

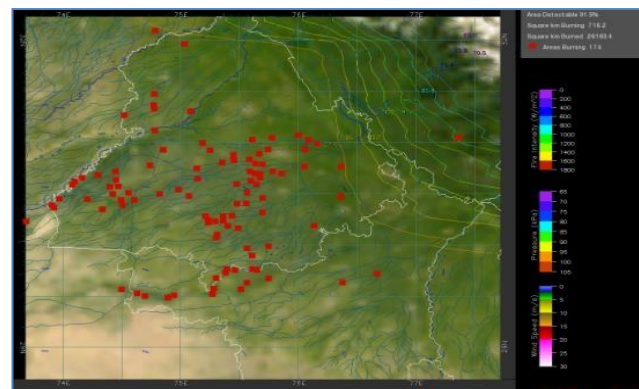
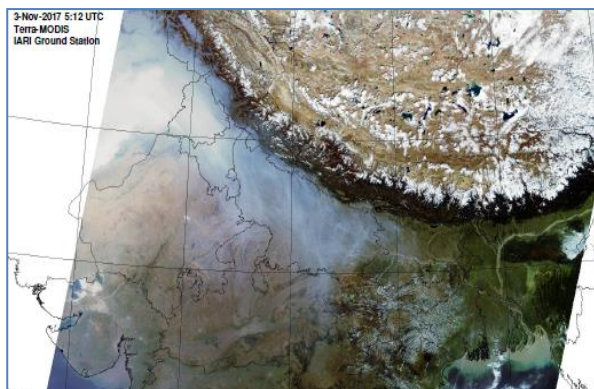


# MONITORING PADDY RESIDUE BURNING IN NORTH INDIA USING SATELLITE REMOTE SENSING DURING 2019

**Bulletin  
No. 15**

**Events Date:  
15-Oct-2019**

**Issued on:  
16-Oct-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**

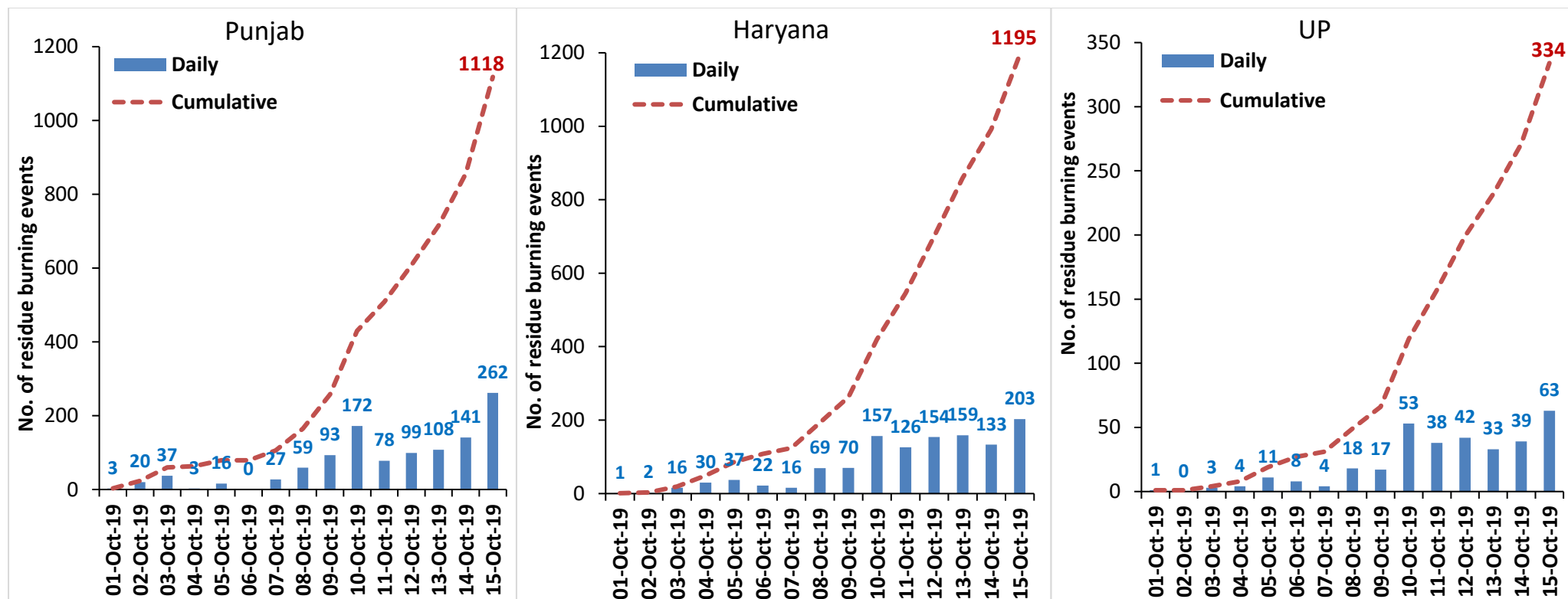
<http://creams.iari.res.in>



## Highlights for 15-October-2019

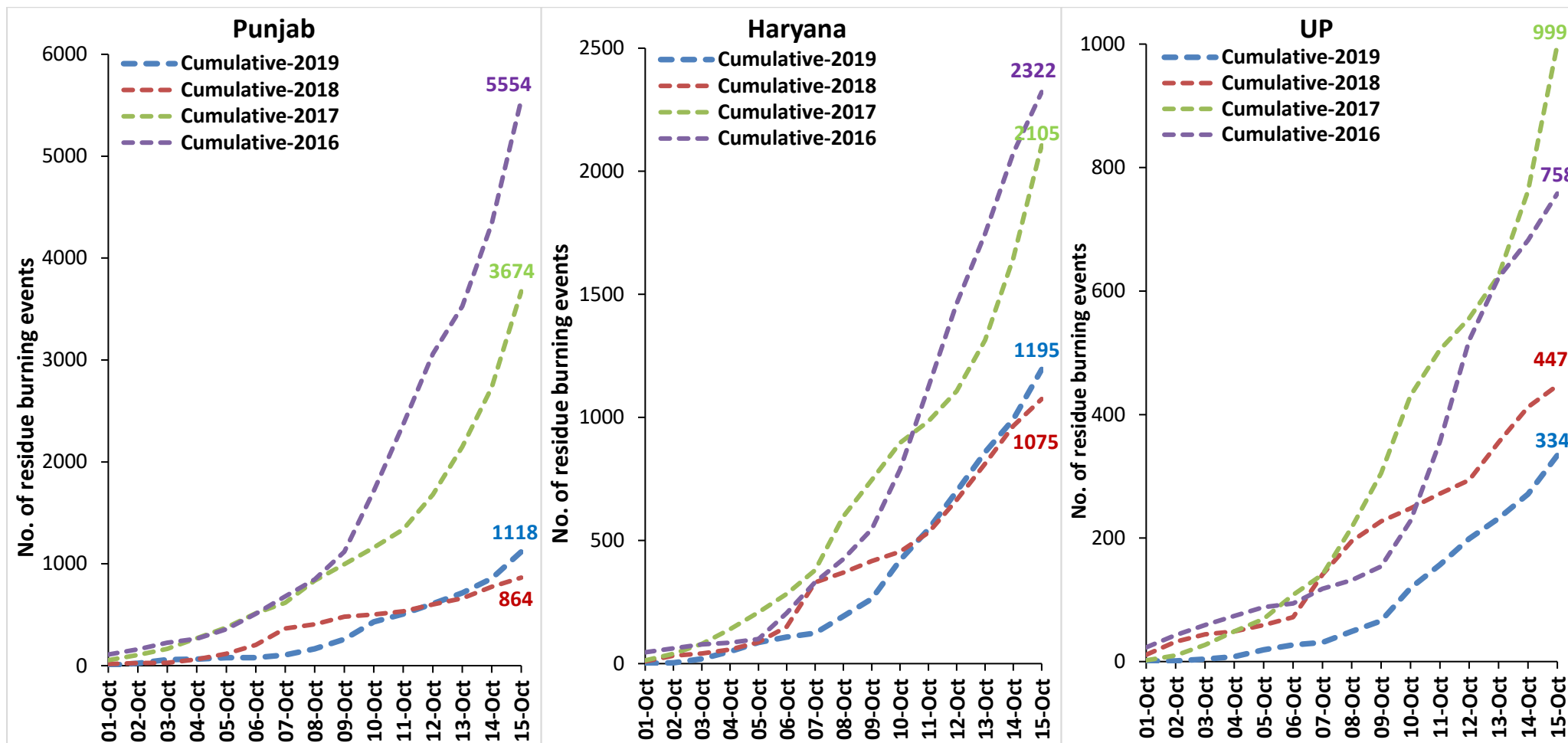
- Satellites detected **528** residue burning events in the three study States on 15-Oct-2019.
- The burning events detected on **15-Oct-2019** are **262**, **203** and **63** in Punjab, Haryana and UP, respectively.
- The number of events has significantly increased from **313** on **14-Oct-2019** to **528** on **15-Oct-2019** in the three states.
- Total **2647** burning events were detected in the three States between **01-Oct-2019** and **15-Oct-2019**, which are distributed as **1118**, **1195** and **334** in Punjab, Haryana and UP, respectively.
- Overall, the total burning events recorded in the three states are **11%** more than in 2018 till date. UP recorded **25.3%** reduction while Punjab and Haryana recorded **29.4%** and **10.1%** increase, respectively, in the current season than in 2018.

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

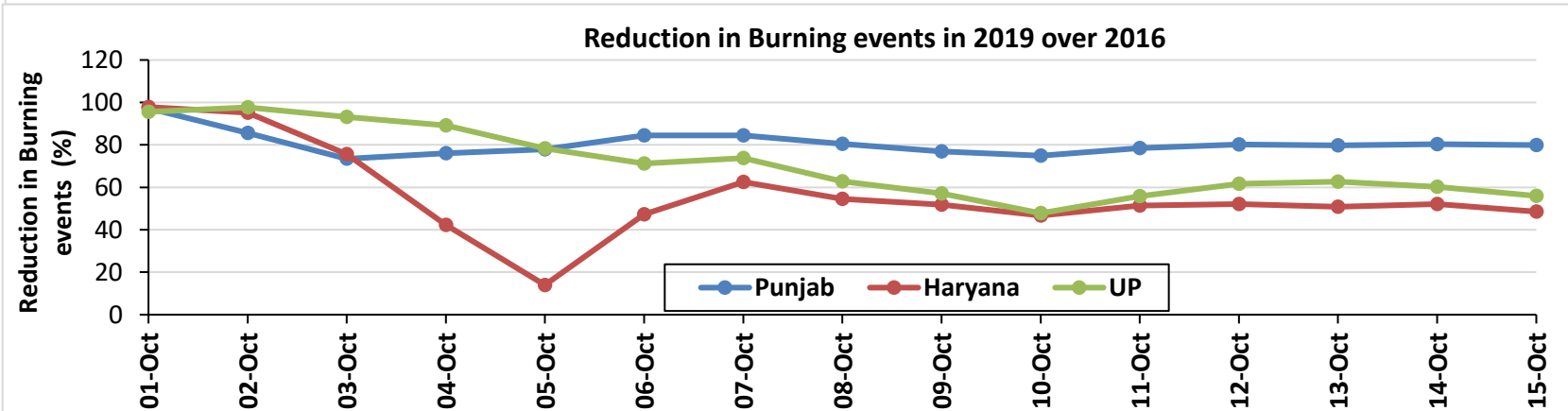
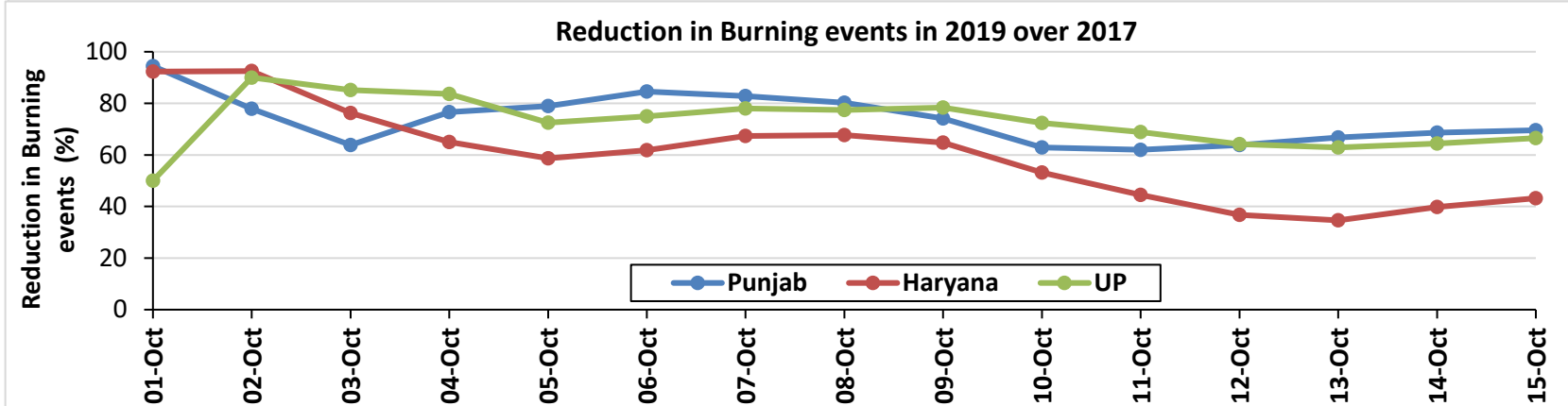
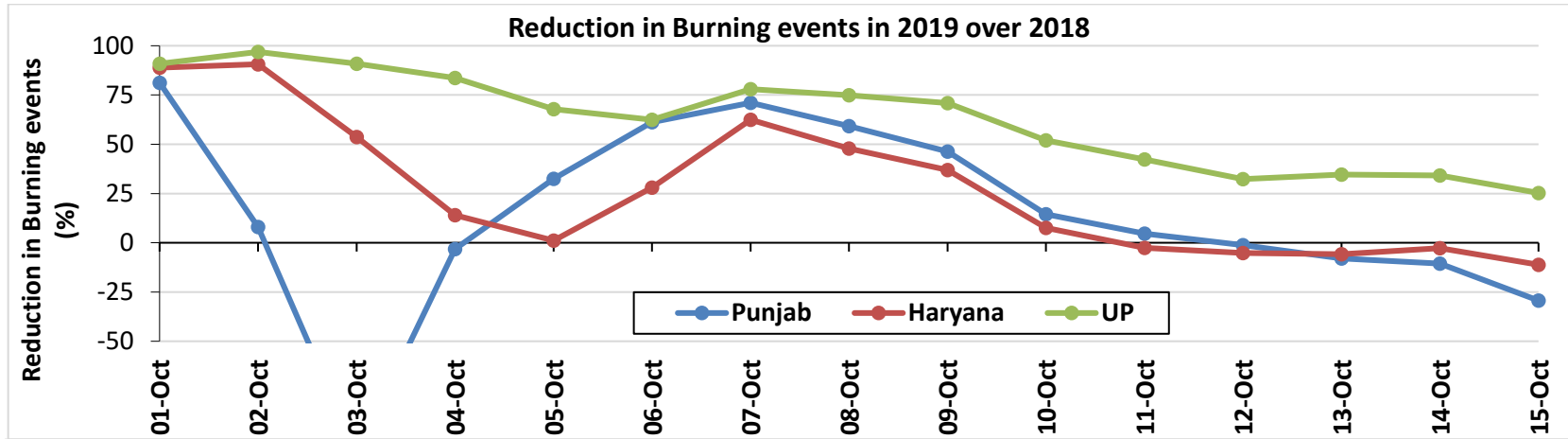


**Comparison of residue burning events in current year (2019) with previous years (2018, 2017 & 2016) for the three study States**

**(01-Oct to 15-Oct)**



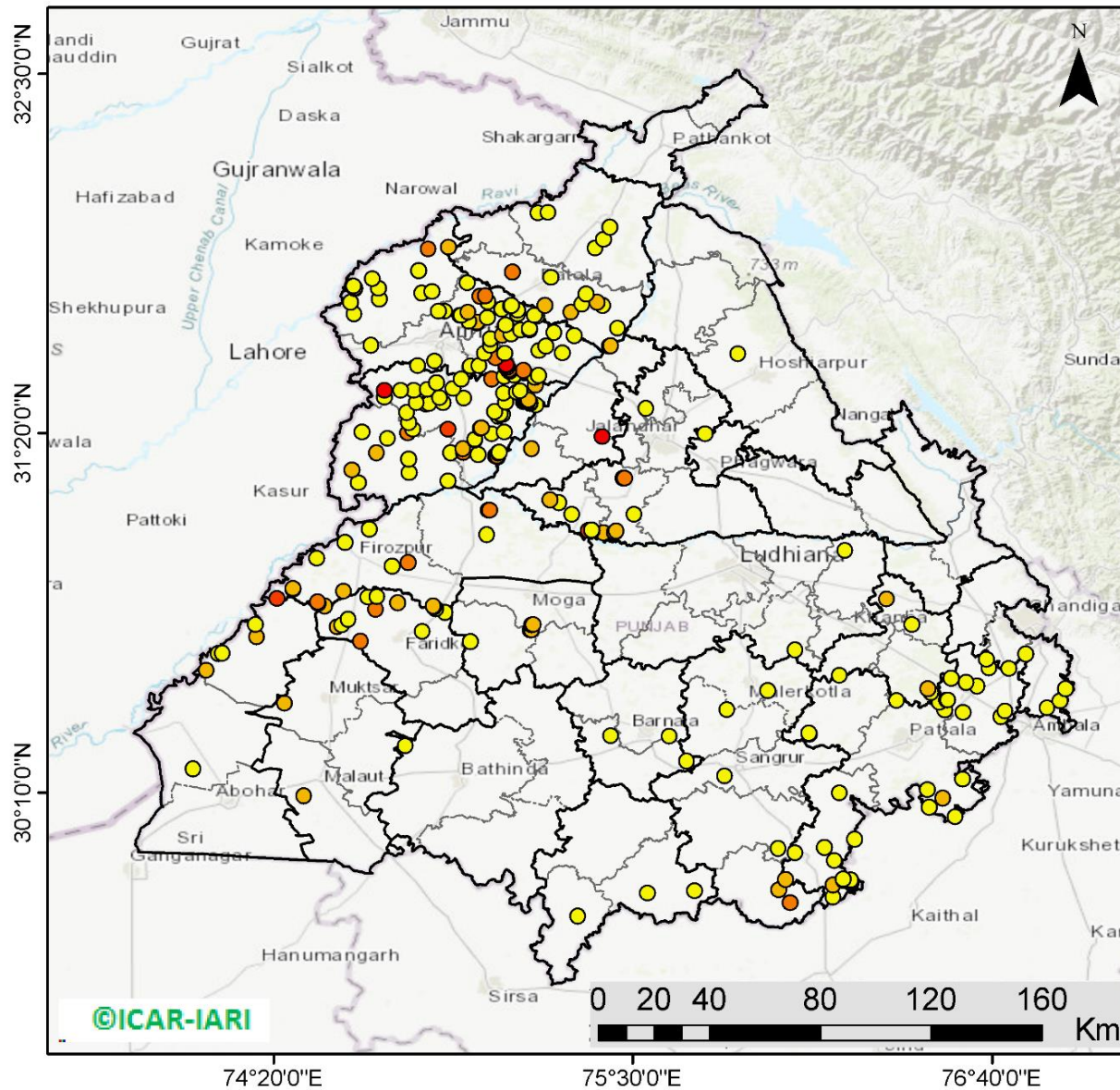
**Percent Reduction in Burning events in 2019 over 2018, 2017 and 2016 (Daily Cumulative)**





(a) Punjab

RICE RESIDUE BURNING IN PUNJAB



**262** burning events detected in Punjab on 15th October 2019

Fire Intensity (W/m<sup>2</sup>)

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



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

**Details of residue burning events in Punjab on 15-Oct-2019**

S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m <sup>2</sup> )
1	AMRITSAR	AJNALA	S-NPP	74.59577	31.71912	13:30:00	D	3.00
2	AMRITSAR	AJNALA	S-NPP	74.58325	31.75810	13:30:00	D	2.00
3	AMRITSAR	AJNALA	S-NPP	74.67711	31.76935	13:30:00	D	1.00
4	AMRITSAR	AJNALA	S-NPP	74.81524	31.78740	13:30:00	D	3.00
5	AMRITSAR	AJNALA	S-NPP	74.84758	31.79239	13:30:00	D	2.00
6	AMRITSAR	AJNALA	S-NPP	74.59910	31.80152	13:30:00	D	16.00
7	AMRITSAR	AJNALA	S-NPP	74.67413	31.80298	13:30:00	D	3.00
8	AMRITSAR	AJNALA	S-NPP	74.59894	31.80449	13:30:00	D	8.00
9	AMRITSAR	AJNALA	S-NPP	74.58942	31.80981	13:30:00	D	4.00
10	AMRITSAR	AJNALA	S-NPP	74.59348	31.81045	13:30:00	D	4.00
11	AMRITSAR	AJNALA	S-NPP	74.65547	31.83379	13:30:00	D	2.00
12	AMRITSAR	AJNALA	S-NPP	74.80444	31.86035	13:30:00	D	2.00
13	AMRITSAR	AJNALA	S-NPP	74.83571	31.92989	13:30:00	D	14.00
14	AMRITSAR	AJNALA	S-NPP	74.90115	31.93655	13:30:00	D	8.00
15	AMRITSAR	AMRITSAR I	S-NPP	74.94292	31.50931	13:30:00	D	4.00
16	AMRITSAR	AMRITSAR I	S-NPP	75.08926	31.54539	13:30:00	D	2.00
17	AMRITSAR	AMRITSAR I	S-NPP	75.09328	31.54601	13:30:00	D	4.00
18	AMRITSAR	AMRITSAR I	S-NPP	74.97270	31.55062	13:30:00	D	4.00
19	AMRITSAR	AMRITSAR I	S-NPP	75.00160	31.55167	13:30:00	D	4.00
20	AMRITSAR	AMRITSAR I	S-NPP	75.08788	31.55199	13:30:00	D	7.00
21	AMRITSAR	AMRITSAR I	S-NPP	75.08827	31.55476	13:30:00	D	38.00
22	AMRITSAR	AMRITSAR I	S-NPP	75.05458	31.57682	13:30:00	D	11.00
23	AMRITSAR	AMRITSAR I	S-NPP	75.08476	31.59165	13:30:00	D	3.00
24	AMRITSAR	AMRITSAR I	S-NPP	75.01821	31.59166	13:30:00	D	3.00
25	AMRITSAR	AMRITSAR I	S-NPP	75.03757	31.61846	13:30:00	D	4.00
26	AMRITSAR	AMRITSAR I	S-NPP	75.03748	31.63886	13:30:00	D	2.00
27	AMRITSAR	AMRITSAR I	S-NPP	75.07644	31.65163	13:30:00	D	6.00
28	AMRITSAR	AMRITSAR I	S-NPP	75.08691	31.68352	13:30:00	D	2.00
29	AMRITSAR	AMRITSAR I	S-NPP	75.02759	31.70846	13:30:00	D	2.00
30	AMRITSAR	AMRITSAR I	S-NPP	74.93869	31.71524	13:30:00	D	2.00

31	AMRITSAR	AMRITSAR I	S-NPP	74.94273	31.71586	13:30:00	D	3.00
32	AMRITSAR	AMRITSAR I	S-NPP	74.96557	31.72618	13:30:00	D	9.00
33	AMRITSAR	AMRITSAR I	S-NPP	75.07592	31.73627	13:30:00	D	3.00
34	AMRITSAR	AMRITSAR I	S-NPP	75.10281	31.74718	13:30:00	D	3.00
35	AMRITSAR	AMRITSAR I	S-NPP	75.10684	31.74780	13:30:00	D	3.00
36	AMRITSAR	AMRITSAR I	S-NPP	75.02936	31.75978	13:30:00	D	2.00
37	AMRITSAR	AMRITSAR I	AQUA	75.00400	31.77700	14:05:00	D	14.00
38	AMRITSAR	AMRITSAR I	AQUA	75.02100	31.77900	14:05:00	D	14.00
39	AMRITSAR	AMRITSAR I	S-NPP	74.96270	31.82033	13:30:00	D	3.00
40	AMRITSAR	AMRITSAR II	S-NPP	74.85691	31.56679	13:30:00	D	4.00
41	AMRITSAR	AMRITSAR II	S-NPP	74.65031	31.61938	13:30:00	D	2.00
42	AMRITSAR	AMRITSAR II	S-NPP	74.99403	31.68970	13:30:00	D	10.00
43	AMRITSAR	AMRITSAR II	S-NPP	74.99334	31.69300	13:30:00	D	10.00
44	AMRITSAR	AMRITSAR II	S-NPP	74.96774	31.69588	13:30:00	D	3.00
45	AMRITSAR	AMRITSAR II	S-NPP	74.89011	31.72819	13:30:00	D	2.00
46	AMRITSAR	AMRITSAR II	S-NPP	74.86922	31.72837	13:30:00	D	2.00
47	AMRITSAR	BABA BAKALA	S-NPP	75.19413	31.52057	13:30:00	D	2.00
48	AMRITSAR	BABA BAKALA	S-NPP	75.11488	31.52209	13:30:00	D	3.00
49	AMRITSAR	BABA BAKALA	S-NPP	75.10005	31.53343	13:30:00	D	3.00
50	AMRITSAR	BABA BAKALA	S-NPP	75.14504	31.53691	13:30:00	D	14.00
51	AMRITSAR	BABA BAKALA	S-NPP	75.09465	31.53941	13:30:00	D	12.00
52	AMRITSAR	BABA BAKALA	S-NPP	75.09868	31.54003	13:30:00	D	12.00
53	AMRITSAR	BABA BAKALA	S-NPP	75.27158	31.59288	13:30:00	D	1.00
54	AMRITSAR	BABA BAKALA	S-NPP	75.19495	31.60166	13:30:00	D	5.00
55	AMRITSAR	BABA BAKALA	S-NPP	75.21708	31.61522	13:30:00	D	4.00
56	AMRITSAR	BABA BAKALA	S-NPP	75.10467	31.65594	13:30:00	D	2.00
57	AMRITSAR	BABA BAKALA	S-NPP	75.24520	31.66031	13:30:00	D	3.00
58	AMRITSAR	BABA BAKALA	S-NPP	75.13556	31.66745	13:30:00	D	3.00
59	AMRITSAR	BABA BAKALA	S-NPP	75.16447	31.66845	13:30:00	D	3.00
60	AMRITSAR	BABA BAKALA	S-NPP	75.16379	31.67175	13:30:00	D	3.00
61	AMRITSAR	BABA BAKALA	S-NPP	75.18908	31.71268	13:30:00	D	5.00
62	AMRITSAR	BABA BAKALA	S-NPP	75.18032	31.71476	13:30:00	D	3.00
63	AMRITSAR	BABA BAKALA	S-NPP	75.12513	31.71996	13:30:00	D	4.00

64	AMRITSAR	BABA BAKALA	S-NPP	75.12642	31.73377	13:30:00	D	3.00
65	BARNALA	TAPPA	S-NPP	75.67517	30.26944	13:30:00	D	3.00
66	BARNALA	TAPPA	S-NPP	75.61839	30.34855	13:30:00	D	2.00
67	BARNALA	TAPPA	S-NPP	75.42933	30.35038	13:30:00	D	4.00
68	BATHINDA	BATHINDA	S-NPP	74.76120	30.31752	13:30:00	D	4.00
69	FARIDKOT	FARIDKOT	AQUA	74.61700	30.65800	14:05:00	D	13.00
70	FARIDKOT	FARIDKOT	S-NPP	74.81742	30.68929	13:30:00	D	5.00
71	FARIDKOT	FARIDKOT	S-NPP	74.53992	30.70360	13:30:00	D	6.00
72	FARIDKOT	FARIDKOT	S-NPP	74.55536	30.70947	13:30:00	D	3.00
73	FARIDKOT	FARIDKOT	S-NPP	74.57661	30.72919	13:30:00	D	3.00
74	FARIDKOT	FARIDKOT	AQUA	74.66600	30.76200	14:05:00	D	14.00
75	FARIDKOT	FARIDKOT	AQUA	74.73700	30.78300	14:05:00	D	9.00
76	FARIDKOT	FARIDKOT	S-NPP	74.64060	30.80091	13:30:00	D	5.00
77	FARIDKOT	FARIDKOT	S-NPP	74.66949	30.80205	13:30:00	D	2.00
78	FATEHGARH SAHIB	ALMOH	S-NPP	76.17179	30.54626	13:30:00	D	1.00
79	FATEHGARH SAHIB	BASSI PATHANAN	S-NPP	76.40533	30.71207	13:30:00	D	2.00
80	FATEHGARH SAHIB	FATEHGARH SAHIB	S-NPP	76.35684	30.46481	13:30:00	D	2.00
81	FATEHGARH SAHIB	FATEHGARH SAHIB	S-NPP	76.46796	30.49113	13:30:00	D	2.00
82	FATEHGARH SAHIB	FATEHGARH SAHIB	S-NPP	76.45731	30.50326	13:30:00	D	6.00
83	FATEHGARH SAHIB	KHAMANOH	S-NPP	76.32388	30.79496	13:30:00	D	10.00
84	FAZILKA	FAZILKA	S-NPP	74.07281	30.24422	13:30:00	D	2.00
85	FAZILKA	JALALABAD	S-NPP	74.11607	30.56323	13:30:00	D	6.00
86	FAZILKA	JALALABAD	S-NPP	74.15505	30.61788	13:30:00	D	2.00
87	FAZILKA	JALALABAD	S-NPP	74.16731	30.61987	13:30:00	D	3.00
88	FAZILKA	JALALABAD	S-NPP	74.27911	30.67107	13:30:00	D	7.00
89	FAZILKA	JALALABAD	S-NPP	74.27459	30.71161	13:30:00	D	4.00
90	FIROZPUR	FIROZPUR	S-NPP	74.89127	30.75203	13:30:00	D	4.00
91	FIROZPUR	FIROZPUR	S-NPP	74.86018	30.76378	13:30:00	D	3.00
92	FIROZPUR	FIROZPUR	S-NPP	74.85479	30.76975	13:30:00	D	3.00
93	FIROZPUR	FIROZPUR	S-NPP	74.50076	30.77189	13:30:00	D	8.00
94	FIROZPUR	FIROZPUR	AQUA	74.85200	30.77200	14:05:00	D	8.00
95	FIROZPUR	FIROZPUR	S-NPP	74.47771	30.78193	13:30:00	D	11.00
96	FIROZPUR	FIROZPUR	S-NPP	74.47701	30.78524	13:30:00	D	11.00



97	FIROZPUR	FIROZPUR	AQUA	74.34400	30.79600	14:05:00	D	20.00
98	FIROZPUR	FIROZPUR	S-NPP	74.56168	30.81922	13:30:00	D	6.00
99	FIROZPUR	FIROZPUR	S-NPP	74.39724	30.82607	13:30:00	D	14.00
100	FIROZPUR	FIROZPUR	S-NPP	74.39653	30.82939	13:30:00	D	6.00
101	FIROZPUR	FIROZPUR	S-NPP	74.71936	30.90119	13:30:00	D	2.00
102	FIROZPUR	FIROZPUR	S-NPP	74.77097	30.91270	13:30:00	D	15.00
103	FIROZPUR	FIROZPUR	S-NPP	74.47320	30.92654	13:30:00	D	3.00
104	FIROZPUR	FIROZPUR	S-NPP	74.56649	30.97903	13:30:00	D	4.00
105	FIROZPUR	FIROZPUR	S-NPP	74.64491	31.02218	13:30:00	D	2.00
106	FIROZPUR	ZIRA	S-NPP	75.02652	31.00335	13:30:00	D	3.00
107	FIROZPUR	ZIRA	S-NPP	75.03082	31.08233	13:30:00	D	12.00
108	FIROZPUR	ZIRA	S-NPP	75.03484	31.08295	13:30:00	D	12.00
109	GURDASPUR	BATALA	S-NPP	75.30980	31.64967	13:30:00	D	2.00
110	GURDASPUR	BATALA	S-NPP	75.45042	31.67424	13:30:00	D	2.00
111	GURDASPUR	BATALA	S-NPP	75.29876	31.72589	13:30:00	D	7.00
112	GURDASPUR	BATALA	S-NPP	75.21523	31.74726	13:30:00	D	7.00
113	GURDASPUR	BATALA	S-NPP	75.40245	31.74830	13:30:00	D	3.00
114	GURDASPUR	BATALA	S-NPP	75.33508	31.75177	13:30:00	D	3.00
115	GURDASPUR	BATALA	S-NPP	75.38358	31.75907	13:30:00	D	9.00
116	GURDASPUR	BATALA	S-NPP	75.34918	31.78451	13:30:00	D	5.00
117	GURDASPUR	BATALA	S-NPP	75.23421	31.83788	13:30:00	D	3.00
118	GURDASPUR	BATALA	AQUA	75.10900	31.85700	14:05:00	D	14.00
119	GURDASPUR	GURDASPUR	S-NPP	75.37755	31.93400	13:30:00	D	2.00
120	GURDASPUR	GURDASPUR	S-NPP	75.40524	31.96196	13:30:00	D	4.00
121	GURDASPUR	GURDASPUR	S-NPP	75.42609	32.00249	13:30:00	D	4.00
122	GURDASPUR	GURDASPUR	S-NPP	75.19198	32.04823	13:30:00	D	3.00
123	GURDASPUR	GURDASPUR	S-NPP	75.22507	32.04983	13:30:00	D	3.00
124	HOSHIARPUR	HOSHIARPUR	S-NPP	75.84146	31.59015	13:30:00	D	2.00
125	JALANDHAR	JALANDHAR II	S-NPP	75.54356	31.41373	13:30:00	D	5.00
126	JALANDHAR	NAKODAR	AQUA	75.44000	31.01200	14:05:00	D	12.00
127	JALANDHAR	NAKODAR	AQUA	75.44600	31.01600	14:05:00	D	10.00
128	JALANDHAR	NAKODAR	S-NPP	75.50381	31.06967	13:30:00	D	4.00
129	JALANDHAR	NAKODAR	S-NPP	75.46896	31.18593	13:30:00	D	2.00

130	JALANDHAR	NAKODAR	S-NPP	75.47298	31.18653	13:30:00	D	11.00
131	JALANDHAR	SHAHKOT	S-NPP	75.40431	31.01041	13:30:00	D	6.00
132	JALANDHAR	SHAHKOT	AQUA	75.36800	31.01700	14:05:00	D	32.00
133	JALANDHAR	SHAHKOT	AQUA	75.35600	31.01800	14:05:00	D	18.00
134	JALANDHAR	SHAHKOT	S-NPP	75.36556	31.01813	13:30:00	D	2.00
135	JALANDHAR	SHAHKOT	S-NPP	75.30235	31.06953	13:30:00	D	3.00
136	JALANDHAR	SHAHKOT	S-NPP	75.26148	31.10752	13:30:00	D	2.00
137	JALANDHAR	SHAHKOT	S-NPP	75.23070	31.11642	13:30:00	D	6.00
138	KAPURTHALA	BHOLATH	S-NPP	75.42487	31.61598	13:30:00	D	2.00
139	KAPURTHALA	BHOLATH	S-NPP	75.42891	31.61659	13:30:00	D	8.00
140	KAPURTHALA	KAPURTHALA	S-NPP	75.40035	31.32153	13:30:00	D	31.00
141	KAPURTHALA	PHAGWARA	S-NPP	75.73444	31.33067	13:30:00	D	3.00
142	KAPURTHALA	SULTANPUR LODHI	AQUA	75.17200	31.28300	14:05:00	D	10.00
143	LUDHIANA	PAYAL	S-NPP	76.02760	30.62970	13:30:00	D	3.00
144	LUDHIANA	SAMRALA	S-NPP	76.18962	30.95162	13:30:00	D	2.00
145	MANSA	BUDHLADA	S-NPP	75.54726	29.84038	13:30:00	D	2.00
146	MANSA	BUDHLADA	S-NPP	75.70103	29.84684	13:30:00	D	1.00
147	MANSA	SARDULGARH	S-NPP	75.32160	29.76476	13:30:00	D	5.00
148	MOGA	BAGHA PURANA	S-NPP	74.97303	30.65653	13:30:00	D	4.00
149	MOGA	BAGHA PURANA	S-NPP	75.16753	30.69346	13:30:00	D	9.00
150	MOGA	BAGHA PURANA	S-NPP	75.17152	30.69408	13:30:00	D	9.00
151	MOGA	MOGA	S-NPP	75.17243	30.71050	13:30:00	D	7.00
152	MOGA	MOGA	S-NPP	75.17642	30.71112	13:30:00	D	7.00
153	MUKTSAR	MALAUT	S-NPP	74.43271	30.15603	13:30:00	D	9.00
154	MUKTSAR	MUKTSAR	S-NPP	74.36949	30.45593	13:30:00	D	10.00
155	PATIALA	NABHA	S-NPP	76.07246	30.35605	13:30:00	D	4.00
156	PATIALA	NABHA	S-NPP	76.07182	30.35936	13:30:00	D	4.00
157	PATIALA	PATIALA	S-NPP	76.54760	30.08727	13:30:00	D	3.00
158	PATIALA	PATIALA	S-NPP	76.46297	30.11934	13:30:00	D	4.00
159	PATIALA	PATIALA	S-NPP	76.50726	30.14880	13:30:00	D	6.00
160	PATIALA	PATIALA	S-NPP	76.45667	30.17560	13:30:00	D	2.00
161	PATIALA	PATIALA	S-NPP	76.57029	30.20914	13:30:00	D	3.00
162	PATIALA	PATIALA	S-NPP	76.51202	30.43400	13:30:00	D	3.00

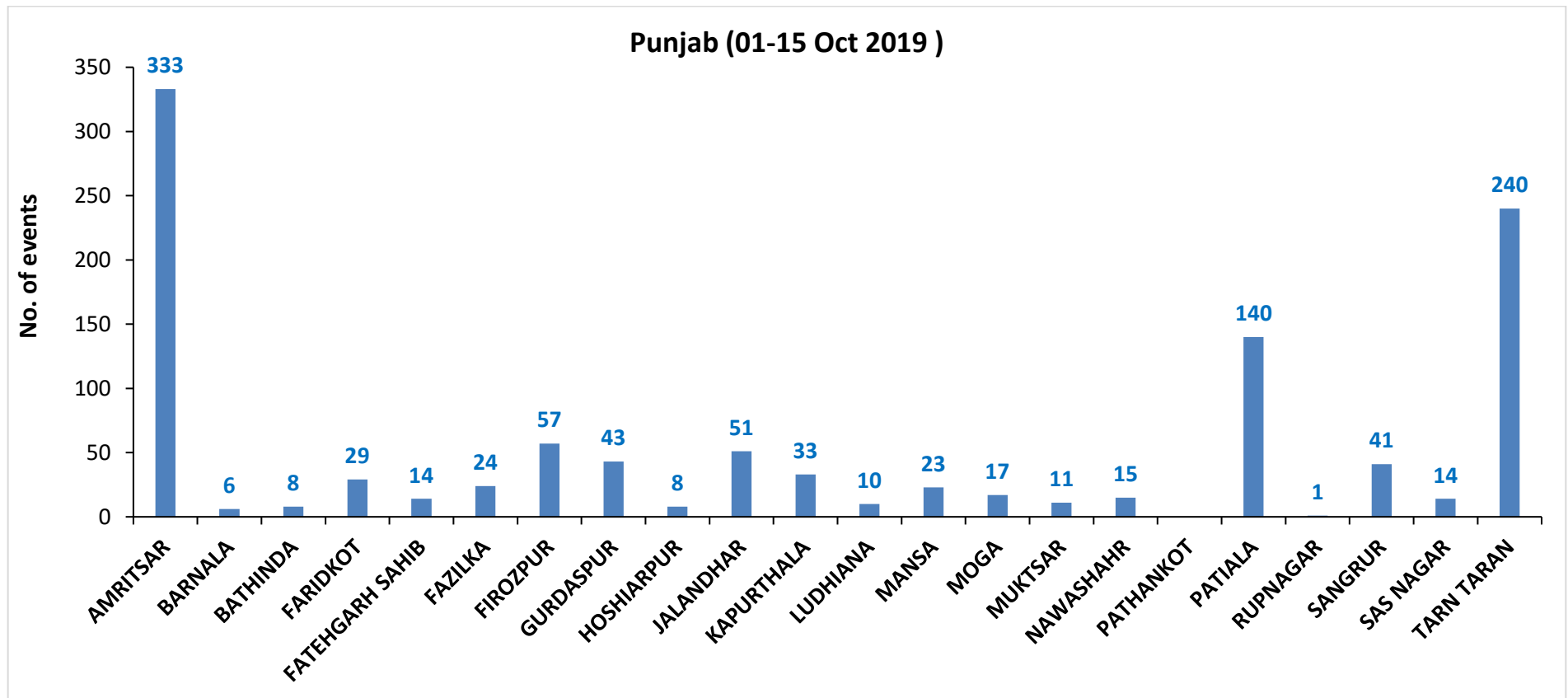
163	PATIALA	PATIALA	S-NPP	76.49479	30.45885	13:30:00	D	3.00
164	PATIALA	RAJPURA	S-NPP	76.69531	30.41244	13:30:00	D	2.00
165	PATIALA	RAJPURA	S-NPP	76.57186	30.42555	13:30:00	D	2.00
166	PATIALA	RAJPURA	S-NPP	76.70844	30.43144	13:30:00	D	3.00
167	PATIALA	RAJPURA	S-NPP	76.51842	30.46569	13:30:00	D	2.00
168	PATIALA	RAJPURA	S-NPP	76.52247	30.46628	13:30:00	D	2.00
169	PATIALA	RAJPURA	S-NPP	76.61797	30.51267	13:30:00	D	2.00
170	PATIALA	RAJPURA	S-NPP	76.58229	30.52468	13:30:00	D	2.00
171	PATIALA	RAJPURA	S-NPP	76.53384	30.53823	13:30:00	D	3.00
172	PATIALA	RAJPURA	S-NPP	76.72036	30.56842	13:30:00	D	5.00
173	PATIALA	RAJPURA	S-NPP	76.65729	30.56967	13:30:00	D	2.00
174	PATIALA	RAJPURA	S-NPP	76.64823	30.59791	13:30:00	D	2.00
175	PATIALA	SAMANA	S-NPP	76.14966	29.82615	13:30:00	D	5.00
176	PATIALA	SAMANA	S-NPP	76.14989	29.86699	13:30:00	D	6.00
177	PATIALA	SAMANA	S-NPP	76.21017	29.87255	13:30:00	D	2.00
178	PATIALA	SAMANA	S-NPP	76.20953	29.87586	13:30:00	D	3.00
179	PATIALA	SAMANA	S-NPP	76.20889	29.87917	13:30:00	D	3.00
180	PATIALA	SAMANA	S-NPP	76.18410	29.88186	13:30:00	D	4.00
181	PATIALA	SAMANA	S-NPP	76.20863	29.88207	13:30:00	D	2.00
182	PATIALA	SAMANA	S-NPP	76.18346	29.88516	13:30:00	D	2.00
183	PATIALA	SAMANA	S-NPP	76.15533	29.94563	13:30:00	D	2.00
184	PATIALA	SAMANA	S-NPP	76.02786	29.97009	13:30:00	D	2.00
185	PATIALA	SAMANA	S-NPP	76.12257	29.98757	13:30:00	D	2.00
186	PATIALA	SAMANA	S-NPP	76.21962	30.01551	13:30:00	D	2.00
187	PATIALA	SAMANA	S-NPP	76.17046	30.16433	13:30:00	D	4.00
188	SANGRUR	DHURI	S-NPP	75.80638	30.43466	13:30:00	D	3.00
189	SANGRUR	MALERKOTLA	S-NPP	75.93793	30.49818	13:30:00	D	2.00
190	SANGRUR	MOONAK	S-NPP	76.01020	29.80874	13:30:00	D	14.00
191	SANGRUR	MOONAK	S-NPP	75.97366	29.85056	13:30:00	D	8.00
192	SANGRUR	MOONAK	S-NPP	75.99560	29.88444	13:30:00	D	6.00
193	SANGRUR	SANGRUR	S-NPP	75.79868	30.22035	13:30:00	D	3.00
194	SANGRUR	SUNAM	S-NPP	75.97166	29.98551	13:30:00	D	2.00
195	SAS NAGAR	DERABASSI	S-NPP	76.84504	30.44055	13:30:00	D	2.00

196	SAS NAGAR	DERABASSI	S-NPP	76.88697	30.46366	13:30:00	D	3.00
197	SAS NAGAR	DERABASSI	S-NPP	76.90469	30.50399	13:30:00	D	2.00
198	SAS NAGAR	DERABASSI	S-NPP	76.77493	30.61584	13:30:00	D	2.00
199	TARN TARAN	KHADOOR SAHIB	S-NPP	75.06151	31.25628	13:30:00	D	7.00
200	TARN TARAN	KHADOOR SAHIB	AQUA	75.05400	31.26000	14:05:00	D	10.00
201	TARN TARAN	KHADOOR SAHIB	AQUA	75.06100	31.26000	14:05:00	D	13.00
202	TARN TARAN	KHADOOR SAHIB	S-NPP	74.99780	31.26348	13:30:00	D	4.00
203	TARN TARAN	KHADOOR SAHIB	S-NPP	75.06279	31.27009	13:30:00	D	4.00
204	TARN TARAN	KHADOOR SAHIB	S-NPP	74.90920	31.27021	13:30:00	D	3.00
205	TARN TARAN	KHADOOR SAHIB	S-NPP	75.06681	31.27071	13:30:00	D	4.00
206	TARN TARAN	KHADOOR SAHIB	AQUA	74.95000	31.27200	14:05:00	D	14.00
207	TARN TARAN	KHADOOR SAHIB	AQUA	74.94900	31.28300	14:05:00	D	10.00
208	TARN TARAN	KHADOOR SAHIB	S-NPP	74.98817	31.30966	13:30:00	D	2.00
209	TARN TARAN	KHADOOR SAHIB	S-NPP	74.98748	31.31296	13:30:00	D	2.00
210	TARN TARAN	KHADOOR SAHIB	S-NPP	75.04205	31.33084	13:30:00	D	2.00
211	TARN TARAN	KHADOOR SAHIB	S-NPP	75.08225	31.33702	13:30:00	D	2.00
212	TARN TARAN	KHADOOR SAHIB	S-NPP	75.00507	31.34897	13:30:00	D	8.00
213	TARN TARAN	KHADOOR SAHIB	S-NPP	75.00909	31.34959	13:30:00	D	6.00
214	TARN TARAN	KHADOOR SAHIB	S-NPP	75.06326	31.38856	13:30:00	D	5.00
215	TARN TARAN	KHADOOR SAHIB	S-NPP	75.07061	31.39309	13:30:00	D	3.00
216	TARN TARAN	KHADOOR SAHIB	S-NPP	75.07865	31.39432	13:30:00	D	2.00
217	TARN TARAN	KHADOOR SAHIB	S-NPP	75.06992	31.39639	13:30:00	D	2.00
218	TARN TARAN	KHADOOR SAHIB	S-NPP	74.76620	31.40013	13:30:00	D	3.00
219	TARN TARAN	KHADOOR SAHIB	S-NPP	75.05178	31.40381	13:30:00	D	4.00
220	TARN TARAN	KHADOOR SAHIB	S-NPP	75.18454	31.42413	13:30:00	D	5.00
221	TARN TARAN	KHADOOR SAHIB	S-NPP	74.82722	31.42668	13:30:00	D	7.00
222	TARN TARAN	KHADOOR SAHIB	S-NPP	75.16708	31.42827	13:30:00	D	2.00
223	TARN TARAN	KHADOOR SAHIB	S-NPP	74.83931	31.42856	13:30:00	D	5.00
224	TARN TARAN	KHADOOR SAHIB	S-NPP	75.16640	31.43156	13:30:00	D	5.00
225	TARN TARAN	KHADOOR SAHIB	S-NPP	74.88423	31.43213	13:30:00	D	2.00
226	TARN TARAN	KHADOOR SAHIB	S-NPP	74.79692	31.43219	13:30:00	D	1.00
227	TARN TARAN	KHADOOR SAHIB	S-NPP	75.08721	31.43307	13:30:00	D	2.00
228	TARN TARAN	KHADOOR SAHIB	S-NPP	75.15767	31.43363	13:30:00	D	4.00

229	TARN TARAN	KHADOOR SAHIB	S-NPP	75.14491	31.43509	13:30:00	D	3.00
230	TARN TARAN	KHADOOR SAHIB	S-NPP	75.14894	31.43570	13:30:00	D	4.00
231	TARN TARAN	KHADOOR SAHIB	S-NPP	75.15296	31.43632	13:30:00	D	4.00
232	TARN TARAN	KHADOOR SAHIB	S-NPP	75.15698	31.43693	13:30:00	D	4.00
233	TARN TARAN	KHADOOR SAHIB	AQUA	75.16200	31.44100	14:05:00	D	7.00
234	TARN TARAN	KHADOOR SAHIB	S-NPP	74.95202	31.44602	13:30:00	D	3.00
235	TARN TARAN	KHADOOR SAHIB	S-NPP	74.87271	31.44737	13:30:00	D	2.00
236	TARN TARAN	KHADOOR SAHIB	S-NPP	74.69312	31.45009	13:30:00	D	2.00
237	TARN TARAN	KHADOOR SAHIB	S-NPP	75.08154	31.46255	13:30:00	D	4.00
238	TARN TARAN	KHADOOR SAHIB	S-NPP	75.12247	31.46541	13:30:00	D	3.00
239	TARN TARAN	KHADOOR SAHIB	S-NPP	75.13387	31.47056	13:30:00	D	2.00
240	TARN TARAN	KHADOOR SAHIB	S-NPP	74.78857	31.47179	13:30:00	D	3.00
241	TARN TARAN	KHADOOR SAHIB	AQUA	74.69300	31.47200	14:05:00	D	22.00
242	TARN TARAN	KHADOOR SAHIB	S-NPP	74.74683	31.47211	13:30:00	D	3.00
243	TARN TARAN	KHADOOR SAHIB	S-NPP	74.83362	31.47537	13:30:00	D	3.00
244	TARN TARAN	KHADOOR SAHIB	S-NPP	74.91622	31.47795	13:30:00	D	5.00
245	TARN TARAN	KHADOOR SAHIB	AQUA	75.18400	31.48900	14:05:00	D	10.00
246	TARN TARAN	KHADOOR SAHIB	S-NPP	74.86231	31.49686	13:30:00	D	2.00
247	TARN TARAN	KHADOOR SAHIB	AQUA	75.04200	31.50900	14:05:00	D	14.00
248	TARN TARAN	KHADOOR SAHIB	S-NPP	75.18272	31.51544	13:30:00	D	5.00
249	TARN TARAN	KHADOOR SAHIB	S-NPP	75.08266	31.51716	13:30:00	D	4.00
250	TARN TARAN	KHADOOR SAHIB	S-NPP	74.80191	31.55145	13:30:00	D	3.00
251	TARN TARAN	PATTI	S-NPP	74.60954	31.17218	13:30:00	D	2.00
252	TARN TARAN	PATTI	S-NPP	74.89934	31.17705	13:30:00	D	2.00
253	TARN TARAN	PATTI	S-NPP	74.77344	31.20477	13:30:00	D	4.00
254	TARN TARAN	PATTI	S-NPP	74.58829	31.21324	13:30:00	D	7.00
255	TARN TARAN	PATTI	S-NPP	74.77245	31.24895	13:30:00	D	3.00
256	TARN TARAN	PATTI	S-NPP	74.66801	31.27016	13:30:00	D	6.00
257	TARN TARAN	PATTI	S-NPP	74.70439	31.31586	13:30:00	D	5.00
258	TARN TARAN	PATTI	AQUA	74.76900	31.33300	14:05:00	D	15.00
259	TARN TARAN	PATTI	S-NPP	74.62068	31.33686	13:30:00	D	3.00
260	TARN TARAN	PATTI	S-NPP	74.78557	31.34560	13:30:00	D	2.00
261	TARN TARAN	PATTI	AQUA	74.90000	31.34600	14:05:00	D	16.00

262	TARN TARAN	PATTI	S-NPP	74.77264	31.36744	13:30:00	D	4.00
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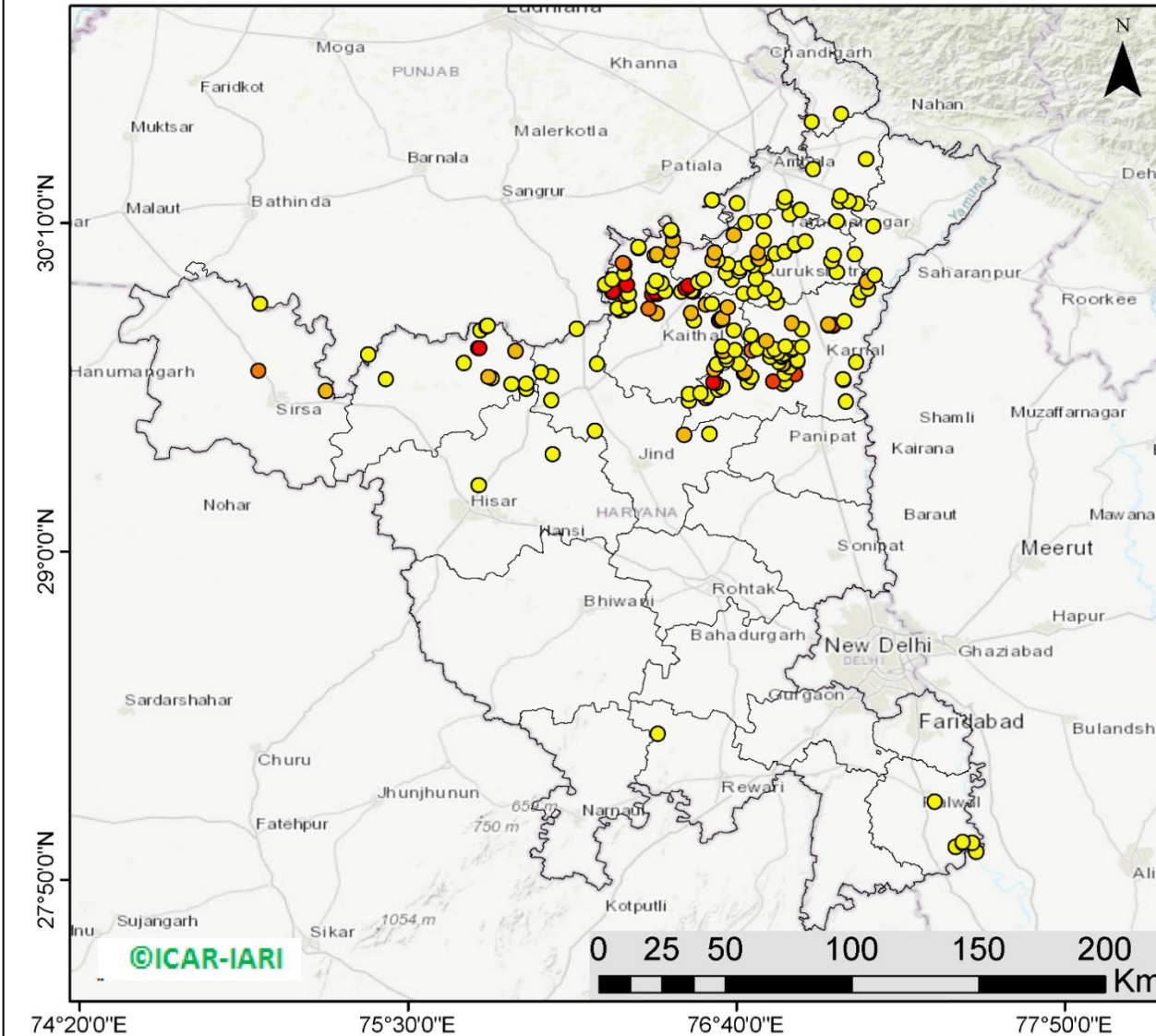
**District-wise cumulative number of residue burning events in Punjab (01 to 15-Oct 2019)**





(b) Haryana

**RICE RESIDUE BURNING IN HARYANA**



**203** burning events  
detected in Haryana on  
15th October 2019

**Fire Intensity (W/m<sup>2</sup>)**

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



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

**Details of residue burning events in Haryana on 15-Oct-2019**

S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m2)
1	AMBALA	AMBALA	S-NPP	76.89441	30.21436	13:30:00	D	2.00
2	AMBALA	AMBALA	S-NPP	76.66883	30.23703	13:30:00	D	3.00
3	AMBALA	AMBALA	S-NPP	76.57947	30.24806	13:30:00	D	3.00
4	AMBALA	AMBALA	S-NPP	76.84010	30.25814	13:30:00	D	2.00
5	AMBALA	AMBALA	S-NPP	76.93895	30.35936	13:30:00	D	2.00
6	AMBALA	BARARA	S-NPP	77.02351	30.17250	13:30:00	D	1.00
7	AMBALA	BARARA	S-NPP	77.09666	30.23586	13:30:00	D	1.00
8	AMBALA	BARARA	S-NPP	77.03179	30.24401	13:30:00	D	2.00
9	AMBALA	BARARA	S-NPP	77.06532	30.24527	13:30:00	D	2.00
10	AMBALA	BARARA	S-NPP	77.03689	30.26194	13:30:00	D	3.00
11	AMBALA	NARAYANGARH	S-NPP	77.12725	30.39271	13:30:00	D	2.00
12	FATEHABAD	FATEHABAD	S-NPP	75.42104	29.61099	13:30:00	D	3.00
13	FATEHABAD	RATIA	S-NPP	75.35912	29.69939	13:30:00	D	4.00
14	FATEHABAD	TOHANA	S-NPP	75.91972	29.57856	13:30:00	D	4.00
15	FATEHABAD	TOHANA	S-NPP	75.86776	29.59450	13:30:00	D	5.00
16	FATEHABAD	TOHANA	S-NPP	75.92043	29.59566	13:30:00	D	3.00
17	FATEHABAD	TOHANA	S-NPP	75.79908	29.61447	13:30:00	D	2.00
18	FATEHABAD	TOHANA	S-NPP	75.78591	29.61927	13:30:00	D	6.00
19	FATEHABAD	TOHANA	S-NPP	75.69839	29.67055	13:30:00	D	2.00
20	FATEHABAD	TOHANA	S-NPP	75.88162	29.71193	13:30:00	D	7.00
21	FATEHABAD	TOHANA	S-NPP	75.75008	29.72195	13:30:00	D	6.00
22	FATEHABAD	TOHANA	S-NPP	75.75404	29.72255	13:30:00	D	27.00
23	FATEHABAD	TOHANA	S-NPP	75.75806	29.78434	13:30:00	D	2.00
24	FATEHABAD	TOHANA	S-NPP	75.77919	29.80114	13:30:00	D	3.00
25	FATEHABAD	TOHANA	S-NPP	75.78316	29.80174	13:30:00	D	3.00
26	HISAR	HISAR	S-NPP	75.75085	29.23500	13:30:00	D	2.00
27	HISAR	HISAR	S-NPP	76.01375	29.34557	13:30:00	D	3.00
28	JIND	NARWANA	S-NPP	76.16405	29.42929	13:30:00	D	2.00
29	JIND	NARWANA	S-NPP	76.00913	29.53763	13:30:00	D	1.00
30	JIND	NARWANA	S-NPP	76.00879	29.62256	13:30:00	D	3.00

31	JIND	NARWANA	S-NPP	75.97368	29.63741	13:30:00	D	3.00
32	JIND	NARWANA	S-NPP	76.17164	29.66696	13:30:00	D	5.00
33	JIND	NARWANA	S-NPP	76.09922	29.79144	13:30:00	D	2.00
34	JIND	SAFIDON	S-NPP	76.48048	29.41489	13:30:00	D	7.00
35	JIND	SAFIDON	S-NPP	76.56988	29.41774	13:30:00	D	2.00
36	KAITHAL	GUHLA	S-NPP	76.27313	29.90859	13:30:00	D	11.00
37	KAITHAL	GUHLA	AQUA	76.38000	29.92100	14:05:00	D	21.00
38	KAITHAL	GUHLA	S-NPP	76.22546	29.92199	13:30:00	D	4.00
39	KAITHAL	GUHLA	S-NPP	76.22945	29.92258	13:30:00	D	7.00
40	KAITHAL	GUHLA	S-NPP	76.22482	29.92529	13:30:00	D	7.00
41	KAITHAL	GUHLA	S-NPP	76.41352	29.92575	13:30:00	D	3.00
42	KAITHAL	GUHLA	S-NPP	76.22881	29.92588	13:30:00	D	23.00
43	KAITHAL	GUHLA	AQUA	76.27800	29.94800	14:05:00	D	22.00
44	KAITHAL	GUHLA	S-NPP	76.19976	29.94882	13:30:00	D	4.00
45	KAITHAL	GUHLA	S-NPP	76.39979	29.95441	13:30:00	D	4.00
46	KAITHAL	GUHLA	S-NPP	76.38189	29.96202	13:30:00	D	4.00
47	KAITHAL	GUHLA	S-NPP	76.22509	29.96618	13:30:00	D	4.00
48	KAITHAL	GUHLA	S-NPP	76.27037	29.98649	13:30:00	D	4.00
49	KAITHAL	GUHLA	AQUA	76.26900	30.02000	14:05:00	D	14.00
50	KAITHAL	GUHLA	AQUA	76.26300	30.02400	14:05:00	D	14.00
51	KAITHAL	GUHLA	S-NPP	76.37690	30.05221	13:30:00	D	1.00
52	KAITHAL	GUHLA	S-NPP	76.38428	30.05669	13:30:00	D	6.00
53	KAITHAL	GUHLA	S-NPP	76.43575	30.06761	13:30:00	D	8.00
54	KAITHAL	GUHLA	S-NPP	76.31850	30.07772	13:30:00	D	3.00
55	KAITHAL	GUHLA	S-NPP	76.31786	30.08103	13:30:00	D	2.00
56	KAITHAL	GUHLA	S-NPP	76.44079	30.10586	13:30:00	D	10.00
57	KAITHAL	GUHLA	S-NPP	76.43491	30.13833	13:30:00	D	2.00
58	KAITHAL	GUHLA	S-NPP	76.43427	30.14165	13:30:00	D	2.00
59	KAITHAL	KAITHAL	S-NPP	76.49863	29.53618	13:30:00	D	5.00
60	KAITHAL	KAITHAL	S-NPP	76.49818	29.55996	13:30:00	D	2.00
61	KAITHAL	KAITHAL	S-NPP	76.58842	29.64699	13:30:00	D	7.00
62	KAITHAL	KAITHAL	S-NPP	76.59726	29.66533	13:30:00	D	4.00
63	KAITHAL	KAITHAL	S-NPP	76.63139	29.68053	13:30:00	D	4.00

64	KAITHAL	KAITHAL	S-NPP	76.62887	29.69382	13:30:00	D	1.00
65	KAITHAL	KAITHAL	S-NPP	76.61708	29.71259	13:30:00	D	3.00
66	KAITHAL	KAITHAL	S-NPP	76.62109	29.71317	13:30:00	D	6.00
67	KAITHAL	KAITHAL	S-NPP	76.66179	29.71568	13:30:00	D	3.00
68	KAITHAL	KAITHAL	S-NPP	76.61456	29.72843	13:30:00	D	2.00
69	KAITHAL	KAITHAL	S-NPP	76.65726	29.78582	13:30:00	D	5.00
70	KAITHAL	KAITHAL	S-NPP	76.51533	29.82198	13:30:00	D	3.00
71	KAITHAL	KAITHAL	AQUA	76.60600	29.82200	14:05:00	D	16.00
72	KAITHAL	KAITHAL	S-NPP	76.61294	29.82378	13:30:00	D	5.00
73	KAITHAL	KAITHAL	S-NPP	76.61230	29.82710	13:30:00	D	11.00
74	KAITHAL	KAITHAL	S-NPP	76.61632	29.82769	13:30:00	D	7.00
75	KAITHAL	KAITHAL	S-NPP	76.38316	29.84701	13:30:00	D	7.00
76	KAITHAL	KAITHAL	S-NPP	76.50626	29.84795	13:30:00	D	6.00
77	KAITHAL	KAITHAL	S-NPP	76.25446	29.85529	13:30:00	D	4.00
78	KAITHAL	KAITHAL	S-NPP	76.26641	29.85706	13:30:00	D	2.00
79	KAITHAL	KAITHAL	AQUA	76.35400	29.86300	14:05:00	D	15.00
80	KAITHAL	KAITHAL	S-NPP	76.24458	29.86404	13:30:00	D	3.00
81	KAITHAL	KAITHAL	S-NPP	76.63461	29.86656	13:30:00	D	7.00
82	KAITHAL	KAITHAL	S-NPP	76.28441	29.86993	13:30:00	D	4.00
83	KAITHAL	KAITHAL	S-NPP	76.28378	29.87324	13:30:00	D	4.00
84	KAITHAL	KAITHAL	S-NPP	76.55856	29.87602	13:30:00	D	7.00
85	KAITHAL	KAITHAL	S-NPP	76.57861	29.87893	13:30:00	D	2.00
86	KAITHAL	KAITHAL	AQUA	76.36800	29.91300	14:05:00	D	38.00
87	KAITHAL	KAITHAL	S-NPP	76.28446	29.91366	13:30:00	D	2.00
88	KAITHAL	KAITHAL	AQUA	76.38700	29.91500	14:05:00	D	19.00
89	KAITHAL	KAITHAL	S-NPP	76.69144	29.91578	13:30:00	D	5.00
90	KAITHAL	KAITHAL	S-NPP	76.47146	29.92395	13:30:00	D	5.00
91	KAITHAL	KAITHAL	S-NPP	76.36972	29.93979	13:30:00	D	1.00
92	KARNAL	ASSANDH	S-NPP	76.55841	29.54491	13:30:00	D	9.00
93	KARNAL	ASSANDH	S-NPP	76.56512	29.55271	13:30:00	D	3.00
94	KARNAL	ASSANDH	S-NPP	76.53867	29.56248	13:30:00	D	2.00
95	KARNAL	ASSANDH	S-NPP	76.60190	29.57512	13:30:00	D	2.00
96	KARNAL	ASSANDH	S-NPP	76.61662	29.58409	13:30:00	D	1.00

97	KARNAL	ASSANDH	AQUA	76.59200	29.59700	14:05:00	D	12.00
98	KARNAL	ASSANDH	S-NPP	76.70805	29.60081	13:30:00	D	3.00
99	KARNAL	ASSANDH	AQUA	76.58500	29.60100	14:05:00	D	22.00
100	KARNAL	ASSANDH	AQUA	76.79700	29.60400	14:05:00	D	16.00
101	KARNAL	ASSANDH	S-NPP	76.72095	29.61976	13:30:00	D	4.00
102	KARNAL	ASSANDH	S-NPP	76.69418	29.63158	13:30:00	D	6.00
103	KARNAL	ASSANDH	S-NPP	76.69694	29.63881	13:30:00	D	6.00
104	KARNAL	ASSANDH	S-NPP	76.67524	29.66640	13:30:00	D	4.00
105	KARNAL	GHARAUNDA	S-NPP	77.05551	29.53217	13:30:00	D	2.00
106	KARNAL	GHARAUNDA	S-NPP	77.04613	29.60825	13:30:00	D	2.00
107	KARNAL	GHARAUNDA	S-NPP	77.04552	29.61159	13:30:00	D	4.00
108	KARNAL	INDRI	S-NPP	77.04987	29.81801	13:30:00	D	2.00
109	KARNAL	INDRI	S-NPP	77.09869	29.89370	13:30:00	D	4.00
110	KARNAL	INDRI	S-NPP	77.10748	29.92017	13:30:00	D	3.00
111	KARNAL	INDRI	S-NPP	77.13429	29.93426	13:30:00	D	2.00
112	KARNAL	INDRI	S-NPP	77.12996	29.95776	13:30:00	D	8.00
113	KARNAL	KARNAL	S-NPP	76.83290	29.59492	13:30:00	D	6.00
114	KARNAL	KARNAL	S-NPP	76.84373	29.60331	13:30:00	D	4.00
115	KARNAL	KARNAL	S-NPP	76.87625	29.62853	13:30:00	D	18.00
116	KARNAL	KARNAL	S-NPP	76.83873	29.62997	13:30:00	D	4.00
117	KARNAL	KARNAL	S-NPP	76.85503	29.65464	13:30:00	D	3.00
118	KARNAL	KARNAL	S-NPP	76.83237	29.66509	13:30:00	D	4.00
119	KARNAL	KARNAL	S-NPP	76.83128	29.66615	02:12:00	N	8.00
120	KARNAL	KARNAL	S-NPP	77.09248	29.67323	13:30:00	D	3.00
121	KARNAL	KARNAL	S-NPP	76.81841	29.67336	13:30:00	D	4.00
122	KARNAL	KARNAL	S-NPP	76.88419	29.67592	13:30:00	D	3.00
123	KARNAL	KARNAL	S-NPP	76.88358	29.67925	13:30:00	D	3.00
124	KARNAL	KARNAL	S-NPP	76.82738	29.69175	13:30:00	D	6.00
125	KARNAL	KARNAL	S-NPP	76.78584	29.69262	13:30:00	D	4.00
126	KARNAL	KARNAL	S-NPP	76.82674	29.69508	13:30:00	D	4.00
127	KARNAL	KARNAL	S-NPP	76.83356	29.70290	13:30:00	D	3.00
128	KARNAL	KARNAL	S-NPP	76.81215	29.70667	13:30:00	D	3.00
129	KARNAL	KARNAL	S-NPP	76.78611	29.71318	13:30:00	D	2.00

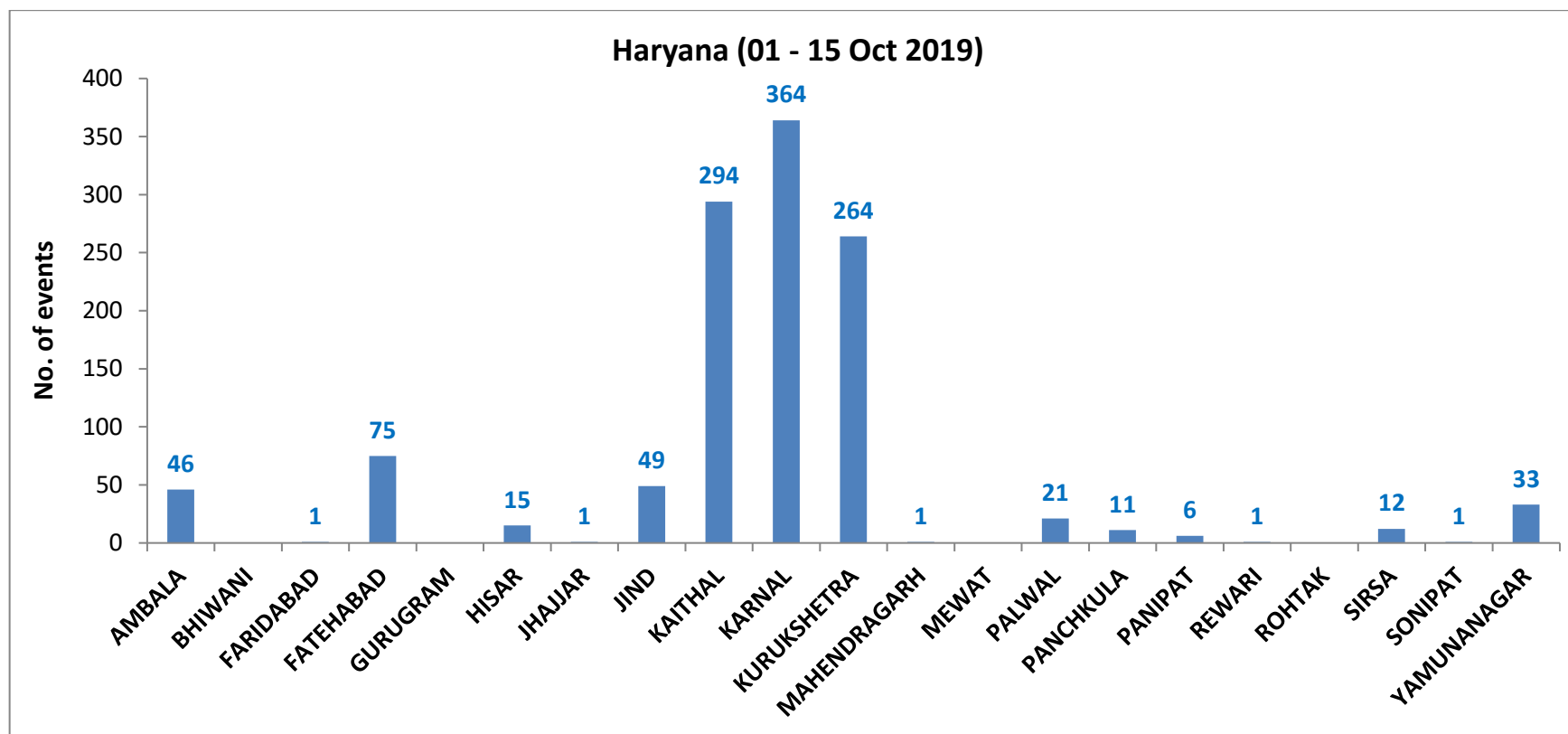
130	KARNAL	KARNAL	S-NPP	76.71986	29.71387	13:30:00	D	11.00
131	KARNAL	KARNAL	S-NPP	76.86397	29.71754	13:30:00	D	1.00
132	KARNAL	KARNAL	S-NPP	76.80159	29.71884	13:30:00	D	3.00
133	KARNAL	KARNAL	S-NPP	76.73934	29.72010	13:30:00	D	2.00
134	KARNAL	KARNAL	S-NPP	76.86739	29.72146	13:30:00	D	4.00
135	KARNAL	KARNAL	S-NPP	76.89970	29.72609	13:30:00	D	4.00
136	KARNAL	KARNAL	S-NPP	76.84129	29.72798	13:30:00	D	4.00
137	KARNAL	KARNAL	S-NPP	76.77188	29.74764	13:30:00	D	6.00
138	KARNAL	KARNAL	S-NPP	76.71855	29.76734	13:30:00	D	3.00
139	KARNAL	KARNAL	S-NPP	77.01099	29.80221	13:30:00	D	18.00
140	KARNAL	KARNAL	S-NPP	76.99411	29.80326	13:30:00	D	4.00
141	KARNAL	KARNAL	S-NPP	77.01038	29.80556	13:30:00	D	18.00
142	KARNAL	KARNAL	S-NPP	76.99348	29.80660	13:30:00	D	9.00
143	KARNAL	NILOKHERI	S-NPP	76.90079	29.79000	13:30:00	D	2.00
144	KARNAL	NILOKHERI	S-NPP	76.86341	29.81208	13:30:00	D	8.00
145	KARNAL	NILOKHERI	S-NPP	76.80922	29.88481	13:30:00	D	3.00
146	KURUKSHETRA	PEHOWA	S-NPP	76.51233	29.92389	13:30:00	D	3.00
147	KURUKSHETRA	PEHOWA	S-NPP	76.50816	29.92587	13:30:00	D	5.00
148	KURUKSHETRA	PEHOWA	S-NPP	76.51217	29.92645	13:30:00	D	5.00
149	KURUKSHETRA	PEHOWA	AQUA	76.50600	29.92700	14:05:00	D	19.00
150	KURUKSHETRA	PEHOWA	S-NPP	76.50753	29.92919	13:30:00	D	5.00
151	KURUKSHETRA	PEHOWA	AQUA	76.48500	29.93700	14:05:00	D	25.00
152	KURUKSHETRA	PEHOWA	AQUA	76.49700	29.94400	14:05:00	D	25.00
153	KURUKSHETRA	PEHOWA	S-NPP	76.53117	29.95650	13:30:00	D	3.00
154	KURUKSHETRA	PEHOWA	S-NPP	76.54997	29.96605	13:30:00	D	2.00
155	KURUKSHETRA	PEHOWA	S-NPP	76.64905	29.96669	13:30:00	D	3.00
156	KURUKSHETRA	PEHOWA	S-NPP	76.62852	29.98765	13:30:00	D	3.00
157	KURUKSHETRA	PEHOWA	S-NPP	76.67689	29.99463	13:30:00	D	4.00
158	KURUKSHETRA	PEHOWA	S-NPP	76.67903	30.00520	13:30:00	D	4.00
159	KURUKSHETRA	PEHOWA	S-NPP	76.63492	30.01934	13:30:00	D	2.00
160	KURUKSHETRA	PEHOWA	S-NPP	76.59891	30.03462	13:30:00	D	1.00
161	KURUKSHETRA	PEHOWA	S-NPP	76.42544	30.03542	13:30:00	D	3.00
162	KURUKSHETRA	PEHOWA	S-NPP	76.58217	30.03560	13:30:00	D	6.00



163	KURUKSHETRA	PEHOWA	S-NPP	76.58953	30.06259	13:30:00	D	10.00
164	KURUKSHETRA	PEHOWA	S-NPP	76.65669	30.12354	13:30:00	D	9.00
165	KURUKSHETRA	PEHOWA	S-NPP	76.69828	30.16718	13:30:00	D	2.00
166	KURUKSHETRA	SHAHABAD	S-NPP	76.76376	30.17320	13:30:00	D	5.00
167	KURUKSHETRA	SHAHABAD	S-NPP	76.85548	30.19856	13:30:00	D	5.00
168	KURUKSHETRA	SHAHABAD	S-NPP	76.83510	30.24027	13:30:00	D	5.00
169	KURUKSHETRA	THANESAR	S-NPP	76.80016	29.91090	13:30:00	D	1.00
170	KURUKSHETRA	THANESAR	S-NPP	76.73177	29.92159	13:30:00	D	2.00
171	KURUKSHETRA	THANESAR	S-NPP	76.77090	29.93408	13:30:00	D	2.00
172	KURUKSHETRA	THANESAR	S-NPP	76.73566	29.96887	13:30:00	D	3.00
173	KURUKSHETRA	THANESAR	S-NPP	77.02303	29.99078	13:30:00	D	5.00
174	KURUKSHETRA	THANESAR	S-NPP	76.76918	30.01131	13:30:00	D	3.00
175	KURUKSHETRA	THANESAR	S-NPP	76.72686	30.01550	13:30:00	D	5.00
176	KURUKSHETRA	THANESAR	S-NPP	76.70881	30.02317	13:30:00	D	5.00
177	KURUKSHETRA	THANESAR	S-NPP	77.00343	30.03092	13:30:00	D	3.00
178	KURUKSHETRA	THANESAR	S-NPP	76.74330	30.03840	13:30:00	D	6.00
179	KURUKSHETRA	THANESAR	S-NPP	76.74734	30.03899	13:30:00	D	6.00
180	KURUKSHETRA	THANESAR	S-NPP	77.01197	30.05275	13:30:00	D	5.00
181	KURUKSHETRA	THANESAR	S-NPP	76.80621	30.05773	13:30:00	D	3.00
182	KURUKSHETRA	THANESAR	S-NPP	76.74294	30.06232	13:30:00	D	10.00
183	KURUKSHETRA	THANESAR	S-NPP	76.83806	30.06573	13:30:00	D	2.00
184	KURUKSHETRA	THANESAR	S-NPP	76.87543	30.08973	13:30:00	D	10.00
185	KURUKSHETRA	THANESAR	S-NPP	76.87480	30.09307	13:30:00	D	2.00
186	KURUKSHETRA	THANESAR	S-NPP	76.91084	30.10159	13:30:00	D	3.00
187	KURUKSHETRA	THANESAR	S-NPP	76.76417	30.10475	13:30:00	D	5.00
188	PALWAL	HODAL	S-NPP	77.51774	27.93288	13:30:00	D	2.00
189	PALWAL	HODAL	S-NPP	77.44500	27.94999	13:30:00	D	3.00
190	PALWAL	HODAL	S-NPP	77.47113	27.96401	13:30:00	D	2.00
191	PALWAL	HODAL	S-NPP	77.50372	27.96523	13:30:00	D	4.00
192	PALWAL	HODAL	S-NPP	77.47053	27.96736	13:30:00	D	2.00
193	PALWAL	PALWAL	S-NPP	77.37186	28.11104	13:30:00	D	4.00
194	PANCHKULA	PANCHKULA	S-NPP	76.93444	30.52541	13:30:00	D	1.00
195	PANCHKULA	PANCHKULA	S-NPP	76.93447	30.52655	13:30:00	D	2.00

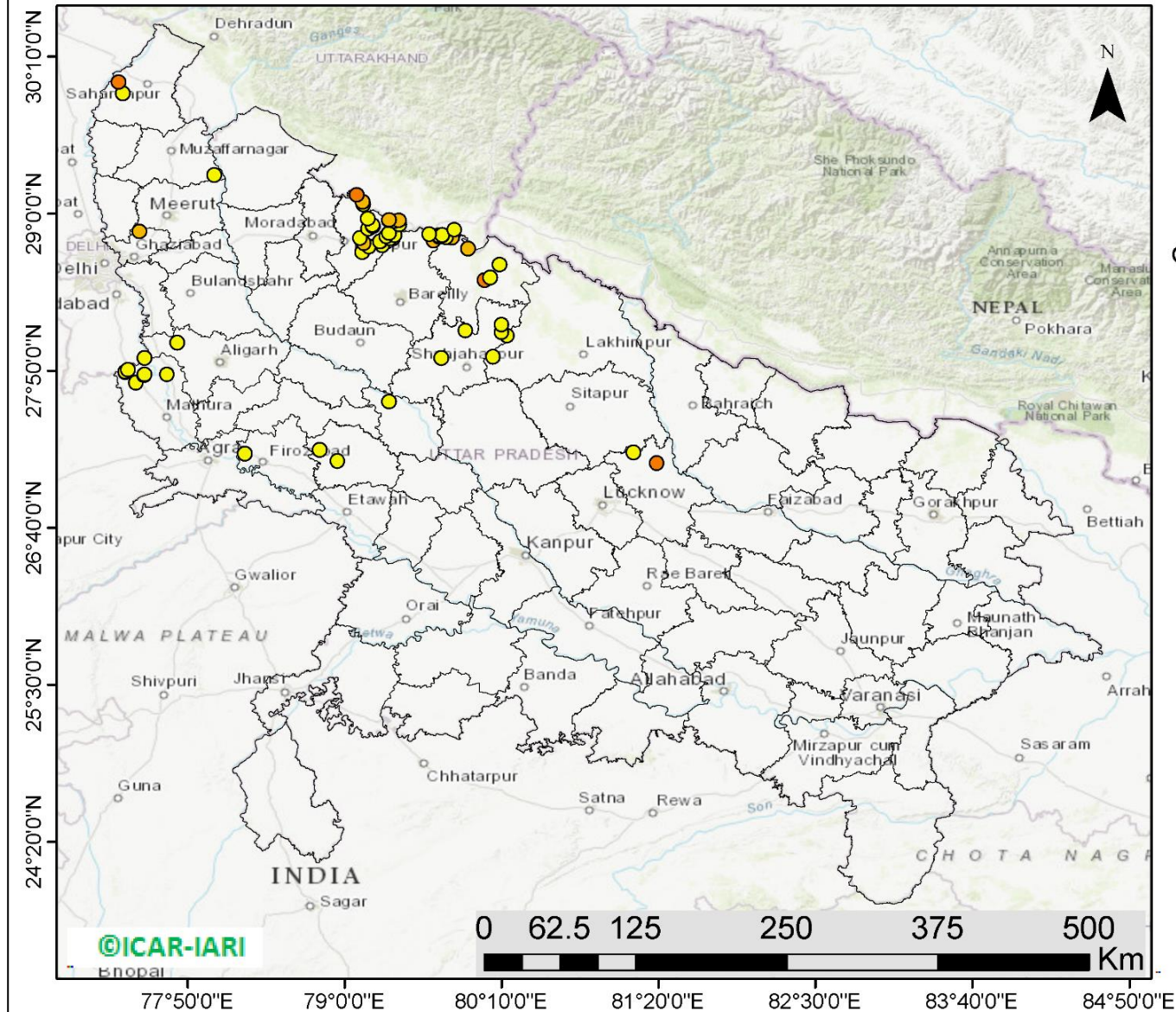
196	PANCHKULA	PANCHKULA	S-NPP	77.03928	30.55494	13:30:00	D	2.00
197	REWARI	KOSLI	S-NPP	76.38788	28.35305	13:30:00	D	3.00
198	SIRSA	SIRSA	S-NPP	75.20874	29.57118	13:30:00	D	9.00
199	SIRSA	SIRSA	S-NPP	74.96957	29.64187	13:30:00	D	12.00
200	SIRSA	SIRSA	S-NPP	74.97418	29.88010	13:30:00	D	4.00
201	YAMUNANAGAR	JAGADHRI	S-NPP	77.15907	29.98253	13:30:00	D	3.00
202	YAMUNANAGAR	JAGADHRI	S-NPP	77.08693	30.05645	13:30:00	D	3.00
203	YAMUNANAGAR	JAGADHRI	S-NPP	77.15311	30.15626	13:30:00	D	2.00

**District-wise cumulative number of residue burning events in Haryana (01 to 15-Oct 2019)**



(c) UP

### RICE RESIDUE BURNING IN UTTAR PRADESH



**63** burning events detected in Uttar Pradesh on **15th October 2019**

#### Fire Intensity (W/m<sup>2</sup>)

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



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

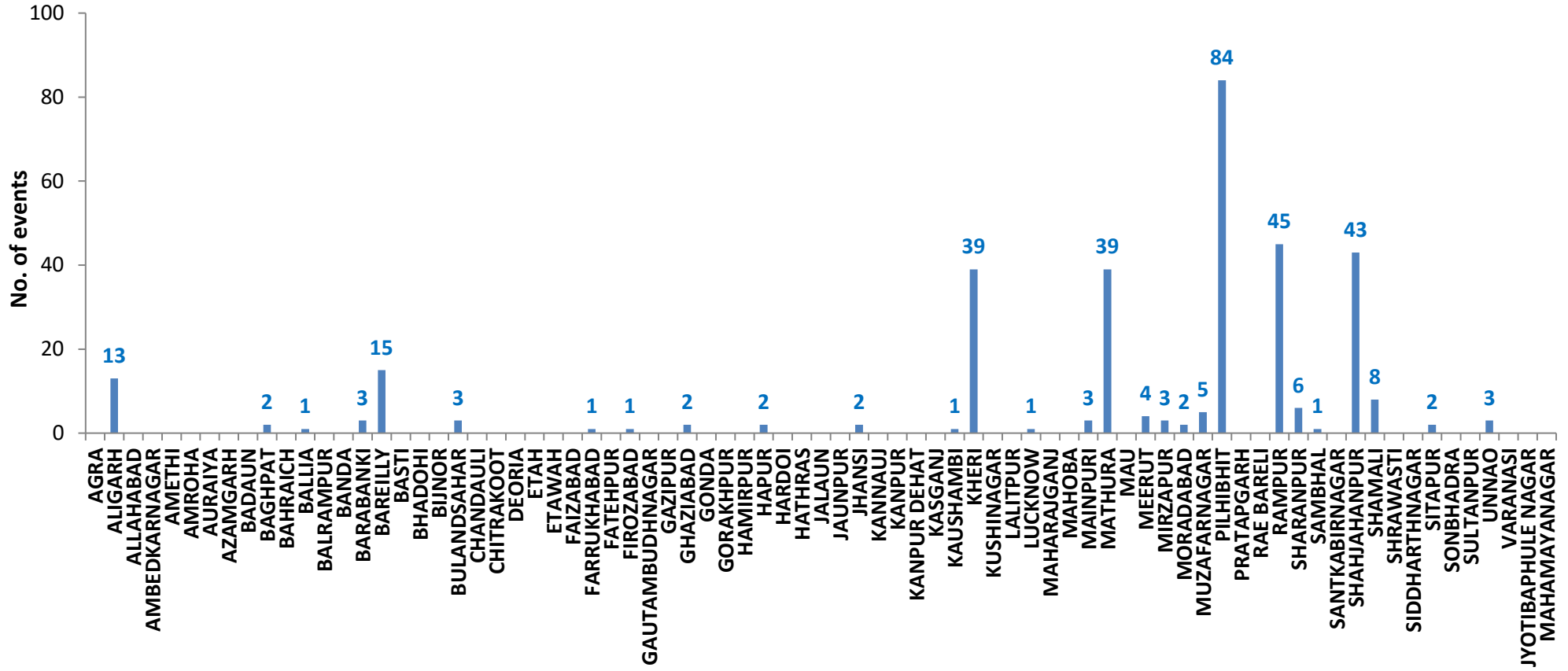
**Details of residue burning events in Uttar Pradesh on 15-Oct-2019**

S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m <sup>2</sup> )
1	ALIGARH	GABHANA	S-NPP	77.75414	28.04209	13:30:00	D	4.00
2	BARABANKI	FATEHPUR	S-NPP	81.14679	27.22532	13:30:00	D	3.00
3	BARABANKI	RAMNAGAR	S-NPP	81.32042	27.14649	13:30:00	D	14.00
4	BAREILLY	BAHERI	S-NPP	79.66274	28.79994	13:30:00	D	6.00
5	BAREILLY	BAHERI	S-NPP	79.62856	28.84780	13:30:00	D	4.00
6	FARRUKHABAD	KARIMGANJ	S-NPP	79.32789	27.60318	13:30:00	D	2.00
7	FIROZABAD	TUNDLA	S-NPP	78.25673	27.21776	13:30:00	D	2.00
8	GHAZIABAD	MODINAGAR	S-NPP	77.47335	28.86655	13:30:00	D	6.00
9	KHERI	MOHMADI	S-NPP	80.10374	27.93565	13:30:00	D	2.00
10	MAINPURI	MAINPURI	S-NPP	78.94548	27.16136	13:30:00	D	3.00
11	MAINPURI	MAINPURI	S-NPP	78.81468	27.24476	13:30:00	D	2.00
12	MATHURA	CHHATA	S-NPP	77.44885	27.74472	13:30:00	D	4.00
13	MATHURA	CHHATA	S-NPP	77.50871	27.79790	13:30:00	D	2.00
14	MATHURA	CHHATA	S-NPP	77.50854	27.79933	13:30:00	D	3.00
15	MATHURA	CHHATA	S-NPP	77.51193	27.80324	13:30:00	D	3.00
16	MATHURA	CHHATA	S-NPP	77.67979	27.80517	13:30:00	D	2.00
17	MATHURA	CHHATA	S-NPP	77.37001	27.82071	13:30:00	D	3.00
18	MATHURA	CHHATA	S-NPP	77.36942	27.82405	13:30:00	D	3.00
19	MATHURA	CHHATA	S-NPP	77.38685	27.84025	13:30:00	D	3.00
20	MATHURA	CHHATA	S-NPP	77.51033	27.92840	13:30:00	D	2.00
21	MUZAFARNAGAR	JANSATH	S-NPP	78.03087	29.28831	13:30:00	D	2.00
22	PILHIBHIT	BISALPUR	S-NPP	79.89948	28.12916	13:30:00	D	4.00
23	PILHIBHIT	PILHIBHIT	TERRA	79.91600	28.74000	10:50:00	D	6.00
24	PILHIBHIT	PILHIBHIT	TERRA	79.79700	28.82100	10:50:00	D	6.00
25	PILHIBHIT	PILHIBHIT	S-NPP	79.75203	28.82601	13:30:00	D	5.00
26	PILHIBHIT	PILHIBHIT	S-NPP	79.70255	28.82723	13:30:00	D	4.00
27	PILHIBHIT	PILHIBHIT	S-NPP	79.72553	28.83756	13:30:00	D	3.00
28	PILHIBHIT	PILHIBHIT	S-NPP	79.70082	28.83816	13:30:00	D	4.00
29	PILHIBHIT	PILHIBHIT	S-NPP	79.72495	28.84121	13:30:00	D	4.00
30	PILHIBHIT	PILHIBHIT	S-NPP	79.81617	28.87818	13:30:00	D	3.00

31	PILHIBHIT	PURANPUR	S-NPP	80.04086	28.50613	13:30:00	D	11.00
32	PILHIBHIT	PURANPUR	S-NPP	80.08315	28.52639	13:30:00	D	4.00
33	PILHIBHIT	PURANPUR	S-NPP	80.15207	28.61919	13:30:00	D	3.00
34	RAMPUR	BILASPUR	S-NPP	79.27940	28.76592	13:30:00	D	4.00
35	RAMPUR	BILASPUR	S-NPP	79.26552	28.79330	13:30:00	D	3.00
36	RAMPUR	BILASPUR	S-NPP	79.26287	28.79506	13:30:00	D	2.00
37	RAMPUR	BILASPUR	S-NPP	79.35916	28.81442	13:30:00	D	3.00
38	RAMPUR	BILASPUR	S-NPP	79.33531	28.81509	13:30:00	D	3.00
39	RAMPUR	BILASPUR	S-NPP	79.30915	28.83007	13:30:00	D	3.00
40	RAMPUR	BILASPUR	S-NPP	79.36909	28.84129	13:30:00	D	2.00
41	RAMPUR	BILASPUR	S-NPP	79.32890	28.85450	13:30:00	D	4.00
42	RAMPUR	BILASPUR	S-NPP	79.20878	28.90297	13:30:00	D	3.00
43	RAMPUR	BILASPUR	S-NPP	79.20702	28.91367	13:30:00	D	2.00
44	RAMPUR	BILASPUR	S-NPP	79.40603	28.91665	13:30:00	D	2.00
45	RAMPUR	BILASPUR	S-NPP	79.36850	28.94131	13:30:00	D	3.00
46	RAMPUR	BILASPUR	S-NPP	79.32936	28.94738	13:30:00	D	6.00
47	RAMPUR	BILASPUR	S-NPP	79.40076	28.94903	13:30:00	D	9.00
48	RAMPUR	BILASPUR	S-NPP	79.32877	28.95097	13:30:00	D	6.00
49	RAMPUR	MILAK	S-NPP	79.12941	28.71029	13:30:00	D	3.00
50	RAMPUR	MILAK	S-NPP	79.18230	28.75701	13:30:00	D	4.00
51	RAMPUR	MILAK	S-NPP	79.14346	28.78002	13:30:00	D	7.00
52	RAMPUR	RAMPUR	S-NPP	79.11364	28.81971	13:30:00	D	2.00
53	RAMPUR	SUAR	S-NPP	79.17429	28.88409	13:30:00	D	3.00
54	RAMPUR	SUAR	S-NPP	79.17121	28.96004	13:30:00	D	2.00
55	RAMPUR	SUAR	S-NPP	79.14102	29.06766	13:30:00	D	4.00
56	RAMPUR	SUAR	S-NPP	79.13291	29.08843	13:30:00	D	6.00
57	RAMPUR	SUAR	S-NPP	79.08829	29.13923	13:30:00	D	11.00
58	SHAHJAHANPUR	PUWANYA	S-NPP	80.20686	28.09339	13:30:00	D	4.00
59	SHAHJAHANPUR	PUWANYA	S-NPP	80.16760	28.11872	13:30:00	D	3.00
60	SHAHJAHANPUR	PUWANYA	S-NPP	80.16620	28.17292	13:30:00	D	4.00
61	SHAHJAHANPUR	TILHAR	S-NPP	79.71952	27.92890	13:30:00	D	2.00
62	SHARANPUR	NAKUR	S-NPP	77.35168	29.89486	13:30:00	D	3.00
63	SHARANPUR	NAKUR	AQUA	77.32000	29.97700	14:05:00	D	13.00

**District-wise cumulative number of residue burning events in Uttar Pradesh (01 to 15-Oct 2019)**

**Uttar Pradesh (01 - 15 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 15-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
<b>Total</b>	<b>1118</b>	<b>864</b>	<b>3674</b>	<b>5554</b>	<b>1195</b>	<b>1075</b>	<b>2105</b>	<b>2322</b>	<b>334</b>	<b>447</b>	<b>999</b>	<b>758</b>	<b>2647</b>	<b>2386</b>	<b>6778</b>	<b>8634</b>

**(a) Punjab**

Districts	01-15 Oct			
	2016	2017	2018	2019
AMRITSAR	712	481	355	333
BARNALA	15	11	1	6
BATHINDA	288	231	15	8
FARIDKOT	411	512	21	29
FATEHGARH SAHIB	315	131	14	14
FAZILKA	0	0	0	24
FIROZPUR	517	423	60	57
GURDASPUR	237	99	31	43
HOSHIARPUR	35	14	3	8
JALANDHAR	360	147	4	51
KAPURTHALA	298	40	3	33
LUDHIANA	270	244	23	10
MANSA	37	62	9	23
MOGA	71	49	2	17
MUKTSAR	431	128	12	11
NAWASHAHR (SBS Nagar)	75	43	13	15
PATHANKOT	0	0	0	0
PATIALA	477	446	87	140
RUPNAGAR	59	5	0	1
SANGRUR	93	140	46	41
SAS NAGAR	38	41	26	14
TARN TARAN	815	427	139	240
<b>Total</b>	<b>5554</b>	<b>3674</b>	<b>864</b>	<b>1118</b>

**(b) Haryana**

Districts	01-15 Oct			
	2016	2017	2018	2019
AMBALA	142	150	42	46
BHIWANI	0	2	2	0
FARIDABAD	6	32	33	1
FATEHABAD	91	89	44	75
GURUGRAM	0	0	0	0
HISAR	15	17	9	15
JHAJJAR	4	0	3	1
JIND	57	97	45	49
KAITHAL	627	441	247	294
KARNAL	793	682	353	364
KURUKSHETRA	480	471	224	264
MAHENDRAGARH	0	0	0	1
MEWAT	0	0	0	0
PALWAL	0	0	0	21
PANCHKULA	0	0	3	11
PANIPAT	17	31	31	6
REWARI	0	0	0	1
ROHTAK	1	1	0	0
SIRSA	43	17	8	12
SONIPAT	3	11	8	1
YAMUNANAGAR	43	64	23	33
<b>Total</b>	<b>2322</b>	<b>2105</b>	<b>1075</b>	<b>1195</b>

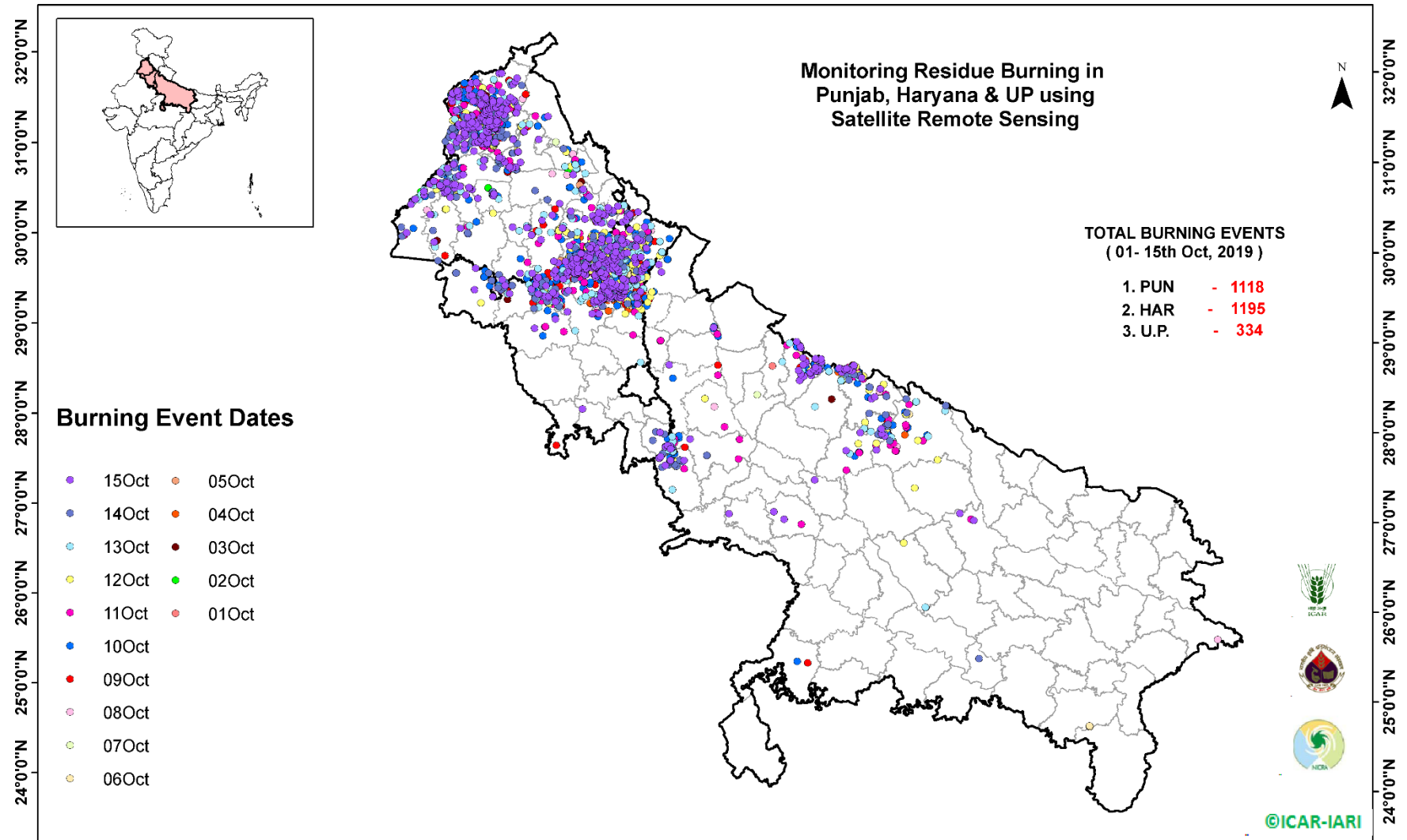
(c) Uttar Pradesh

Districts	01-15 Oct			
	2016	2017	2018	2019
AGRA	0	0	0	0
ALIGARH	0	11	10	13
ALLAHABAD	0	0	3	0
AMBEDKARNAGAR	0	1	0	0
AMETHI	0	0	0	0
AMROHA	0	0	0	0
AURAIYA	39	37	14	0
AZAMGARH	0	0	0	0
BADAUN	0	1	0	0
BAGHPAT	0	0	0	2
BAHRAICH	0	2	2	0
BALLIA	0	0	0	1
BALRAMPUR	0	0	0	0
BANDA	0	0	1	0
BARABANKI	14	21	41	3
BAREILLY	42	28	7	15
BASTI	0	0	0	0
BHADOHI	0	0	0	0
BIJNOR	1	0	1	0
BULANDSAHAR	0	6	5	3
CHANDAULI	0	0	0	0
CHITRAKOOT	0	0	0	0
DEORIA	0	0	0	0
ETAH	0	4	7	0
ETAWAH	0	3	1	0
FAIZABAD	0	1	0	0
FARRUKHABAD	0	0	0	1
FATEHPUR	1	4	5	0
FIROZABAD	2	0	0	1

GAUTAMBUDHNAGAR	1	3	2	0
GAZIPUR	0	0	0	0
GHAZIABAD	6	2	2	2
GONDA	0	0	0	0
GORAKHPUR	0	2	4	0
HAMIRPUR	0	0	1	0
HAPUR	0	0	0	2
HARDOI	5	8	2	0
HATHRAS	0	0	0	0
JALAUN	0	0	0	0
JAUNPUR	0	0	2	0
JHANSI	0	0	0	2
KANNAUJ	0	0	1	0
KANPUR	0	2	0	0
KANPUR DEHAT	0	1	0	0
KASGANJ	0	0	0	0
KAUSHAMBI	0	3	7	1
KHERI	69	89	35	39
KUSHINAGAR	0	1	0	0
LALITPUR	0	0	0	0
LUCKNOW	2	4	0	1
MAHARAJGANJ	0	5	6	0
MAHOBA	0	0	0	0
MAINPURI	0	3	4	3
MATHURA	9	29	72	39
MAU	1	0	0	0
MEERUT	6	6	0	4
MIRZAPUR	0	1	1	3
MORADABAD	1	7	2	2
MUZAFARNAGAR	18	41	11	5
PILHIBHIT	141	187	61	84
PRATAPGARH	0	0	2	0

RAE BARELI	0	0	0	0
RAMPUR	155	151	33	45
SHARANPUR	11	16	9	6
SAMBHAL	0	0	0	1
SANTKABIRNAGAR	0	0	0	0
SHAHJAHANPUR	215	309	82	43
SHAMALI	0	0	0	8
SHRAWASTI	0	2	0	0
SIDDHARTHANAGAR	1	0	0	0
SITAPUR	12	6	4	2
SONBHADRA	3	1	4	0
SULTANPUR	0	0	0	0
UNNAO	3	1	1	3
VARANASI	0	0	0	0
JYOTIBAPHULE NAGAR	0	0	1	0
MAHAMAYANAGAR	0	0	1	0
<b>Total</b>	<b>758</b>	<b>999</b>	<b>447</b>	<b>334</b>

# Map of Cumulative Burning Events (01 – 15 Oct 2019)



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

**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)

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