



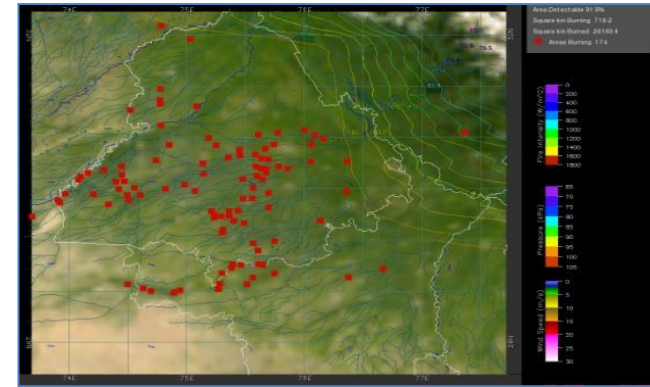
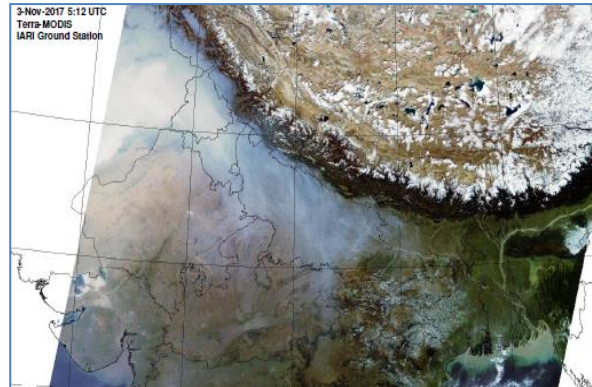
Bulletin No. 9

Events Date:
09-Oct-2020

Issued on:
10-Oct-2020



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



Prepared by:

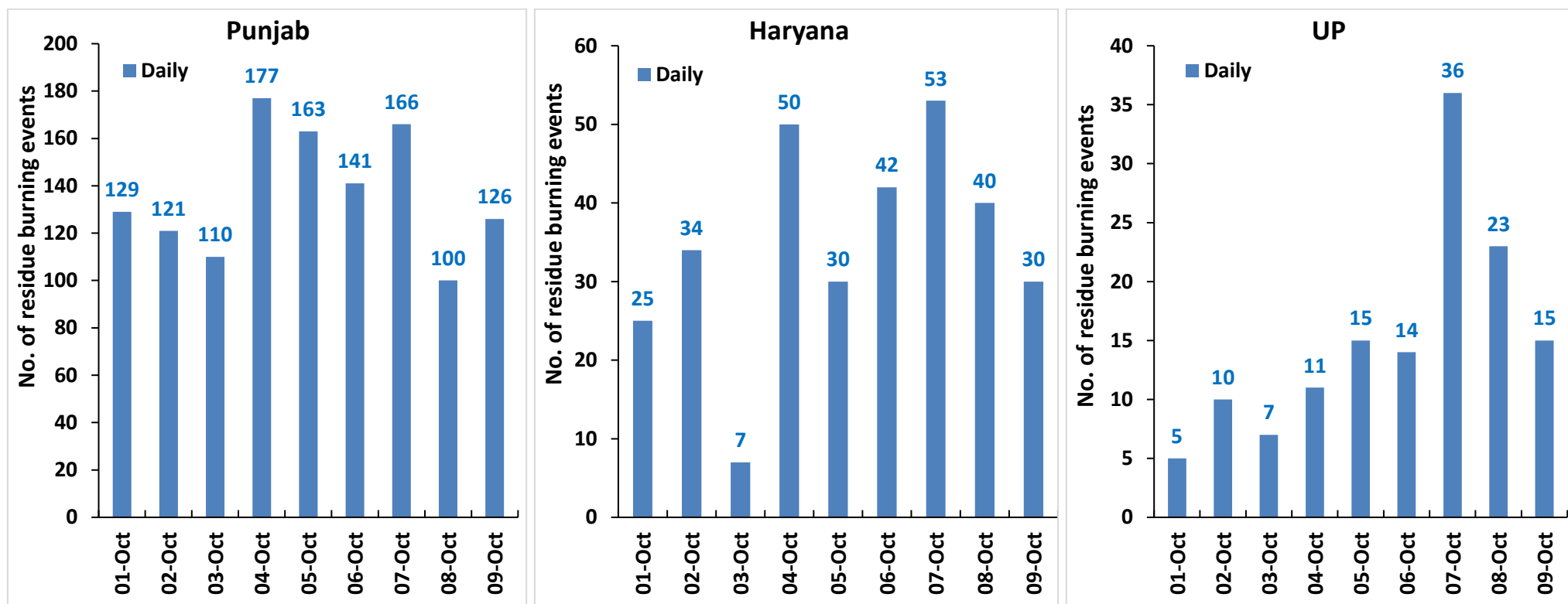
Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS) Laboratory,
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012

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

Highlights for 09-October-2020

- Satellites detected **171** residue burning events in the three study States on 09-Oct-2020.
- The state wise events detected on **09-Oct-2020** were **126** in Punjab, **30** in Haryana and **15** in UP.
- In Punjab, burning events were concentrated in Amritsar, Tarn Taran and Patiala districts.
- In Haryana and Uttar Pradesh, the burning events were scattered.
- Total **1680** burning events were detected in the three States between **01-Oct-2020** and **09-Oct-2020**, which are distributed as **1233**, **311** and **136** in Punjab, Haryana and UP, respectively.
- Amritsar, Tarn Taran and Patiala in Punjab; Kurukshetra, Karnal and Ambala in Haryana; and Aligarh, Kheri and Saharanpur in UP were the top three districts with burning events during **1-Oct to 9-Oct 2020**
- In all the three states, the cumulative number of burning events between **1-Oct** and **9-Oct 2020** were higher than in **2019**.

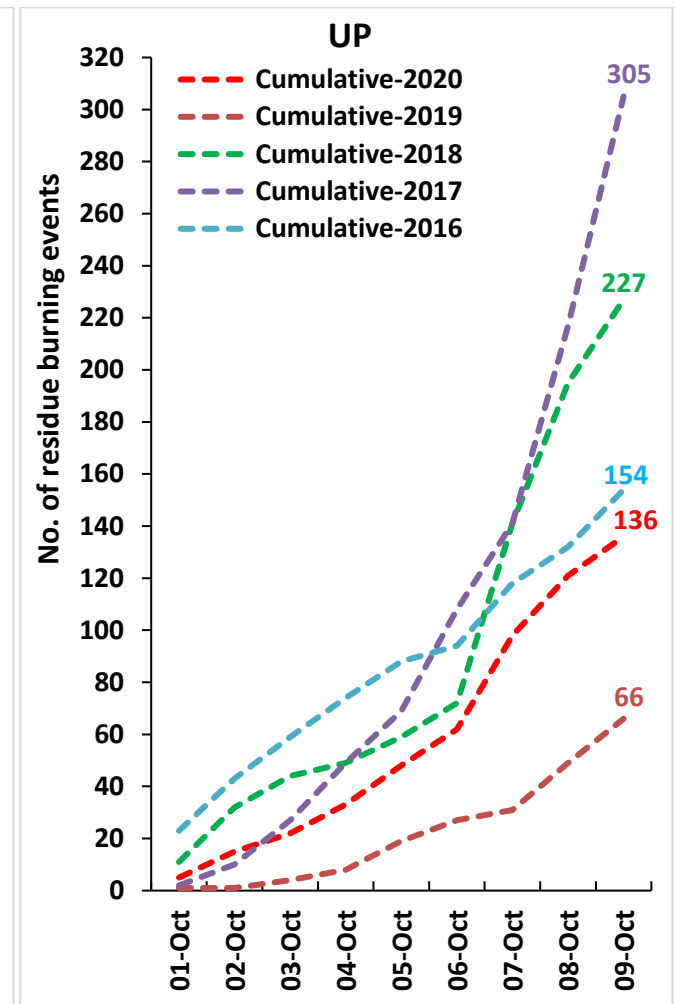
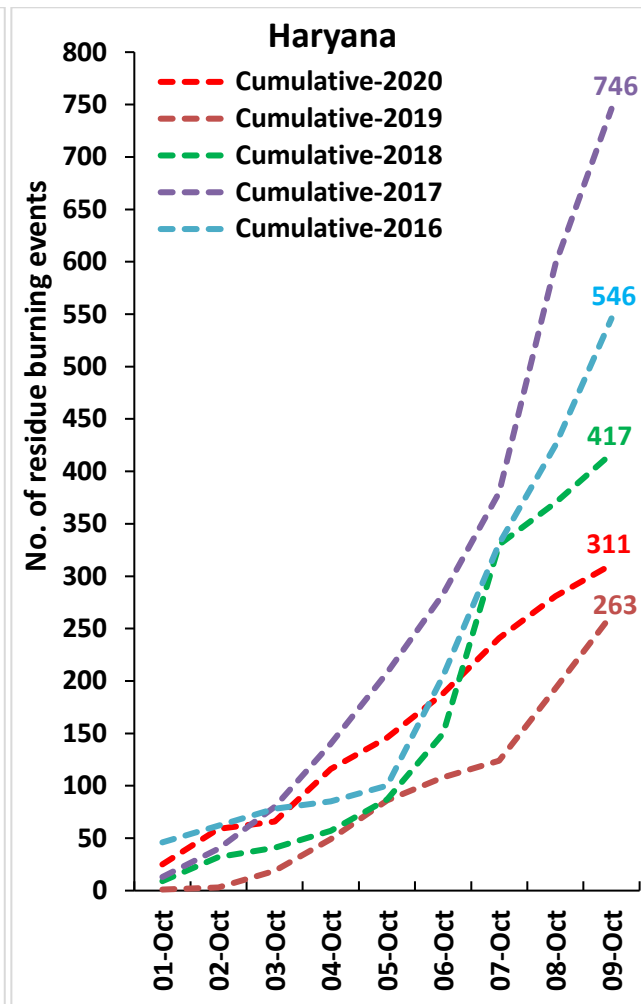
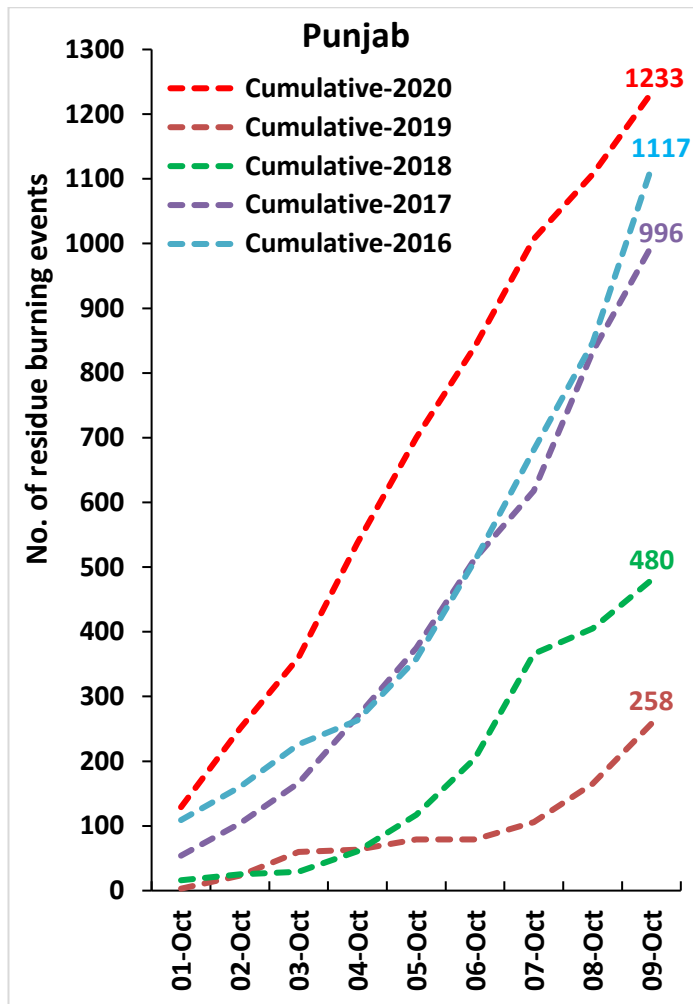
Temporal distribution of residue burning events for the three study States in 2020



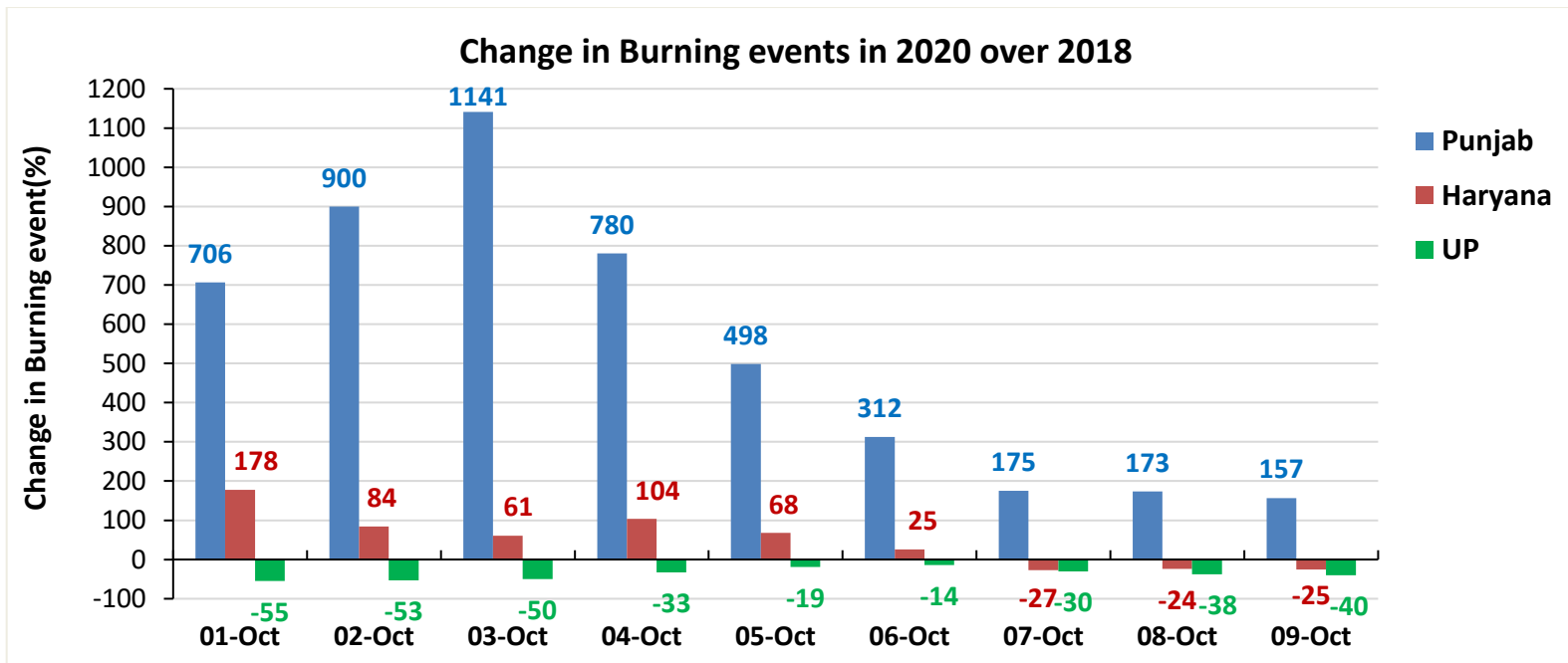
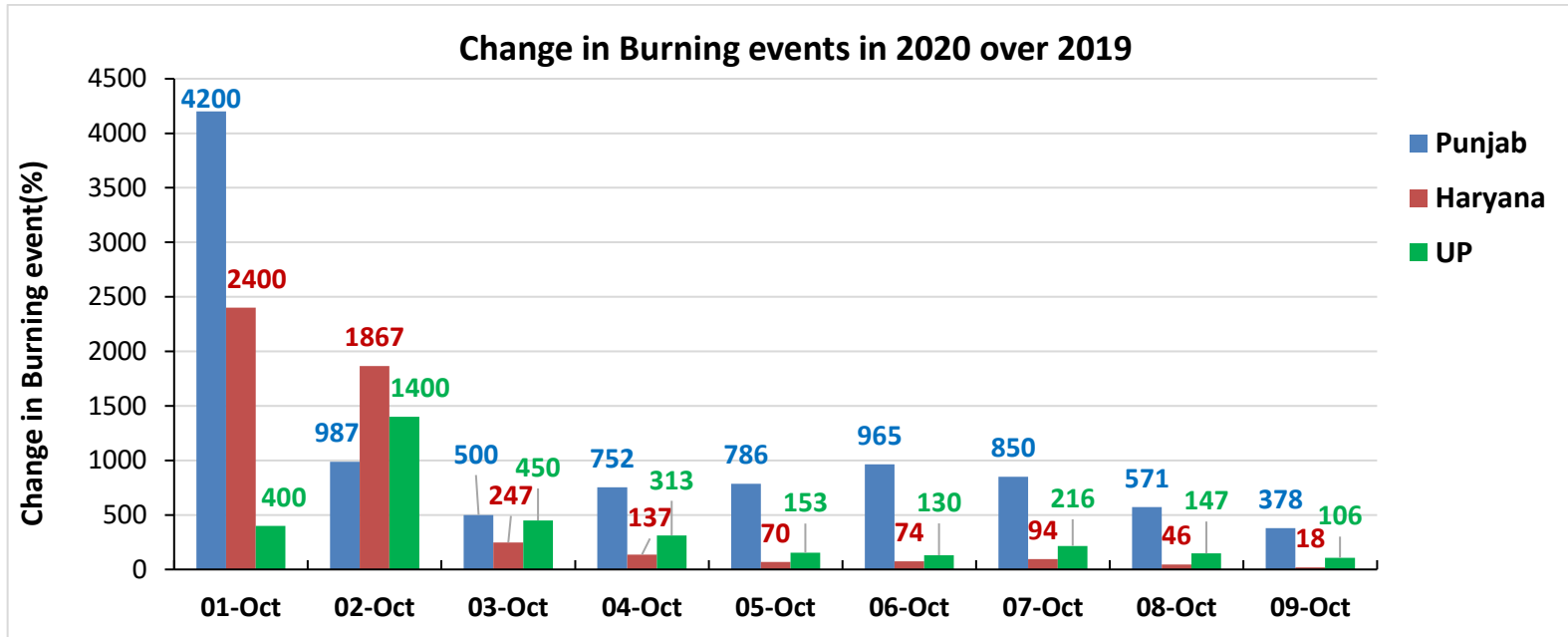
Comparison of residue burning events in current year (2020) with previous years (2019, 2018, 2017 & 2016) for the three study

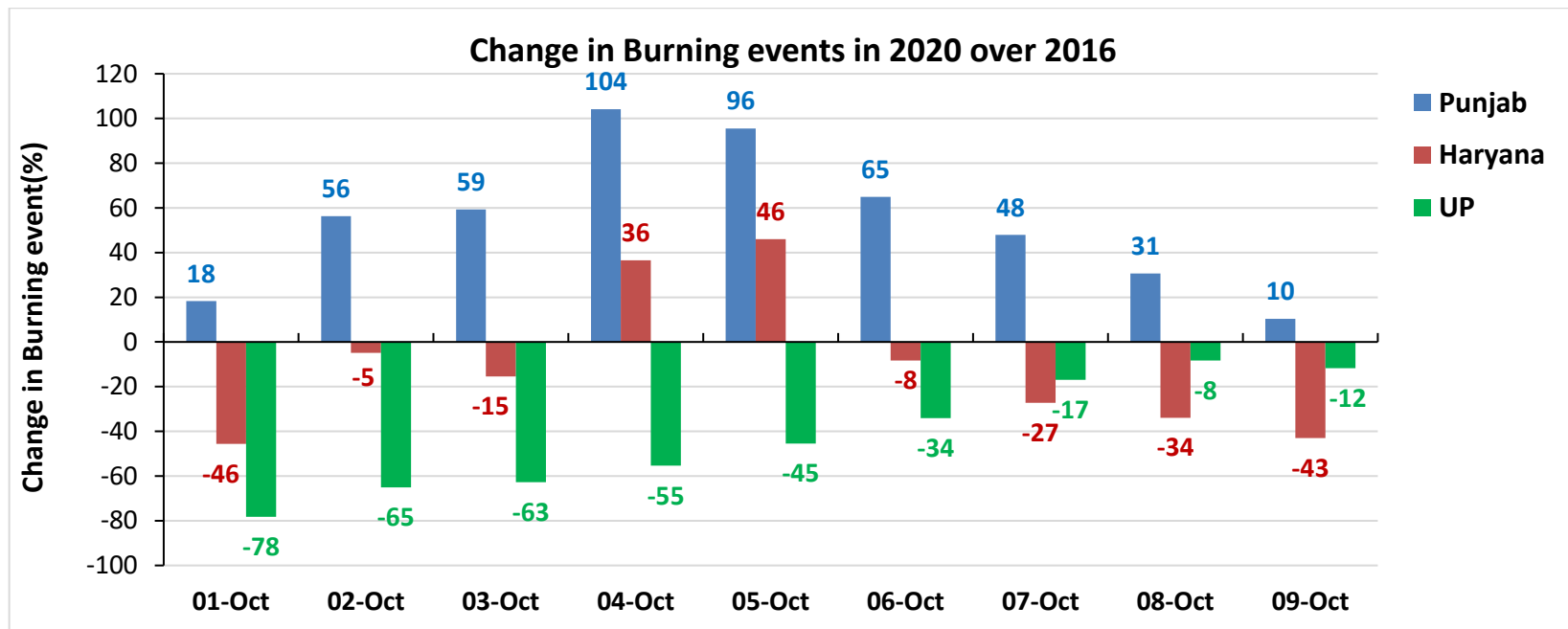
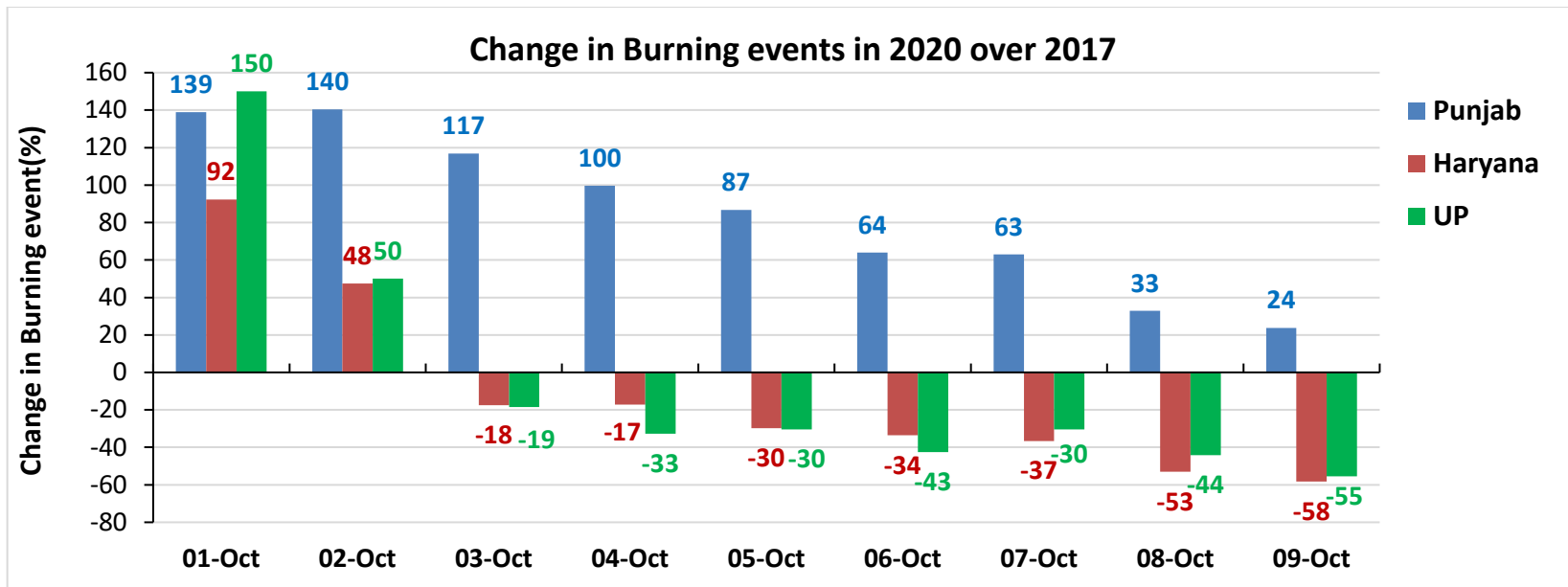
States

(01-Oct to 09-Oct)



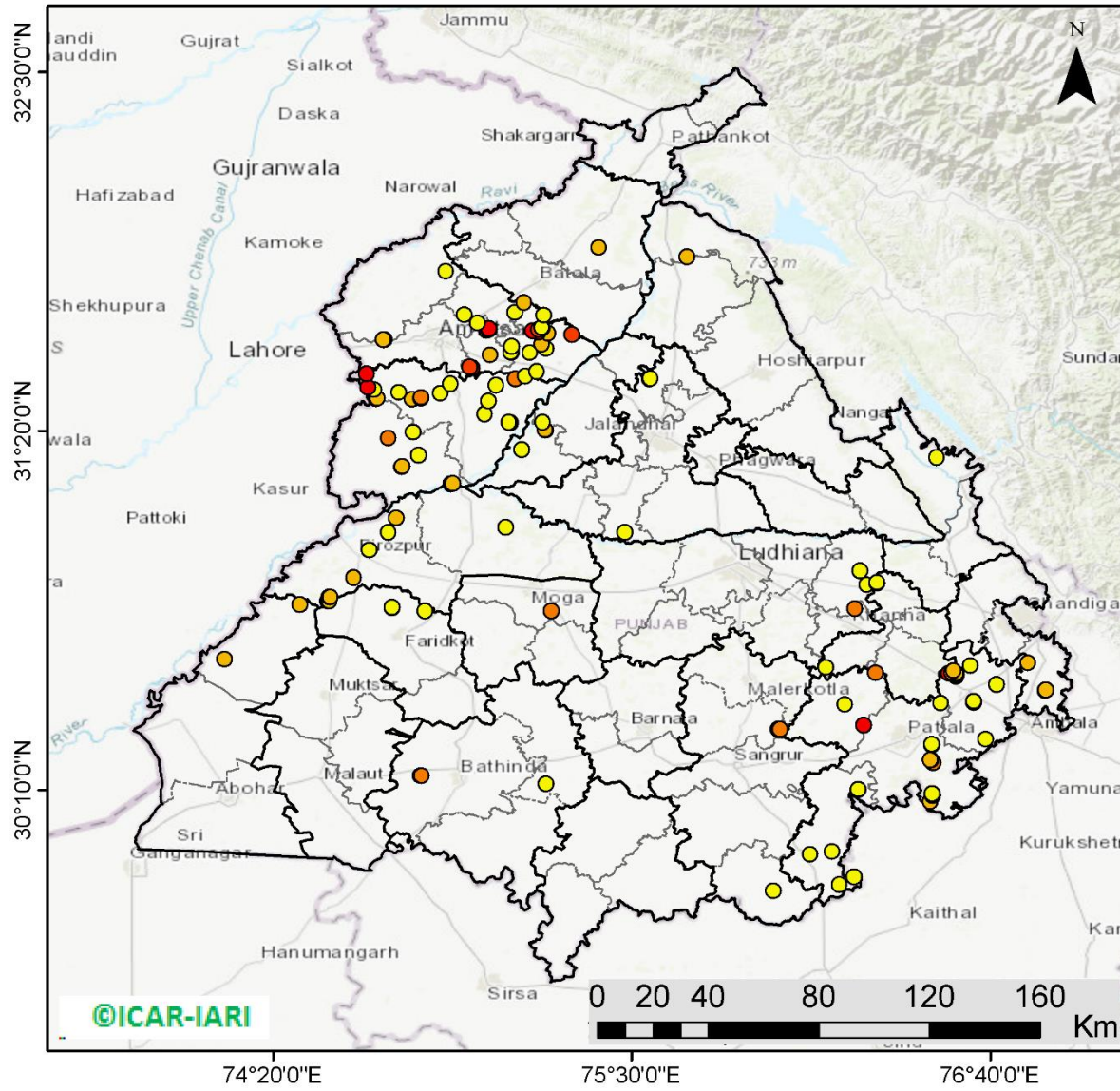
Percent Change in Burning events in 2020 over 2019, 2018, 2017 and 2016 (Daily Cumulative)





(a) Punjab

RICE RESIDUE BURNING IN PUNJAB



126 burning events detected in Punjab on 09th October 2020

Fire Intensity (W/m²)

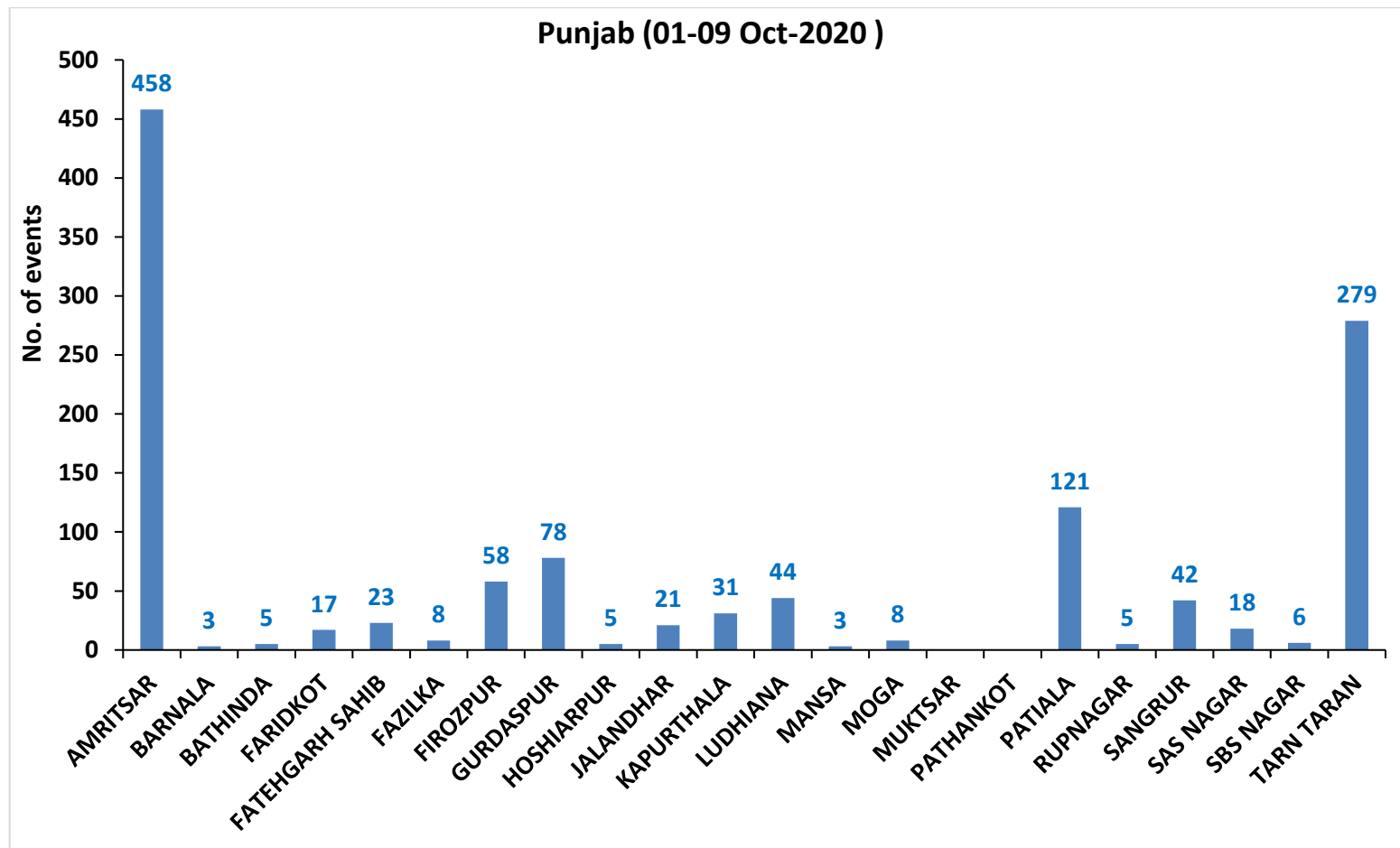
- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- >20

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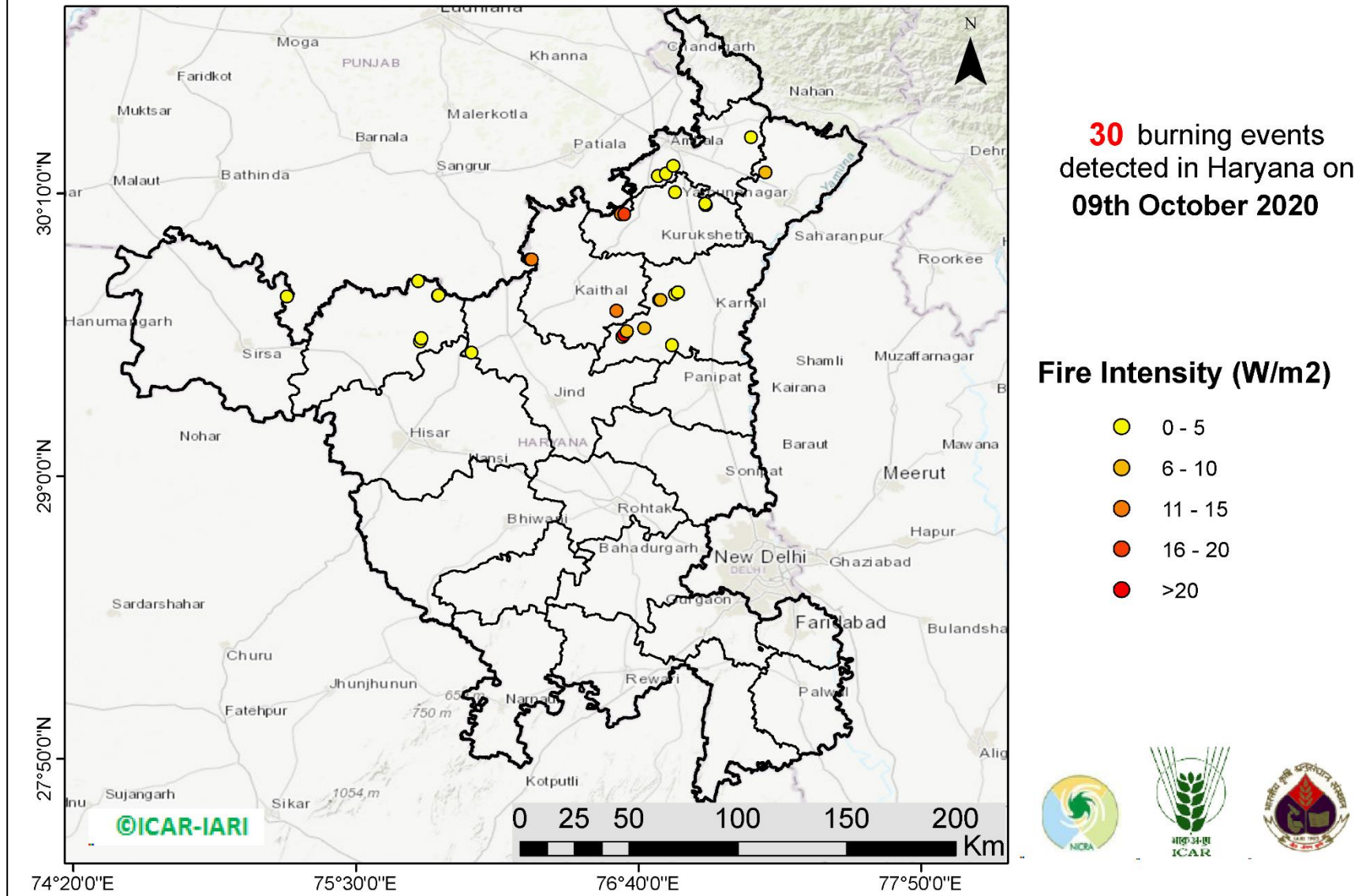
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residue burning events in Punjab (01-09 Oct-2020)

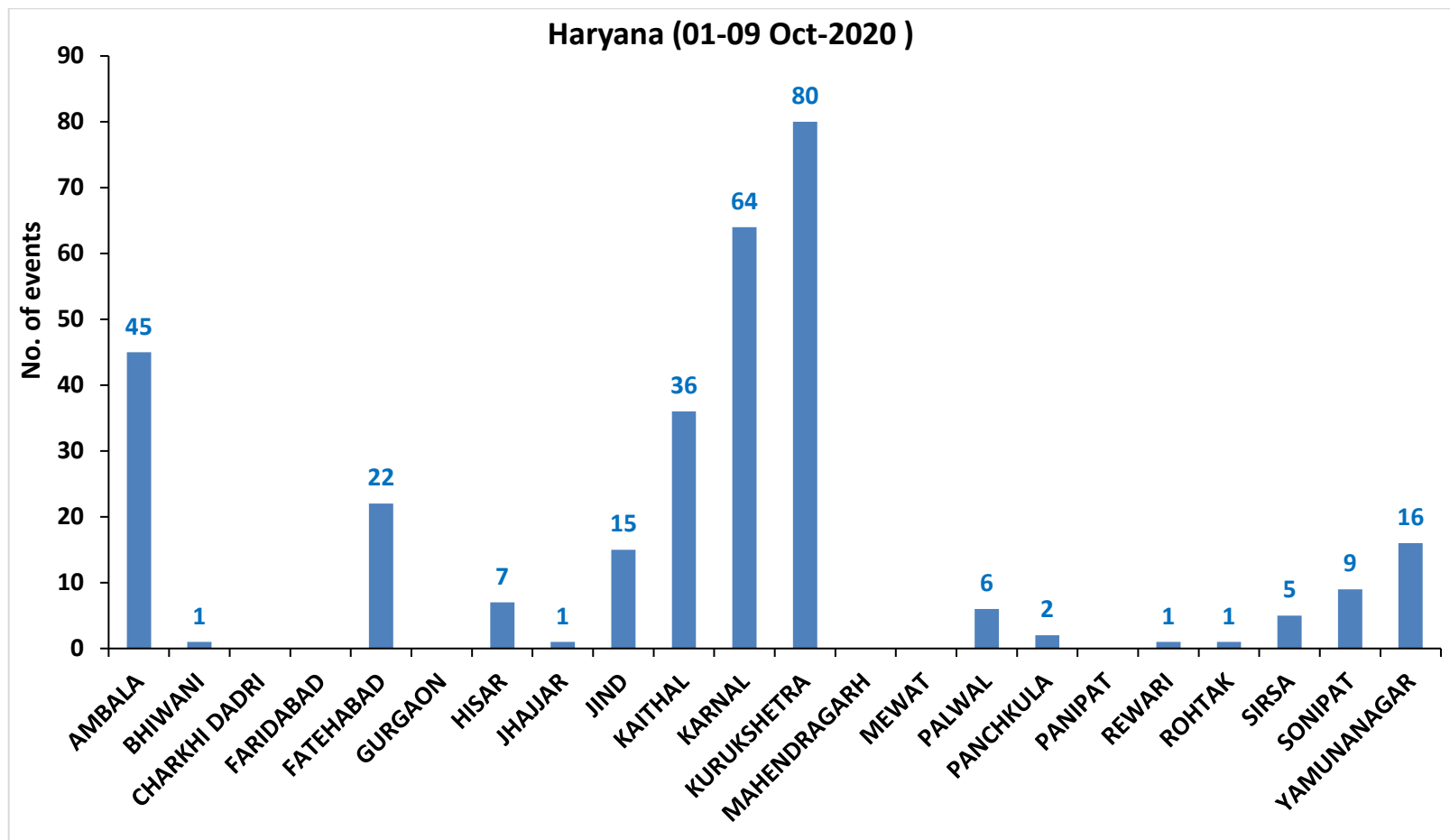


(b) Haryana

RICE RESIDUE BURNING IN HARYANA

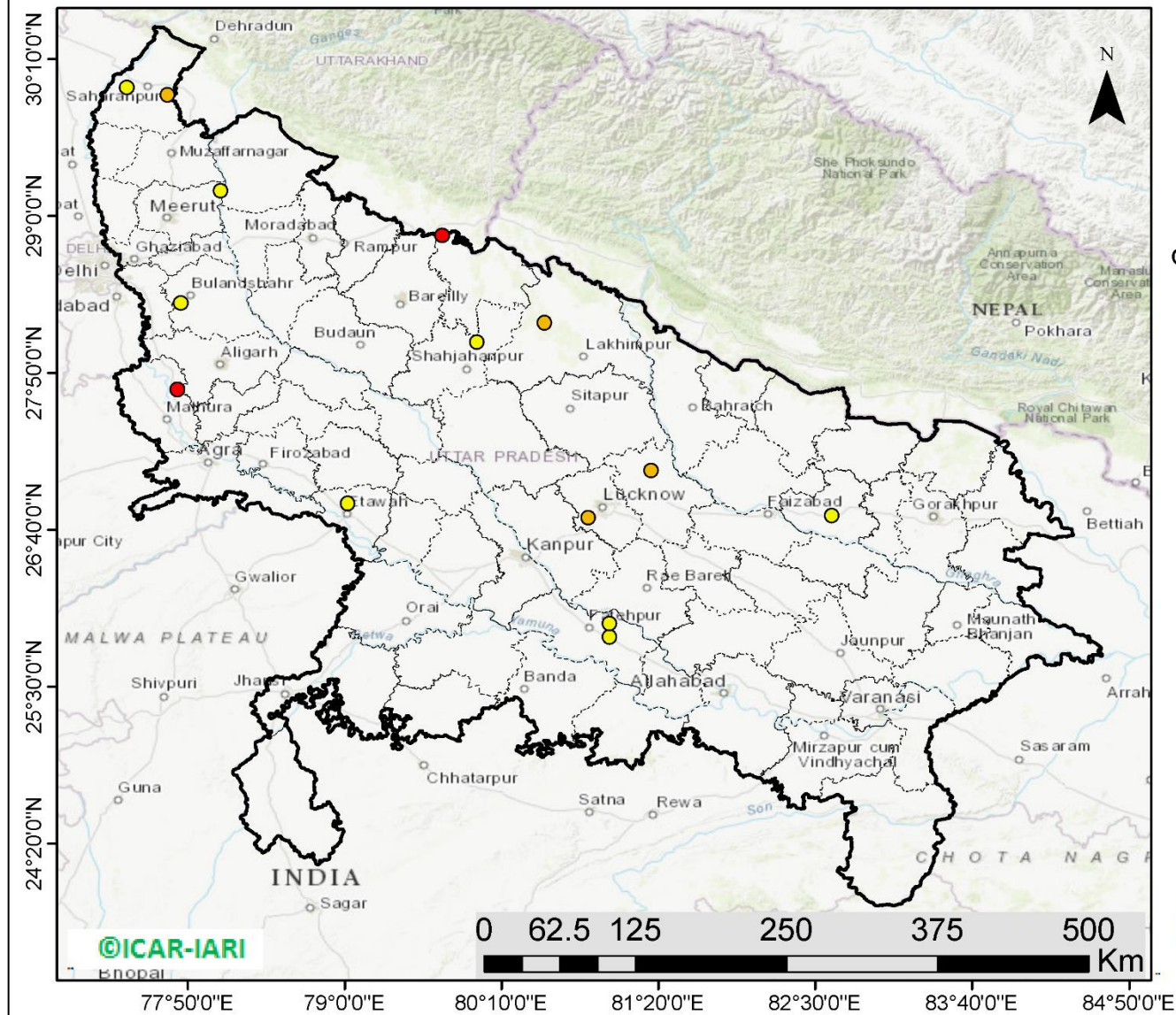


District-wise cumulative number of residue burning events in Haryana (01-09 Oct-2020)



(c) Uttar Pradesh

RICE RESIDUE BURNING IN UTTAR PRADESH



15 burning events detected in Uttar Pradesh on **09th October 2020**

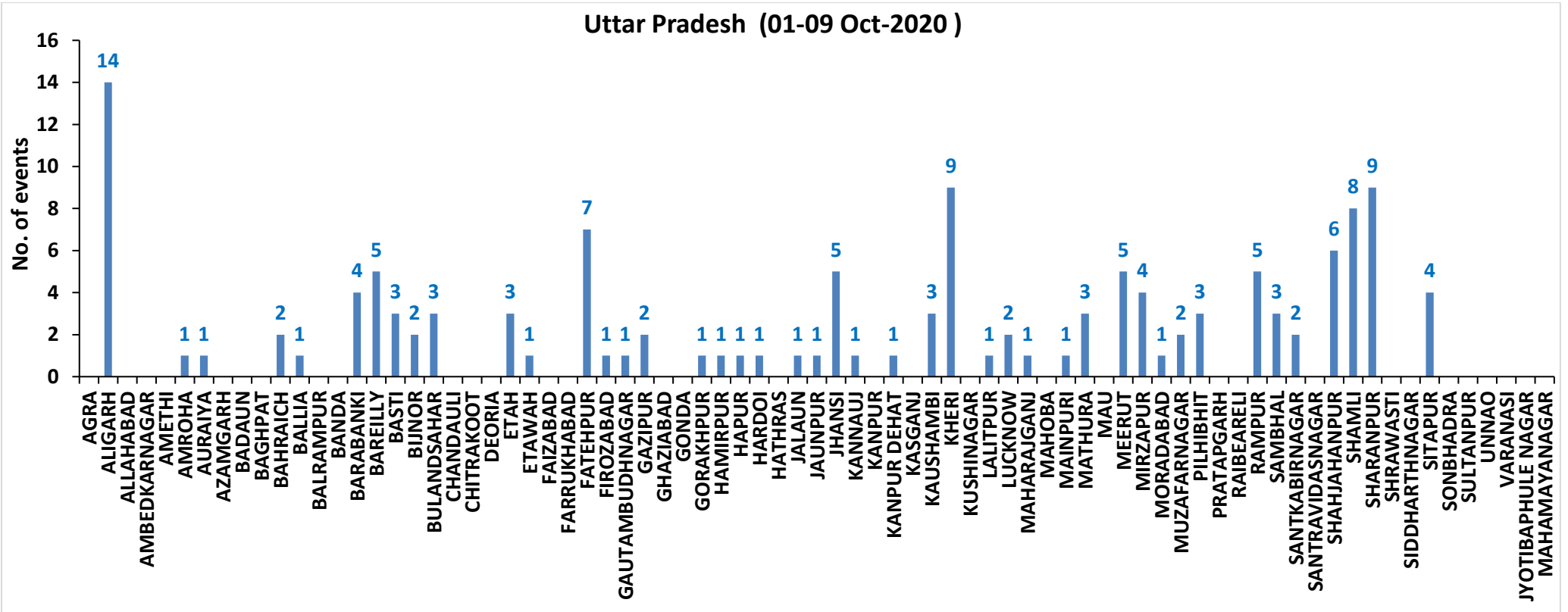
Fire Intensity (W/m²)

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



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

District-wise cumulative number of residue burning events in Uttar Pradesh (01-09 Oct-2020)



State-wise and date-wise number of residue burning events detected in 2016, 2017, 2018, 2019 and 2020
(Period: 01-09 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
01-Oct	129	3	16	54	109	25	1	9	13	46	5	1	11	2	23	159	5	36	69	178
02-Oct	121	20	9	50	51	34	2	23	27	16	10	0	21	8	20	165	22	53	85	87
03-Oct	110	37	4	62	66	07	16	9	40	16	07	3	12	17	16	124	56	25	119	98
04-Oct	177	3	32	103	37	50	30	16	60	7	11	4	5	22	15	238	37	53	185	59
05-Oct	163	16	56	106	95	30	37	30	68	15	15	11	10	20	14	208	64	96	194	124
06-Oct	141	0	87	138	152	42	22	63	75	105	14	8	13	39	6	197	30	163	252	263
07-Oct	166	27	162	105	171	53	16	180	97	126	36	4	69	33	24	255	47	411	235	321
08-Oct	100	59	39	215	166	40	69	40	218	94	23	18	54	76	14	163	146	133	509	274
09-Oct	126	93	75	163	270	30	70	47	148	121	15	17	32	88	22	171	180	154	399	413
Total	1233	258	480	996	1117	311	263	417	746	546	136	66	227	305	154	1680	587	1124	2047	1817

District-wise and date wise cumulative number of residue burning events detected in 2016, 2017, 2018, 2019 and 2020
(Period: 01-09 October)

(a) Punjab

Districts	01-09 Oct				
	2016	2017	2018	2019	2020
AMRITSAR	307	301	275	124	458
BARNALA	2	1	1	0	3
BATHINDA	35	16	12	0	5
FARIDKOT	45	74	0	0	17
FATEHGARH SAHIB	67	22	7	0	23
FAZILKA	0	0	0	2	8
FIROZPUR	76	73	16	6	58
GURDASPUR	30	24	23	10	78
HOSHIARPUR	9	4	3	2	5
JALANDHAR	70	44	0	5	21
KAPURTHALA	56	13	2	5	31
LUDHIANA	35	76	15	4	44
MANSA	9	13	1	6	3
MOGA	5	6	0	2	8
MUKTSAR	50	9	2	2	0
PATHANKOT	0	0	0	0	0
PATIALA	79	94	30	20	121
RUPNAGAR	5	2	0	0	5
SANGRUR	17	52	18	9	42
SAS NAGAR	12	18	11	2	18
SBS NAGAR	16	11	4	2	6
TARN TARAN	192	143	60	57	279
Total	1117	996	480	258	1233

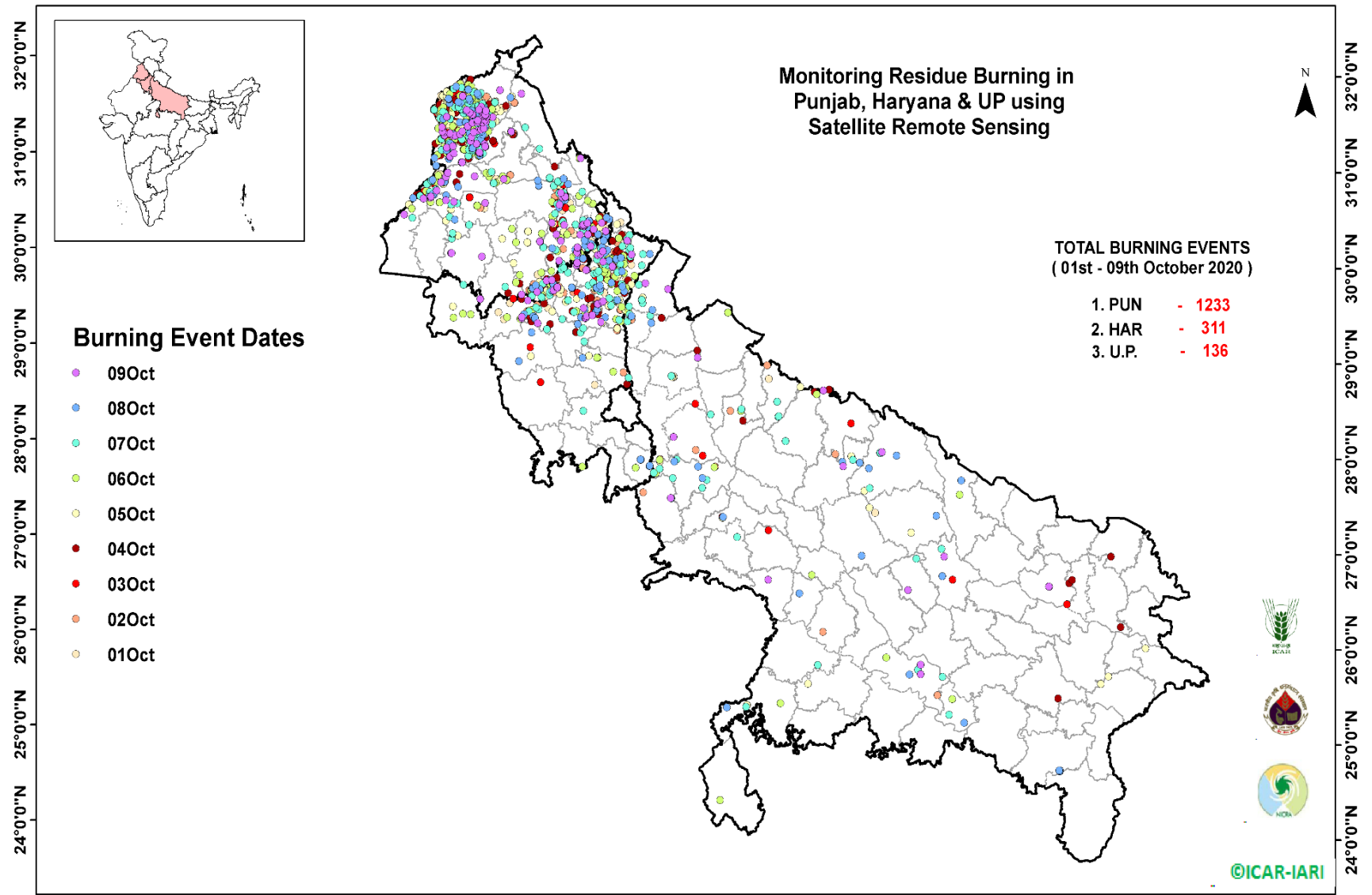
(b) Haryana

Districts	01-09 Oct				
	2016	2017	2018	2019	2020
AMBALA	29	54	31	3	45
BHIWANI	0	2	0	0	1
CHARKHI DADRI	0	0	0	0	0
FARIDABAD	2	6	13	1	0
FATEHABAD	8	34	8	13	22
GURGAON	0	0	0	0	0
HISAR	3	6	6	2	7
JHAJJAR	1	0	3	1	1
JIND	13	32	18	7	15
KAITHAL	145	119	62	54	36
KARNAL	209	259	105	105	64
KURUKSHETRA	113	185	120	62	80
MAHENDRAGARH	0	0	0	1	0
MEWAT	0	0	0	0	0
PALWAL	0	0	0	2	6
PANCHKULA	0	0	3	4	2
PANIPAT	8	13	21	1	0
REWARI	0	0	0	0	1
ROHTAK	0	1	0	0	1
SIRSA	8	6	4	0	5
SONIPAT	0	7	4	0	9
YAMUNANAGAR	7	22	19	7	16
Total	546	746	417	263	311

(C)
Uttar Pradesh

Districts	01-09 Oct																
	2016	2017	2018	2019	2020	GAUTAMBUDHNAGAR	0	0	0	0	1	MUZAFARNAGAR	0	2	1	1	2
AGRA	0	0	0	0	0	GAZIPUR	1	0	1	0	2	PILHIBHIT	4	18	4	2	3
ALIGARH	0	6	5	1	14	GHAZIABAD	0	0	0	0	0	PRATAPGARH	10	37	20	14	0
ALLAHABAD	0	0	3	0	0	GONDA	0	1	2	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	5
AMETHI	0	0	0	0	0	HAMIRPUR	0	0	3	0	1	SAMBHAL	48	33	28	3	3
AMROHA	0	0	0	0	1	HAPUR	0	0	1	0	1	SANTKABIRNAGAR	2	3	4	1	2
AURAIYA	27	22	13	0	1	HARDOI	0	0	0	1	1	SANTRAVIDASNAGAR	0	0	0	1	0
AZAMGARH	0	0	0	0	0	HATHRAS	0	0	2	0	0	SHAHJAHANPUR	0	0	0	0	6
BADAUN	0	0	0	0	0	JALAUN	0	0	0	0	1	SHAMLI	34	116	60	10	8
BAGHPAT	0	0	0	0	0	JAUNPUR	0	0	0	0	1	SHARANPUR	0	0	0	3	9
BAHRAICH	0	0	1	0	2	JHANSI	0	0	2	0	5	SHRAWASTI	0	0	0	0	0
BALLIA	0	0	0	1	1	KANNAUJ	0	0	0	1	1	SIDDHARTHANAGAR	0	0	0	0	0
BALRAMPUR	0	0	0	0	0	KANPUR	0	0	1	0	0	SITAPUR	3	1	1	0	4
BANDA	0	0	1	0	0	KANPUR DEHAT	0	0	0	0	1	SONBHADRA	3	1	3	0	0
BARABANKI	2	4	15	0	4	KASGANJ	0	0	0	0	0	SULTANPUR	0	0	0	0	0
BAREILLY	10	6	4	3	5	KAUSHAMBI	0	0	0	0	3	UNNAO	0	0	0	0	0
BASTI	0	0	0	0	3	KHERI	0	2	5	0	9	VARANASI	0	0	0	0	0
BIJNOR						KUSHINAGAR						JYOTIBAPHULE NAGAR					
	0	0	0	0	2		5	36	17	11	0		0	0	0	0	0
BULANDSAHAR	0	0	1	0	3	LALITPUR	0	0	0	0	1	MAHAMAYANAGAR	0	0	0	0	0
CHANDAULI	0	1	2	1	0	LUCKNOW	0	0	0	0	2	Total	154	305	227	66	136
CHITRAKOOT	0	0	0	0	0	MAHARAJGANJ	2	4	0	1	1						
DEORIA	0	0	0	0	0	MAHOBAB	0	0	1	0	0						
ETAH	0	0	0	0	3	MAINPURI	0	0	0	0	1						
ETAWAH	0	1	2	0	1	MATHURA	0	0	2	0	3						
FAIZABAD	0	0	0	0	0	MAU	2	6	19	6	0						
FARRUKHABAD	0	1	0	0	0	MEERUT	0	0	0	0	5						
FATEHPUR	0	0	0	0	7	MIRZAPUR	1	1	0	2	4						
FIROZABAD	0	2	2	0	1	MORADABAD	0	1	1	3	1						

Map of Cumulative Burning Events (01-09 Oct 2020)



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

Details of residue burning events in Punjab on 09-Oct-2020

S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m ²)
1	AMRITSAR	AJNALA	S-NPP	74.69559	31.63054	12:42:00	D	6.40
2	AMRITSAR	AJNALA	S-NPP	74.69228	31.63120	12:42:00	D	6.40
3	AMRITSAR	AJNALA	S-NPP	74.89532	31.85254	12:42:00	D	2.70
4	AMRITSAR	AMRITSAR I	AQUA	74.98100	31.53900	13:15:00	D	24.90
5	AMRITSAR	AMRITSAR I	AQUA	74.97300	31.54200	13:15:00	D	17.20
6	AMRITSAR	AMRITSAR I	S-NPP	75.03943	31.57973	14:18:00	D	6.40
7	AMRITSAR	AMRITSAR I	S-NPP	75.02751	31.66042	12:42:00	D	7.30
8	AMRITSAR	AMRITSAR I	S-NPP	75.03358	31.66378	14:18:00	D	9.50
9	AMRITSAR	AMRITSAR I	S-NPP	75.03872	31.66408	14:18:00	D	9.50
10	AMRITSAR	AMRITSAR I	S-NPP	75.03561	31.66589	14:18:00	D	22.30
11	AMRITSAR	AMRITSAR I	S-NPP	75.14960	31.75078	14:18:00	D	6.70
12	AMRITSAR	AMRITSAR II	S-NPP	74.99754	31.68407	12:42:00	D	3.90
13	AMRITSAR	AMRITSAR II	S-NPP	74.95535	31.71095	12:42:00	D	3.00
14	AMRITSAR	BABA BAKALA	AQUA	75.12100	31.50300	13:15:00	D	14.60
15	AMRITSAR	BABA BAKALA	S-NPP	75.15463	31.51221	14:18:00	D	1.90
16	AMRITSAR	BABA BAKALA	S-NPP	75.19034	31.52634	14:18:00	D	4.80
17	AMRITSAR	BABA BAKALA	S-NPP	75.16938	31.58771	12:42:00	D	2.10
18	AMRITSAR	BABA BAKALA	S-NPP	75.10780	31.58822	14:18:00	D	6.60
19	AMRITSAR	BABA BAKALA	S-NPP	75.10609	31.58939	14:18:00	D	4.70
20	AMRITSAR	BABA BAKALA	S-NPP	75.22066	31.60163	14:18:00	D	1.80
21	AMRITSAR	BABA BAKALA	S-NPP	75.11000	31.60775	14:18:00	D	2.70
22	AMRITSAR	BABA BAKALA	S-NPP	75.20705	31.61627	12:42:00	D	6.40
23	AMRITSAR	BABA BAKALA	AQUA	75.30600	31.64700	13:15:00	D	15.70
24	AMRITSAR	BABA BAKALA	S-NPP	75.22793	31.65075	14:18:00	D	5.70
25	AMRITSAR	BABA BAKALA	AQUA	75.19500	31.65400	13:15:00	D	29.70
26	AMRITSAR	BABA BAKALA	AQUA	75.17700	31.65900	13:15:00	D	21.10
27	AMRITSAR	BABA BAKALA	AQUA	75.19700	31.66300	13:15:00	D	19.50
28	AMRITSAR	BABA BAKALA	S-NPP	75.21088	31.66805	14:18:00	D	4.30
29	AMRITSAR	BABA BAKALA	S-NPP	75.20794	31.66881	14:18:00	D	4.80
30	AMRITSAR	BABA BAKALA	S-NPP	75.12030	31.71882	14:18:00	D	4.20

31	BATHINDA	BATHINDA	S-NPP	74.81210	30.21195	14:18:00	D	10.20
32	BATHINDA	BATHINDA	S-NPP	74.81685	30.21224	14:18:00	D	10.40
33	BATHINDA	RAMPURA PHUL	S-NPP	75.22035	30.18569	14:18:00	D	2.50
34	FARIDKOT	FARIDKOT	S-NPP	74.82762	30.74833	14:18:00	D	2.40
35	FARIDKOT	FARIDKOT	S-NPP	74.72037	30.75958	12:42:00	D	6.70
36	FARIDKOT	FARIDKOT	S-NPP	74.72038	30.75979	12:42:00	D	4.70
37	FATEHGARH SAHIB	ALMOH	AQUA	76.29300	30.54700	13:15:00	D	10.90
38	FATEHGARH SAHIB	ALMOH	S-NPP	76.13068	30.56441	12:42:00	D	1.40
39	FAZILKA	JALALABAD	S-NPP	74.17535	30.59132	14:18:00	D	5.10
40	FAZILKA	JALALABAD	S-NPP	74.42100	30.76891	12:42:00	D	5.60
41	FIROZPUR	FIROZPUR	S-NPP	74.51030	30.78114	14:18:00	D	8.30
42	FIROZPUR	FIROZPUR	S-NPP	74.51494	30.78144	14:18:00	D	7.80
43	FIROZPUR	FIROZPUR	S-NPP	74.51872	30.79332	14:18:00	D	9.00
44	FIROZPUR	FIROZPUR	S-NPP	74.51514	30.79344	14:18:00	D	5.30
45	FIROZPUR	FIROZPUR	S-NPP	74.51981	30.79372	14:18:00	D	5.30
46	FIROZPUR	FIROZPUR	S-NPP	74.59492	30.85662	14:18:00	D	8.60
47	FIROZPUR	FIROZPUR	S-NPP	74.64565	30.94660	14:18:00	D	4.00
48	FIROZPUR	FIROZPUR	S-NPP	74.70866	31.00340	14:18:00	D	4.10
49	FIROZPUR	FIROZPUR	S-NPP	74.73377	31.04936	12:42:00	D	5.20
50	FIROZPUR	ZIRA	S-NPP	75.08945	31.02093	14:18:00	D	2.60
51	GURDASPUR	BATALA	S-NPP	75.21277	31.70889	12:42:00	D	3.30
52	GURDASPUR	GURDASPUR	S-NPP	75.39344	31.92922	14:18:00	D	6.90
53	HOSHIARPUR	MUKERIAN	S-NPP	75.67968	31.89979	14:18:00	D	5.50
54	JALANDHAR	JALANDHAR II	S-NPP	75.55822	31.50302	14:18:00	D	3.10
55	JALANDHAR	JALANDHAR II	S-NPP	75.56067	31.50385	14:18:00	D	3.50
56	JALANDHAR	NAKODAR	S-NPP	75.47697	31.00381	12:42:00	D	4.20
57	KAPURTHALA	KAPURTHALA	S-NPP	75.20984	31.36192	14:18:00	D	4.40
58	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.14275	31.27345	12:42:00	D	2.50
59	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.21954	31.33563	12:42:00	D	7.40
60	KAPURTHALA	SULTANPUR LODHI	S-NPP	75.21734	31.33676	12:42:00	D	6.20
61	LUDHIANA	SAMRALA	AQUA	76.22600	30.75600	13:15:00	D	12.80
62	LUDHIANA	SAMRALA	S-NPP	76.26458	30.83325	14:18:00	D	4.10
63	LUDHIANA	SAMRALA	S-NPP	76.29755	30.83763	12:42:00	D	2.00

64	LUDHIANA	SAMRALA	S-NPP	76.29713	30.83996	12:42:00	D	2.20
65	LUDHIANA	SAMRALA	S-NPP	76.24182	30.87883	14:18:00	D	3.80
66	MOGA	MOGA	S-NPP	75.23887	30.74822	14:18:00	D	13.50
67	PATIALA	NABHA	S-NPP	76.19349	30.44425	12:42:00	D	2.40
68	PATIALA	PATIALA	S-NPP	76.47076	30.12917	12:42:00	D	9.70
69	PATIALA	PATIALA	S-NPP	76.47851	30.14913	12:42:00	D	4.90
70	PATIALA	PATIALA	S-NPP	76.47670	30.15467	12:42:00	D	4.30
71	PATIALA	PATIALA	AQUA	76.48000	30.25500	13:15:00	D	13.60
72	PATIALA	PATIALA	S-NPP	76.47349	30.26381	14:18:00	D	10.00
73	PATIALA	PATIALA	S-NPP	76.47152	30.26497	14:18:00	D	6.50
74	PATIALA	PATIALA	S-NPP	76.47566	30.31198	12:42:00	D	2.50
75	PATIALA	PATIALA	S-NPP	76.47537	30.31506	12:42:00	D	2.10
76	PATIALA	PATIALA	AQUA	76.25500	30.37800	13:15:00	D	31.90
77	PATIALA	RAJPURA	S-NPP	76.65095	30.33155	12:42:00	D	2.60
78	PATIALA	RAJPURA	S-NPP	76.50584	30.44810	14:18:00	D	4.00
79	PATIALA	RAJPURA	S-NPP	76.61272	30.45052	12:42:00	D	3.30
80	PATIALA	RAJPURA	S-NPP	76.61151	30.45379	12:42:00	D	3.60
81	PATIALA	RAJPURA	S-NPP	76.68613	30.50910	14:18:00	D	4.50
82	PATIALA	RAJPURA	S-NPP	76.55427	30.53545	14:18:00	D	7.90
83	PATIALA	RAJPURA	S-NPP	76.55555	30.54041	12:42:00	D	5.00
84	PATIALA	RAJPURA	S-NPP	76.55462	30.54441	12:42:00	D	6.50
85	PATIALA	RAJPURA	AQUA	76.53100	30.54500	13:15:00	D	23.40
86	PATIALA	RAJPURA	S-NPP	76.54127	30.54778	14:18:00	D	15.00
87	PATIALA	RAJPURA	S-NPP	76.54700	30.55456	14:18:00	D	5.10
88	PATIALA	RAJPURA	S-NPP	76.60163	30.57027	14:18:00	D	4.50
89	PATIALA	SAMANA	S-NPP	76.17622	29.85954	12:42:00	D	3.20
90	PATIALA	SAMANA	S-NPP	76.22317	29.88366	12:42:00	D	2.40
91	PATIALA	SAMANA	S-NPP	76.07997	29.95672	12:42:00	D	4.40
92	PATIALA	SAMANA	S-NPP	76.15156	29.96590	14:18:00	D	4.00
93	PATIALA	SAMANA	S-NPP	76.23674	30.16628	14:18:00	D	3.30
94	PATIALA	SAMANA	S-NPP	76.23605	30.16831	14:18:00	D	2.30
95	RUPNAGAR	ANANDPUR SAHIB	S-NPP	76.49206	31.24735	14:18:00	D	3.40
96	SANGRUR	DHURI	S-NPP	75.98235	30.36413	14:18:00	D	11.80

97	SANGRUR	MOONAK	S-NPP	75.95966	29.83783	14:18:00	D	2.30
98	SANGRUR	SANGRUR	S-NPP	75.98058	30.36041	14:18:00	D	13.10
99	SANGRUR	SANGRUR	S-NPP	75.97669	30.36384	14:18:00	D	9.70
100	SAS NAGAR	DERABASSI	S-NPP	76.84559	30.48993	14:18:00	D	5.00
101	SAS NAGAR	DERABASSI	S-NPP	76.84673	30.49116	14:18:00	D	6.50
102	SAS NAGAR	DERABASSI	S-NPP	76.78951	30.57951	14:18:00	D	9.20
103	TARN TARAN	KHADOOR SAHIB	S-NPP	75.10433	31.36047	14:18:00	D	4.90
104	TARN TARAN	KHADOOR SAHIB	S-NPP	75.10032	31.36213	14:18:00	D	5.00
105	TARN TARAN	KHADOOR SAHIB	S-NPP	75.02140	31.38789	14:18:00	D	3.40
106	TARN TARAN	KHADOOR SAHIB	S-NPP	75.03371	31.43069	14:18:00	D	3.20
107	TARN TARAN	KHADOOR SAHIB	S-NPP	74.78562	31.43545	12:42:00	D	6.00
108	TARN TARAN	KHADOOR SAHIB	S-NPP	74.67043	31.43722	14:18:00	D	5.10
109	TARN TARAN	KHADOOR SAHIB	S-NPP	74.66851	31.43827	14:18:00	D	3.40
110	TARN TARAN	KHADOOR SAHIB	S-NPP	74.67337	31.43858	14:18:00	D	5.60
111	TARN TARAN	KHADOOR SAHIB	S-NPP	74.81320	31.43928	14:18:00	D	12.10
112	TARN TARAN	KHADOOR SAHIB	S-NPP	74.81596	31.44154	14:18:00	D	11.40
113	TARN TARAN	KHADOOR SAHIB	S-NPP	74.87704	31.45473	14:18:00	D	2.00
114	TARN TARAN	KHADOOR SAHIB	S-NPP	74.74239	31.45904	14:18:00	D	4.50
115	TARN TARAN	KHADOOR SAHIB	S-NPP	74.66110	31.46663	12:42:00	D	4.40
116	TARN TARAN	KHADOOR SAHIB	TERRA	74.64200	31.47400	11:40:00	D	25.50
117	TARN TARAN	KHADOOR SAHIB	S-NPP	75.05817	31.48271	14:18:00	D	3.90
118	TARN TARAN	KHADOOR SAHIB	S-NPP	74.90995	31.48643	14:18:00	D	2.70
119	TARN TARAN	KHADOOR SAHIB	TERRA	74.63700	31.52000	11:40:00	D	35.20
120	TARN TARAN	PATTI	S-NPP	74.91203	31.16192	12:42:00	D	7.40
121	TARN TARAN	PATTI	S-NPP	74.91717	31.16329	12:42:00	D	7.40
122	TARN TARAN	PATTI	S-NPP	74.75156	31.21615	12:42:00	D	4.10
123	TARN TARAN	PATTI	S-NPP	74.75329	31.21815	12:42:00	D	5.70
124	TARN TARAN	PATTI	S-NPP	74.80708	31.25480	14:18:00	D	1.90
125	TARN TARAN	PATTI	S-NPP	74.70832	31.31010	12:42:00	D	11.20
126	TARN TARAN	PATTI	S-NPP	74.78855	31.32924	14:18:00	D	2.30

Details of residue burning events in Haryana on 09-Oct-2020

S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m ²)
1	AMBALA	AMBALA	AQUA	76.60800	30.08200	13:15:00	D	16.50
2	AMBALA	AMBALA	S-NPP	76.74682	30.23967	12:42:00	D	4.50
3	AMBALA	AMBALA	S-NPP	76.78055	30.24799	12:42:00	D	2.20
4	AMBALA	AMBALA	S-NPP	76.81085	30.28041	14:18:00	D	4.40
5	AMBALA	NARAYANGARH	S-NPP	77.13218	30.39786	12:42:00	D	2.00
6	FATEHABAD	TOHANA	S-NPP	75.76481	29.55596	14:18:00	D	2.40
7	FATEHABAD	TOHANA	S-NPP	75.76931	29.56857	14:18:00	D	4.60
8	FATEHABAD	TOHANA	S-NPP	75.83950	29.74372	14:18:00	D	4.20
9	FATEHABAD	TOHANA	S-NPP	75.84093	29.74560	14:18:00	D	2.60
10	FATEHABAD	TOHANA	S-NPP	75.75693	29.80520	12:42:00	D	2.40
11	JIND	NARWANA	S-NPP	75.97729	29.50981	12:42:00	D	3.40
12	KAITHAL	GUHLA	S-NPP	76.21923	29.89367	14:18:00	D	9.30
13	KAITHAL	GUHLA	S-NPP	76.22498	29.89398	14:18:00	D	12.20
14	KAITHAL	KAITHAL	AQUA	76.57500	29.68200	13:15:00	D	13.70
15	KARNAL	ASSANDH	S-NPP	76.60089	29.57548	12:42:00	D	3.40
16	KARNAL	ASSANDH	AQUA	76.60700	29.58300	13:15:00	D	21.60
17	KARNAL	ASSANDH	S-NPP	76.61761	29.59652	12:42:00	D	5.30
18	KARNAL	ASSANDH	S-NPP	76.61761	29.59780	12:42:00	D	6.40
19	KARNAL	ASSANDH	S-NPP	76.68967	29.60994	12:42:00	D	6.10
20	KARNAL	GHARAUNDA	S-NPP	76.80528	29.54110	12:42:00	D	2.90
21	KARNAL	KARNAL	S-NPP	76.75182	29.72709	14:18:00	D	6.00
22	KARNAL	KARNAL	S-NPP	76.75799	29.72741	14:18:00	D	6.00
23	KARNAL	KARNAL	S-NPP	76.81881	29.75014	14:18:00	D	3.00
24	KARNAL	NILOKHERI	S-NPP	76.82882	29.75764	12:42:00	D	1.90
25	KURUKSHETRA	PEHOWA	AQUA	76.59500	30.08100	13:15:00	D	11.70
26	KURUKSHETRA	SHAHABAD	S-NPP	76.81865	30.17135	14:18:00	D	3.50
27	KURUKSHETRA	THANESAR	S-NPP	76.94412	30.11970	14:18:00	D	5.00
28	KURUKSHETRA	THANESAR	S-NPP	76.94223	30.12465	14:18:00	D	3.80
29	SIRSA	SIRSA	S-NPP	75.21515	29.74088	12:42:00	D	4.40
30	YAMUNANAGAR	JAGADHRI	S-NPP	77.19075	30.25282	14:18:00	D	5.60

Details of residue burning events in Uttar Pradesh on 09-Oct-2020

S. No.	District	Tehsil / Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m ²)
1	BARABANKI	RAMNAGAR	AQUA	81.28100	27.10500	13:15:00	D	8.10
2	BASTI	HARRAIYA	S-NPP	82.62441	26.77041	12:36:00	D	3.60
3	BASTI	HARRAIYA	S-NPP	82.62209	26.77157	12:36:00	D	3.90
4	BULANDSAHAR	SIKANDARABAD	S-NPP	77.78027	28.34974	01:24:00	N	0.40
5	ETAWAH	SAIFAI	S-NPP	79.02287	26.86304	12:36:00	D	2.40
6	FATEHPUR	FATEHPUR	S-NPP	80.97063	25.86794	12:36:00	D	3.70
7	FATEHPUR	FATEHPUR	S-NPP	80.96896	25.96753	12:36:00	D	2.70
8	KHERI	GOLA	S-NPP	80.48657	28.20597	12:36:00	D	8.50
9	LUCKNOW	LUCKNOW	S-NPP	80.81237	26.75428	12:36:00	D	7.40
10	MATHURA	MAT	TERRA	77.75400	27.71000	22:40:00	N	20.20
11	MEERUT	MAWANA	S-NPP	78.07745	29.18697	12:36:00	D	2.40
12	PILHIBHIT	PILHIBHIT	AQUA	79.72400	28.85500	13:15:00	D	20.10
13	SHAHJAHANPUR	PUWANYA	S-NPP	79.98459	28.05965	01:24:00	N	0.40
14	SHARANPUR	NAKUR	S-NPP	77.37978	29.95502	12:42:00	D	1.90
15	SHARANPUR	SHARANPUR	AQUA	77.68100	29.90000	13:15:00	D	7.90

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)
