

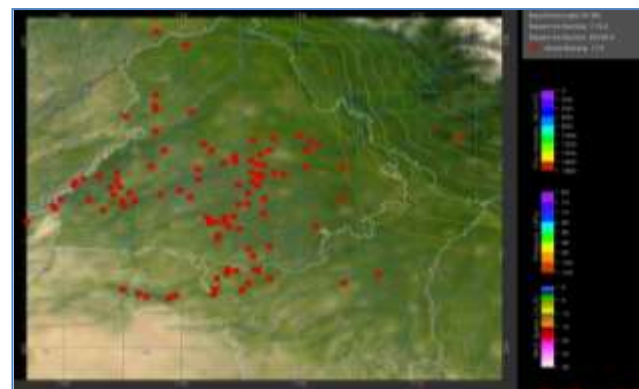
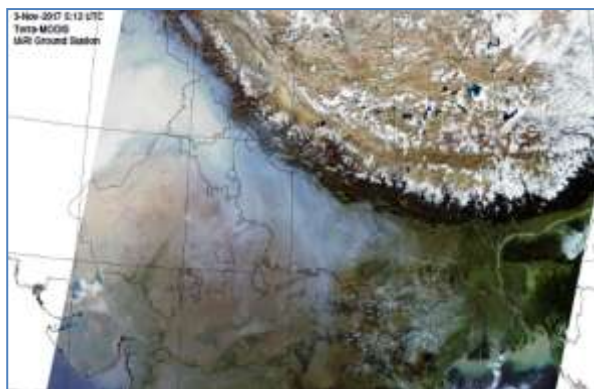


# MONITORING PADDY RESIDUE BURNING IN NORTH INDIA USING SATELLITE REMOTE SENSING DURING 2020

**Bulletin  
No. 4**

**Events Date:  
04-Oct-2020**

**Issued on:  
05-Oct-2020**



**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**

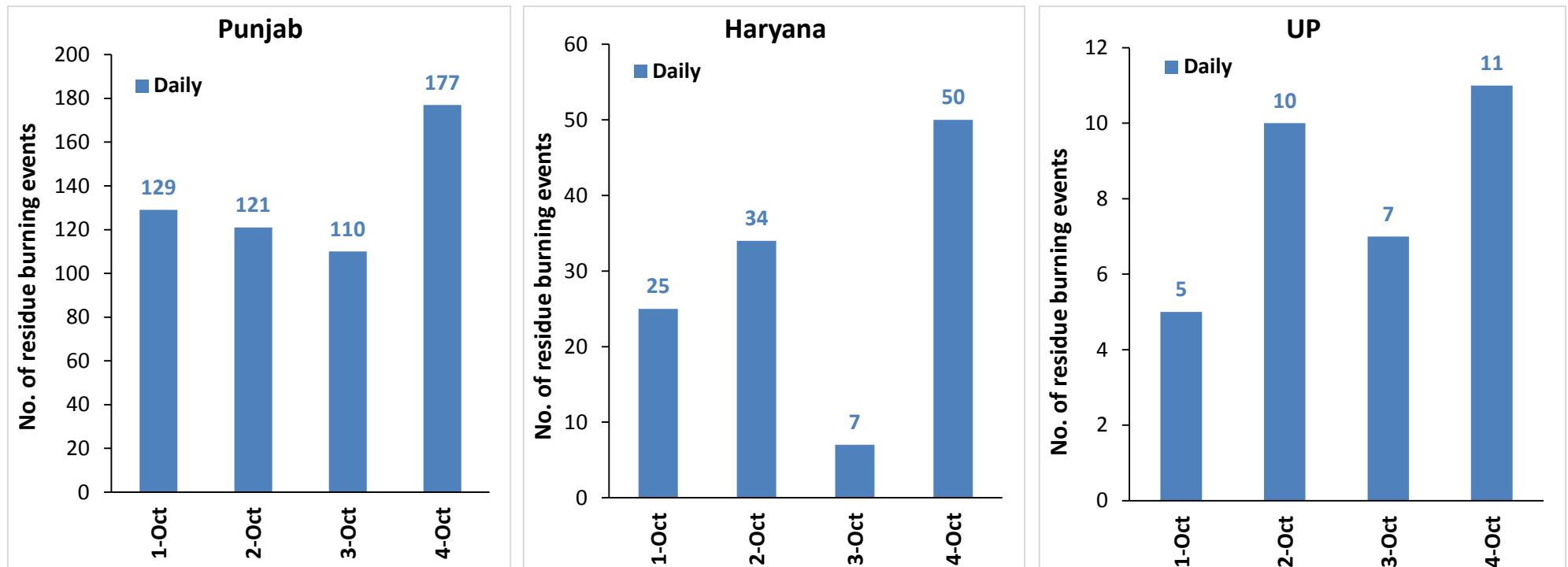
<http://creams.iari.res.in>



## Highlights for 04-October-2020

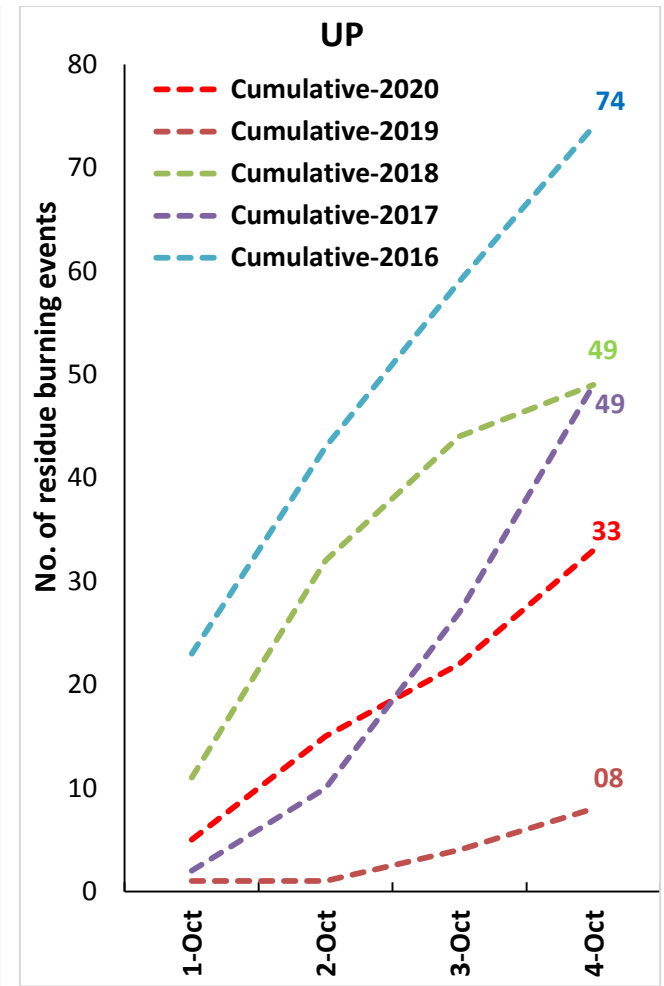
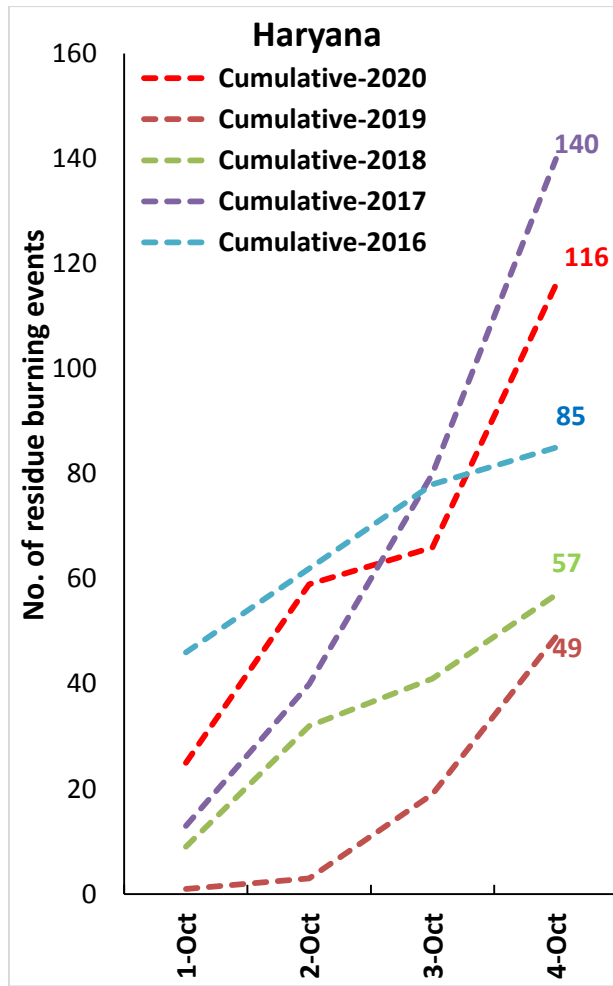
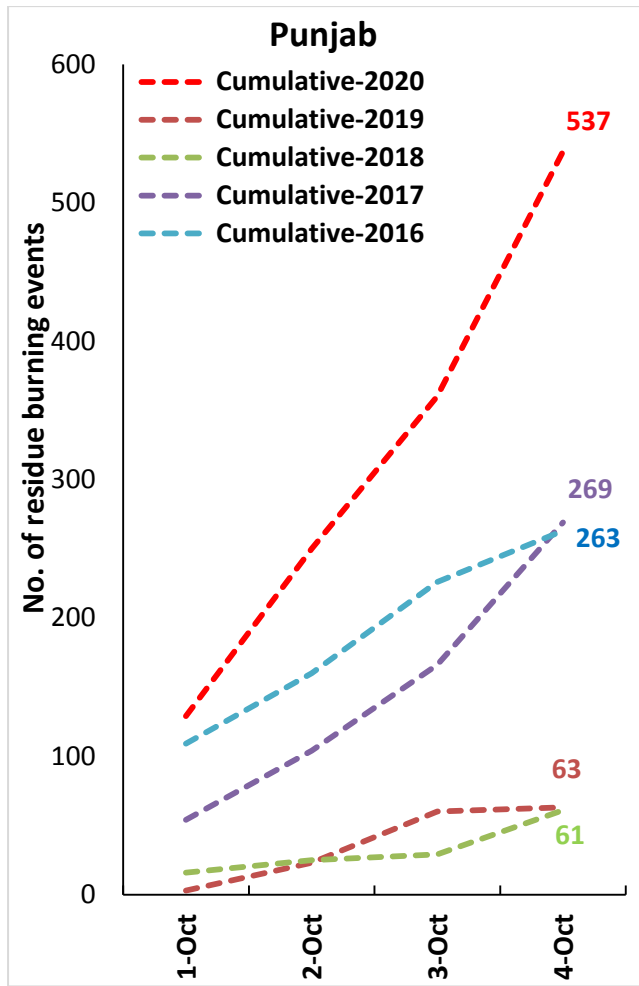
- Satellites detected **238** residue burning events in the three study States on 04-Oct-2020.
- The state wise events detected on 04-Oct-2020 were **177** in Punjab, **50** in Haryana and **11** in UP.
- In Punjab, burning/fire events were concentrated in Amritsar and Tarn Taran districts.
- In Haryana and Uttar Pradesh, the burning events were scattered.
- The number of burning events was highest on 4-Oct in Punjab in the last four years.
- Total **686** burning events were detected in the three States between 01-Oct-2020 and 04-Oct-2020, which are distributed as **537**, **116** and **33** in Punjab, Haryana and UP, respectively.

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

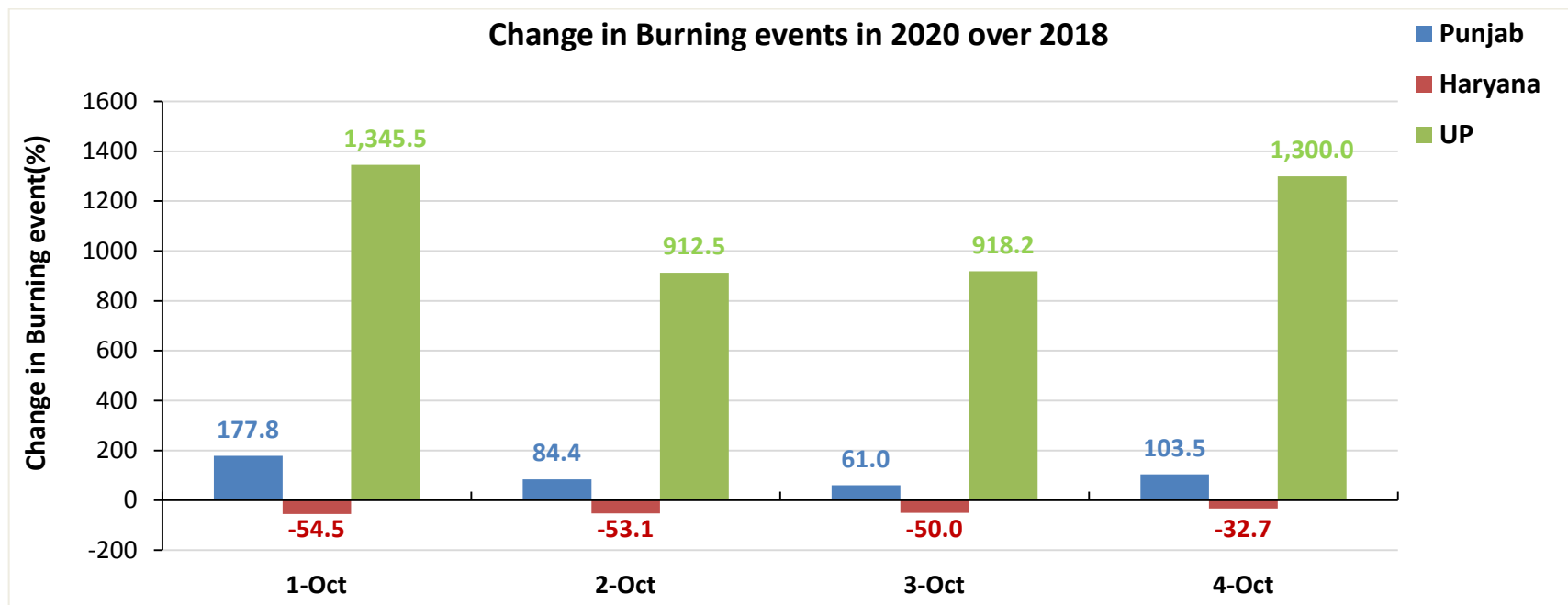
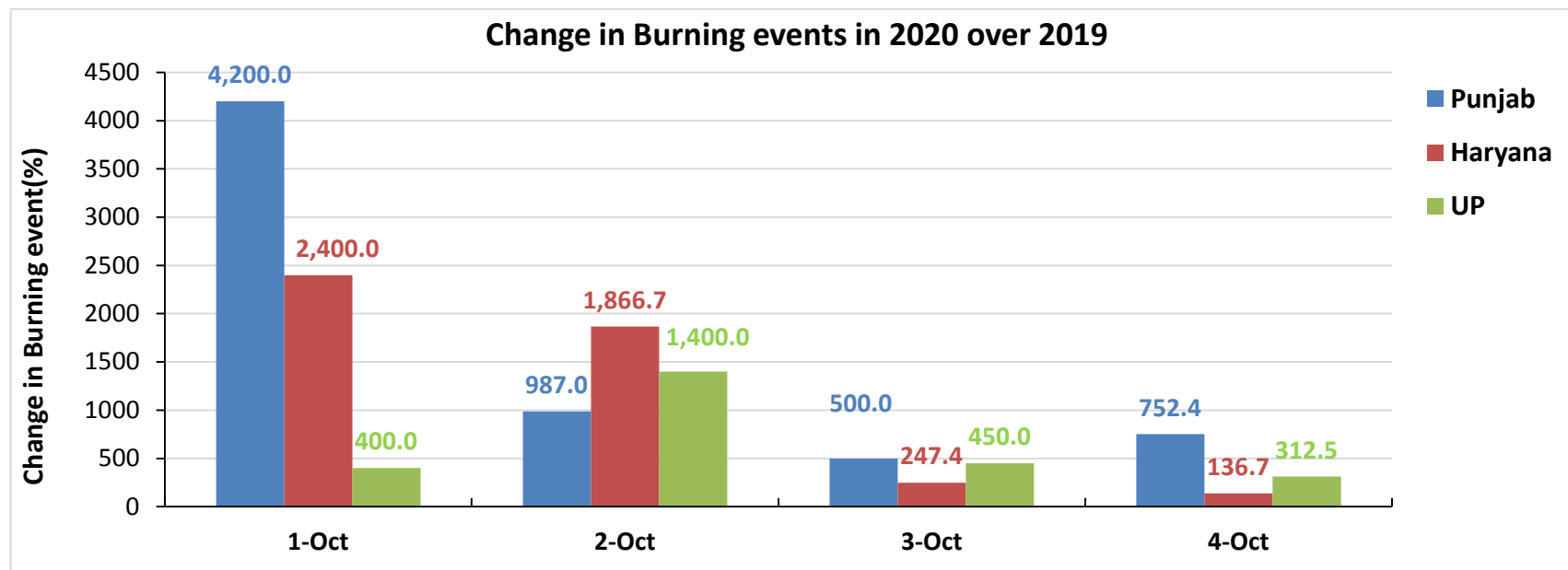


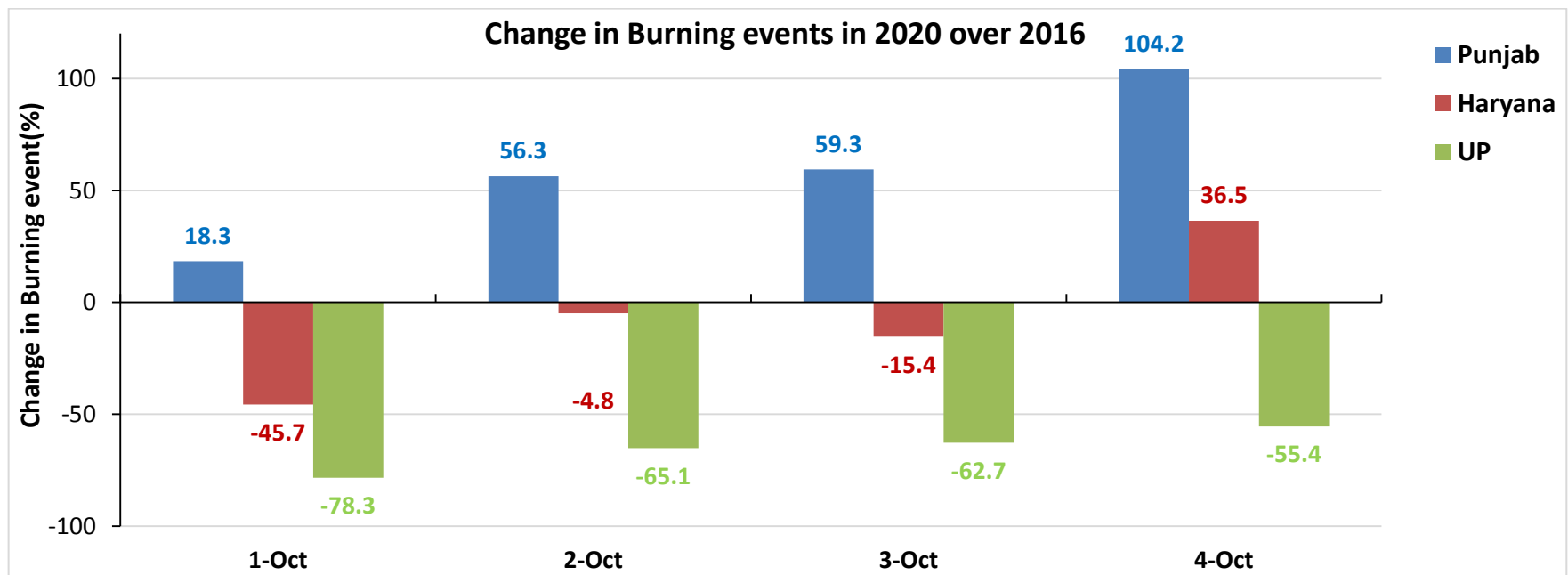
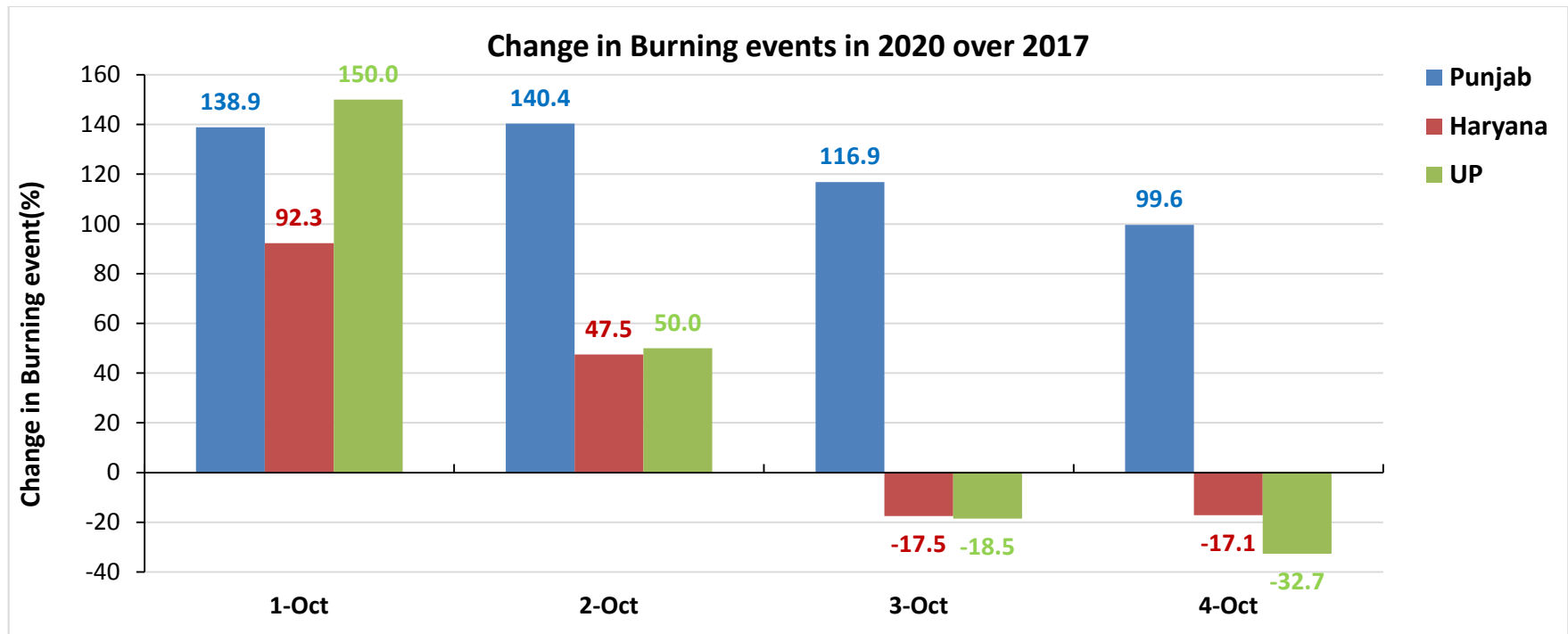
**Comparison of residue burning events in current year (2020) with previous years (2019, 2018, 2017 & 2016) for the three study States**

**(01-Oct to 04-Oct)**



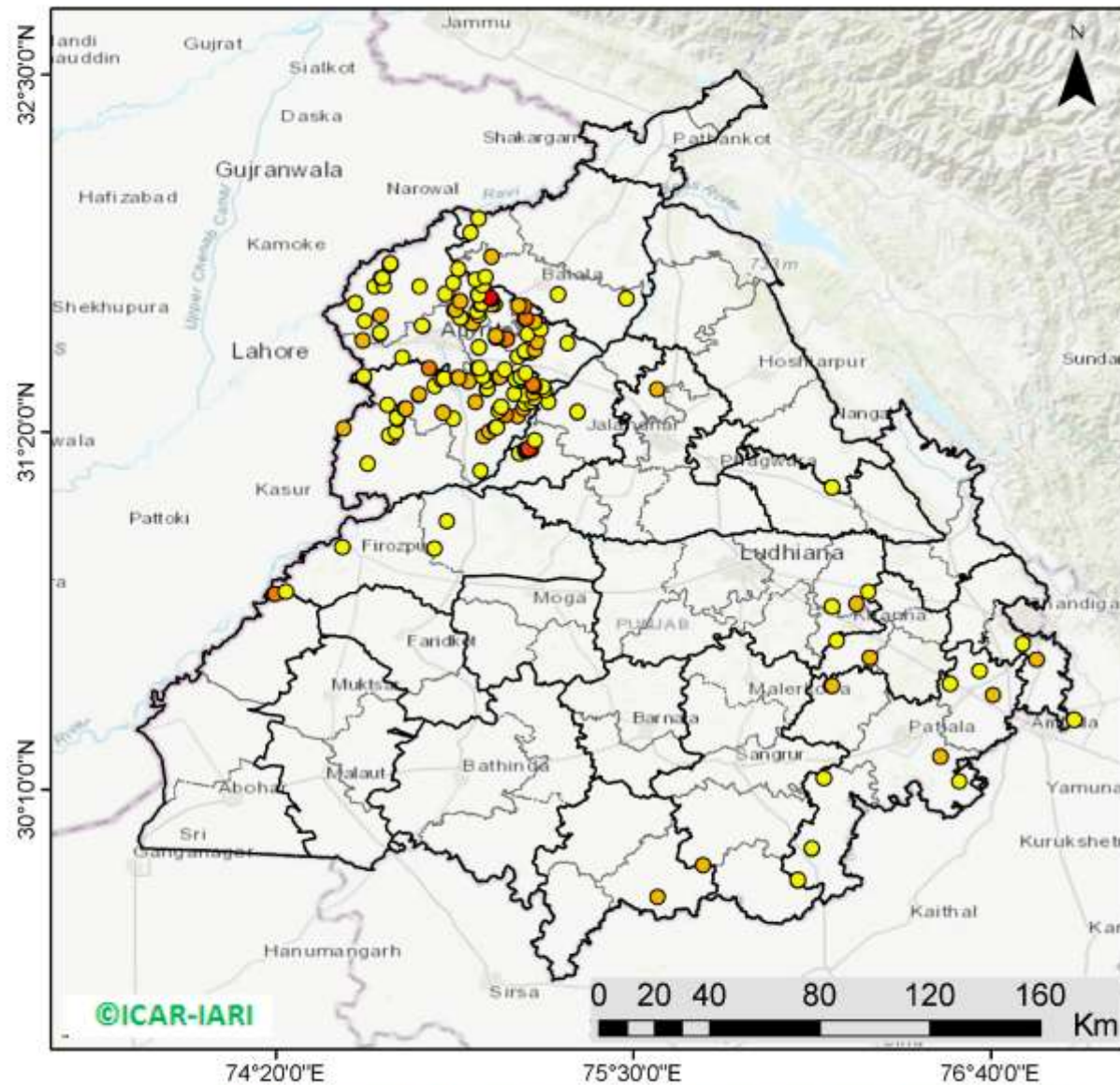
**Percent Change in Burning events in 2020 over 2019, 2018, 2017 and 2016 (Daily Cumulative)**





# Punjab

## RICE RESIDUE BURNING IN PUNJAB



**177** burning events detected in Punjab on 04th October 2020

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

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

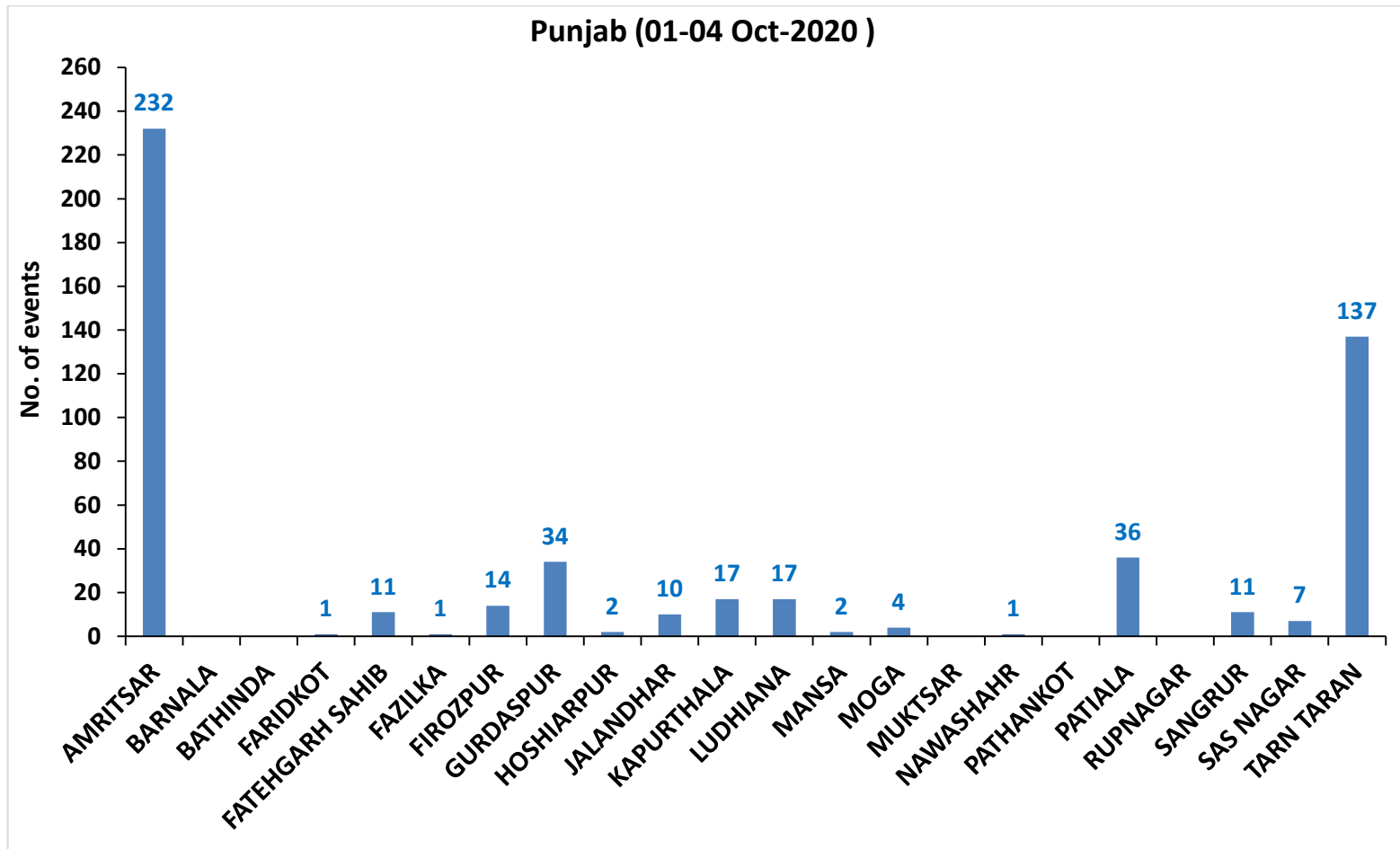
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<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

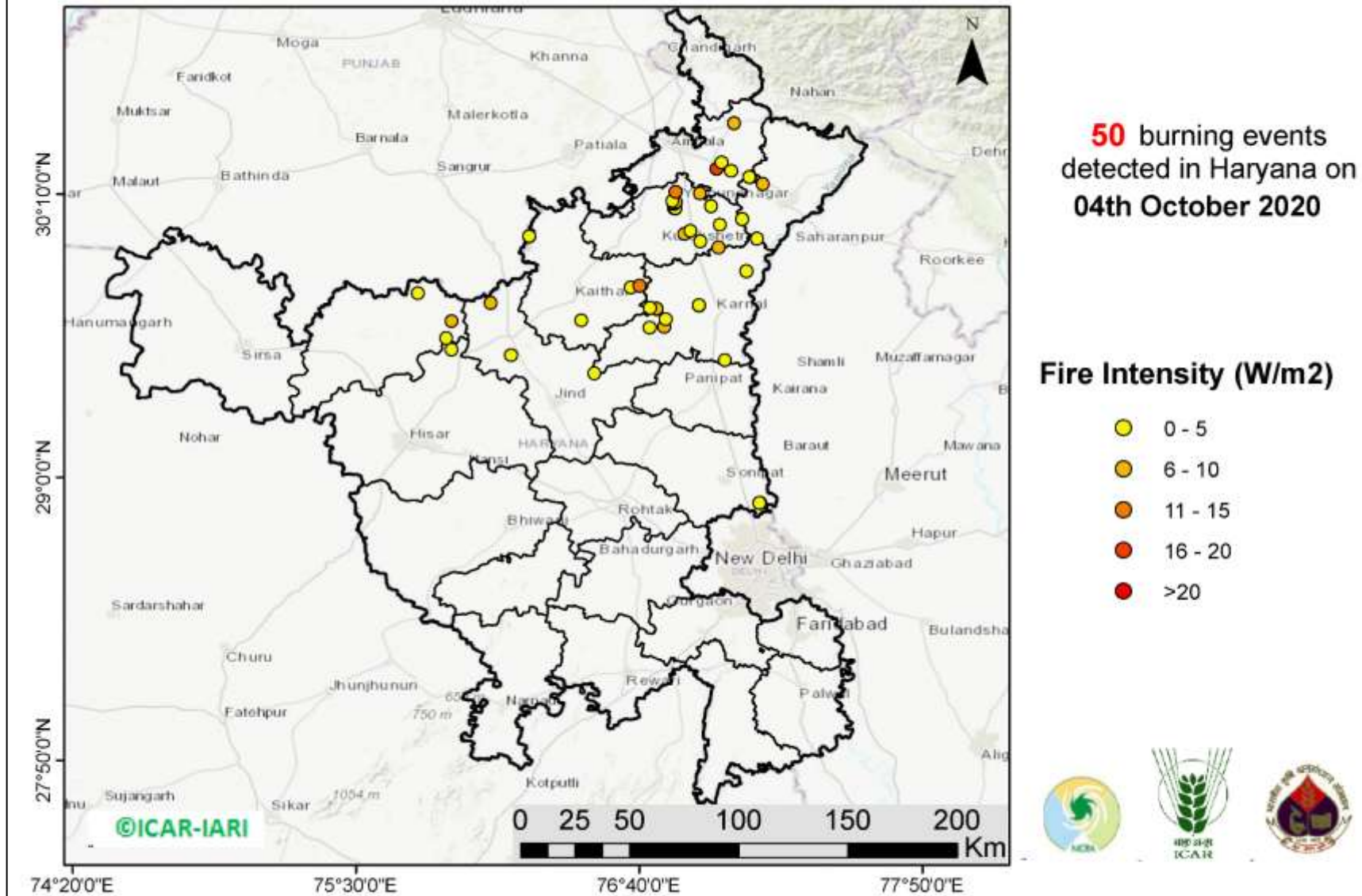


**District-wise cumulative number of residue burning events in Punjab (01-04 Oct-2020)**



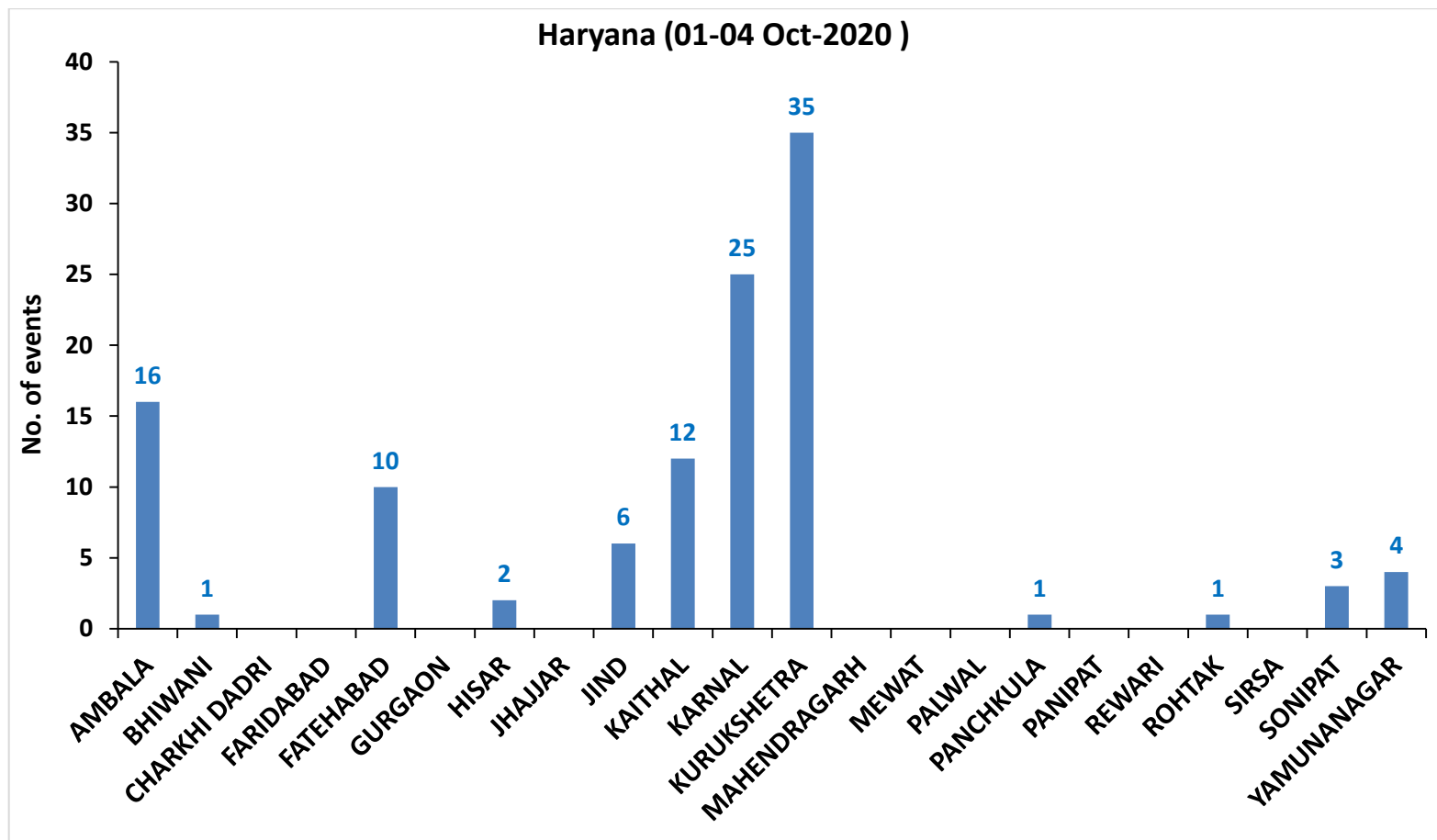
(b) Haryana

RICE RESIDUE BURNING IN HARYANA



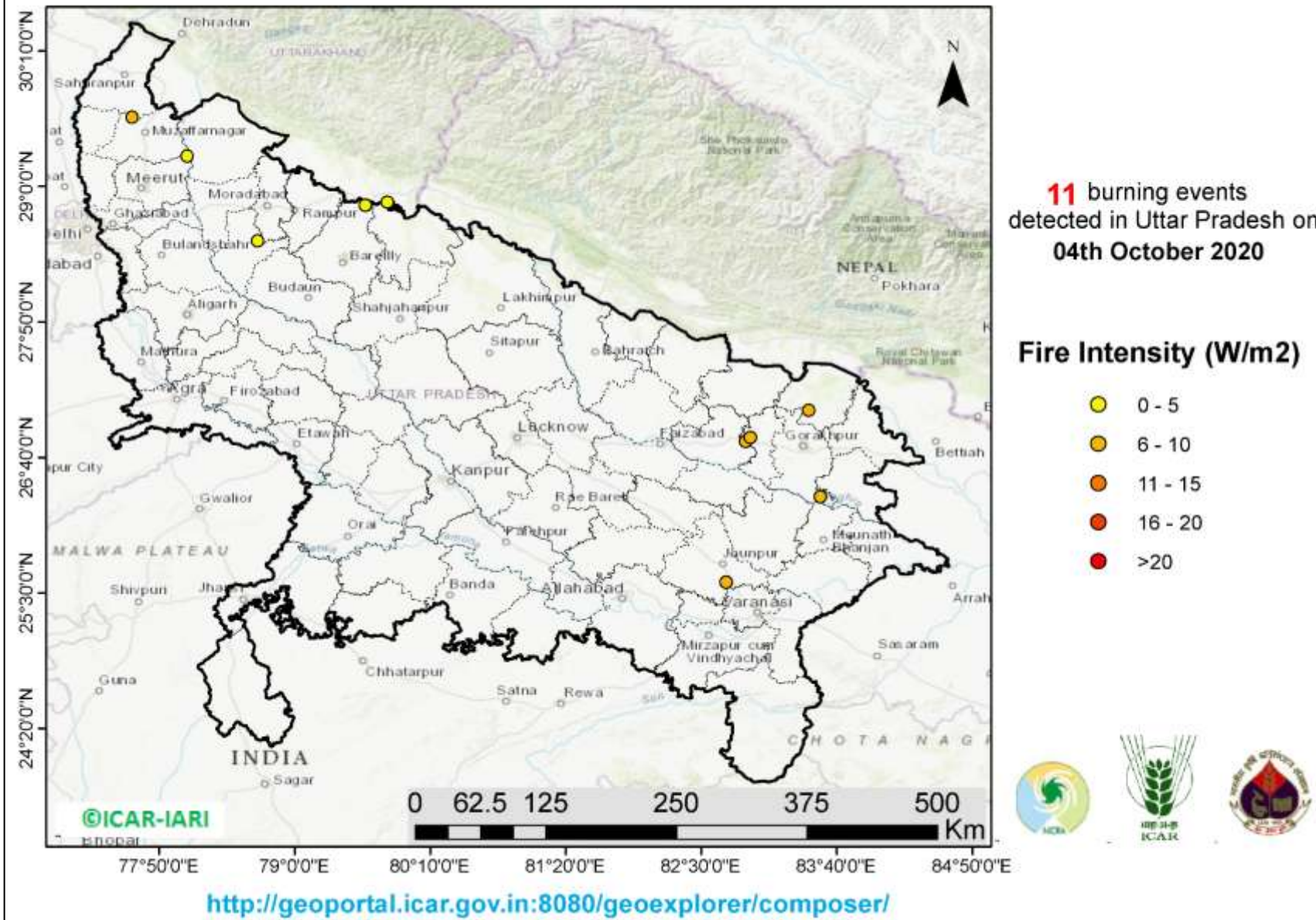


**District-wise cumulative number of residue burning events in Haryana (01-04 Oct-2020)**

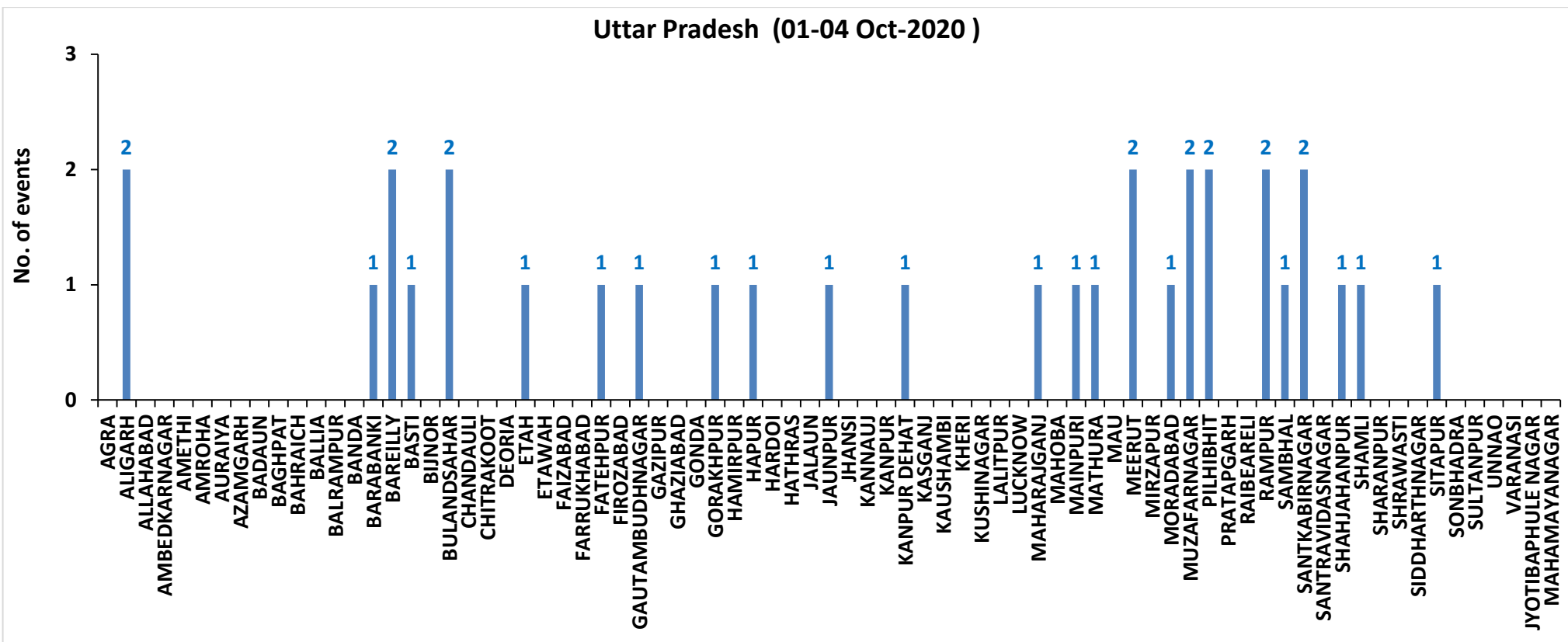


(c) Uttar Pradesh

RICE RESIDUE BURNING IN UTTAR PRADESH



### District-wise cumulative number of residue burning events in Uttar Pradesh (01-04 Oct-2020)



**State-wise and date-wise cumulative number of residue burning events detected in 2016, 2017, 2018, 2019 and 2020**  
**(Period: 01-04 October)**

Date	Punjab					Haryana					UP					Total				
	2020	2019	2018	2017	2016	2020	2019	2018	2017	2016	2020	2019	2018	2017	2016	2020	2019	2018	2017	2016
<b>01-Oct</b>	129	3	16	54	109	25	1	9	13	46	5	1	11	2	23	159	5	36	69	178
<b>02-Oct</b>	121	20	9	50	51	34	2	23	27	16	10	0	21	8	20	165	22	53	85	87
<b>03-Oct</b>	110	37	4	62	66	07	16	9	40	16	07	3	12	17	16	124	56	25	119	98
<b>04-Oct</b>	177	3	32	103	37	50	30	16	60	7	11	4	5	22	15	238	37	53	185	59
<b>Total</b>	<b>537</b>	<b>63</b>	<b>61</b>	<b>269</b>	<b>263</b>	<b>116</b>	<b>49</b>	<b>57</b>	<b>140</b>	<b>85</b>	<b>33</b>	<b>8</b>	<b>49</b>	<b>49</b>	<b>74</b>	<b>686</b>	<b>120</b>	<b>167</b>	<b>458</b>	<b>422</b>

**District-wise and date wise cumulative number of residue burning events detected in 2016, 2017, 2018, 2019 and 2020**  
**(Period: 01-04 October)**

**(a) Punjab**

Districts	01-04 Oct				
	2016	2017	2018	2019	2020
AMRITSAR	107	144	34	32	232
BARNALA	1	0	0	0	0
BATHINDA	4	4	9	0	0
FARIDKOT	5	5	0	0	1
FATEHGARH SAHIB	6	0	2	0	11
FAZILKA	0	0	0	1	1
FIROZPUR	15	7	3	0	14
GURDASPUR	3	5	2	0	34
HOSHIARPUR	1	0	3	0	2
JALANDHAR	12	3	0	0	10
KAPURTHALA	16	0	0	0	17
LUDHIANA	9	7	1	1	17
MANSA	4	3	0	0	2
MOGA	0	1	0	2	4
MUKTSAR	0	2	2	1	0
NAWASHAHR	2	1	1	1	1
PATHANKOT	0	0	0	0	0
PATIALA	8	8	1	4	36
RUPNAGAR	0	0	0	0	0
SANGRUR	7	8	0	0	11
SAS NAGAR	0	4	1	0	7
TARN TARAN	63	67	2	21	137
<b>Total</b>	<b>263</b>	<b>269</b>	<b>61</b>	<b>63</b>	<b>537</b>

**(b) Haryana**

Districts	01-04 Oct				
	2016	2017	2018	2019	2020
AMBALA	6	8	10	1	16
BHIWANI	0	0	0	0	1
CHARKHI DADRI	0	0	0	0	0
FARIDABAD	1	0	1	0	0
FATEHABAD	1	10	0	3	10
GURGAON	0	0	0	0	0
HISAR	2	2	2	0	2
JHAJJAR	0	0	1	0	0
JIND	2	13	0	3	6
KAITHAL	16	12	1	5	12
KARNAL	39	46	17	23	25
KURUKSHETRA	15	38	13	13	35
MAHENDRAGARH	0	0	0	0	0
MEWAT	0	0	0	0	0
PALWAL	0	0	0	0	0
PANCHKULA	0	0	1	0	1
PANIPAT	1	7	5	1	0
REWARI	0	0	0	0	0
ROHTAK	0	0	0	0	1
SIRSA	0	0	3	0	0
SONIPAT	0	0	1	0	3
YAMUNANAGAR	2	4	2	0	4
<b>Total</b>	<b>85</b>	<b>140</b>	<b>57</b>	<b>49</b>	<b>116</b>

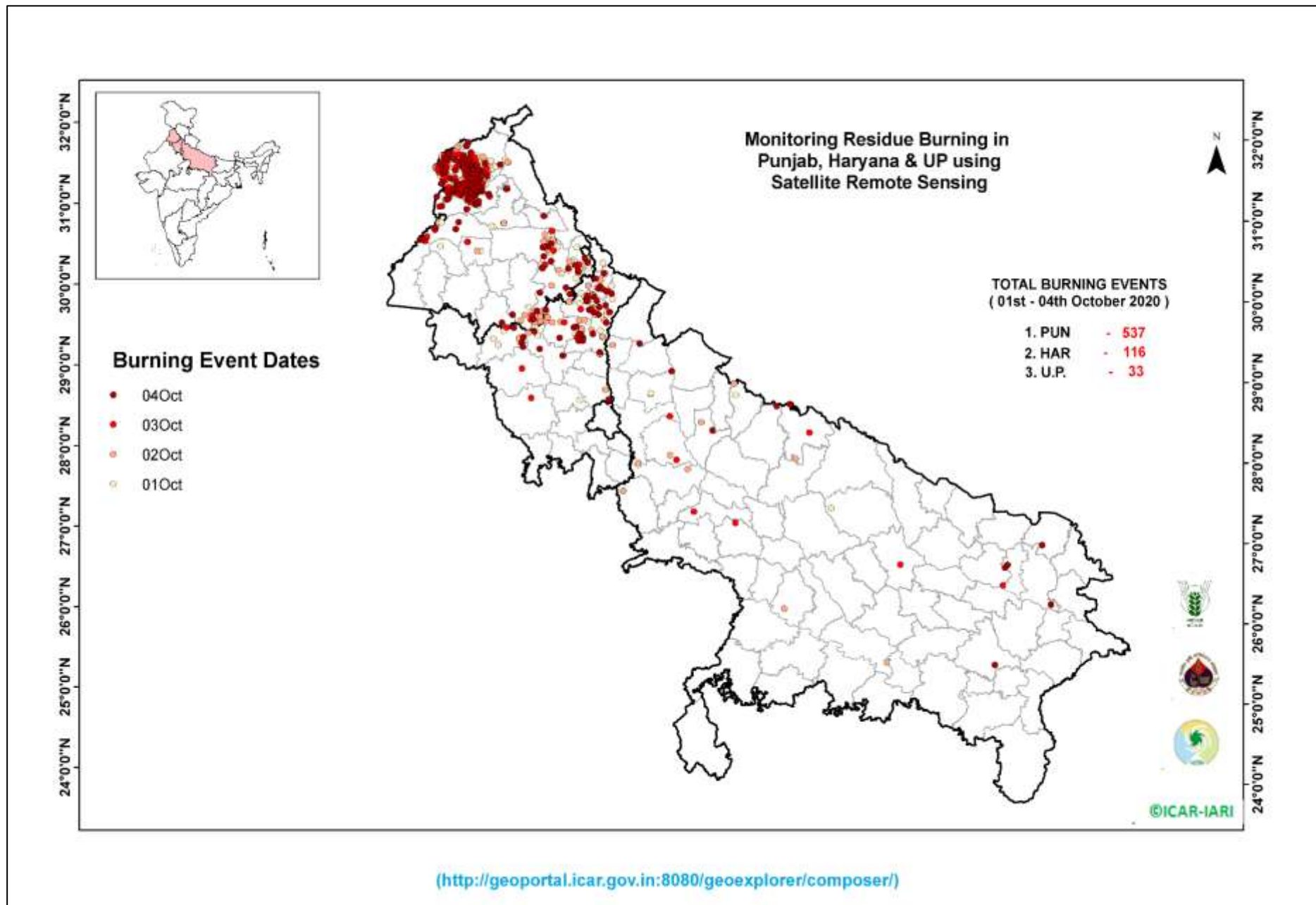
(C)

## Uttar Pradesh

Districts	01-04 Oct																
	2016	2017	2018	2019	2020	GAUTAMBUDHNAGAR	0	0	0	0	1	MUZAFARNAGAR	0	0	1	1	2
AGRA	0	0	0	0	0	GAZIPUR	1	0	1	0	0	PILHIBHIT	3	3	0	0	2
ALIGARH	0	2	1	0	2	GHAZIABAD	0	0	0	0	0	PRATAPGARH	6	5	0	3	0
ALLAHABAD	0	0	0	0	0	GONDA	0	0	1	0	0	RAIBEARELI	0	0	0	0	0
AMBEDKARNAGAR	0	0	0	0	0	GORAKHPUR	0	0	0	0	1	RAMPUR	0	0	0	0	2
AMETHI	0	0	0	0	0	HAMIRPUR	0	0	2	0	0	SAMBHAL	19	7	4	0	1
AMROHA	0	0	0	0	0	HAPUR	0	0	1	0	1	SANTKABIRNAGAR	2	0	0	0	2
AURAIYA	13	5	5	0	0	HARDOI	0	0	0	0	0	SANTRAVIDASNAGAR	0	0	0	0	0
AZAMGARH	0	0	0	0	0	HATHRAS	0	0	0	0	0	SHAHJAHANPUR	0	0	0	0	1
BADAUN	0	0	0	0	0	JALAUN	0	0	0	0	0	SHAMLI	17	15	15	0	1
BAGHPAT	0	0	0	0	0	JAUNPUR	0	0	0	0	1	SHARANPUR	0	0	0	0	0
BAHRAICH	0	0	0	0	0	JHANSI	0	0	0	0	0	SHRAWASTI	0	0	0	0	0
BALLIA	0	0	0	0	0	KANNAUJ	0	0	0	0	0	SIDDHARTHANAGAR	0	0	0	0	0
BALRAMPUR	0	0	0	0	0	KANPUR	0	0	0	0	0	SITAPUR	1	0	0	0	1
BANDA	0	0	1	0	0	KANPUR DEHAT	0	0	0	0	1	SONBHADRA	2	1	2	0	0
BARABANKI	2	0	2	0	1	KASGANJ	0	0	0	0	0	SULTANPUR	0	0	0	0	0
BAREILLY	4	0	0	3	2	KAUSHAMBI	0	0	0	0	0	UNNAO	0	0	0	0	0
BASTI	0	0	0	0	1	KHERI	0	0	3	0	0	VARANASI	0	0	0	0	0
BIJNOR						KUSHINAGAR						JYOTIBAPHULE NAGAR					
	0	0	0	0	0		3	8	3	1	0		0	0	0	0	0
BULANDSAHAR	0	0	1	0	2	LALITPUR	0	0	0	0	0	MAHAMAYANAGAR	0	0	0	0	0
CHANDAULI	0	1	0	0	0	LUCKNOW	0	0	0	0	0	Total	74	49	49	8	33
CHITRAKOOT	0	0	0	0	0	MAHARAJGANJ	0	0	0	0	1						
DEORIA	0	0	0	0	0	MAHOPA	0	0	0	0	0						
ETAH	0	0	0	0	1	MAINPURI	0	0	0	0	1						
ETAWAH	0	1	0	0	0	MATHURA	0	0	1	0	1						
FAIZABAD	0	0	0	0	0	MAU	1	0	5	0	0						
FARRUKHABAD	0	0	0	0	0	MEERUT	0	0	0	0	2						
FATEHPUR	0	0	0	0	1	MIRZAPUR	0	0	0	0	0						
FIROZABAD	0	0	0	0	0	MORADABAD	0	1	0	0	1						



### Map of Cumulative Burning Events (01-04 Oct 2020)



### Details of residue burning events in Punjab on 04-Oct-2020

S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m2)
1	AMRITSAR	AJNALA	S-NPP	74.61790	31.63154	14:12:00	D	6.80
2	AMRITSAR	AJNALA	S-NPP	74.67394	31.65445	14:12:00	D	5.50
3	AMRITSAR	AJNALA	S-NPP	74.67448	31.65729	14:12:00	D	5.00
4	AMRITSAR	AJNALA	S-NPP	74.62306	31.69407	14:12:00	D	2.30
5	AMRITSAR	AJNALA	TERRA	74.67600	31.71300	11:20:00	D	7.10
6	AMRITSAR	AJNALA	S-NPP	74.59441	31.75121	14:12:00	D	2.40
7	AMRITSAR	AJNALA	S-NPP	74.59420	31.75456	14:12:00	D	2.50
8	AMRITSAR	AJNALA	S-NPP	74.88694	31.78356	14:12:00	D	2.10
9	AMRITSAR	AJNALA	S-NPP	74.80408	31.80678	14:12:00	D	3.40
10	AMRITSAR	AJNALA	S-NPP	74.65629	31.80737	14:12:00	D	3.00
11	AMRITSAR	AJNALA	S-NPP	74.68781	31.80958	14:12:00	D	1.50
12	AMRITSAR	AJNALA	S-NPP	74.91278	31.81966	14:12:00	D	2.20
13	AMRITSAR	AJNALA	S-NPP	74.67747	31.83591	14:12:00	D	3.00
14	AMRITSAR	AJNALA	S-NPP	74.68143	31.83619	14:12:00	D	3.00
15	AMRITSAR	AJNALA	S-NPP	74.92941	31.86471	14:12:00	D	2.20
16	AMRITSAR	AJNALA	S-NPP	74.70475	31.87762	14:12:00	D	5.50
17	AMRITSAR	AJNALA	S-NPP	74.70525	31.88126	14:12:00	D	4.10
18	AMRITSAR	AJNALA	S-NPP	74.70921	31.88155	14:12:00	D	4.10
19	AMRITSAR	AJNALA	S-NPP	74.70824	31.88328	14:12:00	D	3.00
20	AMRITSAR	AMRITSAR I	S-NPP	74.99418	31.54196	14:12:00	D	4.00
21	AMRITSAR	AMRITSAR I	S-NPP	74.99826	31.54225	14:12:00	D	4.00
22	AMRITSAR	AMRITSAR I	S-NPP	74.99701	31.60936	14:12:00	D	2.90
23	AMRITSAR	AMRITSAR I	S-NPP	75.05219	31.64067	14:12:00	D	4.10
24	AMRITSAR	AMRITSAR I	TERRA	75.05200	31.64700	11:20:00	D	6.80
25	AMRITSAR	AMRITSAR I	S-NPP	74.93562	31.70542	12:36:00	D	2.30
26	AMRITSAR	AMRITSAR I	S-NPP	74.99559	31.71433	14:12:00	D	3.40
27	AMRITSAR	AMRITSAR I	S-NPP	74.99052	31.72499	14:12:00	D	3.20
28	AMRITSAR	AMRITSAR I	S-NPP	74.91604	31.73086	14:12:00	D	4.90
29	AMRITSAR	AMRITSAR I	S-NPP	74.92010	31.73114	14:12:00	D	8.80
30	AMRITSAR	AMRITSAR I	S-NPP	75.12641	31.74526	14:12:00	D	7.30

31	AMRITSAR	AMRITSAR I	TERRA	75.04700	31.74900	11:20:00	D	6.30
32	AMRITSAR	AMRITSAR I	S-NPP	75.03806	31.75029	14:12:00	D	2.60
33	AMRITSAR	AMRITSAR I	S-NPP	75.00150	31.75030	12:36:00	D	5.80
34	AMRITSAR	AMRITSAR I	S-NPP	75.00513	31.75245	12:36:00	D	4.80
35	AMRITSAR	AMRITSAR I	S-NPP	74.93528	31.76045	12:36:00	D	5.30
36	AMRITSAR	AMRITSAR I	AQUA	75.03800	31.76700	12:55:00	D	45.80
37	AMRITSAR	AMRITSAR I	AQUA	75.03200	31.77200	12:55:00	D	48.70
38	AMRITSAR	AMRITSAR I	S-NPP	74.99399	31.78028	14:12:00	D	3.80
39	AMRITSAR	AMRITSAR I	S-NPP	74.99444	31.78113	14:12:00	D	3.80
40	AMRITSAR	AMRITSAR I	S-NPP	75.00855	31.80960	14:12:00	D	1.70
41	AMRITSAR	AMRITSAR I	S-NPP	74.98604	31.83013	14:12:00	D	2.60
42	AMRITSAR	AMRITSAR II	S-NPP	74.62069	31.51516	14:12:00	D	3.40
43	AMRITSAR	AMRITSAR II	TERRA	74.83400	31.54200	11:20:00	D	14.00
44	AMRITSAR	AMRITSAR II	S-NPP	74.74710	31.57596	12:36:00	D	3.10
45	AMRITSAR	AMRITSAR II	S-NPP	74.81195	31.67833	14:12:00	D	2.40
46	AMRITSAR	AMRITSAR II	S-NPP	74.81110	31.67999	14:12:00	D	3.20
47	AMRITSAR	AMRITSAR II	TERRA	74.97400	31.68700	11:20:00	D	6.40
48	AMRITSAR	AMRITSAR II	S-NPP	74.93790	31.70538	12:36:00	D	3.20
49	AMRITSAR	BABA BAKALA	S-NPP	75.12617	31.50136	14:12:00	D	4.60
50	AMRITSAR	BABA BAKALA	S-NPP	75.11739	31.50631	14:12:00	D	2.30
51	AMRITSAR	BABA BAKALA	S-NPP	75.13351	31.51292	14:12:00	D	4.60
52	AMRITSAR	BABA BAKALA	S-NPP	75.14921	31.52505	14:12:00	D	2.30
53	AMRITSAR	BABA BAKALA	S-NPP	75.08138	31.53702	14:12:00	D	2.30
54	AMRITSAR	BABA BAKALA	S-NPP	75.12364	31.57869	14:12:00	D	3.90
55	AMRITSAR	BABA BAKALA	S-NPP	75.12430	31.57915	14:12:00	D	3.10
56	AMRITSAR	BABA BAKALA	S-NPP	75.14769	31.59148	14:12:00	D	3.70
57	AMRITSAR	BABA BAKALA	S-NPP	75.14835	31.59179	14:12:00	D	3.60
58	AMRITSAR	BABA BAKALA	S-NPP	75.16441	31.59267	14:12:00	D	4.60
59	AMRITSAR	BABA BAKALA	S-NPP	75.16512	31.59287	14:12:00	D	7.70
60	AMRITSAR	BABA BAKALA	S-NPP	75.16862	31.59298	14:12:00	D	4.60
61	AMRITSAR	BABA BAKALA	S-NPP	75.14722	31.59700	14:12:00	D	3.70
62	AMRITSAR	BABA BAKALA	S-NPP	75.17928	31.60046	12:36:00	D	6.30
63	AMRITSAR	BABA BAKALA	S-NPP	75.28579	31.62300	14:12:00	D	1.50

64	AMRITSAR	BABA BAKALA	S-NPP	75.18743	31.62767	14:12:00	D	6.70
65	AMRITSAR	BABA BAKALA	S-NPP	75.08399	31.63606	12:36:00	D	7.60
66	AMRITSAR	BABA BAKALA	S-NPP	75.08687	31.63649	12:36:00	D	12.80
67	AMRITSAR	BABA BAKALA	S-NPP	75.15572	31.65331	14:12:00	D	3.40
68	AMRITSAR	BABA BAKALA	S-NPP	75.19700	31.66770	12:36:00	D	4.00
69	AMRITSAR	BABA BAKALA	TERRA	75.17700	31.69200	11:20:00	D	9.30
70	AMRITSAR	BABA BAKALA	S-NPP	75.14699	31.70223	14:12:00	D	15.00
71	AMRITSAR	BABA BAKALA	S-NPP	75.15118	31.70250	14:12:00	D	15.00
72	AMRITSAR	BABA BAKALA	S-NPP	75.14732	31.70269	14:12:00	D	13.80
73	AMRITSAR	BABA BAKALA	S-NPP	75.15151	31.70299	14:12:00	D	13.80
74	AMRITSAR	BABA BAKALA	TERRA	75.14400	31.74400	11:20:00	D	13.80
75	FATEHGARH SAHIB	ALMOH	S-NPP	76.27270	30.59493	14:12:00	D	5.20
76	FATEHGARH SAHIB	ALMOH	S-NPP	76.16417	30.65256	14:12:00	D	4.20
77	FIROZPUR	FIROZPUR	S-NPP	74.32771	30.80285	14:12:00	D	11.90
78	FIROZPUR	FIROZPUR	S-NPP	74.33134	30.80312	14:12:00	D	11.90
79	FIROZPUR	FIROZPUR	S-NPP	74.36721	30.81103	14:12:00	D	3.70
80	FIROZPUR	FIROZPUR	S-NPP	74.55034	30.95676	14:12:00	D	2.40
81	FIROZPUR	ZIRA	S-NPP	74.85234	30.95168	14:12:00	D	1.90
82	FIROZPUR	ZIRA	S-NPP	74.89188	31.04140	14:12:00	D	2.30
83	GURDASPUR	BATALA	S-NPP	75.47822	31.76856	14:12:00	D	3.50
84	GURDASPUR	BATALA	S-NPP	75.25504	31.78184	14:12:00	D	3.10
85	GURDASPUR	BATALA	S-NPP	75.01857	31.83784	14:12:00	D	4.00
86	GURDASPUR	BATALA	S-NPP	75.03738	31.90510	14:12:00	D	6.30
87	GURDASPUR	BATALA	S-NPP	75.03783	31.90545	14:12:00	D	5.50
88	GURDASPUR	DERA BABA NANAK	S-NPP	74.97029	31.98381	14:12:00	D	1.80
89	GURDASPUR	DERA BABA NANAK	S-NPP	74.99545	32.02956	14:12:00	D	2.50
90	JALANDHAR	JALANDHAR II	S-NPP	75.57906	31.47123	14:12:00	D	8.10
91	KAPURTHALA	KAPURTHALA	S-NPP	75.31946	31.39795	14:12:00	D	3.70
92	KAPURTHALA	KAPURTHALA	S-NPP	75.31882	31.39888	14:12:00	D	3.60
93	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.12837	31.26362	14:12:00	D	3.80
94	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.12890	31.26374	14:12:00	D	2.90
95	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.14906	31.27072	14:12:00	D	3.50
96	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.15319	31.27101	14:12:00	D	3.50

97	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.14805	31.27596	14:12:00	D	8.80
98	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.14859	31.27621	14:12:00	D	6.20
99	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.15219	31.27624	14:12:00	D	8.80
100	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.15273	31.27652	14:12:00	D	6.20
101	KAPURTHALA	SULTANPUR LODHI	TERRA	75.16900	31.27700	11:20:00	D	17.60
102	KAPURTHALA	SULTANPUR LODHI	TERRA	75.15800	31.27900	11:20:00	D	18.60
103	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.17880	31.30569	14:12:00	D	3.00
104	LUDHIANA	SAMRALA	S-NPP	76.14834	30.76370	12:36:00	D	3.90
105	LUDHIANA	SAMRALA	S-NPP	76.22883	30.77210	12:36:00	D	5.80
106	LUDHIANA	SAMRALA	S-NPP	76.26834	30.81079	14:12:00	D	2.30
107	MANSA	BUDHLADA	TERRA	75.58000	29.81500	11:20:00	D	6.00
108	MANSA	BUDHLADA	S-NPP	75.72867	29.91770	12:36:00	D	7.00
109	NAWASHAHR	NAWASHAHR	S-NPP	76.14850	31.15218	14:12:00	D	1.60
110	PATIALA	NABHA	S-NPP	76.14608	30.50533	14:12:00	D	5.60
111	PATIALA	NABHA	S-NPP	76.14646	30.50547	14:12:00	D	12.00
112	PATIALA	NABHA	S-NPP	76.15070	30.50565	14:12:00	D	5.60
113	PATIALA	PATIALA	S-NPP	76.56485	30.19144	12:36:00	D	4.10
114	PATIALA	PATIALA	S-NPP	76.50188	30.27280	12:36:00	D	7.20
115	PATIALA	RAJPURA	S-NPP	76.67453	30.47436	14:12:00	D	7.10
116	PATIALA	RAJPURA	S-NPP	76.53394	30.51095	14:12:00	D	4.10
117	PATIALA	RAJPURA	S-NPP	76.62986	30.55229	14:12:00	D	2.00
118	PATIALA	SAMANA	S-NPP	76.08289	29.97148	14:12:00	D	5.40
119	PATIALA	SAMANA	S-NPP	76.08366	29.97288	14:12:00	D	4.30
120	PATIALA	SAMANA	S-NPP	76.12270	30.20160	14:12:00	D	2.30
121	SANGRUR	MOONAK	S-NPP	76.03705	29.86919	14:12:00	D	4.20
122	SANGRUR	MOONAK	S-NPP	76.03690	29.87053	14:12:00	D	4.10
123	SAS NAGAR	DERABASSI	S-NPP	76.93829	30.39342	12:36:00	D	2.50
124	SAS NAGAR	DERABASSI	TERRA	76.81500	30.59000	11:20:00	D	9.60
125	SAS NAGAR	MOHALI	S-NPP	76.77134	30.64145	14:12:00	D	2.80
126	TARN TARAN	KHADOOR SAHIB	S-NPP	75.00249	31.20524	14:12:00	D	2.70
127	TARN TARAN	KHADOOR SAHIB	S-NPP	75.01188	31.31839	12:36:00	D	7.90
128	TARN TARAN	KHADOOR SAHIB	S-NPP	75.03123	31.33412	14:12:00	D	5.30
129	TARN TARAN	KHADOOR SAHIB	S-NPP	75.05068	31.34650	14:12:00	D	2.40

130	TARN TARAN	KHADOOR SAHIB	S-NPP	75.05477	31.34679	14:12:00	D	2.40
131	TARN TARAN	KHADOOR SAHIB	S-NPP	74.91372	31.37654	14:12:00	D	3.50
132	TARN TARAN	KHADOOR SAHIB	S-NPP	75.12207	31.38504	14:12:00	D	5.20
133	TARN TARAN	KHADOOR SAHIB	S-NPP	75.08447	31.38806	14:12:00	D	13.40
134	TARN TARAN	KHADOOR SAHIB	S-NPP	74.87972	31.39602	14:12:00	D	5.30
135	TARN TARAN	KHADOOR SAHIB	S-NPP	75.06249	31.40312	14:12:00	D	4.90
136	TARN TARAN	KHADOOR SAHIB	S-NPP	74.75488	31.40891	14:12:00	D	6.10
137	TARN TARAN	KHADOOR SAHIB	S-NPP	74.75880	31.40919	14:12:00	D	6.10
138	TARN TARAN	KHADOOR SAHIB	S-NPP	75.14275	31.41055	12:36:00	D	6.60
139	TARN TARAN	KHADOOR SAHIB	S-NPP	75.06975	31.41463	14:12:00	D	2.70
140	TARN TARAN	KHADOOR SAHIB	S-NPP	75.14773	31.42549	14:12:00	D	2.70
141	TARN TARAN	KHADOOR SAHIB	S-NPP	75.22313	31.43061	14:12:00	D	2.10
142	TARN TARAN	KHADOOR SAHIB	S-NPP	74.98611	31.43082	14:12:00	D	8.70
143	TARN TARAN	KHADOOR SAHIB	S-NPP	75.16821	31.43142	12:36:00	D	3.70
144	TARN TARAN	KHADOOR SAHIB	S-NPP	75.17548	31.44402	14:12:00	D	2.60
145	TARN TARAN	KHADOOR SAHIB	S-NPP	74.79990	31.45213	14:12:00	D	5.20
146	TARN TARAN	KHADOOR SAHIB	S-NPP	75.14536	31.45302	14:12:00	D	2.80
147	TARN TARAN	KHADOOR SAHIB	S-NPP	74.80231	31.45574	14:12:00	D	6.00
148	TARN TARAN	KHADOOR SAHIB	S-NPP	75.11173	31.45619	14:12:00	D	1.80
149	TARN TARAN	KHADOOR SAHIB	S-NPP	75.17404	31.46056	14:12:00	D	8.70
150	TARN TARAN	KHADOOR SAHIB	S-NPP	75.21124	31.46872	14:12:00	D	1.80
151	TARN TARAN	KHADOOR SAHIB	S-NPP	75.02349	31.47194	14:12:00	D	6.00
152	TARN TARAN	KHADOOR SAHIB	S-NPP	75.02499	31.47260	14:12:00	D	4.50
153	TARN TARAN	KHADOOR SAHIB	S-NPP	75.20375	31.47870	14:12:00	D	3.90
154	TARN TARAN	KHADOOR SAHIB	S-NPP	75.20190	31.47918	14:12:00	D	3.70
155	TARN TARAN	KHADOOR SAHIB	S-NPP	75.20611	31.47948	14:12:00	D	4.80
156	TARN TARAN	KHADOOR SAHIB	S-NPP	75.17616	31.48158	12:36:00	D	4.80
157	TARN TARAN	KHADOOR SAHIB	S-NPP	74.85316	31.48293	14:12:00	D	2.50
158	TARN TARAN	KHADOOR SAHIB	S-NPP	75.17390	31.48779	12:36:00	D	10.60
159	TARN TARAN	KHADOOR SAHIB	S-NPP	74.96281	31.49829	12:36:00	D	9.80
160	TARN TARAN	KHADOOR SAHIB	S-NPP	74.96376	31.49912	12:36:00	D	8.50
161	TARN TARAN	KHADOOR SAHIB	S-NPP	75.02254	31.49994	14:12:00	D	1.80
162	TARN TARAN	KHADOOR SAHIB	S-NPP	74.87521	31.50626	14:12:00	D	2.40



163	TARN TARAN	KHADOOR SAHIB	S-NPP	74.88324	31.50682	14:12:00	D	3.90
164	TARN TARAN	KHADOOR SAHIB	S-NPP	74.62118	31.50981	14:12:00	D	3.40
165	TARN TARAN	KHADOOR SAHIB	S-NPP	74.92754	31.50990	14:12:00	D	4.60
166	TARN TARAN	KHADOOR SAHIB	S-NPP	74.93159	31.51018	14:12:00	D	6.30
167	TARN TARAN	KHADOOR SAHIB	S-NPP	75.05973	31.51231	12:36:00	D	9.10
168	TARN TARAN	KHADOOR SAHIB	S-NPP	75.06516	31.51263	12:36:00	D	7.00
169	TARN TARAN	KHADOOR SAHIB	S-NPP	75.00881	31.51550	14:12:00	D	2.10
170	TARN TARAN	PATTI	S-NPP	74.63446	31.23028	14:12:00	D	1.90
171	TARN TARAN	PATTI	S-NPP	74.71220	31.31654	14:12:00	D	7.70
172	TARN TARAN	PATTI	S-NPP	74.70395	31.32132	14:12:00	D	2.60
173	TARN TARAN	PATTI	S-NPP	74.72632	31.33377	14:12:00	D	2.00
174	TARN TARAN	PATTI	TERRA	74.55500	31.34400	11:20:00	D	6.00
175	TARN TARAN	PATTI	S-NPP	74.73037	31.37472	14:12:00	D	2.40
176	TARN TARAN	PATTI	S-NPP	74.72987	31.38009	14:12:00	D	2.50
177	TARN TARAN	PATTI	S-NPP	74.69859	31.42104	14:12:00	D	4.20

**Details of residue burning events in Haryana on 04-Oct-2020**

S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m <sup>2</sup> )
1	AMBALA	AMBALA	TERRA	76.98500	30.27000	11:20:00	D	15.10
2	AMBALA	AMBALA	S-NPP	77.00630	30.29754	14:12:00	D	2.70
3	AMBALA	BARARA	S-NPP	77.12159	30.23675	14:12:00	D	4.20
4	AMBALA	BARARA	S-NPP	77.12100	30.23690	14:12:00	D	2.80
5	AMBALA	BARARA	S-NPP	77.04538	30.26324	14:12:00	D	2.10
6	AMBALA	NARAYANGARH	S-NPP	77.05838	30.45961	14:12:00	D	7.80
7	FATEHABAD	TOHANA	S-NPP	75.87312	29.57335	14:12:00	D	3.50
8	FATEHABAD	TOHANA	TERRA	75.89400	29.64300	11:20:00	D	6.50
9	FATEHABAD	TOHANA	S-NPP	75.75593	29.75845	14:12:00	D	4.90
10	HISAR	HISAR	S-NPP	75.89394	29.52638	14:12:00	D	1.60
11	JIND	JIND	S-NPP	76.48186	29.42814	14:12:00	D	3.60
12	JIND	NARWANA	S-NPP	76.13946	29.50366	14:12:00	D	2.40
13	JIND	NARWANA	S-NPP	76.05505	29.71918	14:12:00	D	9.20
14	KAITHAL	GUHLA	S-NPP	76.21403	29.99225	14:12:00	D	2.80
15	KAITHAL	GUHLA	S-NPP	76.21500	29.99282	14:12:00	D	3.40
16	KAITHAL	KAITHAL	S-NPP	76.42876	29.64574	14:12:00	D	2.30
17	KAITHAL	KAITHAL	S-NPP	76.63226	29.78247	12:30:00	D	3.10
18	KAITHAL	KAITHAL	TERRA	76.66800	29.79000	11:20:00	D	11.40
19	KARNAL	ASSANDH	S-NPP	76.70976	29.61658	14:12:00	D	3.20
20	KARNAL	ASSANDH	S-NPP	76.76862	29.62022	14:12:00	D	6.50
21	KARNAL	GHARAUNDA	S-NPP	77.02021	29.48210	12:30:00	D	4.50
22	KARNAL	INDRI	S-NPP	77.10780	29.84976	14:12:00	D	3.60
23	KARNAL	INDRI	S-NPP	76.99298	29.94736	14:12:00	D	6.60
24	KARNAL	KARNAL	S-NPP	76.77620	29.65058	14:12:00	D	2.40
25	KARNAL	KARNAL	S-NPP	76.73911	29.69294	14:12:00	D	7.20
26	KARNAL	KARNAL	S-NPP	76.73822	29.69592	14:12:00	D	6.00
27	KARNAL	KARNAL	S-NPP	76.71033	29.69890	12:30:00	D	2.10
28	KARNAL	KARNAL	S-NPP	76.91206	29.70733	14:12:00	D	3.40
29	KARNAL	KARNAL	S-NPP	76.91277	29.70923	14:12:00	D	3.40
30	KURUKSHETRA	SHAHABAD	S-NPP	76.80874	30.12540	14:12:00	D	6.50

31	KURUKSHETRA	SHAHABAD	S-NPP	76.80915	30.12708	14:12:00	D	5.90
32	KURUKSHETRA	SHAHABAD	S-NPP	76.81837	30.13204	14:12:00	D	5.10
33	KURUKSHETRA	SHAHABAD	S-NPP	76.81878	30.13366	14:12:00	D	5.50
34	KURUKSHETRA	SHAHABAD	S-NPP	76.80383	30.13771	12:36:00	D	3.80
35	KURUKSHETRA	SHAHABAD	TERRA	76.91700	30.16900	11:20:00	D	6.20
36	KURUKSHETRA	SHAHABAD	TERRA	76.81700	30.17600	11:20:00	D	10.80
37	KURUKSHETRA	THANESAR	S-NPP	76.91931	29.97323	14:12:00	D	3.40
38	KURUKSHETRA	THANESAR	S-NPP	76.85321	30.00263	12:30:00	D	5.70
39	KURUKSHETRA	THANESAR	S-NPP	76.87762	30.01515	14:12:00	D	2.60
40	KURUKSHETRA	THANESAR	S-NPP	76.99881	30.04028	14:12:00	D	2.60
41	KURUKSHETRA	THANESAR	S-NPP	76.81506	30.10776	14:12:00	D	8.30
42	KURUKSHETRA	THANESAR	S-NPP	76.81052	30.10912	14:12:00	D	5.00
43	KURUKSHETRA	THANESAR	S-NPP	76.81557	30.10941	14:12:00	D	5.00
44	KURUKSHETRA	THANESAR	S-NPP	76.96234	30.11701	14:12:00	D	3.60
45	KURUKSHETRA	THANESAR	S-NPP	76.96304	30.11775	14:12:00	D	3.80
46	SONIPAT	SONIPAT	S-NPP	77.16411	28.89410	14:12:00	D	3.10
47	SONIPAT	SONIPAT	S-NPP	77.16250	28.89527	14:12:00	D	4.40
48	YAMUNANAGAR	JAGADHRI	S-NPP	77.15238	29.98391	12:30:00	D	3.30
49	YAMUNANAGAR	JAGADHRI	S-NPP	77.09084	30.06387	14:12:00	D	4.30
50	YAMUNANAGAR	JAGADHRI	S-NPP	77.17658	30.20937	14:12:00	D	10.00

**Details of residue burning events in Uttar Pradesh on 04-Oct-2020**

<b>S. No.</b>	<b>District</b>	<b>Tehsil / Block</b>	<b>Satellite</b>	<b>Longitude</b>	<b>Latitude</b>	<b>Time (IST)</b>	<b>Day / Night</b>	<b>Fire Power (W/m<sup>2</sup>)</b>
1	BAREILLY	BAHERI	S-NPP	79.61034	28.83661	12:30:00	D	2.70
2	BAREILLY	BAHERI	S-NPP	79.60869	28.83849	12:30:00	D	2.10
3	BASTI	BASTI	METOP-1	82.88176	26.80146	21:05:00	N	6.33
4	GORAKHPUR	GOLA	METOP-1	83.52882	26.32835	21:05:00	N	7.00
5	JAUNPUR	KIRAKAT	METOP-1	82.71353	25.59173	21:05:00	N	6.00
6	MAHARAJGANJ	MAHARAJGANJ	METOP-1	83.42529	27.07096	21:05:00	N	6.00
7	MORADABAD	BILARI	S-NPP	78.68024	28.53164	12:30:00	D	2.70
8	MUZAFARNAGAR	JANSATH	S-NPP	78.07335	29.26111	12:30:00	D	3.30
9	MUZAFARNAGAR	MUZAFFARNAGAR	TERRA	77.60000	29.59700	11:20:00	D	8.60
10	PILHIBHIT	PILHIBHIT	S-NPP	79.79850	28.86376	12:30:00	D	4.10
11	SANTKABIRNAGAR	KHALILABAD	METOP-1	82.92220	26.83590	21:05:00	N	6.50

## 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 / 750	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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Softcopy of this report and latest statistics can be seen on <http://creams.iari.res.in>

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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