:00	D	8.50
187	PATIALA	SAMANA	S-NPP	76.15773	29.92312	12:54:00	D	4.70
188	PATIALA	SAMANA	AQUA	76.19200	29.98200	13:50:00	D	7.50
189	PATIALA	SAMANA	AQUA	76.28900	30.12600	13:50:00	D	11.60
190	SANGRUR	MOONAK	S-NPP	76.00205	29.86015	12:54:00	D	6.30
191	SAS NAGAR	DERABASSI	S-NPP	76.86602	30.42063	12:54:00	D	3.10
192	SAS NAGAR	DERABASSI	AQUA	76.87300	30.46800	13:50:00	D	9.20
193	SAS NAGAR	MOHALI	AQUA	76.66800	30.64800	13:50:00	D	13.00
194	TARN TARAN	KHADOOR SAHIB	S-NPP	74.93647	31.24687	12:54:00	D	3.50
195	TARN TARAN	KHADOOR SAHIB	S-NPP	74.93983	31.24767	12:54:00	D	3.50

196	TARN TARAN	KHADOOR SAHIB	S-NPP	74.93713	31.24825	12:54:00	D	6.80
197	TARN TARAN	KHADOOR SAHIB	AQUA	74.95300	31.26400	13:50:00	D	10.20
198	TARN TARAN	KHADOOR SAHIB	AQUA	75.01100	31.27100	13:50:00	D	5.90
199	TARN TARAN	KHADOOR SAHIB	AQUA	75.06000	31.29200	13:50:00	D	8.60
200	TARN TARAN	KHADOOR SAHIB	AQUA	74.96500	31.29900	13:50:00	D	6.70
201	TARN TARAN	KHADOOR SAHIB	S-NPP	74.99432	31.30303	12:54:00	D	4.30
202	TARN TARAN	KHADOOR SAHIB	AQUA	74.98500	31.32100	13:50:00	D	8.70
203	TARN TARAN	KHADOOR SAHIB	AQUA	75.07700	31.33200	13:50:00	D	6.60
204	TARN TARAN	KHADOOR SAHIB	AQUA	75.08900	31.33400	13:50:00	D	7.20
205	TARN TARAN	KHADOOR SAHIB	AQUA	74.95700	31.34600	13:50:00	D	6.00
206	TARN TARAN	KHADOOR SAHIB	AQUA	74.79600	31.36100	13:50:00	D	23.40
207	TARN TARAN	KHADOOR SAHIB	S-NPP	75.05876	31.38078	12:54:00	D	6.20
208	TARN TARAN	KHADOOR SAHIB	AQUA	75.07000	31.40500	13:50:00	D	11.90
209	TARN TARAN	KHADOOR SAHIB	S-NPP	74.81040	31.42280	12:54:00	D	2.20
210	TARN TARAN	KHADOOR SAHIB	S-NPP	74.88114	31.42871	12:54:00	D	4.50
211	TARN TARAN	KHADOOR SAHIB	S-NPP	74.88451	31.42950	12:54:00	D	5.90
212	TARN TARAN	KHADOOR SAHIB	S-NPP	75.14107	31.43175	12:54:00	D	3.20
213	TARN TARAN	KHADOOR SAHIB	S-NPP	74.88293	31.43444	12:54:00	D	5.90
214	TARN TARAN	KHADOOR SAHIB	AQUA	74.91000	31.44200	13:50:00	D	10.80
215	TARN TARAN	KHADOOR SAHIB	S-NPP	74.79195	31.45446	12:54:00	D	2.60
216	TARN TARAN	KHADOOR SAHIB	S-NPP	74.98826	31.46426	12:54:00	D	2.70
217	TARN TARAN	KHADOOR SAHIB	AQUA	74.70200	31.46900	13:50:00	D	7.80
218	TARN TARAN	KHADOOR SAHIB	S-NPP	74.77885	31.47269	12:54:00	D	2.40
219	TARN TARAN	KHADOOR SAHIB	AQUA	75.01600	31.47900	13:50:00	D	5.80
220	TARN TARAN	KHADOOR SAHIB	S-NPP	74.70102	31.48634	12:54:00	D	3.90
221	TARN TARAN	KHADOOR SAHIB	AQUA	75.12000	31.49200	13:50:00	D	8.40
222	TARN TARAN	KHADOOR SAHIB	AQUA	75.04700	31.50300	13:50:00	D	8.00
223	TARN TARAN	KHADOOR SAHIB	AQUA	74.70700	31.50700	13:50:00	D	6.00
224	TARN TARAN	KHADOOR SAHIB	S-NPP	74.63971	31.52811	12:54:00	D	4.60
225	TARN TARAN	PATTI	S-NPP	74.71282	31.13130	12:54:00	D	5.60
226	TARN TARAN	PATTI	S-NPP	74.71631	31.13213	12:54:00	D	7.10
227	TARN TARAN	PATTI	S-NPP	74.69731	31.13301	12:54:00	D	4.70
228	TARN TARAN	PATTI	AQUA	74.66000	31.13400	13:50:00	D	6.40

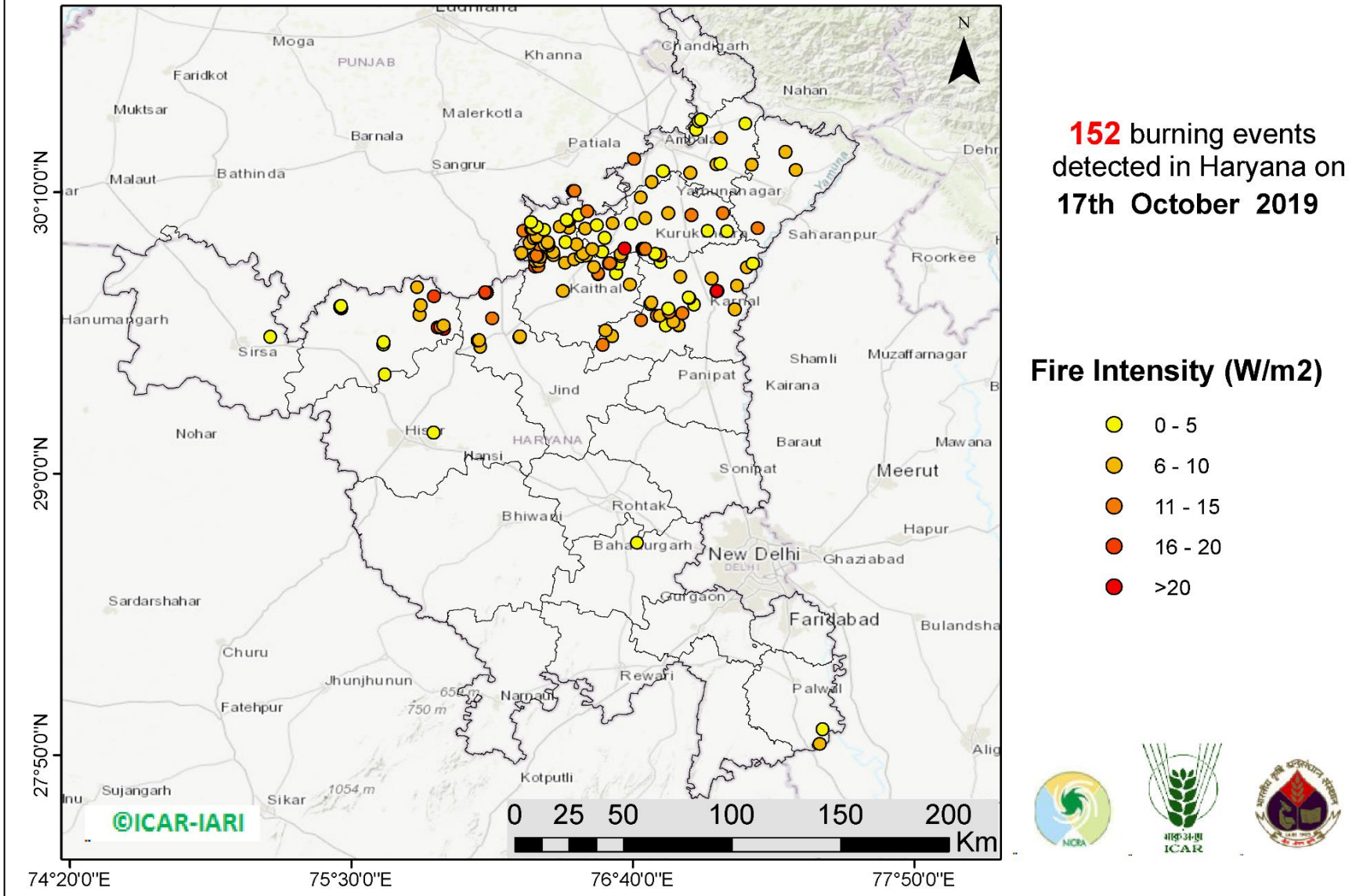
229	TARN TARAN	PATTI	S-NPP	74.87382	31.18236	14:30:00	D	3.50
230	TARN TARAN	PATTI	S-NPP	74.83955	31.18816	12:54:00	D	3.10
231	TARN TARAN	PATTI	S-NPP	74.91460	31.21643	12:54:00	D	2.00
232	TARN TARAN	PATTI	AQUA	74.59200	31.25200	13:50:00	D	22.40
233	TARN TARAN	PATTI	AQUA	74.60400	31.25400	13:50:00	D	17.20
234	TARN TARAN	PATTI	AQUA	74.55800	31.25700	13:50:00	D	9.40
235	TARN TARAN	PATTI	AQUA	74.56900	31.25900	13:50:00	D	10.60
236	TARN TARAN	PATTI	S-NPP	74.55873	31.26597	12:54:00	D	2.90
237	TARN TARAN	PATTI	AQUA	74.79400	31.27800	13:50:00	D	8.90
238	TARN TARAN	PATTI	S-NPP	74.90460	31.31374	12:54:00	D	1.60
239	TARN TARAN	PATTI	S-NPP	74.69210	31.31495	14:30:00	D	6.00
240	TARN TARAN	PATTI	AQUA	74.62900	31.33100	13:50:00	D	11.30
241	TARN TARAN	PATTI	AQUA	74.57200	31.33300	13:50:00	D	7.20
242	TARN TARAN	PATTI	S-NPP	74.67368	31.34230	12:54:00	D	5.10
243	TARN TARAN	PATTI	S-NPP	74.74238	31.34792	12:54:00	D	1.80
244	TARN TARAN	PATTI	S-NPP	74.55420	31.35174	12:54:00	D	3.40
245	TARN TARAN	PATTI	S-NPP	74.68436	31.35561	12:54:00	D	2.60
246	TARN TARAN	PATTI	AQUA	74.63500	31.36000	13:50:00	D	8.20
247	TARN TARAN	PATTI	AQUA	74.78500	31.36000	13:50:00	D	8.60
248	TARN TARAN	PATTI	S-NPP	74.59148	31.37678	12:54:00	D	3.50
249	TARN TARAN	PATTI	AQUA	74.64200	31.38900	13:50:00	D	10.50
250	TARN TARAN	PATTI	S-NPP	74.65614	31.39737	12:54:00	D	3.20

District-wise cumulative number of residue burning events in Punjab (01 to 17-Oct 2019)



(b) Haryana

RICE RESIDUE BURNING IN HARYANA



Details of residue burning events in Haryana on 17-Oct-2019

S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m2)
1	AMBALA	AMBALA	AQUA	76.74600	30.20900	13:50:00	D	7.40
2	AMBALA	AMBALA	AQUA	76.90500	30.24700	13:50:00	D	7.40
3	AMBALA	AMBALA	S-NPP	76.79176	30.25292	12:54:00	D	2.00
4	AMBALA	AMBALA	AQUA	76.67100	30.30300	13:50:00	D	12.00
5	AMBALA	BARARA	S-NPP	77.01388	30.28154	12:54:00	D	7.40
6	AMBALA	BARARA	S-NPP	77.02989	30.28499	12:54:00	D	2.80
7	AMBALA	NARAYANGARH	S-NPP	77.03097	30.38970	12:54:00	D	9.40
8	AMBALA	NARAYANGARH	S-NPP	76.92786	30.42460	12:54:00	D	2.90
9	AMBALA	NARAYANGARH	S-NPP	77.13396	30.45074	12:54:00	D	1.80
10	AMBALA	NARAYANGARH	S-NPP	76.94023	30.46084	12:54:00	D	2.60
11	AMBALA	NARAYANGARH	S-NPP	76.94965	30.46766	12:54:00	D	4.40
12	FATEHABAD	FATEHABAD	S-NPP	75.63240	29.53605	12:54:00	D	2.10
13	FATEHABAD	FATEHABAD	S-NPP	75.63459	29.54592	12:54:00	D	2.10
14	FATEHABAD	RATIA	AQUA	75.46000	29.68600	13:50:00	D	18.80
15	FATEHABAD	RATIA	S-NPP	75.45542	29.68923	12:54:00	D	2.20
16	FATEHABAD	RATIA	S-NPP	75.45392	29.69421	12:54:00	D	4.40
17	FATEHABAD	RATIA	S-NPP	75.45728	29.69498	12:54:00	D	4.30
18	FATEHABAD	TOHANA	AQUA	75.88300	29.59900	13:50:00	D	36.30
19	FATEHABAD	TOHANA	AQUA	75.85800	29.60500	13:50:00	D	20.60
20	FATEHABAD	TOHANA	AQUA	75.87000	29.60700	13:50:00	D	10.80
21	FATEHABAD	TOHANA	S-NPP	75.88224	29.61399	12:54:00	D	5.70
22	FATEHABAD	TOHANA	AQUA	75.78300	29.65900	13:50:00	D	9.80
23	FATEHABAD	TOHANA	AQUA	75.78800	29.69900	13:50:00	D	6.40
24	FATEHABAD	TOHANA	AQUA	75.84200	29.73500	13:50:00	D	16.90
25	FATEHABAD	TOHANA	S-NPP	75.77241	29.77230	12:54:00	D	10.00
26	HISAR	HISAR	S-NPP	75.84133	29.16987	12:54:00	D	1.40
27	HISAR	HISAR	S-NPP	75.63892	29.41153	12:54:00	D	1.80
28	JHAJJAR	BERI	S-NPP	76.68439	28.71270	01:36:00	N	0.80
29	JIND	NARWANA	AQUA	76.03400	29.52600	13:50:00	D	8.40
30	JIND	NARWANA	S-NPP	76.02367	29.55220	12:54:00	D	9.80

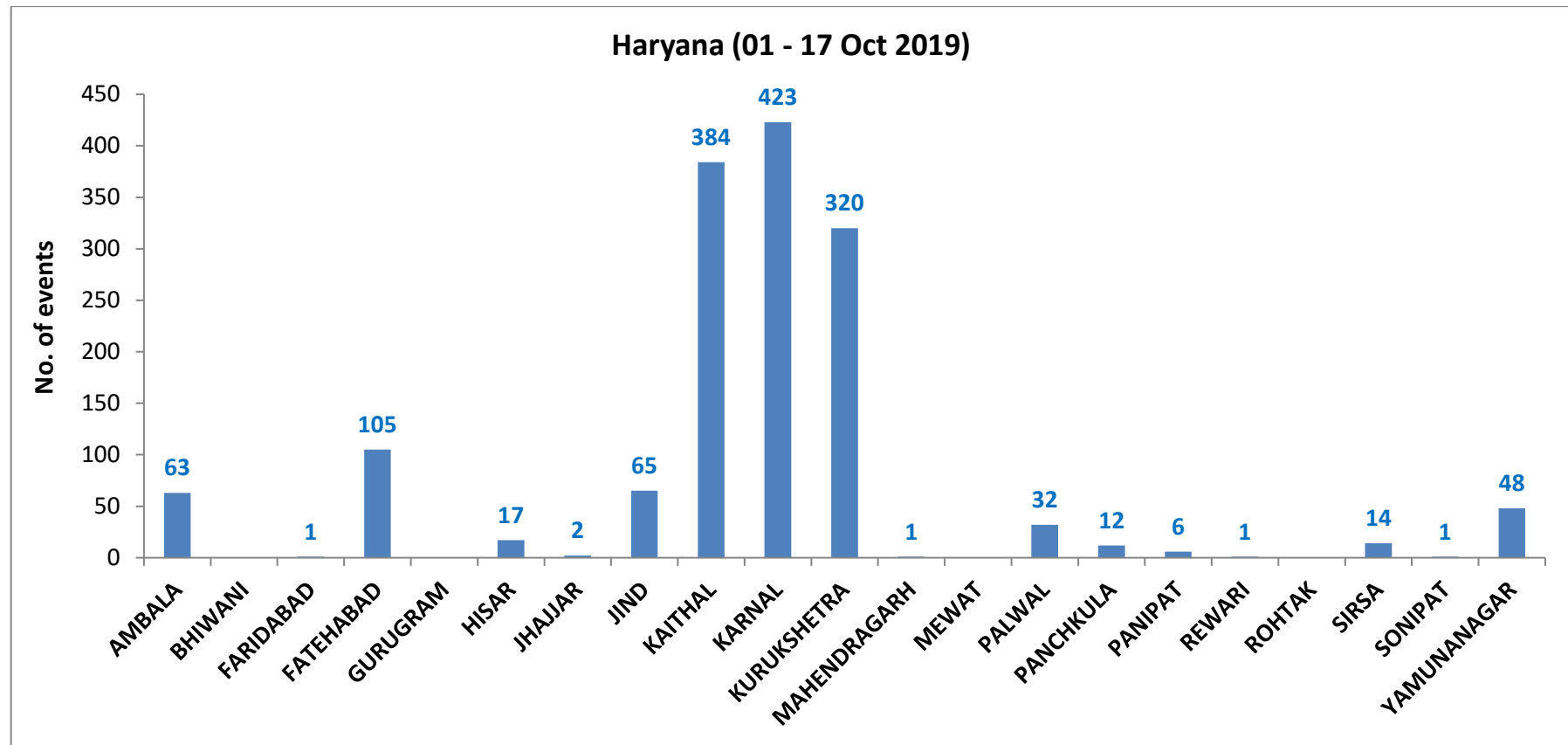
31	JIND	NARWANA	S-NPP	76.02991	29.55363	12:54:00	D	9.60
32	JIND	NARWANA	S-NPP	76.19743	29.56630	12:54:00	D	7.40
33	JIND	NARWANA	S-NPP	76.19852	29.56871	12:54:00	D	5.50
34	JIND	NARWANA	AQUA	76.08400	29.64300	13:50:00	D	11.00
35	JIND	NARWANA	S-NPP	76.05714	29.74670	12:54:00	D	5.10
36	JIND	NARWANA	S-NPP	76.05468	29.74890	12:54:00	D	9.60
37	JIND	NARWANA	S-NPP	76.06086	29.75032	12:54:00	D	12.80
38	JIND	NARWANA	S-NPP	76.05572	29.75151	12:54:00	D	16.50
39	KAITHAL	GUHLA	S-NPP	76.20553	29.91368	12:54:00	D	5.70
40	KAITHAL	GUHLA	AQUA	76.33500	29.91800	13:50:00	D	6.50
41	KAITHAL	GUHLA	AQUA	76.31700	29.94600	13:50:00	D	6.30
42	KAITHAL	GUHLA	S-NPP	76.27773	29.95026	12:54:00	D	10.10
43	KAITHAL	GUHLA	S-NPP	76.30286	29.95089	12:54:00	D	4.60
44	KAITHAL	GUHLA	AQUA	76.31600	29.95600	13:50:00	D	5.90
45	KAITHAL	GUHLA	AQUA	76.23900	29.95700	13:50:00	D	7.50
46	KAITHAL	GUHLA	S-NPP	76.31332	29.95828	12:54:00	D	8.50
47	KAITHAL	GUHLA	S-NPP	76.38811	29.96009	12:54:00	D	4.40
48	KAITHAL	GUHLA	S-NPP	76.25752	29.97597	12:54:00	D	7.30
49	KAITHAL	GUHLA	AQUA	76.26800	29.98100	13:50:00	D	9.70
50	KAITHAL	GUHLA	S-NPP	76.26805	29.98336	12:54:00	D	8.80
51	KAITHAL	GUHLA	AQUA	76.21300	30.00500	13:50:00	D	13.10
52	KAITHAL	GUHLA	S-NPP	76.29816	30.01019	12:54:00	D	4.20
53	KAITHAL	GUHLA	S-NPP	76.24616	30.01303	12:54:00	D	5.40
54	KAITHAL	GUHLA	S-NPP	76.24637	30.01381	12:54:00	D	6.60
55	KAITHAL	GUHLA	S-NPP	76.25212	30.01439	12:54:00	D	9.00
56	KAITHAL	GUHLA	S-NPP	76.25235	30.01513	12:54:00	D	6.60
57	KAITHAL	GUHLA	S-NPP	76.40231	30.01827	12:54:00	D	6.50
58	KAITHAL	GUHLA	AQUA	76.36400	30.02300	13:50:00	D	9.70
59	KAITHAL	GUHLA	S-NPP	76.26858	30.02319	12:54:00	D	6.70
60	KAITHAL	GUHLA	S-NPP	76.26884	30.02380	12:54:00	D	4.70
61	KAITHAL	GUHLA	S-NPP	76.24383	30.04276	12:54:00	D	2.60
62	KAITHAL	GUHLA	AQUA	76.39900	30.04700	13:50:00	D	20.70
63	KAITHAL	GUHLA	S-NPP	76.39210	30.05128	12:54:00	D	4.90

64	KAITHAL	GUHLA	S-NPP	76.44238	30.07193	12:54:00	D	5.00
65	KAITHAL	GUHLA	S-NPP	76.44165	30.07246	12:54:00	D	3.20
66	KAITHAL	GUHLA	AQUA	76.41900	30.17200	13:50:00	D	12.40
67	KAITHAL	GUHLA	AQUA	76.42500	30.17200	13:50:00	D	12.50
68	KAITHAL	KAITHAL	S-NPP	76.37643	29.75729	12:54:00	D	6.70
69	KAITHAL	KAITHAL	AQUA	76.65400	29.78300	13:50:00	D	9.50
70	KAITHAL	KAITHAL	AQUA	76.52400	29.82800	13:50:00	D	9.10
71	KAITHAL	KAITHAL	S-NPP	76.52361	29.83010	12:54:00	D	12.40
72	KAITHAL	KAITHAL	S-NPP	76.59684	29.83139	12:54:00	D	2.60
73	KAITHAL	KAITHAL	AQUA	76.50600	29.85600	13:50:00	D	6.50
74	KAITHAL	KAITHAL	AQUA	76.26200	29.85700	13:50:00	D	18.60
75	KAITHAL	KAITHAL	AQUA	76.27400	29.85900	13:50:00	D	11.60
76	KAITHAL	KAITHAL	S-NPP	76.56746	29.86952	12:54:00	D	6.50
77	KAITHAL	KAITHAL	S-NPP	76.60777	29.87000	12:54:00	D	2.90
78	KAITHAL	KAITHAL	S-NPP	76.57320	29.87078	12:54:00	D	6.50
79	KAITHAL	KAITHAL	S-NPP	76.57076	29.87157	12:54:00	D	11.20
80	KAITHAL	KAITHAL	AQUA	76.38700	29.87300	13:50:00	D	5.90
81	KAITHAL	KAITHAL	AQUA	76.26400	29.88000	13:50:00	D	9.90
82	KAITHAL	KAITHAL	AQUA	76.27700	29.88200	13:50:00	D	6.60
83	KAITHAL	KAITHAL	AQUA	76.42400	29.88700	13:50:00	D	8.00
84	KAITHAL	KAITHAL	S-NPP	76.28295	29.89719	12:54:00	D	8.00
85	KAITHAL	KAITHAL	S-NPP	76.45183	29.89965	12:54:00	D	4.40
86	KAITHAL	KAITHAL	AQUA	76.61800	29.90000	13:50:00	D	8.30
87	KAITHAL	KAITHAL	S-NPP	76.26037	29.90089	12:54:00	D	8.50
88	KAITHAL	KAITHAL	AQUA	76.47300	29.90300	13:50:00	D	9.40
89	KAITHAL	KAITHAL	S-NPP	76.27229	29.90361	12:54:00	D	12.30
90	KAITHAL	KAITHAL	S-NPP	76.26822	29.90401	12:54:00	D	12.00
91	KAITHAL	KAITHAL	S-NPP	76.33781	29.90434	12:54:00	D	5.10
92	KAITHAL	KAITHAL	AQUA	76.61600	29.91000	13:50:00	D	6.70
93	KAITHAL	KAITHAL	S-NPP	76.46076	29.91162	12:54:00	D	5.30
94	KAITHAL	KAITHAL	AQUA	76.43300	29.95000	13:50:00	D	6.80
95	KARNAL	ASSANDH	AQUA	76.54200	29.53500	13:50:00	D	14.00
96	KARNAL	ASSANDH	AQUA	76.58100	29.57100	13:50:00	D	8.50

97	KARNAL	ASSANDH	S-NPP	76.55373	29.59207	12:54:00	D	5.10
98	KARNAL	ASSANDH	S-NPP	76.70085	29.63458	12:54:00	D	10.50
99	KARNAL	INDRI	S-NPP	77.13935	29.85482	12:54:00	D	8.90
100	KARNAL	INDRI	S-NPP	77.16341	29.86956	12:54:00	D	2.50
101	KARNAL	KARNAL	S-NPP	76.80332	29.61291	12:54:00	D	4.90
102	KARNAL	KARNAL	S-NPP	76.85792	29.61370	12:54:00	D	4.60
103	KARNAL	KARNAL	S-NPP	76.85636	29.61489	12:54:00	D	6.10
104	KARNAL	KARNAL	S-NPP	76.83436	29.62962	12:54:00	D	5.90
105	KARNAL	KARNAL	AQUA	76.76600	29.65400	13:50:00	D	12.80
106	KARNAL	KARNAL	AQUA	76.77900	29.65500	13:50:00	D	7.40
107	KARNAL	KARNAL	AQUA	76.87200	29.66600	13:50:00	D	13.30
108	KARNAL	KARNAL	AQUA	76.81700	29.67000	13:50:00	D	10.40
109	KARNAL	KARNAL	S-NPP	77.08846	29.68082	12:54:00	D	7.50
110	KARNAL	KARNAL	S-NPP	76.81296	29.68377	12:54:00	D	3.90
111	KARNAL	KARNAL	S-NPP	76.92005	29.70218	12:54:00	D	3.50
112	KARNAL	KARNAL	S-NPP	76.73914	29.70386	12:54:00	D	4.50
113	KARNAL	KARNAL	S-NPP	76.74346	29.70975	12:54:00	D	6.00
114	KARNAL	KARNAL	S-NPP	76.90114	29.72731	12:54:00	D	4.50
115	KARNAL	KARNAL	S-NPP	76.89821	29.72951	12:54:00	D	2.40
116	KARNAL	KARNAL	S-NPP	77.01321	29.75504	12:54:00	D	12.50
117	KARNAL	KARNAL	S-NPP	77.01864	29.75624	12:54:00	D	12.50
118	KARNAL	KARNAL	S-NPP	77.01514	29.75665	12:54:00	D	21.40
119	KARNAL	KARNAL	S-NPP	77.09835	29.77868	12:54:00	D	5.20
120	KARNAL	KARNAL	S-NPP	76.99232	29.80852	12:54:00	D	7.60
121	KARNAL	NILOKHERI	AQUA	76.86400	29.81700	13:50:00	D	6.00
122	KURUKSHETRA	PEHOWA	S-NPP	76.53870	29.91898	12:54:00	D	4.10
123	KURUKSHETRA	PEHOWA	S-NPP	76.49864	29.92997	12:54:00	D	8.60
124	KURUKSHETRA	PEHOWA	AQUA	76.70600	29.93100	13:50:00	D	10.10
125	KURUKSHETRA	PEHOWA	AQUA	76.71200	29.93200	13:50:00	D	18.10
126	KURUKSHETRA	PEHOWA	AQUA	76.71900	29.93200	13:50:00	D	12.40
127	KURUKSHETRA	PEHOWA	AQUA	76.63200	29.93300	13:50:00	D	38.80
128	KURUKSHETRA	PEHOWA	S-NPP	76.54990	29.97667	12:54:00	D	4.70
129	KURUKSHETRA	PEHOWA	AQUA	76.46900	30.01500	13:50:00	D	9.00

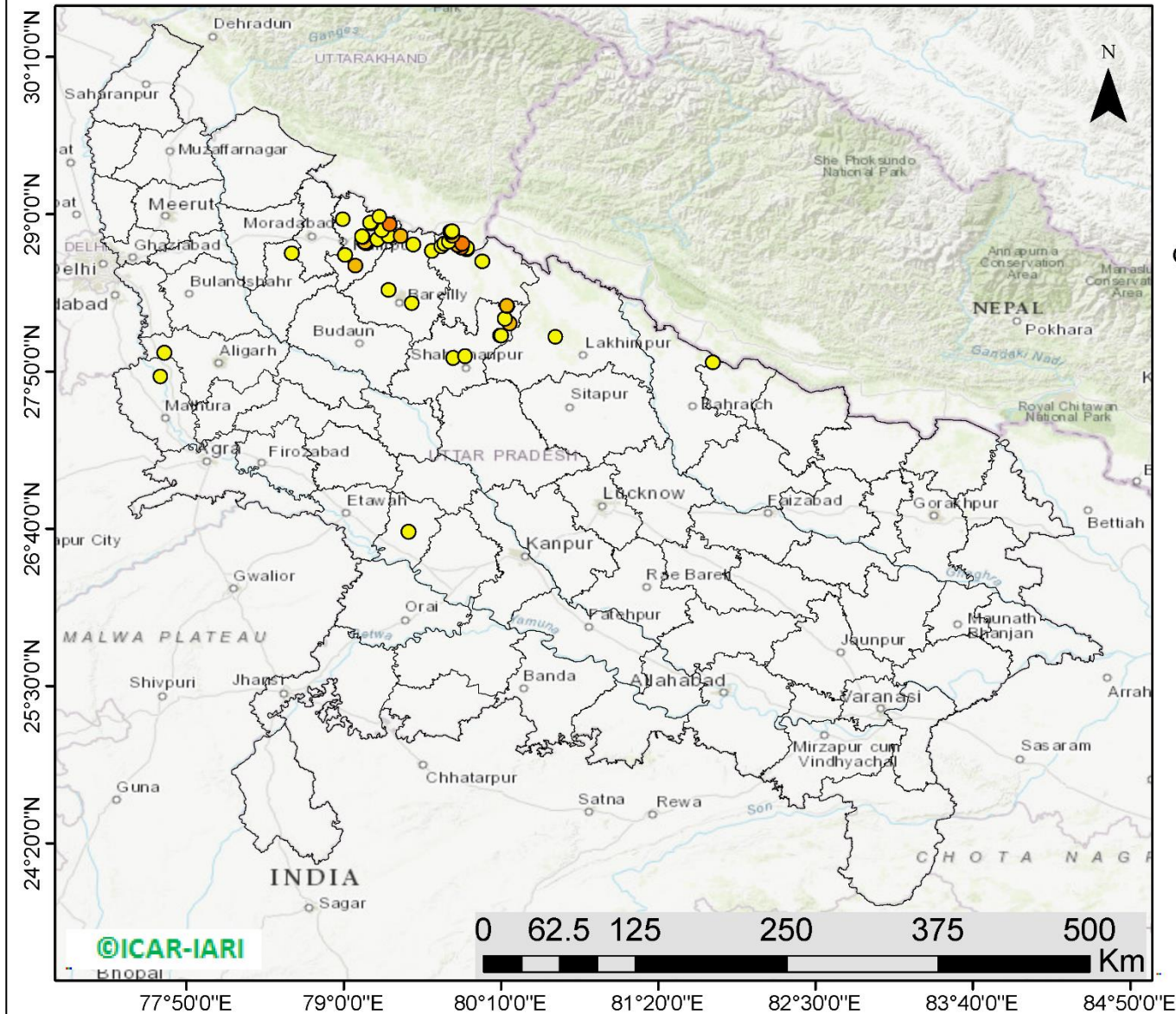
130	KURUKSHETRA	PEHOWA	S-NPP	76.51652	30.02868	12:54:00	D	4.00
131	KURUKSHETRA	PEHOWA	S-NPP	76.65987	30.03584	12:54:00	D	3.80
132	KURUKSHETRA	PEHOWA	AQUA	76.58400	30.03800	13:50:00	D	6.50
133	KURUKSHETRA	PEHOWA	AQUA	76.47700	30.08800	13:50:00	D	12.00
134	KURUKSHETRA	PEHOWA	S-NPP	76.69914	30.14496	12:54:00	D	7.10
135	KURUKSHETRA	THANESAR	S-NPP	76.78232	29.87715	12:54:00	D	3.90
136	KURUKSHETRA	THANESAR	S-NPP	76.77827	29.90347	12:54:00	D	13.30
137	KURUKSHETRA	THANESAR	S-NPP	76.77994	29.90597	12:54:00	D	10.20
138	KURUKSHETRA	THANESAR	S-NPP	76.75889	29.90892	12:54:00	D	3.50
139	KURUKSHETRA	THANESAR	S-NPP	76.76049	29.91153	12:54:00	D	4.70
140	KURUKSHETRA	THANESAR	S-NPP	77.05734	30.00422	12:54:00	D	2.20
141	KURUKSHETRA	THANESAR	S-NPP	76.97679	30.00581	12:54:00	D	2.50
142	KURUKSHETRA	THANESAR	S-NPP	76.71895	30.05874	12:54:00	D	9.70
143	KURUKSHETRA	THANESAR	S-NPP	76.90891	30.07158	12:54:00	D	13.60
144	KURUKSHETRA	THANESAR	S-NPP	76.81335	30.07958	12:54:00	D	8.30
145	KURUKSHETRA	THANESAR	AQUA	77.04100	30.08000	13:50:00	D	11.40
146	PALWAL	HODAL	S-NPP	77.44051	27.87917	12:54:00	D	9.80
147	PALWAL	HODAL	S-NPP	77.45307	27.94064	12:54:00	D	4.70
148	SIRSA	SIRSA	S-NPP	75.16543	29.56768	12:54:00	D	2.60
149	YAMUNANAGAR	CHHACHHRAULII	S-NPP	77.34206	30.25799	12:54:00	D	6.70
150	YAMUNANAGAR	JAGADHRI	AQUA	77.18300	30.01600	13:50:00	D	10.30
151	YAMUNANAGAR	JAGADHRI	S-NPP	77.16031	30.27980	12:54:00	D	5.40
152	YAMUNANAGAR	JAGADHRI	S-NPP	77.29926	30.33323	12:54:00	D	6.30

District-wise cumulative number of residue burning events in Haryana (01 to 17-Oct 2019)



(c) UP

RICE RESIDUE BURNING IN UTTAR PRADESH



53 burning events detected in Uttar Pradesh on 17th October 2019

Fire Intensity (W/m²)

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



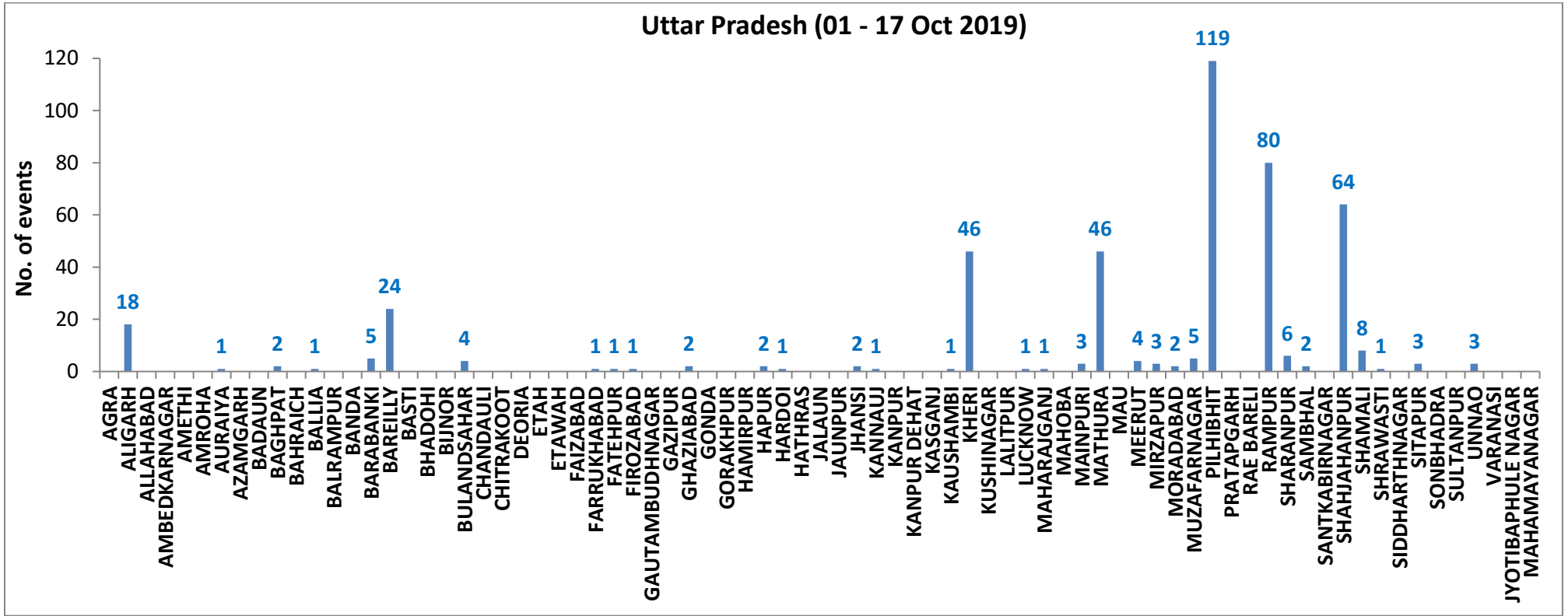
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

Details of residue burning events in Uttar Pradesh on 17-Oct-2019

S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m ²)
1	ALIGARH	KHAIR	S-NPP	77.66837	27.97231	12:54:00	D	2.10
2	AURAIYA	BIDHUNA	S-NPP	79.48137	26.64437	01:36:00	N	1.40
3	BAREILLY	BAHERI	S-NPP	79.65493	28.72633	12:54:00	D	2.30
4	BAREILLY	BAHERI	S-NPP	79.51665	28.77465	12:54:00	D	3.90
5	BAREILLY	BAHERI	S-NPP	79.42305	28.83928	12:54:00	D	9.40
6	BAREILLY	BAREILY	S-NPP	79.50738	28.33972	12:54:00	D	2.50
7	BAREILLY	BAREILY	S-NPP	79.33405	28.43558	12:54:00	D	4.20
8	KHERI	GOLA	S-NPP	80.57319	28.08734	12:54:00	D	3.90
9	MATHURA	CHHATA	S-NPP	77.64021	27.79582	12:54:00	D	3.90
10	PILHIBHIT	PILHIBHIT	S-NPP	79.91302	28.73951	12:54:00	D	4.20
11	PILHIBHIT	PILHIBHIT	S-NPP	79.90814	28.74270	12:54:00	D	15.30
12	PILHIBHIT	PILHIBHIT	S-NPP	79.91204	28.74346	12:54:00	D	15.30
13	PILHIBHIT	PILHIBHIT	S-NPP	79.91494	28.74817	12:54:00	D	4.30
14	PILHIBHIT	PILHIBHIT	S-NPP	79.87298	28.75239	12:54:00	D	12.20
15	PILHIBHIT	PILHIBHIT	S-NPP	79.72590	28.76120	12:54:00	D	4.00
16	PILHIBHIT	PILHIBHIT	S-NPP	79.84843	28.76837	12:54:00	D	9.00
17	PILHIBHIT	PILHIBHIT	S-NPP	79.84743	28.77233	12:54:00	D	8.00
18	PILHIBHIT	PILHIBHIT	S-NPP	79.74573	28.78177	12:54:00	D	2.90
19	PILHIBHIT	PILHIBHIT	AQUA	79.87800	28.78200	13:50:00	D	12.70
20	PILHIBHIT	PILHIBHIT	S-NPP	79.78040	28.79783	12:54:00	D	3.30
21	PILHIBHIT	PILHIBHIT	S-NPP	79.80294	28.83981	12:54:00	D	8.40
22	PILHIBHIT	PILHIBHIT	S-NPP	79.80688	28.84058	12:54:00	D	8.40
23	PILHIBHIT	PILHIBHIT	S-NPP	79.79697	28.86361	12:54:00	D	2.10
24	PILHIBHIT	PILHIBHIT	S-NPP	79.79105	28.87078	12:54:00	D	4.70
25	PILHIBHIT	PILHIBHIT	S-NPP	79.80285	28.87307	12:54:00	D	4.10
26	PILHIBHIT	PURANPUR	S-NPP	80.02811	28.64895	12:54:00	D	3.50
27	RAMPUR	BILASPUR	S-NPP	79.25030	28.81286	12:54:00	D	2.50
28	RAMPUR	BILASPUR	S-NPP	79.33195	28.83797	12:54:00	D	4.30
29	RAMPUR	BILASPUR	S-NPP	79.28185	28.87935	12:54:00	D	1.60
30	RAMPUR	BILASPUR	AQUA	79.34300	28.92200	13:50:00	D	13.80
31	RAMPUR	BILASPUR	S-NPP	79.20337	28.93011	12:54:00	D	2.70

32	RAMPUR	BILASPUR	S-NPP	79.26537	28.98121	12:54:00	D	4.30
33	RAMPUR	MILAK	S-NPP	79.08663	28.61766	12:54:00	D	6.10
34	RAMPUR	MILAK	S-NPP	79.16881	28.78331	12:54:00	D	3.20
35	RAMPUR	MILAK	S-NPP	79.15285	28.79304	12:54:00	D	9.10
36	RAMPUR	MILAK	S-NPP	79.15713	28.79391	12:54:00	D	9.10
37	RAMPUR	RAMPUR	S-NPP	79.00965	28.69419	12:54:00	D	2.50
38	RAMPUR	RAMPUR	S-NPP	79.14333	28.83008	12:54:00	D	3.30
39	RAMPUR	RAMPUR	S-NPP	79.13801	28.83334	12:54:00	D	2.60
40	RAMPUR	SUAR	S-NPP	79.19705	28.93745	12:54:00	D	2.70
41	RAMPUR	TANDA	S-NPP	78.99278	28.96146	12:54:00	D	4.20
42	RAMPUR	TANDA	S-NPP	78.99349	28.96172	12:54:00	D	4.10
43	SAMBHAL	SAMBHAL	S-NPP	78.61622	28.70932	12:54:00	D	2.80
44	SHAHJAHANPUR	PUWANYA	S-NPP	80.16347	28.09848	12:54:00	D	7.00
45	SHAHJAHANPUR	PUWANYA	S-NPP	80.16106	28.09942	12:54:00	D	5.60
46	SHAHJAHANPUR	PUWANYA	S-NPP	80.16924	28.09958	12:54:00	D	4.00
47	SHAHJAHANPUR	PUWANYA	S-NPP	80.22893	28.19094	12:54:00	D	6.10
48	SHAHJAHANPUR	PUWANYA	S-NPP	80.19483	28.22382	12:54:00	D	2.80
49	SHAHJAHANPUR	PUWANYA	S-NPP	80.21368	28.31787	12:54:00	D	3.90
50	SHAHJAHANPUR	PUWANYA	S-NPP	80.21088	28.31958	12:54:00	D	6.80
51	SHAHJAHANPUR	SHAHJAHANPUR	S-NPP	79.81236	27.93376	12:54:00	D	2.60
52	SHAHJAHANPUR	SHAHJAHANPUR	S-NPP	79.90168	27.94736	12:54:00	D	2.20
53	SHRAWASTI	BHINGA	S-NPP	81.73882	27.89926	01:36:00	N	0.50

District-wise cumulative number of residue burning events in Uttar Pradesh (01 to 17-Oct 2019)



State-wise, date-wise and district-wise number of residue burning events detected in 2016, 2017, 2018 and 2019
(Period: 01-Oct to 17-Oct)

Date	Punjab				Haryana				UP				Total			
	2019	2018	2017	2016	2019	2018	2017	2016	2019	2018	2017	2016	2019	2018	2017	2016
01-Oct	3	16	54	109	1	9	13	46	1	11	2	23	5	36	69	178
02-Oct	20	9	50	51	2	23	27	16	0	21	8	20	23	53	85	87
03-Oct	37	4	62	66	16	9	40	16	3	12	17	16	56	25	119	98
04-Oct	3	32	103	37	30	16	60	7	4	5	22	15	37	53	185	59
05-Oct	16	56	106	95	37	30	68	15	11	10	20	14	64	96	194	124
06-Oct	0	87	138	152	22	63	75	105	8	13	39	6	30	163	252	263
07-Oct	27	162	105	171	16	180	97	126	4	69	33	24	47	411	235	321
08-Oct	59	39	215	166	69	40	218	94	18	54	76	14	146	133	509	274
09-Oct	93	75	163	270	70	47	148	121	17	32	88	22	180	154	399	413
10-Oct	172	23	164	597	157	37	151	242	53	21	126	74	382	81	441	913
11-Oct	78	30	177	652	126	78	87	336	38	24	74	128	242	131	338	1116
12-Oct	99	67	342	694	154	133	123	338	42	22	51	164	295	222	516	1196
13-Oct	108	62	470	467	159	147	207	284	33	61	69	102	300	270	746	853
14-Oct	141	112	582	812	133	153	333	328	39	57	137	60	313	322	1052	1200
15-Oct	262	90	943	1215	203	110	458	248	63	35	237	76	528	235	1638	1539
16-Oct	168	174	465	1478	148	138	186	385	77	20	71	125	393	332	722	1988
17-Oct	250	272	807	2173	152	268	244	399	53	94	69	261	455	634	1120	2833
Total	1536	1310	4946	9205	1495	1481	2335	3106	464	561	1139	1144	3495	3352	8620	13455

(a) Punjab

Districts	01-17 Oct			
	2016	2017	2018	2019
AMRITSAR	836	532	458	366
BARNALA	27	15	4	6
BATHINDA	522	356	29	17
FARIDKOT	716	717	39	74
FATEHGARH SAHIB	500	174	19	16
FAZILKA	0	0	0	54
FIROZPUR	978	588	95	115
GURDASPUR	433	137	57	67
HOSHIARPUR	78	21	3	9
JALANDHAR	588	180	10	68
KAPURTHALA	508	64	6	41
LUDHIANA	435	314	29	18
MANSA	81	92	23	42
MOGA	141	74	6	22
MUKTSAR	762	208	19	31
NAWASHAHR (SBS Nagar)	165	56	14	15
PATHANKOT	0	0	0	0
PATIALA	736	573	160	179
RUPNAGAR	106	7	0	1
SANGRUR	177	182	62	47
SAS NAGAR	54	51	31	19
TARN TARAN	1362	605	246	329
Total	9205	4946	1310	1536

(b) Haryana

Districts	01-17 Oct			
	2016	2017	2018	2019
AMBALA	193	175	44	63
BHIWANI	1	2	3	0
FARIDABAD	19	44	41	1
FATEHABAD	143	117	74	105
GURUGRAM	0	0	0	0
HISAR	25	19	10	17
JHAJJAR	4	1	4	2
JIND	87	109	60	65
KAITHAL	837	570	420	384
KARNAL	993	793	434	423
KURUKSHETRA	631	562	299	320
MAHENDRAGARH	0	0	0	1
MEWAT	0	0	0	0
PALWAL	0	0	0	32
PANCHKULA	0	0	3	12
PANIPAT	27	31	32	6
REWARI	0	0	0	1
ROHTAK	1	1	0	0
SIRSA	83	19	14	14
SONIPAT	7	12	10	1
YAMUNANAGAR	55	80	33	48
Total	3106	2535	1481	1495

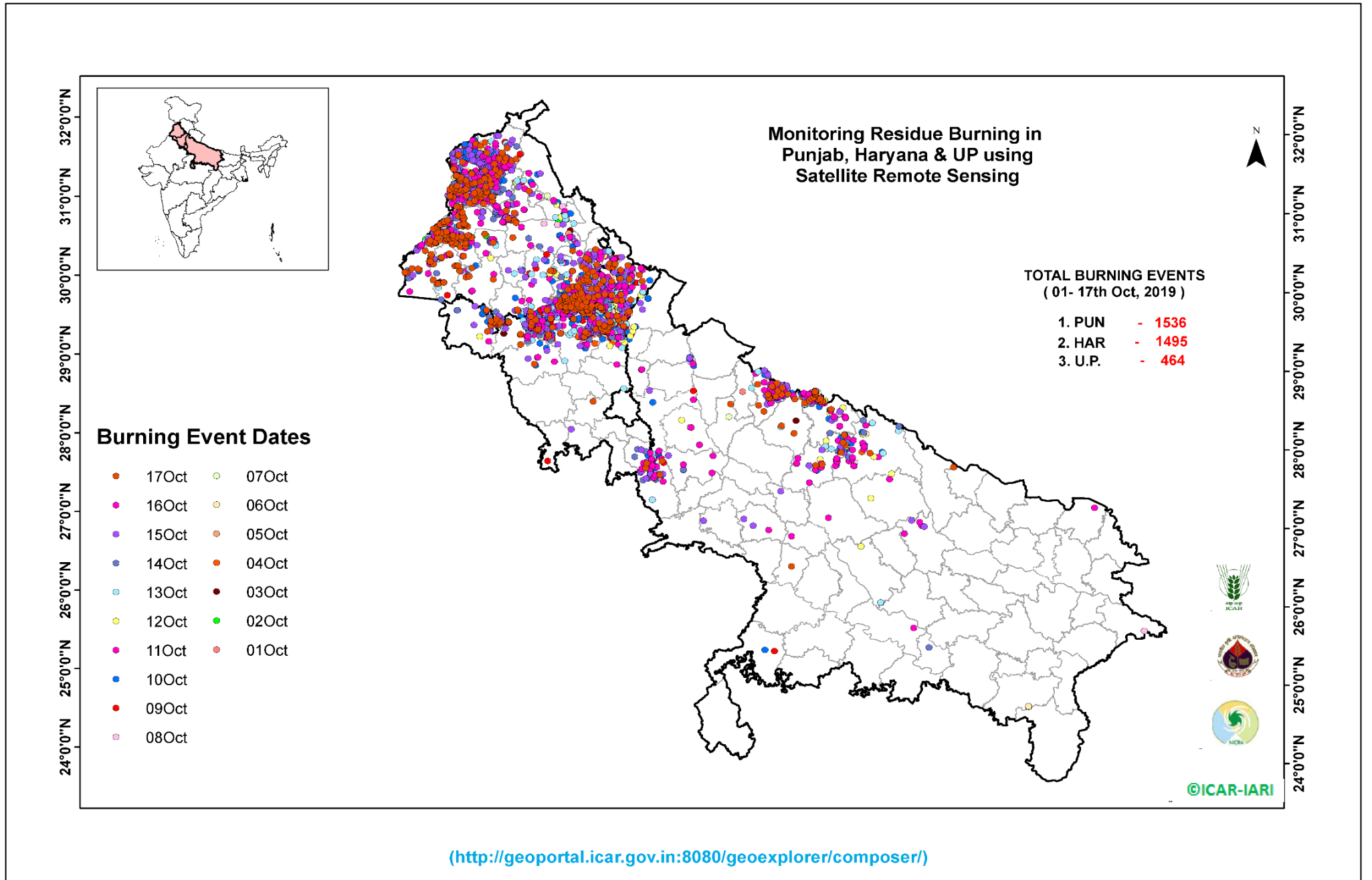
(c) Uttar Pradesh

Districts	01-17 Oct			
	2016	2017	2018	2019
AGRA	0	0	0	0
ALIGARH	4	14	13	18
ALLAHABAD	0	0	3	0
AMBEDKARNAGAR	0	1	0	0
AMETHI	0	0	0	0
AMROHA	0	0	0	0
AURAIYA	43	44	15	1
AZAMGARH	0	0	0	0
BADAUN	0	1	0	0
BAGHPAT	0	0	0	2
BAHRAICH	0	2	3	0
BALLIA	0	0	0	1
BALRAMPUR	0	0	0	0
BANDA	0	0	1	0
BARABANKI	27	25	44	5
BAREILLY	62	34	8	24
BASTI	0	0	0	0
BHADOHI	0	0	0	0
BIJNOR	1	0	1	0
BULANDSAHAR	3	6	6	4
CHANDAULI	0	0	0	0
CHITRAKOOT	0	0	0	0
DEORIA	0	0	0	0
ETAH	0	4	9	0
ETAWAH	3	6	1	0
FAIZABAD	0	1	0	0
FARRUKHABAD	0	0	0	1
FATEHPUR	4	4	6	1
FIROZABAD	3	0	0	1

GAUTAMBUDHNAGAR	2	4	2	0
GAZIPUR	0	0	0	0
GHAZIABAD	7	3	2	2
GONDA	0	0	0	0
GORAKHPUR	0	2	4	0
HAMIRPUR	0	0	1	0
HAPUR	0	0	0	2
HARDOI	11	8	4	1
HATHRAS	0	0	0	0
JALAUN	0	0	0	0
JAUNPUR	0	0	2	0
JHANSI	0	0	0	2
KANNAUJ	0	0	1	1
KANPUR	1	3	0	0
KANPUR DEHAT	0	1	0	0
KASGANJ	0	0	0	0
KAUSHAMBI	0	4	9	1
KHERI	104	95	42	46
KUSHINAGAR	0	1	0	0
LALITPUR	0	0	0	0
LUCKNOW	5	5	0	1
MAHARAJGANJ	2	11	6	1
MAHOBA	0	0	0	0
MAINPURI	0	3	4	3
MATHURA	23	40	118	46
MAU	1	0	0	0
MEERUT	12	8	0	4
MIRZAPUR	0	2	3	3
MORADABAD	6	8	5	2
MUZAFARNAGAR	33	44	16	5
PILHIBHIT	214	208	81	119
PRATAPGARH	0	0	2	0

RAE BARELI	0	0	0	0
RAMPUR	235	174	37	80
SHARANPUR	16	20	10	6
SAMBHAL	0	0	0	2
SANTKABIRNAGAR	0	0	0	0
SHAHJAHANPUR	293	337	86	64
SHAMALI	0	0	0	8
SHRAWASTI	0	3	0	1
SIDDHARTHANAGAR	1	1	0	0
SITAPUR	21	10	6	3
SONBHADRA	3	1	5	0
SULTANPUR	0	0	0	0
UNNAO	3	1	3	3
VARANASI	0	0	0	0
JYOTIBAPHULE NAGAR	1	0	1	0
MAHAMAYANAGAR	0	0	1	0
Total	1144	1139	561	464

Map of Cumulative Burning Events (01 – 17 Oct 2019)



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 website: <http://geoportal.icar.gov.in:8080/geoexplorer/composer/>
(Part of KRISHI Portal: <https://krishi.icar.gov.in> initiative)
