



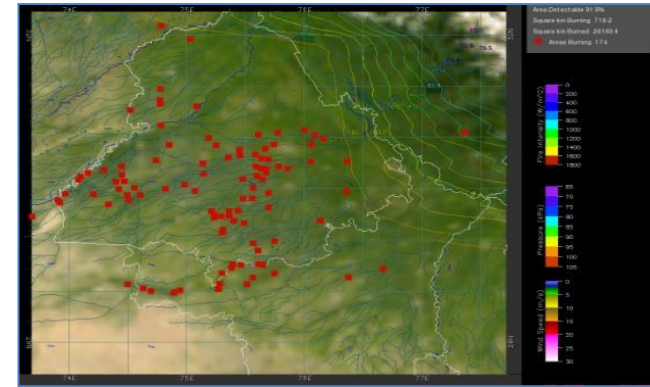
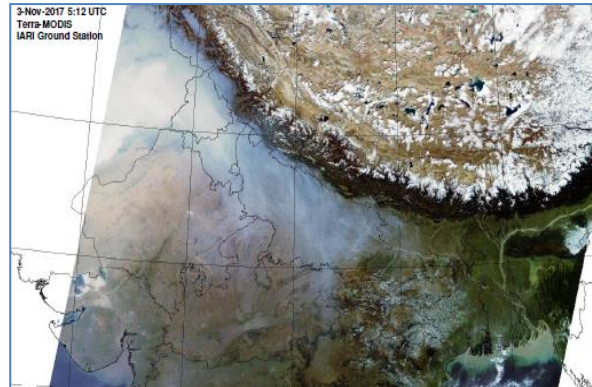
**Bulletin  
No. 30**

**Events Date:  
14-Oct-2021**

**Issued on:  
14-Oct-2021**



# **MONITORING PADDY RESIDUE BURNING IN INDIA USING SATELLITE REMOTE SENSING DURING 2021**



**Prepared by:**

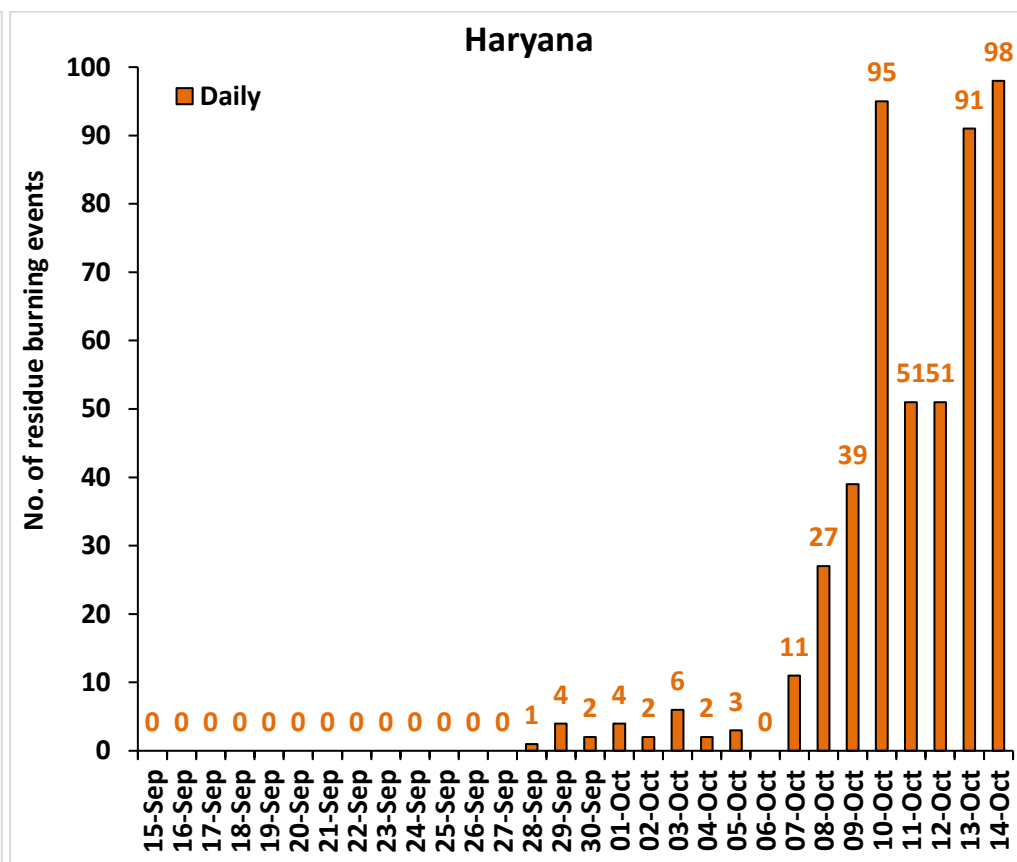
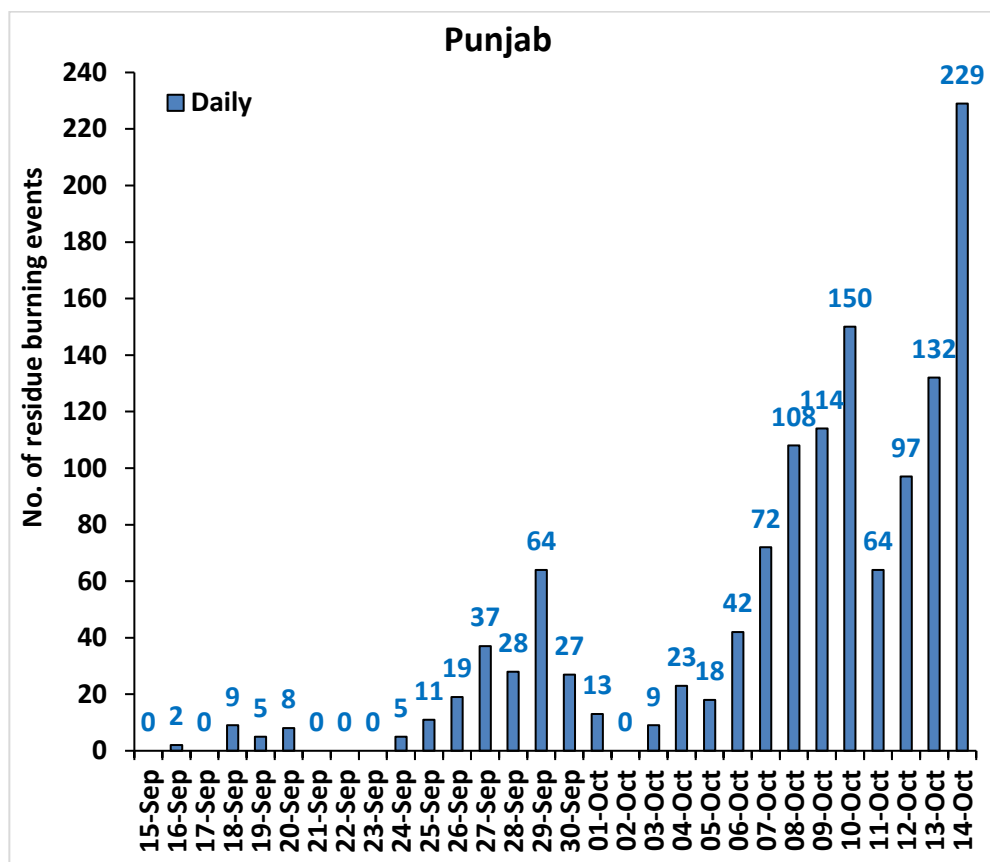
**Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS) Laboratory,  
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012**

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

## Highlights for 14-October-2021

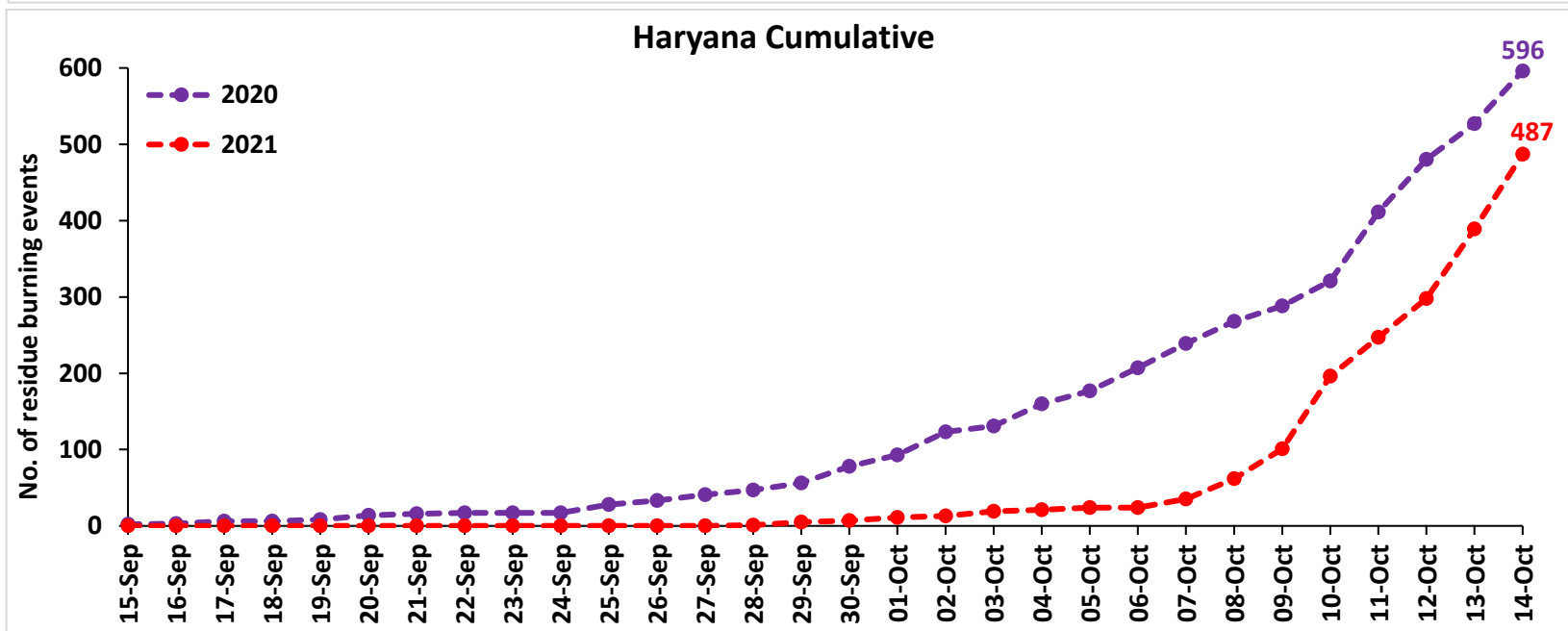
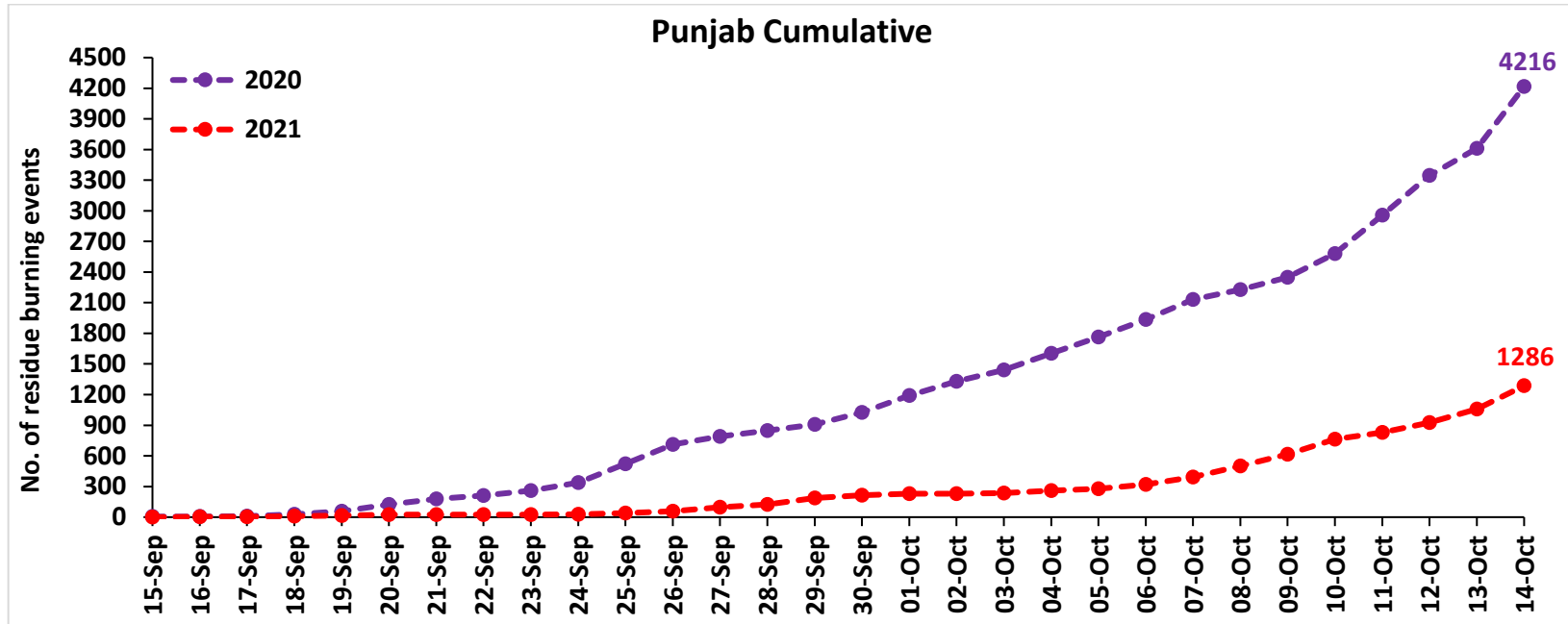
- The active fire events due to rice residue burning were monitored using satellite remote sensing, following the new "Standard Protocol for Estimation of Crop Residue Burning Fire Events using Satellite Data".
- Satellites detected **407** residue burning events in the six study States on 14-Oct-2021.
- The state wise events detected on 14-Oct-2021 were **229** in Punjab, **98** in Haryana, **68** in UP, **0** in Delhi, **1** in Rajasthan and **11** in MP.

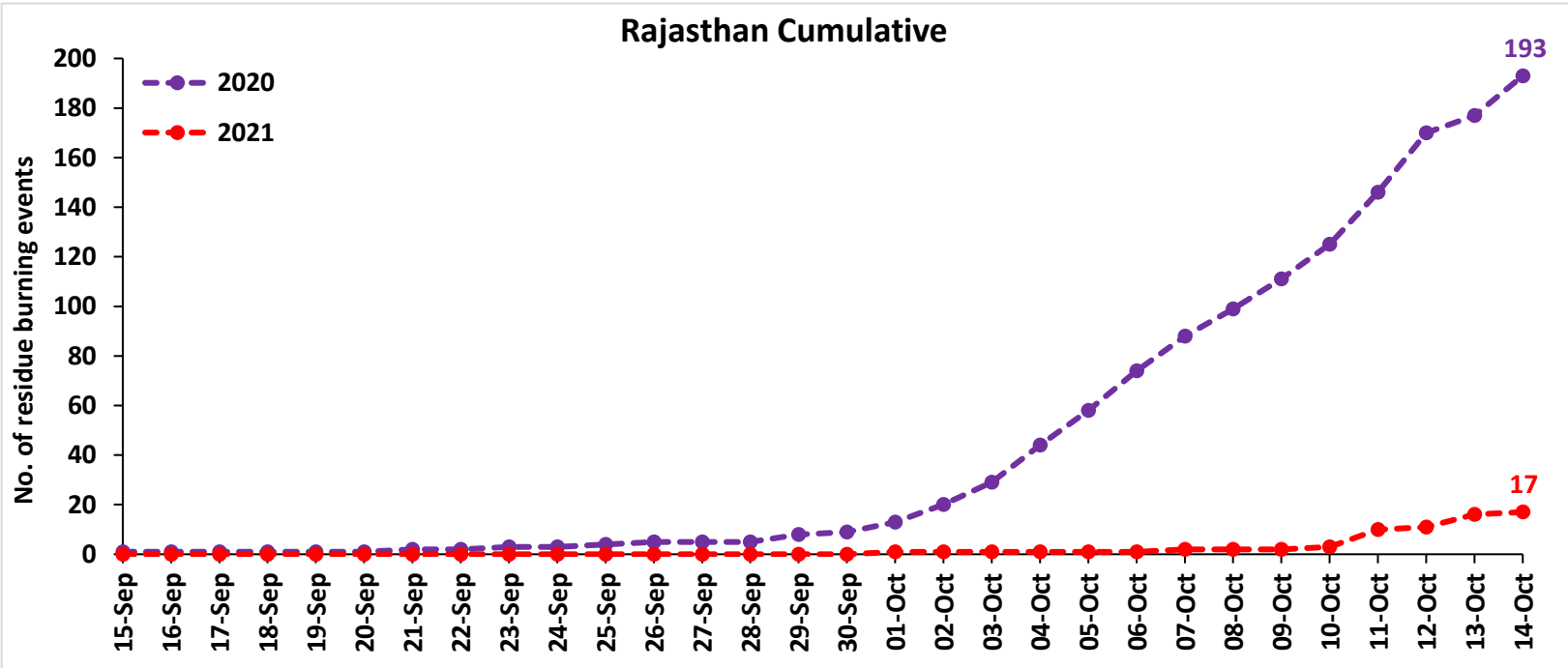
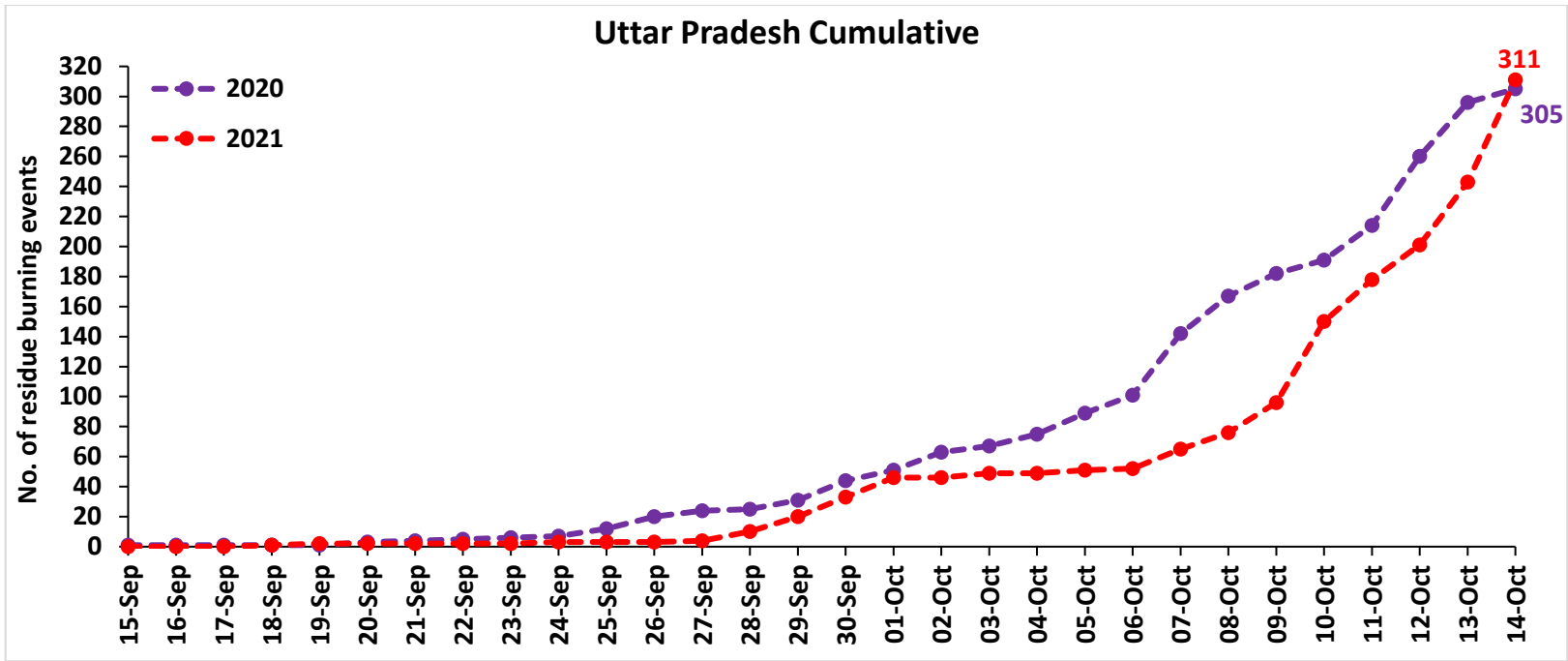
### Temporal distribution of rice residue burning events for the study States in 2021

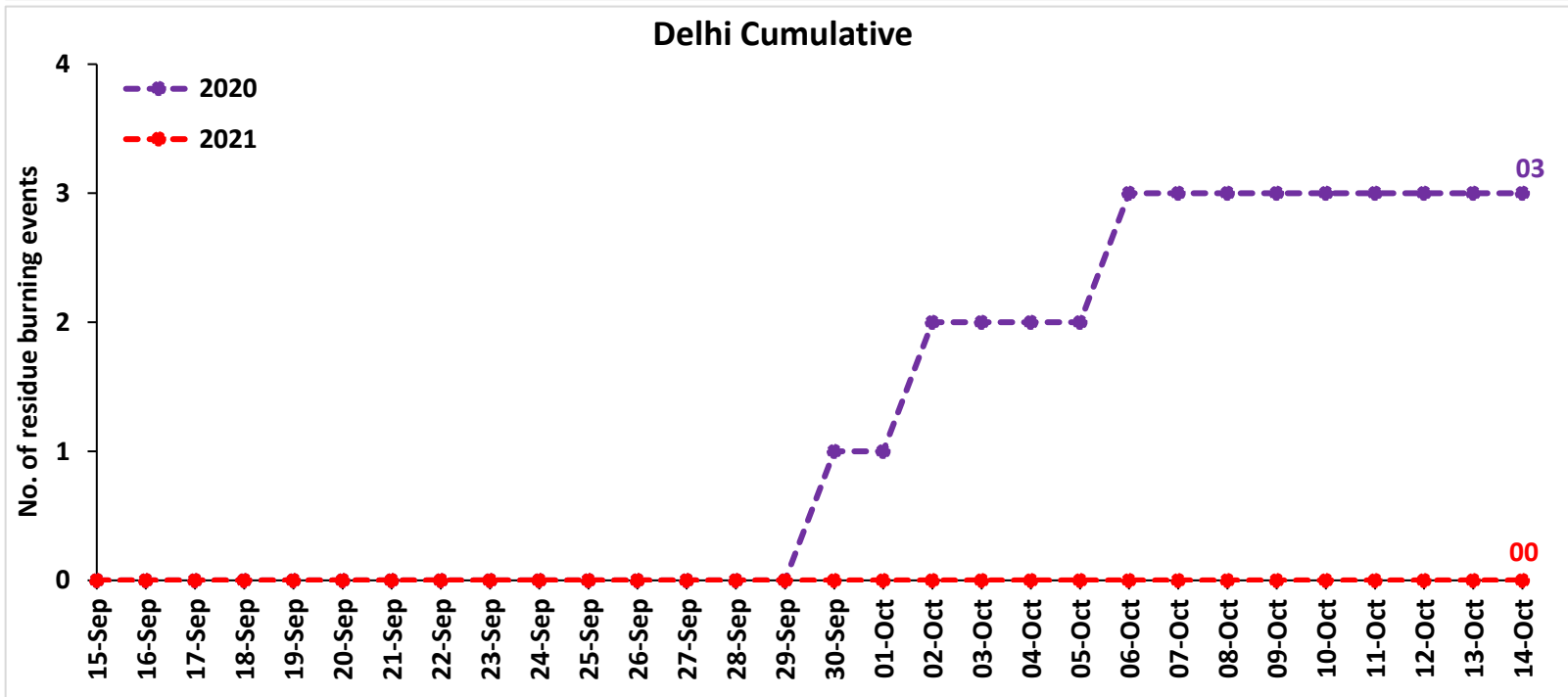
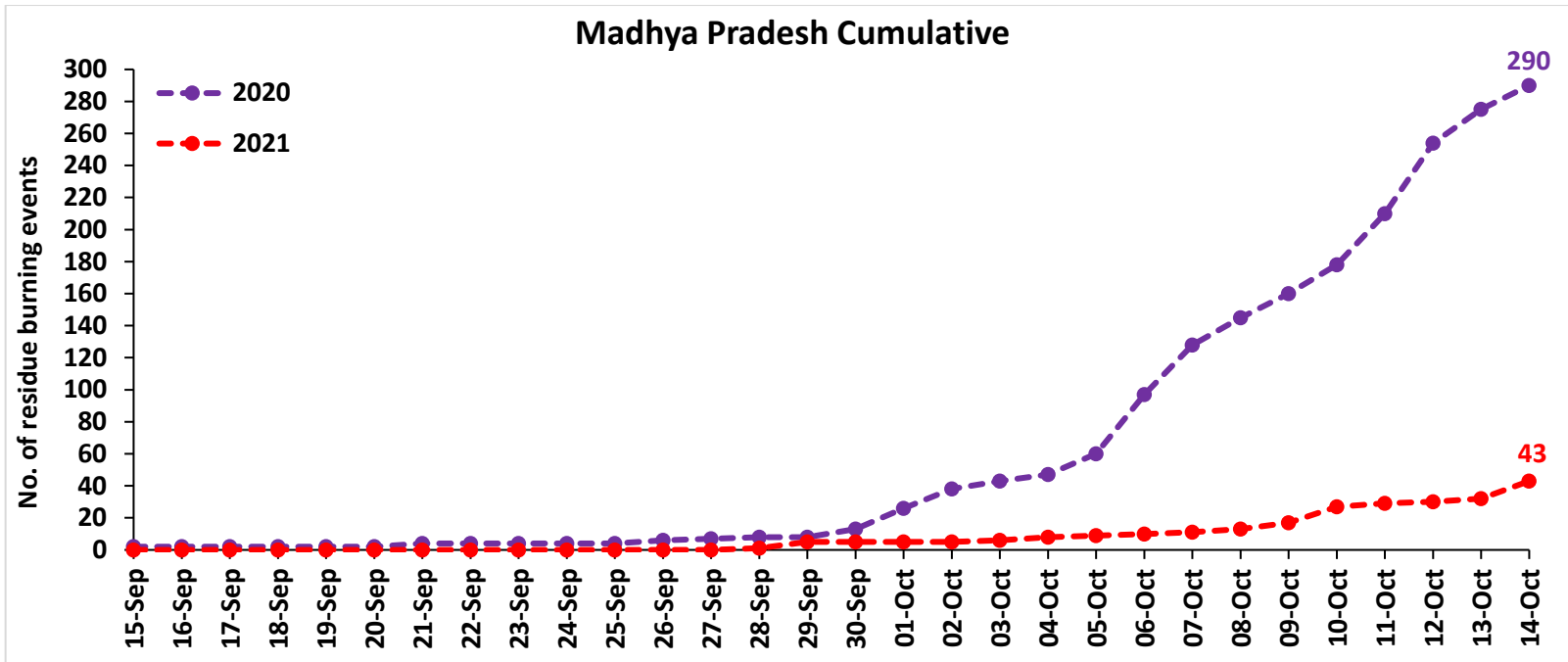




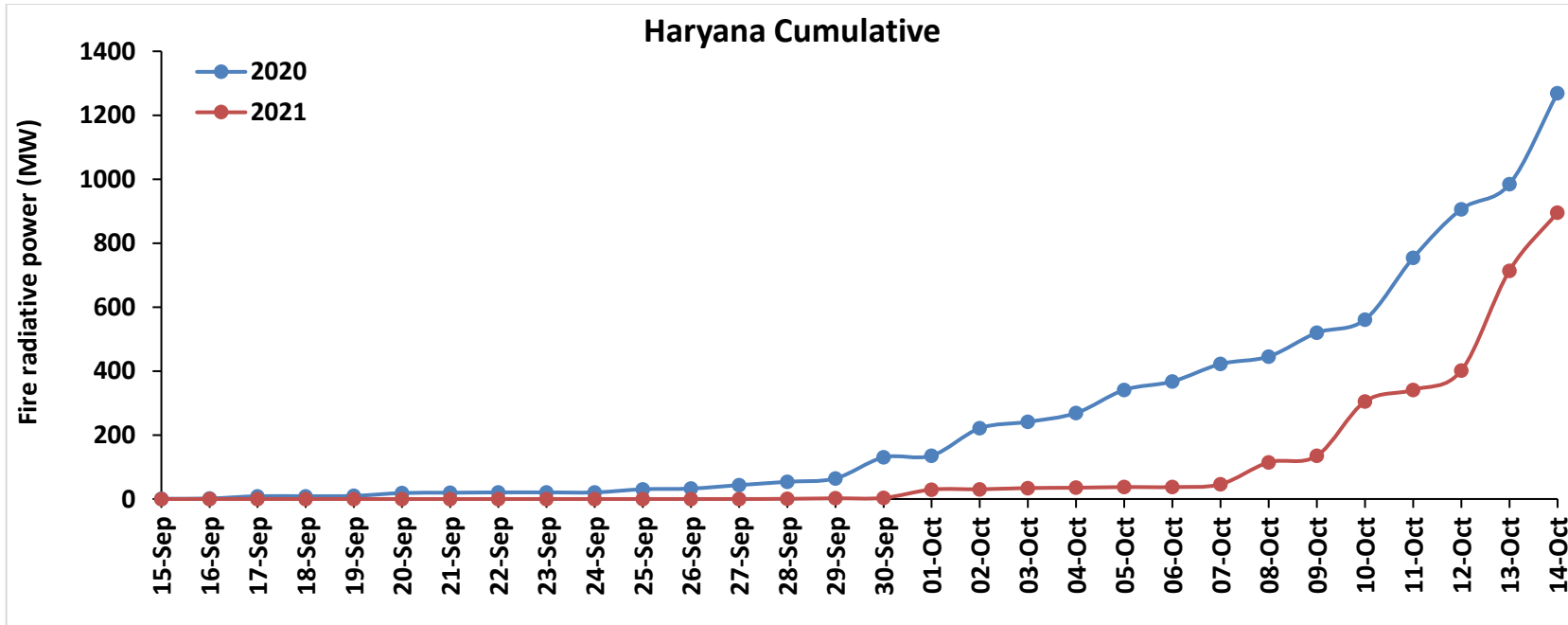
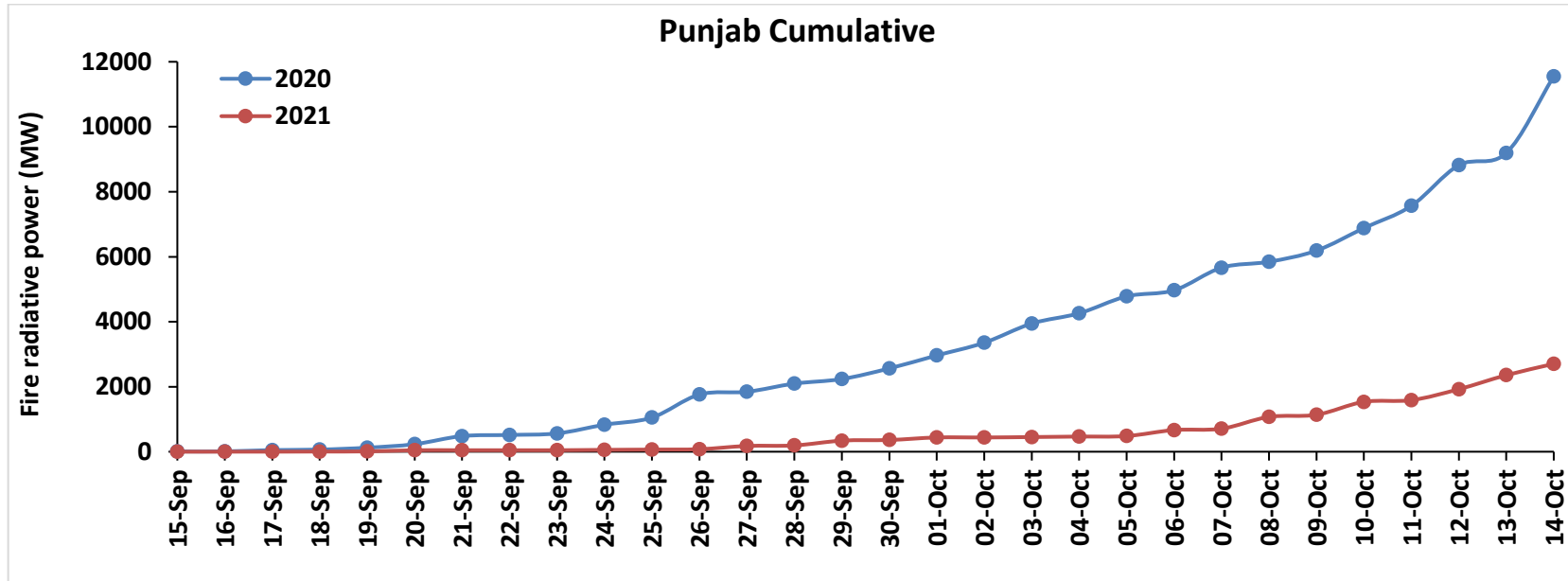
### Comparison of residue burning events in current year (2021) with previous year (2020) for the study States

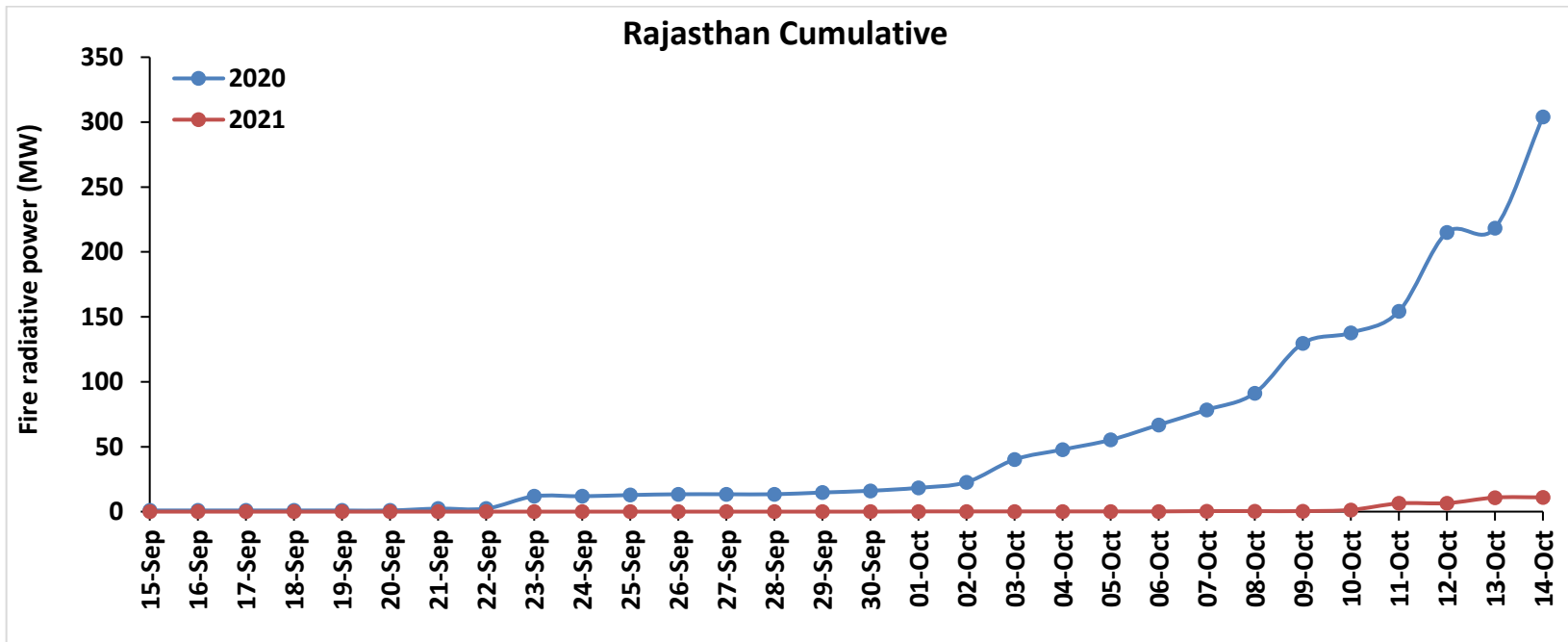
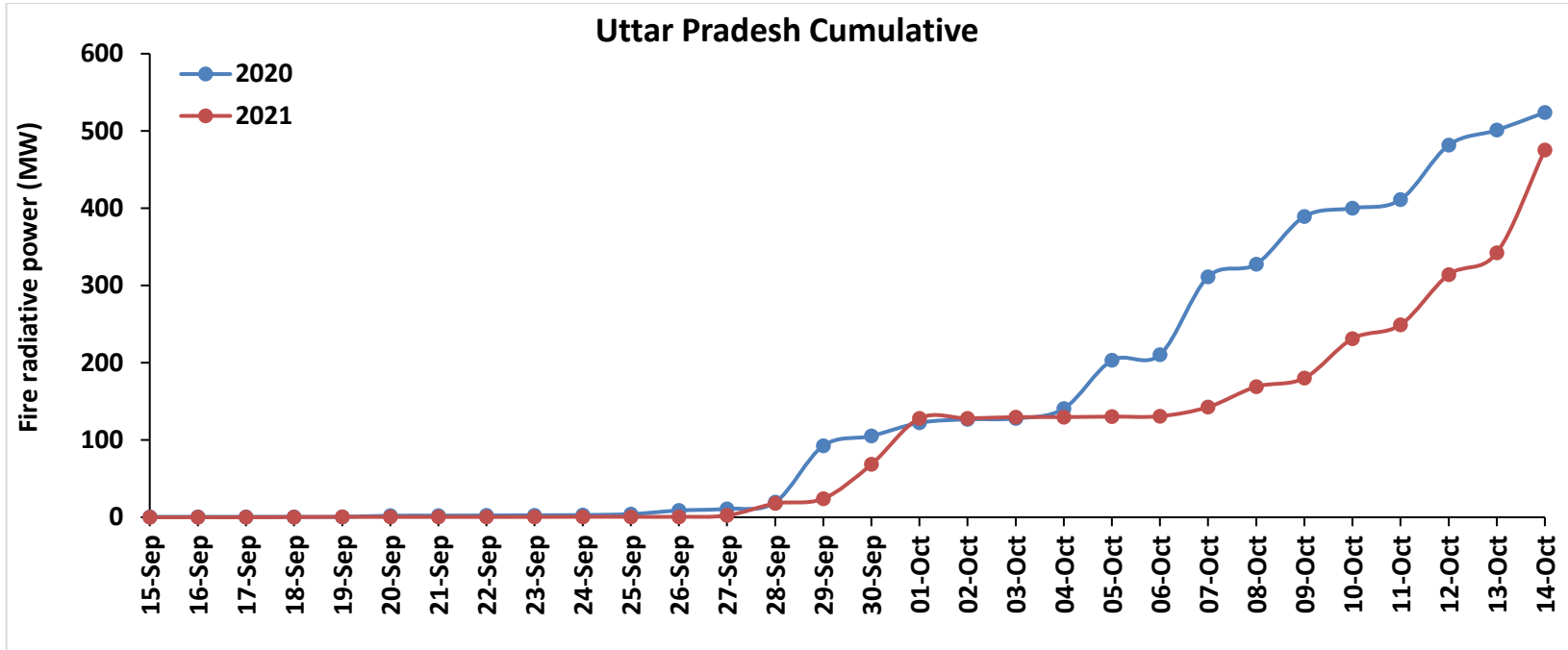




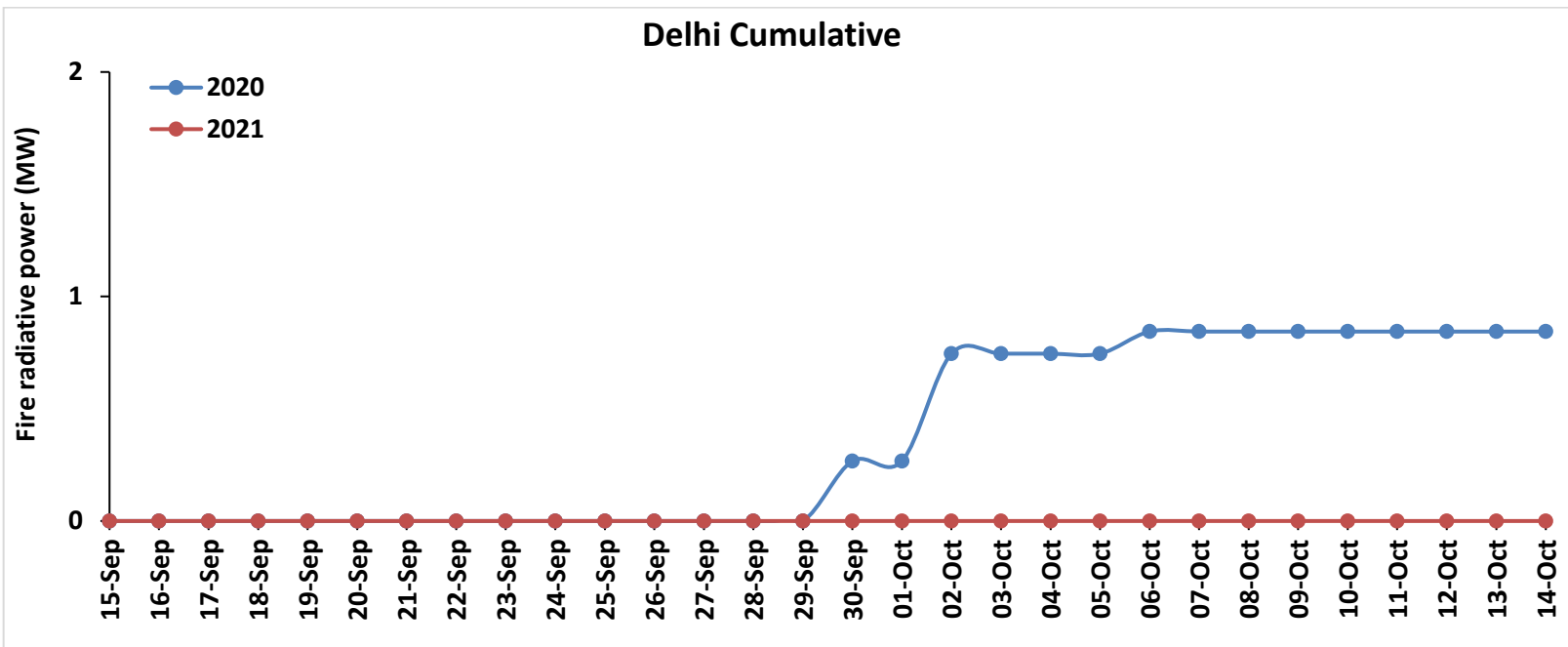
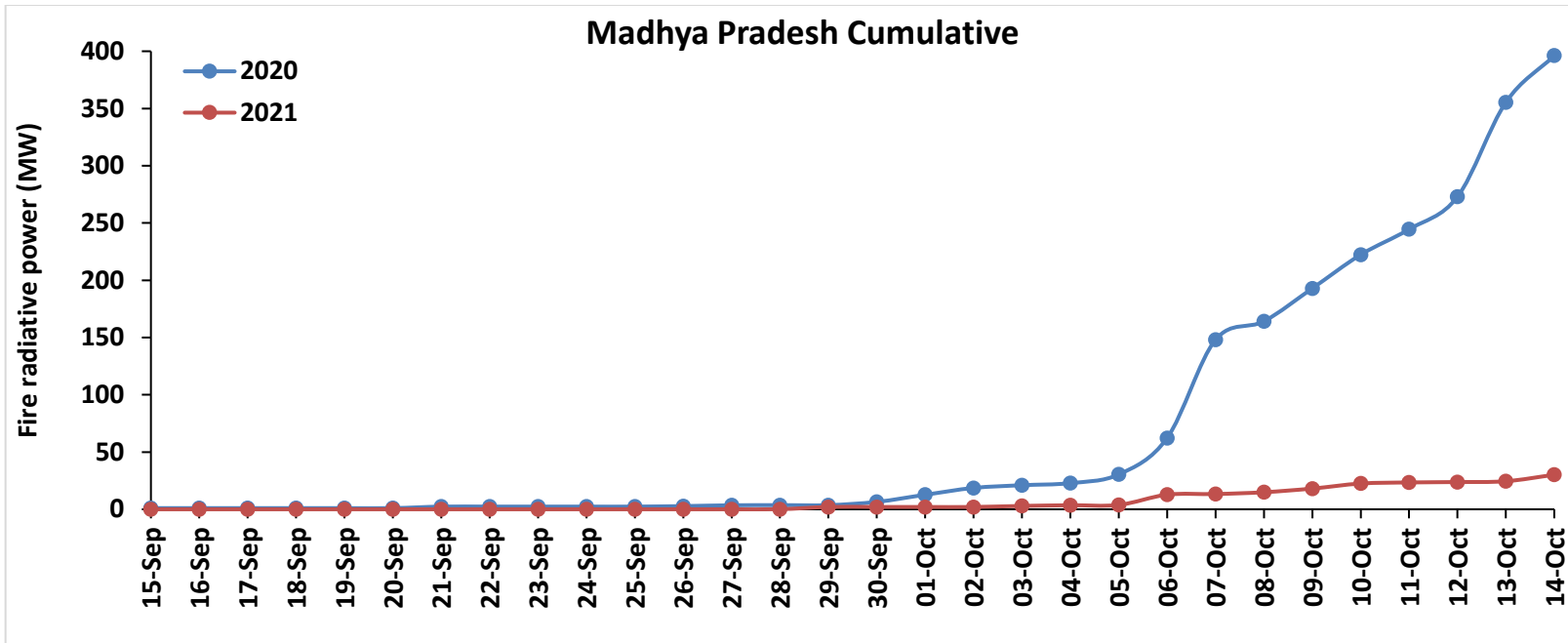


**Comparison of residue burning fire power in current year (2021) with previous year (2020) for the study States**



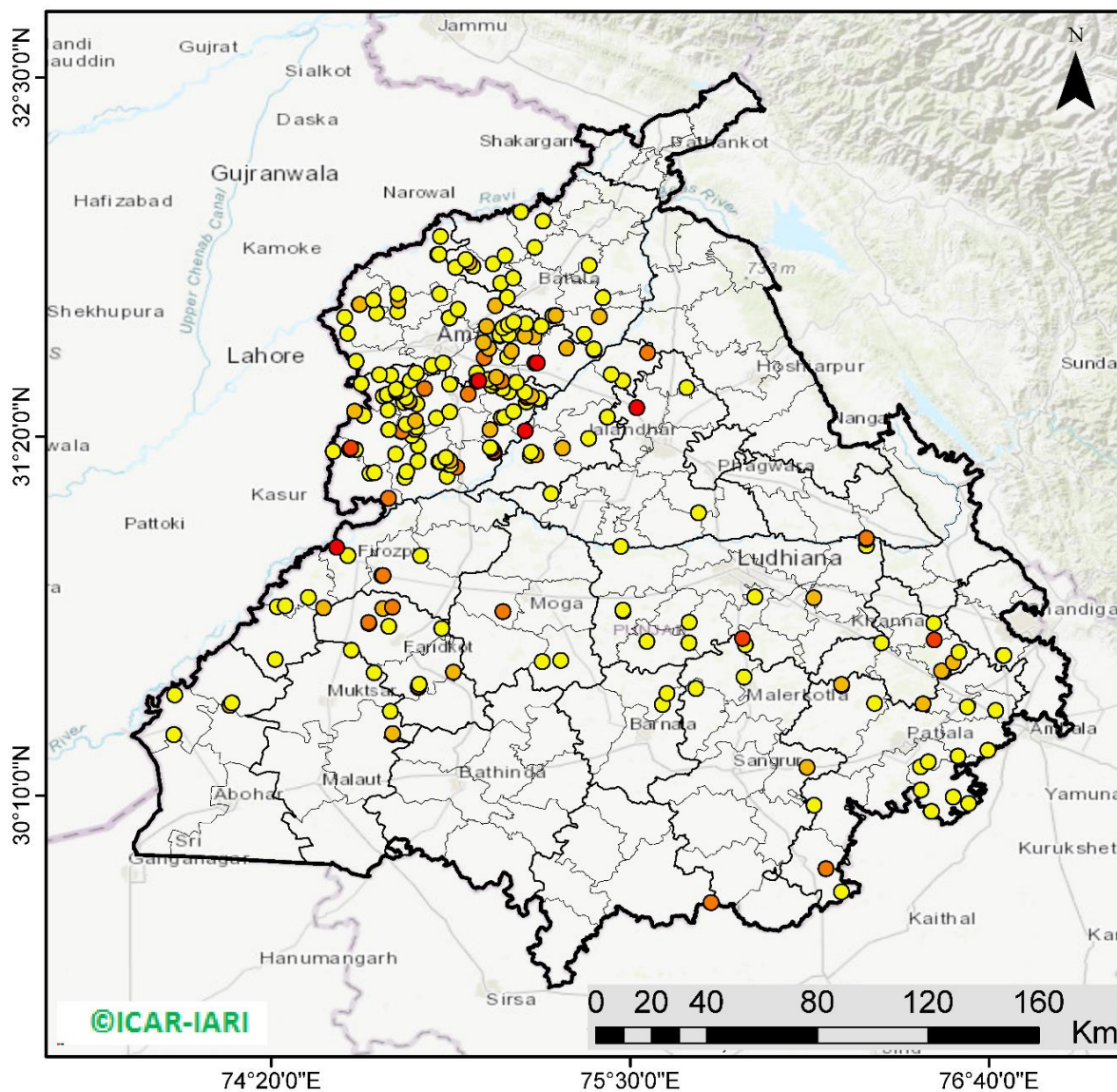






# Punjab

## RICE RESIDUE BURNING IN PUNJAB



**229** burning events detected in Punjab on 14th October 2021

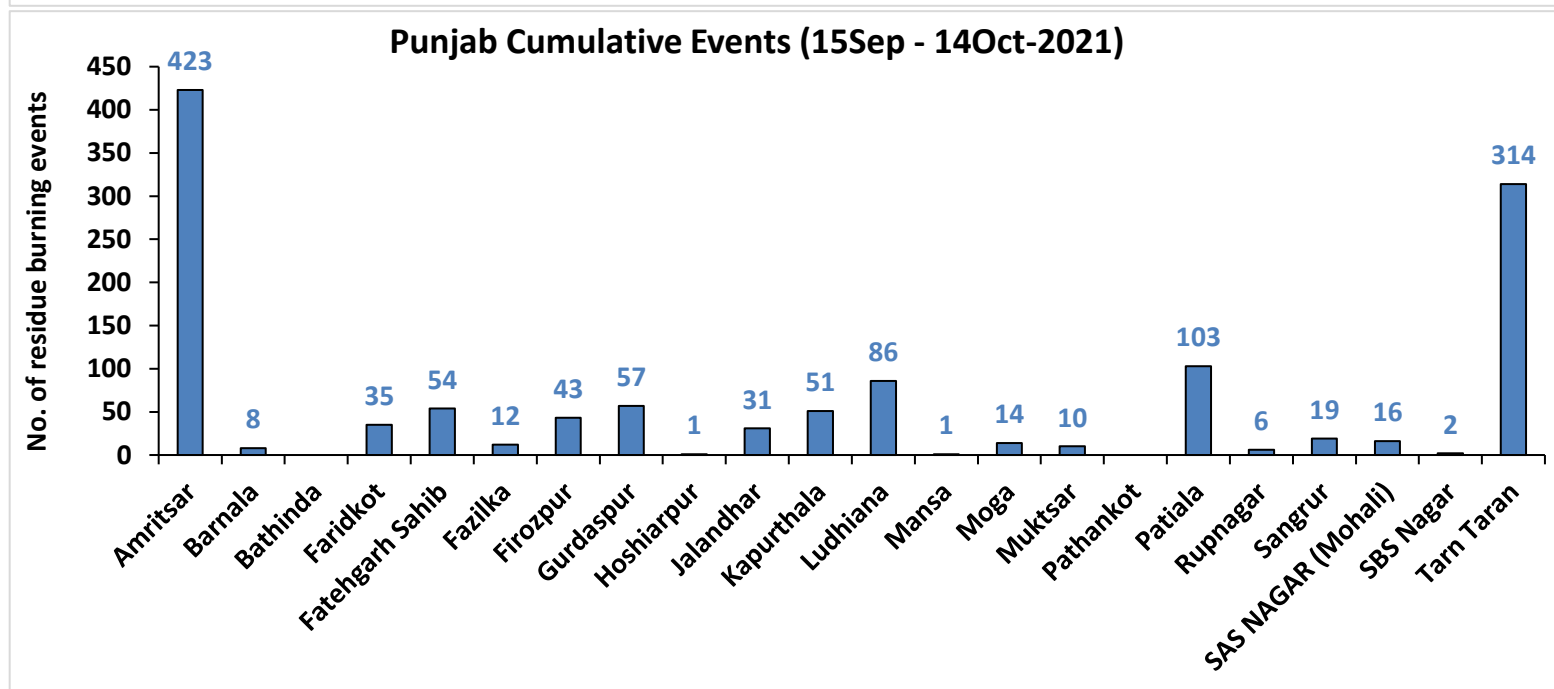
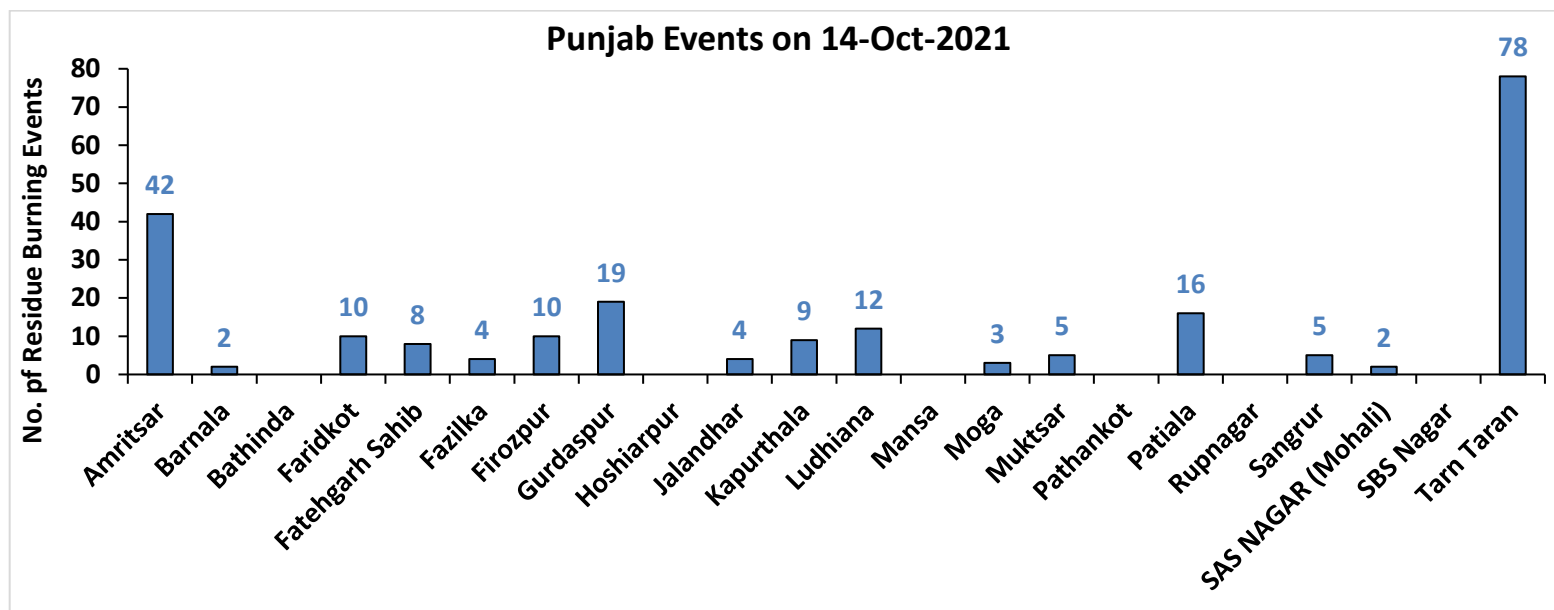
### Fire Intensity (W/m<sup>2</sup>)

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



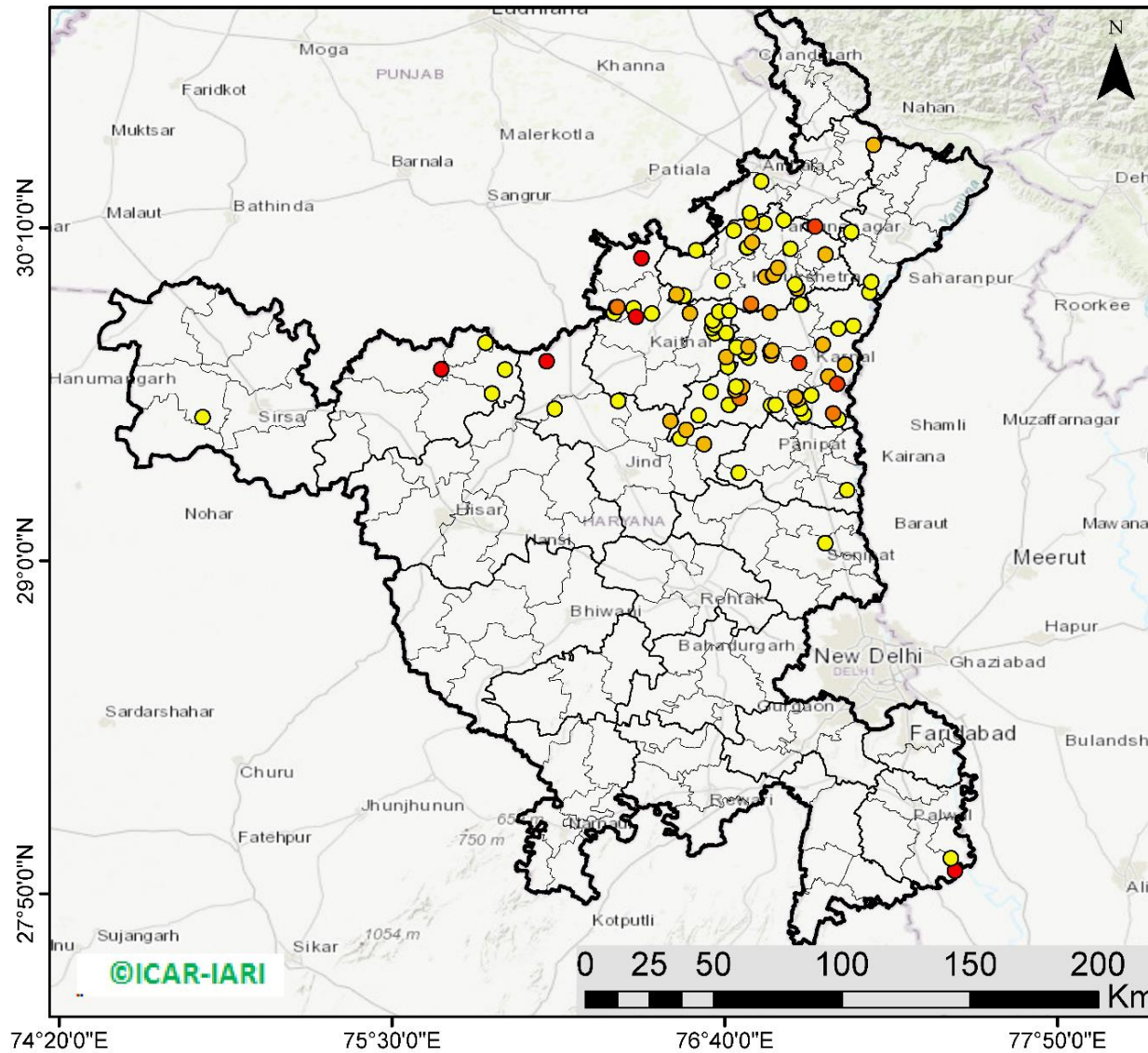
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

## District-wise cumulative number of residues burning events in Punjab (15Sep - 14Oct-2021)



# Haryana

## RICE RESIDUE BURNING IN HARYANA



**98** burning events detected in Haryana on 14th October 2021

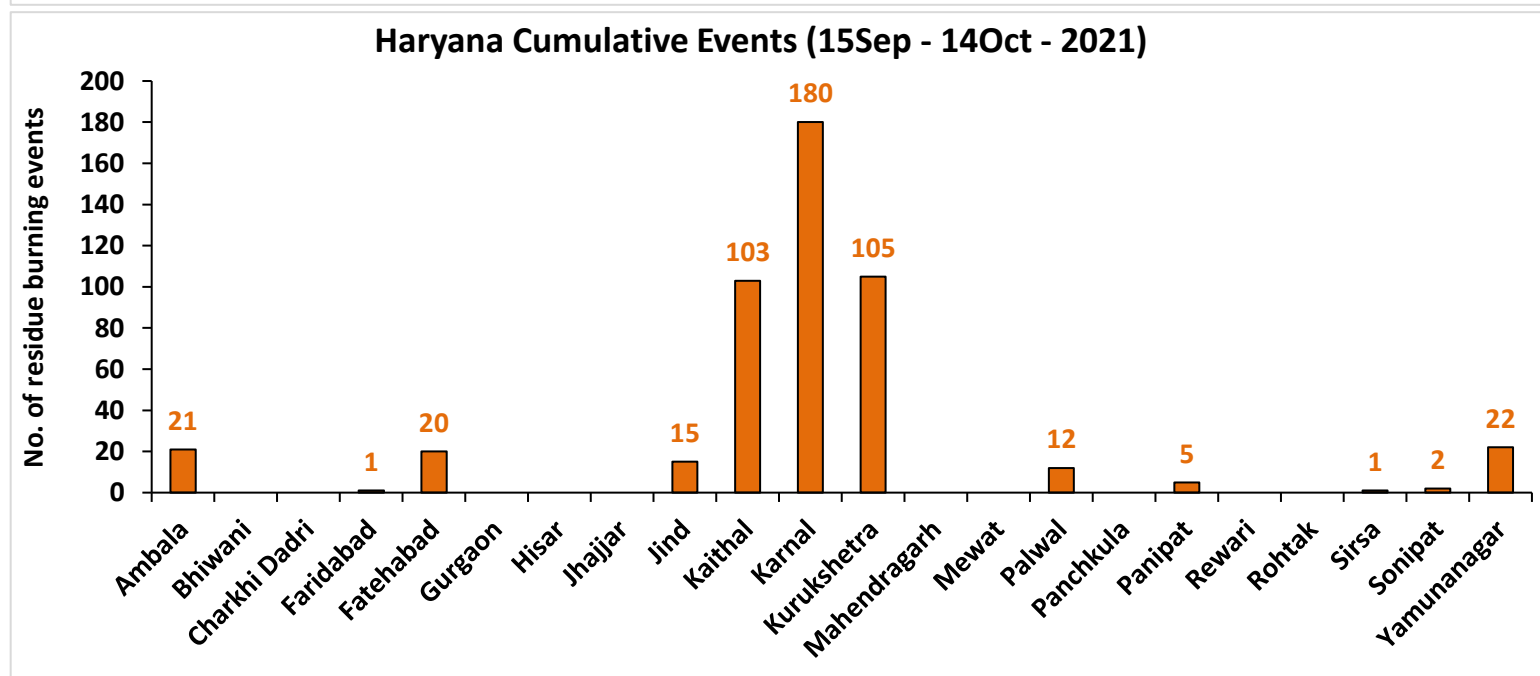
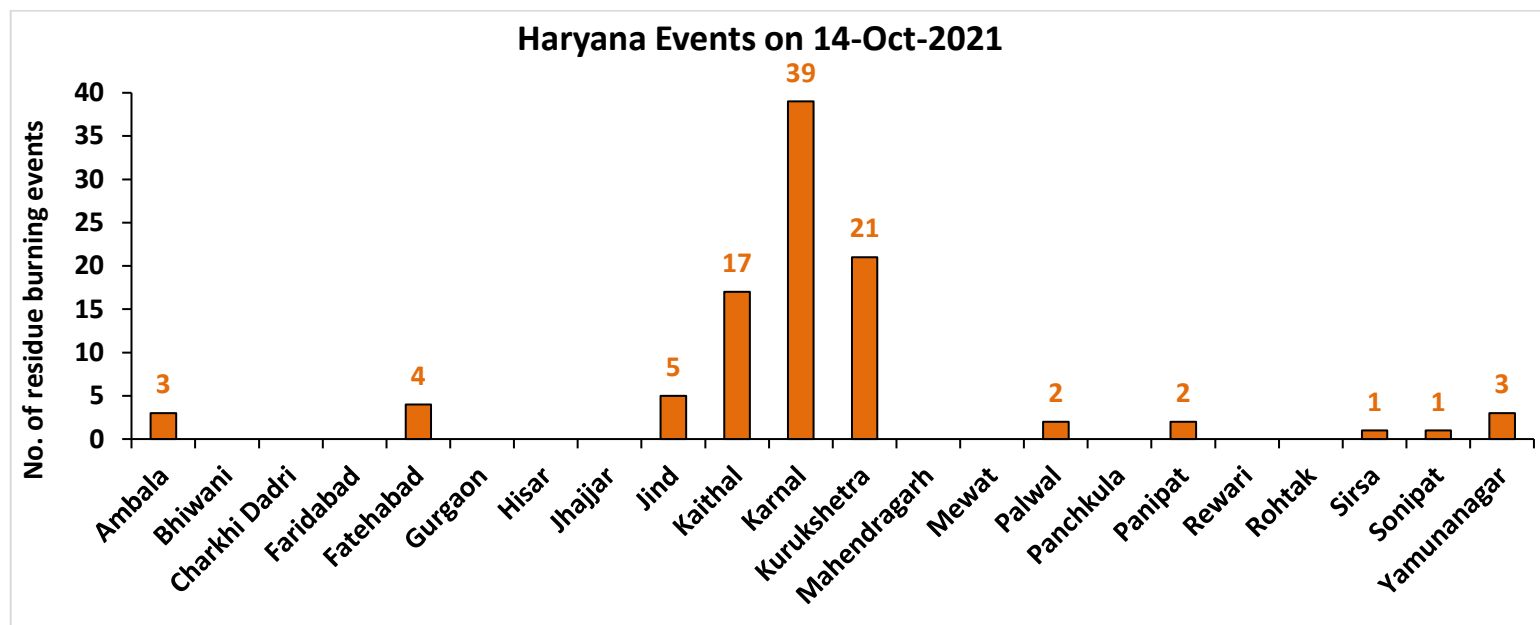
### Fire Intensity (W/m<sup>2</sup>)

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



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

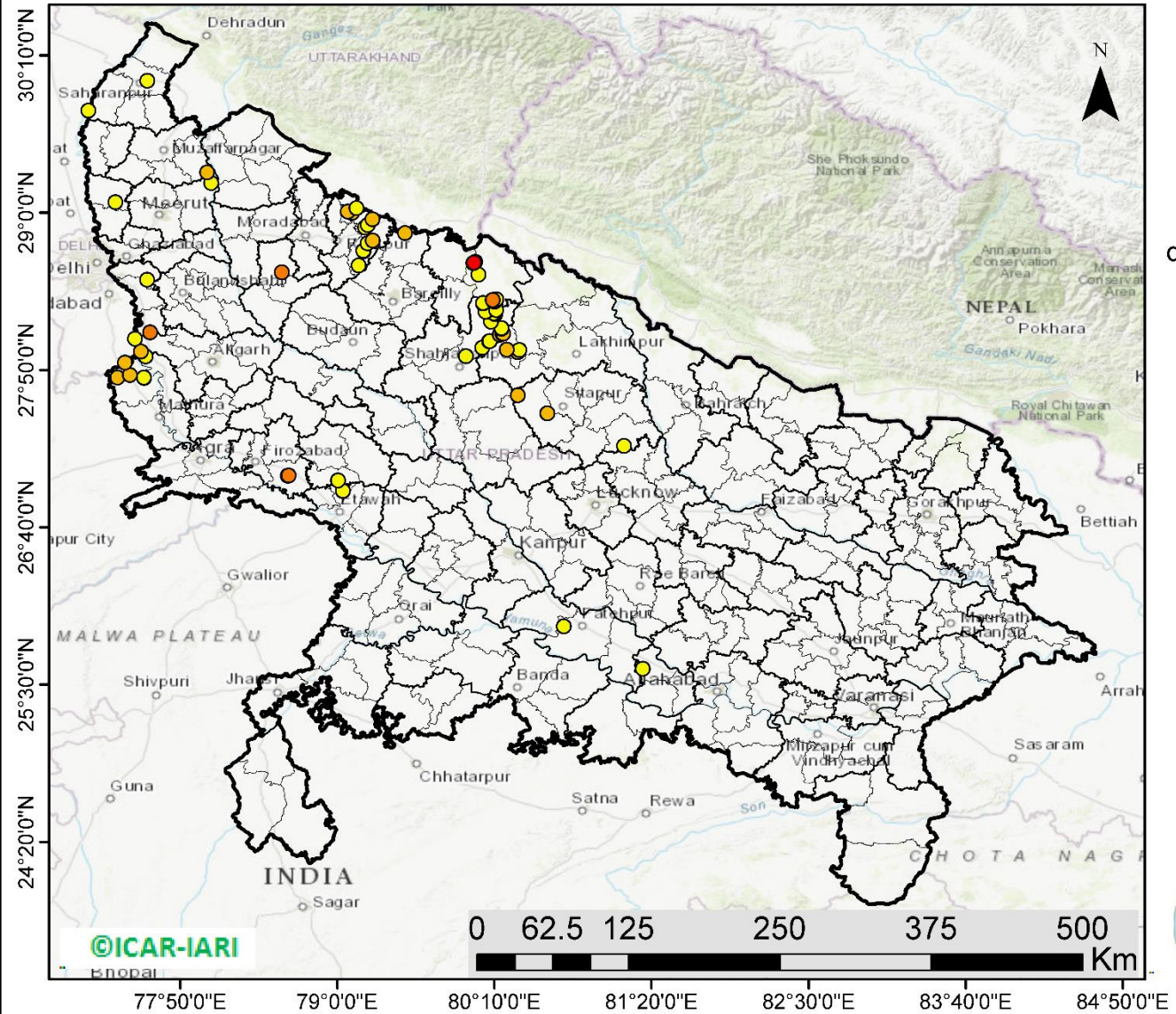
## District-wise cumulative number of residues burning events in Haryana (15Sep - 14Oct-2021)





Uttar Pradesh

RICE RESIDUE BURNING IN UTTAR PRADESH



68 burning events detected in Uttar Pradesh on 14th October 2021

Fire Intensity (W/m2)

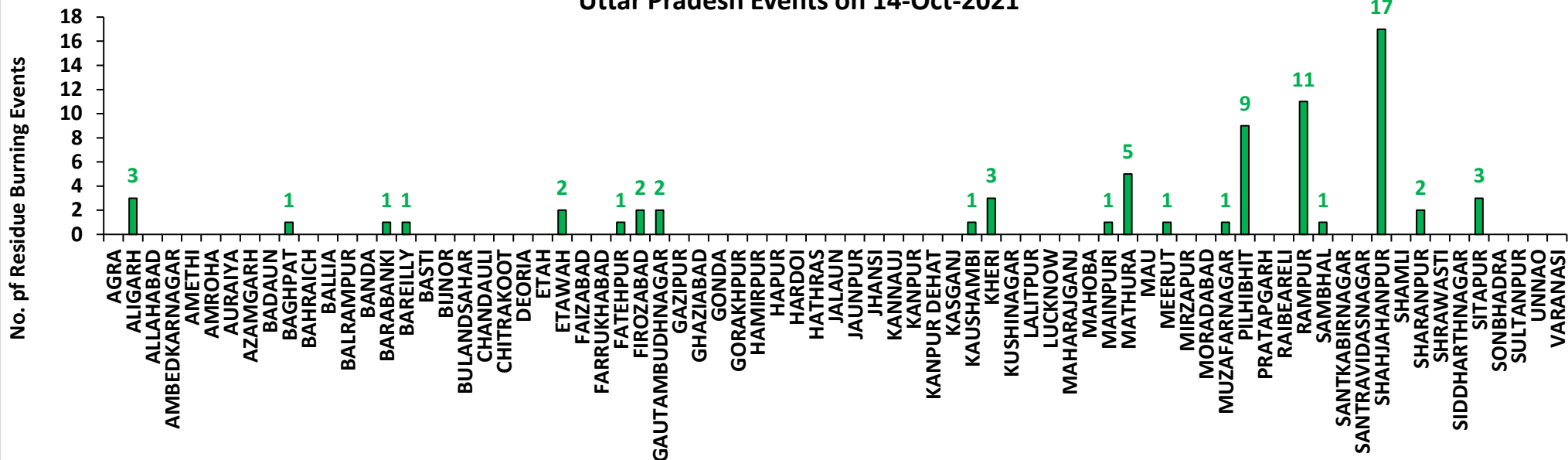
- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- >20



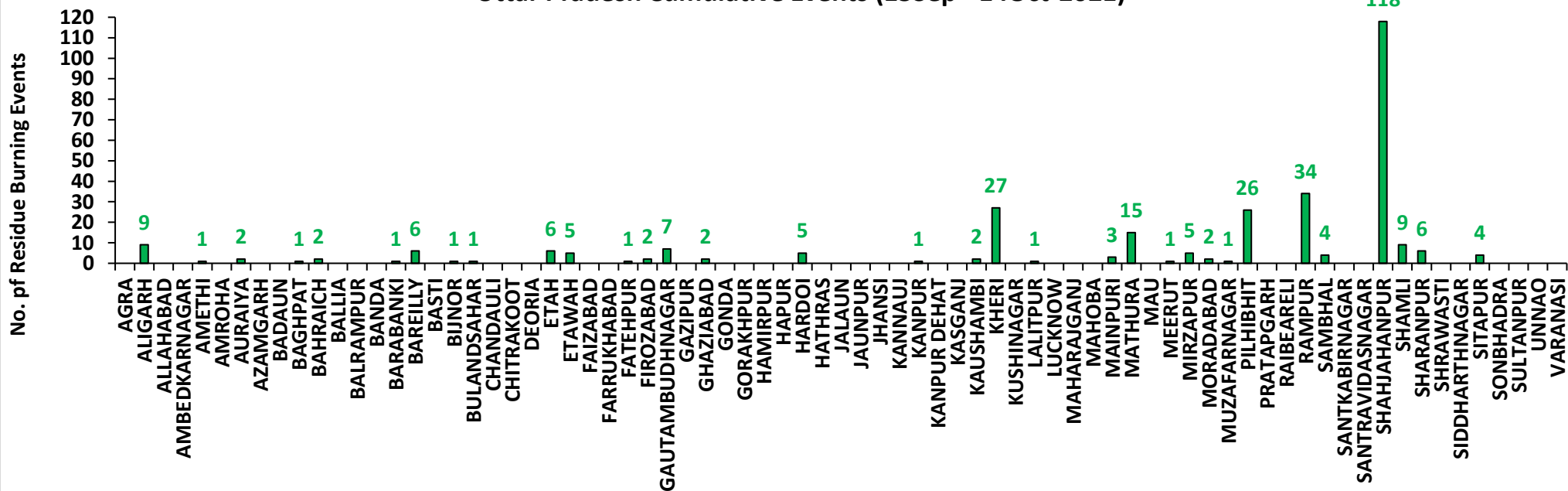
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

## District-wise cumulative number of residues burning events in Uttar Pradesh (15 Sep - 14 Oct-2021)

### Uttar Pradesh Events on 14-Oct-2021



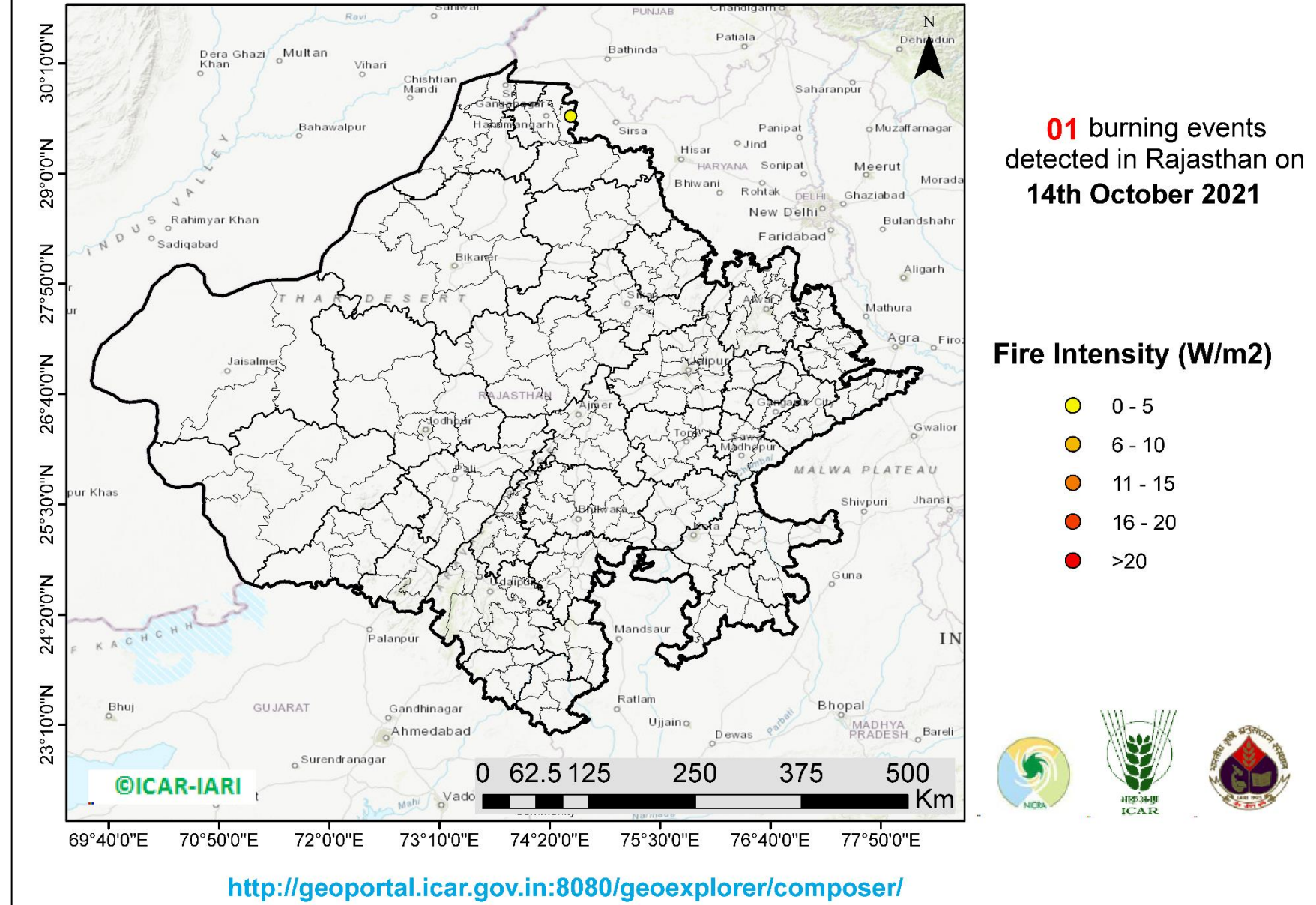
### Uttar Pradesh Cumulative Events (15Sep - 14Oct-2021)





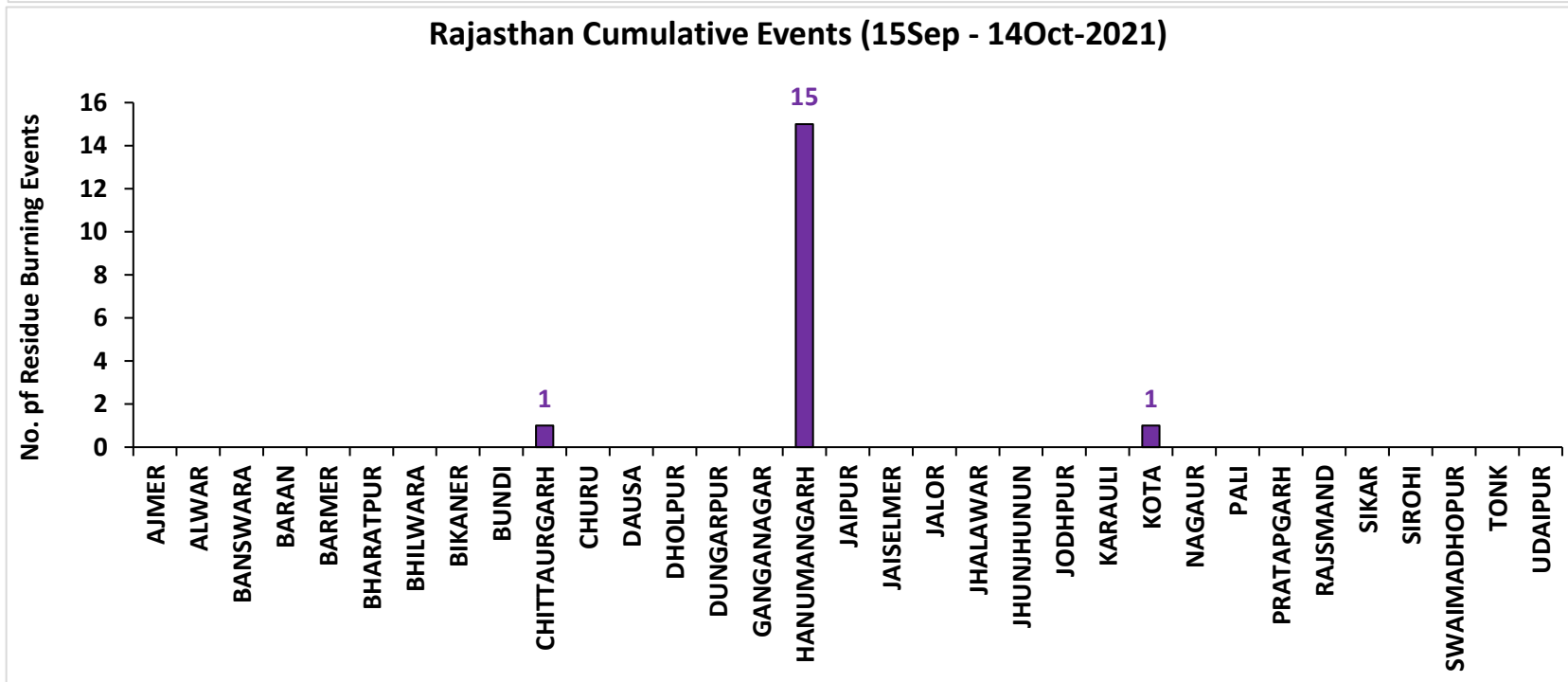
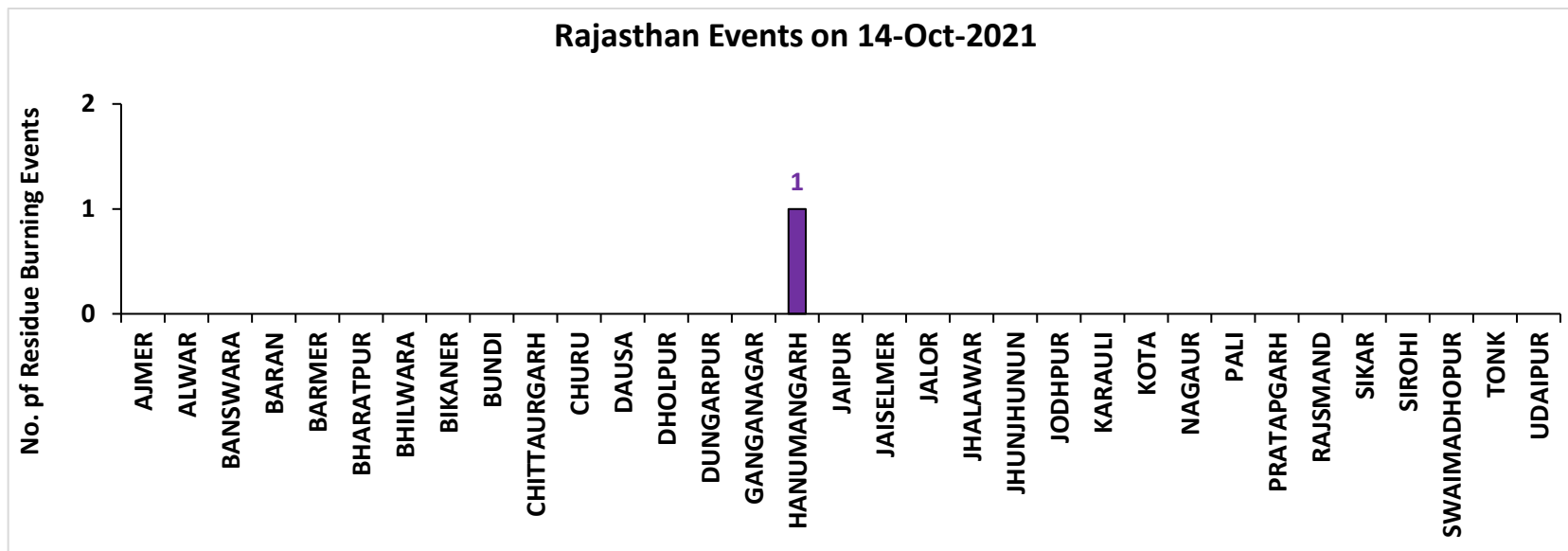
# Rajasthan

## RICE RESIDUE BURNING IN RAJASTHAN



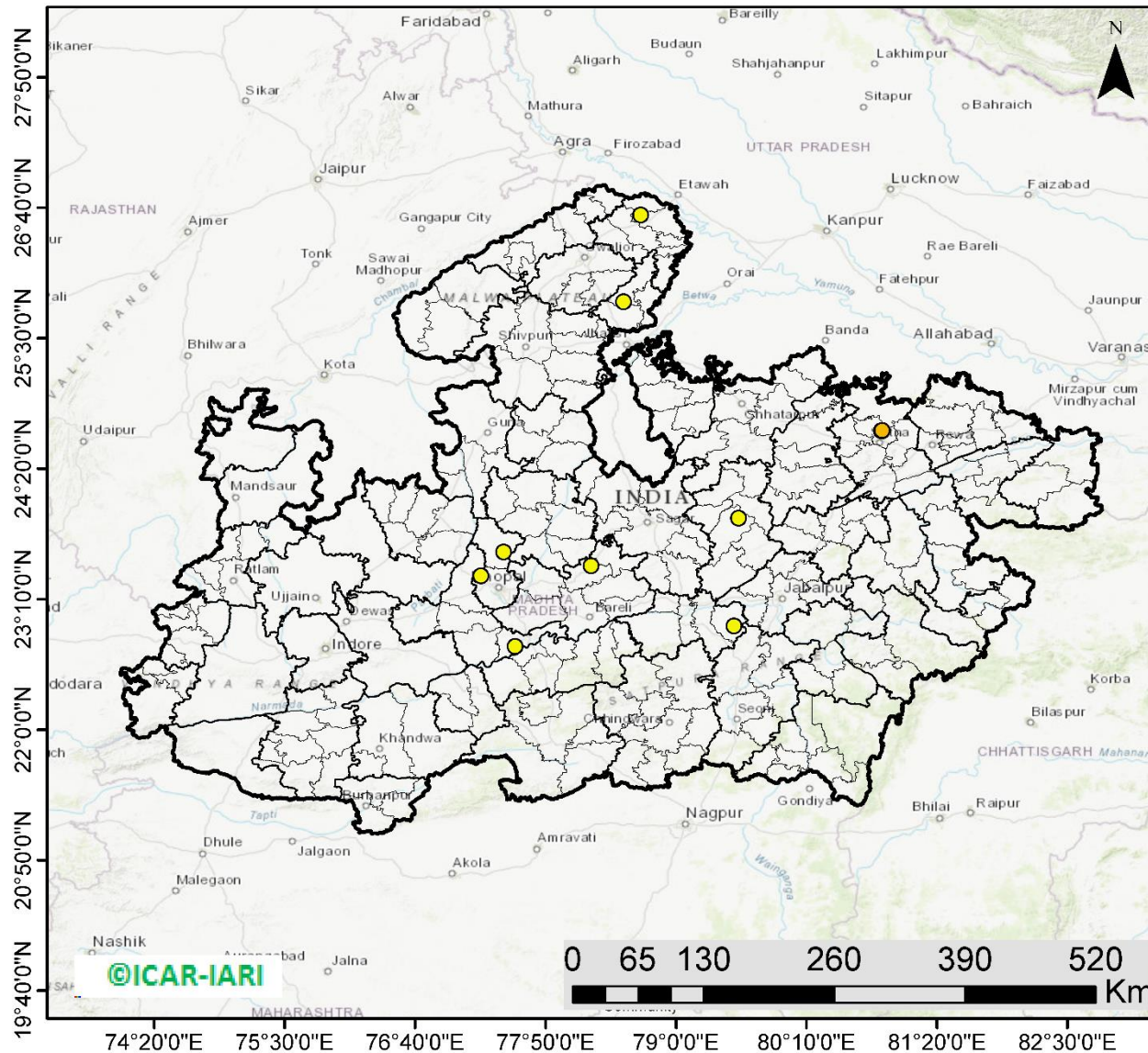


## District-wise cumulative number of residues burning events in Rajasthan (15 Sep - 14 Oct-2021)



# Madhya Pradesh

## RICE RESIDUE BURNING IN MADHYA PRADESH



**11** burning events detected in MP on **14th October 2021**

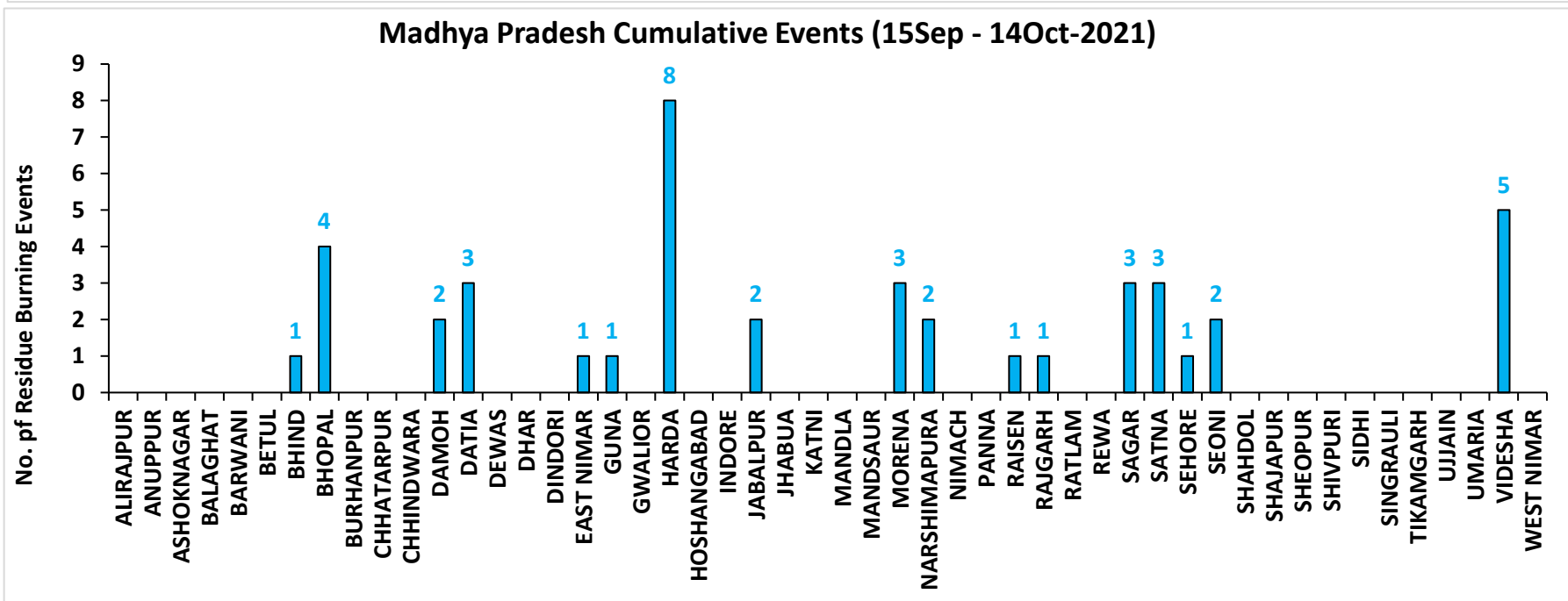
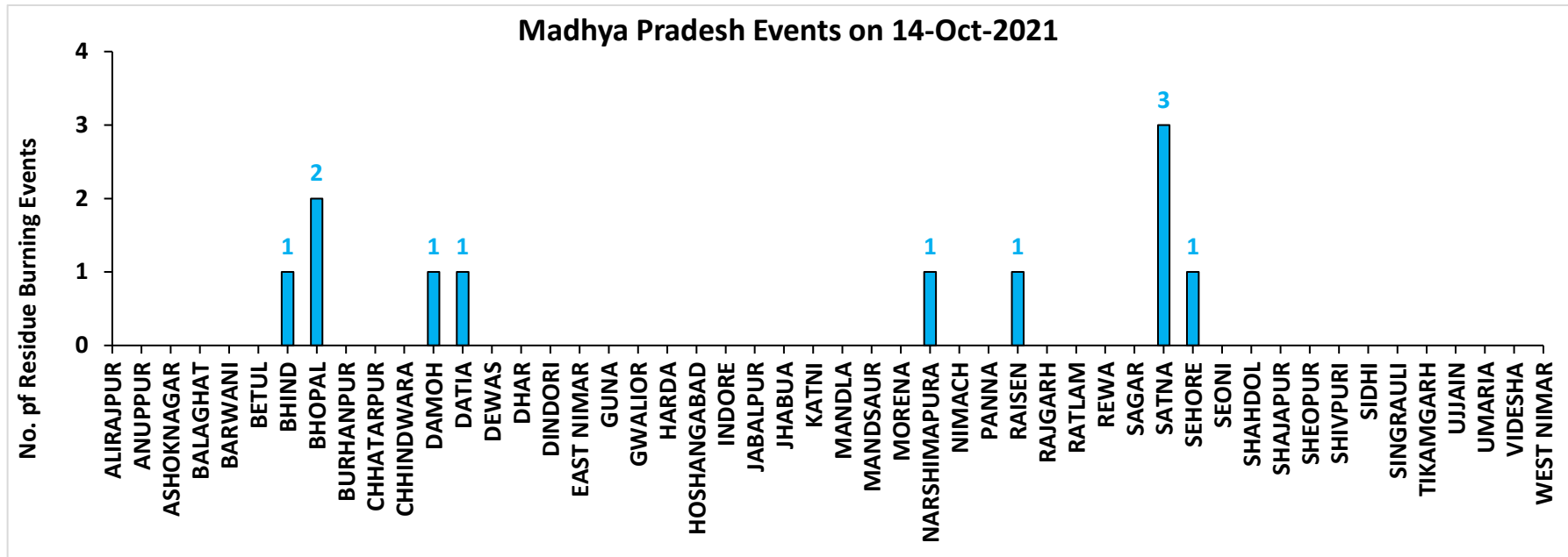
### Fire Intensity (W/m<sup>2</sup>)

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



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

## District-wise cumulative number of residues burning events in Madhya Pradesh (15 Sep - 14 Oct-2021)



**District-wise cumulative number of residues burning events detected in 2020 and 2021**  
**(Period: 15 September - 14 October)**

**(a) Punjab**

District	15 Sep – 14 Oct	
	2020	2021
AMRITSAR	1642	423
BARNALA	15	8
BATHINDA	30	0
FARIDKOT	84	35
FATEHGARH SAHIB	78	54
FAZILKA	13	12
FIROZPUR	218	43
GURDASPUR	250	57
HOSHIARPUR	24	1
JALANDHAR	66	31
KAPURTHALA	116	51
LUDHIANA	112	86
MANSA	30	1
MOGA	32	14
MUKTSAR	10	10
PATHANKOT	0	0
PATIALA	358	103
RUPNAGAR	12	6
SANGRUR	91	19
SAS NAGAR (MOHALI)	25	16
SBS NAGAR	10	2
TARN TARAN	1000	314
<b>Total</b>	<b>4216</b>	<b>1286</b>

**(b) Haryana**

District	15 Sep – 14 Oct	
	2020	2021
AMBALA	82	21
BHIWANI	0	0
CHARKHI DADRI	0	0
FARIDABAD	0	1
FATEHABAD	38	20
GURGAON	0	0
HISAR	6	0
JHAJJAR	1	0
JIND	15	15
KAITHAL	101	103
KARNAL	168	180
KURUKSHETRA	120	105
MAHENDRAGARH	0	0
MEWAT	0	0
PALWAL	5	12
PANCHKULA	0	0
PANIPAT	7	5
REWARI	0	0
ROHTAK	0	0
SIRSA	7	1
SONIPAT	8	2
YAMUNANAGAR	38	22
<b>Total</b>	<b>596</b>	<b>487</b>

(c) Uttar Pradesh

District	15 Sep – 14 Oct							
	2020	2021	GAUTAMBUDHNAGAR	1	7	MUZAFARNAGAR	2	1
AGRA	1	0	GAZIPUR	0	0	PILHIBHIT	5	26
ALIGARH	21	9	GHAZIABAD	1	2	PRATAPGARH	0	0
ALLAHABAD	0	0	GONDA	0	0	RAIBEARELI	1	0
AMBEDKARNAGAR	0	0	GORAKHPUR	0	0	RAMPUR	16	34
AMETHI	0	1	HAMIRPUR	1	0	SAMBHAL	6	4
AMROHA	1	0	HAPUR	3	0	SANTKABIRNAGAR	0	0
AURAIYA	15	2	HARDOI	4	5	SANTRAVIDASNAGAR	0	0
AZAMGARH	0	0	HATHRAS	0	0	SHAHJAHANPUR	36	118
BADAUN	0	0	JALAUN	0	0	SHAMLI	18	9
BAGHPAT	2	1	JAUNPUR	0	0	SHARANPUR	18	6
BAHRAICH	2	2	JHANSI	6	0	SHRAWASTI	2	0
BALLIA	0	0	KANNAUJ	3	0	SIDDHARTHANAGAR	0	0
BALRAMPUR	0	0	KANPUR	0	1	SITAPUR	9	4
BANDA	0	0	KANPUR DEHAT	3	0	SONBHADRA	0	0
BARABANKI	10	1	KASGANJ	1	0	SULTANPUR	0	0
BAREILLY	10	6	KAUSHAMBI	7	2	UNNAO	3	0
BASTI	2	0	KHERI	29	27	VARANASI	0	0
BIJNOR	4	1	KUSHINAGAR	0	0	<b>Total</b>	<b>305</b>	<b>311</b>
BULANDSAHAR	6	1	LALITPUR	0	1			
CHANDAULI	0	0	LUCKNOW	2	0			
CHITRAKOOT	0	0	MAHARAJGANJ	0	0			
DEORIA	0	0	MAHOBAB	1	0			
ETAH	4	6	MAINPURI	4	3			
ETAWAH	2	5	MATHURA	8	15			
FAIZABAD	1	0	MAU	0	0			
FARRUKHABAD	0	0	MEERUT	9	1			
FATEHPUR	14	1	MIRZAPUR	5	5			
FIROZABAD	4	2	MORADABAD	2	2			

**(d) Delhi**

District	15 Sep – 14 Oct	
	2020	2021
CENTRAL	0	0
EAST	0	0
NEW DELHI	0	0
NORTH	2	0
NORTH EAST	0	0
NORTH WEST DELHI	0	0
SHAHADRA	0	0
SOUTH	1	0
SOUTH EAST	0	0
SOUTH WEST DELHI	0	0
WEST DELHI	0	0
<b>Total</b>	<b>3</b>	<b>0</b>

**(e) Rajasthan**

District	15 Sep – 14 Oct	
	2020	2021
AJMER	0	0
ALWAR	1	0
BANSWARA	0	0
BARAN	80	0
BARMER	2	0
BHARATPUR	0	0
BHILWARA	2	0
BIKANER	0	0
BUNDI	4	0
CHITTAURGARH	0	1
CHURU	0	0
DAUSA	0	0
DHOLPUR	0	0
DUNGARPUR	0	0
GANGANAGAR	2	0
HANUMANGARH	68	15
JAIPUR	0	0
JAISELMER	2	0
JALOR	0	0
JHALAWAR	1	0
JHUNJHUNUN	1	0
JODHPUR	1	0
KARALI	1	0
KOTA	22	1
NAGAUR	0	0
PALI	1	0
PRATAPGARH	0	0
RAJSMAND	0	0
SIKAR	0	0
SIROHI	1	0
SWAIMADHOPUR	3	0
TONK	1	0
UDAIPUR	0	0
<b>Total</b>	<b>193</b>	<b>17</b>

(f) Madhya Pradesh

District	15 Sep – 14 Oct				
	2020	2021			
			PANNA	2	0
ALIRAJPUR	0	0	RAISEN	10	1
ANUPPUR	0	0	RAJGARH	7	1
ASHOKNAGAR	9	0	RATLAM	0	0
BALAGHAT	0	0	REWA	3	0
BARWANI	0	0	SAGAR	13	3
BETUL	0	0	SATNA	3	3
BHIND	2	1	SEHORE	5	1
BHOPAL	5	4	SEONI	8	2
BURHANPUR	0	0	SHAHDOL	0	0
CHHATARPUR	4	0	SHAJAPUR	5	0
CHHINDWARA	0	0	SHEOPUR	6	0
DAMOH	14	2	SHIVPURI	4	0
DATIA	28	3	SIDHI	0	0
DEWAS	3	0	SINGRAULI	0	0
DHAR	19	0	TIKAMGARH	1	0
DINDORI	0	0	UJJAIN	5	0
EAST NIMAR	2	1	UMARIA	0	0
GUNA	14	1	VIDESHA	51	5
GWALIOR	21	0	WEST NIMAR	2	0
HARDA	8	8	<b>Total</b>	<b>290</b>	<b>43</b>
HOSHANGABAD	9	0			
INDORE	2	0			
JABALPUR	6	2			
JHABUA	0	0			
KATNI	0	0			
MANDLA	0	0			
MANDSAUR	3	0			
MORENA	14	3			
NARSHIMAPURA	2	2			
NIMACH	0	0			

**State-wise and date-wise number of paddy residue burning events detected in 2020 and 2021**  
**(Period: 15 September – 14 October)**

**Number of Paddy Residue Burning Events Detected**

	Punjab		Haryana		Uttar Pradesh		Delhi		Rajasthan		Madhya Pradesh	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
15-Sep	5	0	2	0	1	0	0	0	1	0	2	0
16-Sep	0	2	1	0	0	0	0	0	0	0	0	0
17-Sep	5	0	3	0	0	0	0	0	0	0	0	0
18-Sep	17	9	0	0	0	1	0	0	0	0	0	0
19-Sep	30	5	2	0	0	1	0	0	0	0	0	0
20-Sep	67	8	6	0	2	0	0	0	0	0	0	0
21-Sep	54	0	2	0	1	0	0	0	1	0	2	0
22-Sep	34	0	1	0	1	0	0	0	0	0	0	0
23-Sep	49	0	0	0	1	0	0	0	1	0	0	0
24-Sep	78	5	0	0	1	1	0	0	0	0	0	0
25-Sep	184	11	11	0	5	0	0	0	1	0	0	0
26-Sep	190	19	5	0	8	0	0	0	1	0	2	0
27-Sep	78	37	8	0	4	1	0	0	0	0	1	0
28-Sep	55	28	6	1	1	6	0	0	0	0	1	1
29-Sep	63	64	9	4	6	10	0	0	3	0	0	4
30-Sep	116	27	22	2	13	13	1	0	1	0	5	0
01-Oct	165	13	15	4	7	13	0	0	4	1	13	0
02-Oct	141	0	30	2	12	0	1	0	7	0	12	0
03-Oct	110	9	8	6	4	3	0	0	9	0	5	1
04-Oct	162	23	29	2	8	0	0	0	15	0	4	2
05-Oct	161	18	17	3	14	2	0	0	14	0	13	1
06-Oct	171	42	30	0	12	1	1	0	16	0	37	1
07-Oct	197	72	32	11	41	13	0	0	14	1	31	1
08-Oct	95	108	29	27	25	11	0	0	11	0	17	2
09-Oct	121	114	20	39	15	20	0	0	12	0	15	4
10-Oct	232	150	33	95	9	54	0	0	14	1	18	1
11-Oct	377	64	90	51	23	28	0	0	21	7	32	2
12-Oct	388	97	69	51	46	23	0	0	24	1	44	1



<b>13-Oct</b>	266	132	47	91	36	42	0	0	7	5	21	2
<b>14-Oct</b>	605	229	69	98	9	68	0	0	16	1	15	11
<b>Total</b>	<b>4216</b>	<b>1286</b>	<b>596</b>	<b>487</b>	<b>305</b>	<b>311</b>	<b>3</b>	<b>0</b>	<b>193</b>	<b>17</b>	<b>290</b>	<b>34</b>

### Details of residue burning events in Punjab on 14-Oct-2021

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_DATE	ACQ_TIME	Day / Night	Fire Power (W/m <sup>2</sup> )
1	AMRITSAR	AJNALA	S-NPP	31.92500	74.87460	10/14/2021	13:42:05	D	4.80
2	AMRITSAR	AJNALA	S-NPP	31.92560	74.87920	10/14/2021	13:42:05	D	4.80
3	AMRITSAR	AJNALA	S-NPP	31.98380	74.88320	10/14/2021	13:42:05	D	3.10
4	AMRITSAR	ATTARI	S-NPP	31.56390	74.85620	10/14/2021	13:42:05	D	2.50
5	AMRITSAR	ATTARI	S-NPP	31.57230	74.89220	10/14/2021	13:42:05	D	3.50
6	AMRITSAR	ATTARI	S-NPP	31.57840	74.60930	10/14/2021	13:42:05	D	4.00
7	AMRITSAR	CHOGAWAN	S-NPP	31.66850	74.58160	10/14/2021	13:42:05	D	3.90
8	AMRITSAR	CHOGAWAN	S-NPP	31.72060	74.57230	10/14/2021	13:42:05	D	4.10
9	AMRITSAR	CHOGAWAN	S-NPP	31.73420	74.67600	10/14/2021	13:42:05	D	2.00
10	AMRITSAR	CHOGAWAN	S-NPP	31.76250	74.62010	10/14/2021	13:42:05	D	8.00
11	AMRITSAR	CHOGAWAN	S-NPP	31.76330	74.62100	10/14/2021	13:42:05	D	6.50
12	AMRITSAR	CHOGAWAN	S-NPP	31.77610	74.66500	10/14/2021	13:42:05	D	3.30
13	AMRITSAR	HARSHA CHHINA	S-NPP	31.73960	74.74470	10/14/2021	13:42:05	D	3.80
14	AMRITSAR	HARSHA CHHINA	S-NPP	31.77580	74.74770	10/14/2021	13:42:05	D	5.40
15	AMRITSAR	HARSHA CHHINA	S-NPP	31.79650	74.88120	10/14/2021	13:42:05	D	1.80
16	AMRITSAR	HARSHA CHHINA	S-NPP	31.79710	74.74500	10/14/2021	13:42:05	D	3.10
17	AMRITSAR	JANDIALA GURU	S-NPP	31.52620	75.06540	10/14/2021	13:42:05	D	7.30
18	AMRITSAR	JANDIALA GURU	S-NPP	31.53970	75.00140	10/14/2021	13:42:05	D	2.10
19	AMRITSAR	JANDIALA GURU	S-NPP	31.58970	75.02590	10/14/2021	13:42:05	D	12.50
20	AMRITSAR	JANDIALA GURU	S-NPP	31.59230	75.10150	10/14/2021	13:42:05	D	2.50
21	AMRITSAR	JANDIALA GURU	S-NPP	31.61960	75.04100	10/14/2021	13:42:05	D	6.40
22	AMRITSAR	JANDIALA GURU	S-NPP	31.63900	75.02340	10/14/2021	13:42:05	D	5.20
23	AMRITSAR	JANDIALA GURU	S-NPP	31.69090	75.03340	10/14/2021	13:42:05	D	5.40
24	AMRITSAR	MAJITHA	S-NPP	31.70590	75.12160	10/14/2021	13:42:05	D	2.70
25	AMRITSAR	MAJITHA	S-NPP	31.74700	74.94060	10/14/2021	13:42:05	D	2.20
26	AMRITSAR	MAJITHA	S-NPP	31.75900	75.06220	10/14/2021	13:42:05	D	7.10
27	AMRITSAR	RAYYA	S-NPP	31.50910	75.13020	10/14/2021	13:42:05	D	2.40
28	AMRITSAR	RAYYA	S-NPP	31.61370	75.38290	10/14/2021	13:42:05	D	2.30
29	AMRITSAR	RAYYA	S-NPP	31.62060	75.29400	10/14/2021	13:42:05	D	9.80

30	AMRITSAR	RAYYA	AQUA	31.57200	75.19100	10/14/2021	13:01:50	D	34.20
31	AMRITSAR	RAYYA	AQUA	31.57300	75.19800	10/14/2021	13:01:50	D	44.20
32	AMRITSAR	TARSIKKA	S-NPP	31.61070	75.11410	10/14/2021	13:42:05	D	5.30
33	AMRITSAR	TARSIKKA	S-NPP	31.65630	75.18780	10/14/2021	13:42:05	D	7.40
34	AMRITSAR	TARSIKKA	S-NPP	31.65980	75.15830	10/14/2021	13:42:05	D	8.50
35	AMRITSAR	TARSIKKA	S-NPP	31.66030	75.07680	10/14/2021	13:42:05	D	4.00
36	AMRITSAR	TARSIKKA	S-NPP	31.66380	75.07620	10/14/2021	13:42:05	D	2.80
37	AMRITSAR	TARSIKKA	S-NPP	31.66390	75.10490	10/14/2021	13:42:05	D	1.50
38	AMRITSAR	TARSIKKA	S-NPP	31.68690	75.08660	10/14/2021	13:42:05	D	4.60
39	AMRITSAR	TARSIKKA	S-NPP	31.69190	75.21060	10/14/2021	13:42:05	D	1.90
40	AMRITSAR	TARSIKKA	S-NPP	31.69640	75.10400	10/14/2021	13:42:05	D	4.50
41	AMRITSAR	TARSIKKA	S-NPP	31.70010	75.16100	10/14/2021	13:42:05	D	2.10
42	AMRITSAR	VERKA	S-NPP	31.71830	74.91250	10/14/2021	13:42:05	D	3.60
43	BARNALA	BARNALA	S-NPP	30.46220	75.60500	10/14/2021	13:42:05	D	4.40
44	BARNALA	BARNALA	S-NPP	30.49880	75.61990	10/14/2021	13:42:05	D	4.00
45	FARIDKOT	FARIDKOT	S-NPP	30.70990	74.88810	10/14/2021	13:42:05	D	2.50
46	FARIDKOT	FARIDKOT	S-NPP	30.71650	74.71540	10/14/2021	13:42:05	D	2.80
47	FARIDKOT	FARIDKOT	S-NPP	30.72560	74.65070	10/14/2021	13:42:05	D	12.00
48	FARIDKOT	FARIDKOT	S-NPP	30.72910	74.65010	10/14/2021	13:42:05	D	12.00
49	FARIDKOT	FARIDKOT	S-NPP	30.77410	74.69620	10/14/2021	13:42:05	D	5.60
50	FARIDKOT	FARIDKOT	S-NPP	30.77830	74.72710	10/14/2021	13:42:05	D	13.40
51	FARIDKOT	KOT KAPURA	S-NPP	30.51720	74.81160	10/14/2021	13:42:05	D	10.10
52	FARIDKOT	KOT KAPURA	S-NPP	30.52070	74.81100	10/14/2021	13:42:05	D	10.10
53	FARIDKOT	KOT KAPURA	S-NPP	30.52820	74.81420	10/14/2021	13:42:05	D	3.20
54	FARIDKOT	KOT KAPURA	S-NPP	30.56770	74.92530	10/14/2021	13:42:05	D	6.10
55	FATEHGARH SAHIB	BASSI PATHANAN	S-NPP	30.72580	76.48730	10/14/2021	13:42:05	D	2.50
56	FATEHGARH SAHIB	KHERA	S-NPP	30.56820	76.51780	10/14/2021	13:42:05	D	8.50
57	FATEHGARH SAHIB	KHERA	S-NPP	30.57130	76.51200	10/14/2021	13:42:05	D	8.50
58	FATEHGARH SAHIB	KHERA	S-NPP	30.59870	76.54990	10/14/2021	13:42:05	D	6.20
59	FATEHGARH SAHIB	KHERA	S-NPP	30.63210	76.56860	10/14/2021	13:42:05	D	2.20
60	FATEHGARH SAHIB	KHERA	S-NPP	30.67210	76.48820	10/14/2021	13:42:05	D	18.10
61	FATEHGARH SAHIB	SIRHIND	S-NPP	30.46450	76.45240	10/14/2021	13:42:05	D	7.60
62	FATEHGARH SAHIB	SIRHIND	S-NPP	30.66270	76.31710	10/14/2021	13:42:05	D	3.70

63	FAZILKA	FAZILKA	S-NPP	30.36470	74.01710	10/14/2021	13:42:05	D	4.60
64	FAZILKA	FAZILKA	S-NPP	30.49370	74.01960	10/14/2021	13:42:05	D	2.30
65	FAZILKA	JALALABAD	S-NPP	30.45940	74.19850	10/14/2021	13:42:05	D	6.30
66	FAZILKA	JALALABAD	S-NPP	30.46740	74.20570	10/14/2021	13:42:05	D	3.70
67	FIROZPUR	FIROZPUR	S-NPP	30.94630	74.58280	10/14/2021	13:42:05	D	2.90
68	FIROZPUR	FIROZPUR	S-NPP	30.97320	74.54650	10/14/2021	13:42:05	D	26.20
69	FIROZPUR	GHALL KHURD	S-NPP	30.88170	74.69260	10/14/2021	13:42:05	D	13.10
70	FIROZPUR	GHALL KHURD	S-NPP	30.88220	74.69700	10/14/2021	13:42:05	D	13.10
71	FIROZPUR	GHALL KHURD	S-NPP	30.94540	74.81880	10/14/2021	13:42:05	D	1.30
72	FIROZPUR	GURUHAR SAHAI	S-NPP	30.60880	74.34680	10/14/2021	13:42:05	D	2.90
73	FIROZPUR	MAMDOT	S-NPP	30.77630	74.50300	10/14/2021	13:42:05	D	5.70
74	FIROZPUR	MAMDOT	S-NPP	30.77980	74.35340	10/14/2021	13:42:05	D	4.40
75	FIROZPUR	MAMDOT	S-NPP	30.78330	74.37930	10/14/2021	13:42:05	D	2.30
76	FIROZPUR	MAMDOT	S-NPP	30.81090	74.45410	10/14/2021	13:42:05	D	2.00
77	GURDASPUR	BATALA	S-NPP	31.72580	75.24840	10/14/2021	13:42:05	D	4.50
78	GURDASPUR	BATALA	S-NPP	31.72700	75.25790	10/14/2021	13:42:05	D	5.90
79	GURDASPUR	DERA BABA NANAK	S-NPP	31.92110	75.09310	10/14/2021	13:42:05	D	3.10
80	GURDASPUR	DHARIWAL	S-NPP	31.89000	75.36650	10/14/2021	13:42:05	D	2.70
81	GURDASPUR	FATEHGARH CHURIAN	S-NPP	31.78560	75.10070	10/14/2021	13:42:05	D	2.80
82	GURDASPUR	FATEHGARH CHURIAN	S-NPP	31.83230	75.07960	10/14/2021	13:42:05	D	2.60
83	GURDASPUR	FATEHGARH CHURIAN	S-NPP	31.84830	75.12020	10/14/2021	13:42:05	D	4.30
84	GURDASPUR	FATEHGARH CHURIAN	S-NPP	31.88230	74.93250	10/14/2021	13:42:05	D	1.70
85	GURDASPUR	FATEHGARH CHURIAN	S-NPP	31.88600	74.98900	10/14/2021	13:42:05	D	1.90
86	GURDASPUR	FATEHGARH CHURIAN	S-NPP	31.89440	75.05450	10/14/2021	13:42:05	D	2.50
87	GURDASPUR	FATEHGARH CHURIAN	S-NPP	31.89890	74.97720	10/14/2021	13:42:05	D	6.80
88	GURDASPUR	FATEHGARH CHURIAN	S-NPP	31.90830	74.96600	10/14/2021	13:42:05	D	3.70
89	GURDASPUR	KALANAUR	S-NPP	31.94810	75.19010	10/14/2021	13:42:05	D	3.60
90	GURDASPUR	KALANAUR	S-NPP	32.03370	75.21640	10/14/2021	13:42:05	D	2.50
91	GURDASPUR	KALANAUR	S-NPP	32.06270	75.14480	10/14/2021	13:42:05	D	3.00
92	GURDASPUR	QADIAN	S-NPP	31.78470	75.41230	10/14/2021	13:42:05	D	1.60
93	GURDASPUR	SRI HARGOBINDPUR	S-NPP	31.61730	75.38220	10/14/2021	13:42:05	D	3.20
94	GURDASPUR	SRI HARGOBINDPUR	S-NPP	31.66580	75.35110	10/14/2021	13:42:05	D	2.00
95	GURDASPUR	SRI HARGOBINDPUR	S-NPP	31.72320	75.40020	10/14/2021	13:42:05	D	8.70

96	JALANDHAR	BHOGPUR	S-NPP	31.49180	75.68350	10/14/2021	13:42:05	D	3.10
97	JALANDHAR	JALANDHAR WEST	AQUA	31.42700	75.52200	10/14/2021	13:01:50	D	38.90
98	JALANDHAR	LOHIAN	S-NPP	31.14740	75.24260	10/14/2021	13:42:05	D	5.00
99	JALANDHAR	RURKA KALAN	S-NPP	31.08540	75.72230	10/14/2021	13:42:05	D	3.70
100	KAPURTHALA	KAPURTHALA	S-NPP	31.29600	75.28080	10/14/2021	13:42:05	D	5.30
101	KAPURTHALA	KAPURTHALA	S-NPP	31.32700	75.36480	10/14/2021	13:42:05	D	1.90
102	KAPURTHALA	KAPURTHALA	S-NPP	31.39670	75.42590	10/14/2021	13:42:05	D	3.80
103	KAPURTHALA	NADALA	S-NPP	31.51410	75.47630	10/14/2021	13:42:05	D	3.40
104	KAPURTHALA	NADALA	S-NPP	31.53490	75.43840	10/14/2021	13:42:05	D	2.60
105	KAPURTHALA	NADALA	S-NPP	31.60600	75.55680	10/14/2021	13:42:05	D	12.50
106	KAPURTHALA	SULTANPUR LODHI	S-NPP	31.27150	75.17510	10/14/2021	13:42:05	D	2.00
107	KAPURTHALA	SULTANPUR LODHI	S-NPP	31.27390	75.19380	10/14/2021	13:42:05	D	5.70
108	KAPURTHALA	SULTANPUR LODHI	S-NPP	31.28270	75.17800	10/14/2021	13:42:05	D	2.20
109	LUDHIANA	DEHLON	S-NPP	30.81180	75.90530	10/14/2021	13:42:05	D	2.90
110	LUDHIANA	JAGRAON	S-NPP	30.76520	75.47730	10/14/2021	13:42:05	D	1.50
111	LUDHIANA	JAGRAON	S-NPP	30.76880	75.47670	10/14/2021	13:42:05	D	2.10
112	LUDHIANA	MACHHIWARA	S-NPP	30.97870	76.26820	10/14/2021	13:42:05	D	4.40
113	LUDHIANA	MACHHIWARA	S-NPP	30.99930	76.26830	10/14/2021	13:42:05	D	14.10
114	LUDHIANA	MACHHIWARA	S-NPP	31.00300	76.26780	10/14/2021	13:42:05	D	14.10
115	LUDHIANA	MALoud	S-NPP	30.67700	75.86560	10/14/2021	13:42:05	D	16.90
116	LUDHIANA	PAKHOWAL	S-NPP	30.73000	75.69150	10/14/2021	13:42:05	D	3.30
117	LUDHIANA	RAIKOT	S-NPP	30.66260	75.69100	10/14/2021	13:42:05	D	3.20
118	LUDHIANA	RAIKOT	S-NPP	30.66730	75.55450	10/14/2021	13:42:05	D	3.40
119	LUDHIANA	SAMRALA	S-NPP	30.80940	76.09750	10/14/2021	13:42:05	D	8.80
120	LUDHIANA	SIDHWAN BET	S-NPP	30.97580	75.46990	10/14/2021	13:42:05	D	4.80
121	MOGA	MOGA-2	S-NPP	30.76480	75.08680	10/14/2021	13:42:05	D	10.60
122	MOGA	NIHAL SINGH	S-NPP	30.60190	75.21470	10/14/2021	13:42:05	D	2.30
123	MOGA	NIHAL SINGH	S-NPP	30.60600	75.27490	10/14/2021	13:42:05	D	3.40
124	MUKTSAR	KOT BHAI AT GIDDERBAHA	S-NPP	30.36490	74.72870	10/14/2021	13:42:05	D	14.60
125	MUKTSAR	KOT BHAI AT GIDDERBAHA	S-NPP	30.36830	74.72810	10/14/2021	13:42:05	D	5.50
126	MUKTSAR	KOT BHAI AT GIDDERBAHA	S-NPP	30.44010	74.72090	10/14/2021	13:42:05	D	4.40
127	MUKTSAR	MUKTSAR	S-NPP	30.56530	74.66820	10/14/2021	13:42:05	D	1.70
128	MUKTSAR	MUKTSAR	S-NPP	30.63870	74.59370	10/14/2021	13:42:05	D	2.60

129	PATIALA	BHUNARHERI	S-NPP	30.11520	76.47960	10/14/2021	13:42:05	D	1.90
130	PATIALA	BHUNARHERI	S-NPP	30.14120	76.60050	10/14/2021	13:42:05	D	3.80
131	PATIALA	BHUNARHERI	S-NPP	30.16170	76.55020	10/14/2021	13:42:05	D	1.10
132	PATIALA	BHUNARHERI	S-NPP	30.18460	76.44530	10/14/2021	13:42:05	D	2.90
133	PATIALA	BHUNARHERI	S-NPP	30.26000	76.44370	10/14/2021	13:42:05	D	3.60
134	PATIALA	GHANAUR	S-NPP	30.31360	76.66300	10/14/2021	13:42:05	D	3.00
135	PATIALA	NABHA	S-NPP	30.46580	76.29460	10/14/2021	13:42:05	D	3.90
136	PATIALA	NABHA	S-NPP	30.52420	76.18800	10/14/2021	13:42:05	D	10.20
137	PATIALA	NABHA	S-NPP	30.52790	76.18740	10/14/2021	13:42:05	D	8.70
138	PATIALA	PATRAN	S-NPP	29.85340	76.18670	10/14/2021	13:42:05	D	3.90
139	PATIALA	PATRAN	S-NPP	29.92890	76.13680	10/14/2021	13:42:05	D	11.10
140	PATIALA	SAMANA	S-NPP	30.13520	76.09810	10/14/2021	13:42:05	D	4.40
141	PATIALA	SANAUR	S-NPP	30.27570	76.46930	10/14/2021	13:42:05	D	5.00
142	PATIALA	SANAUR	S-NPP	30.29460	76.56560	10/14/2021	13:42:05	D	2.60
143	PATIALA	SHAMBU KALAN	S-NPP	30.44320	76.68820	10/14/2021	13:42:05	D	3.80
144	PATIALA	SHAMBU KALAN	S-NPP	30.45520	76.59580	10/14/2021	13:42:05	D	2.20
145	SANGRUR	BHAWANIGARH	S-NPP	30.25820	76.07490	10/14/2021	13:42:05	D	5.10
146	SANGRUR	LEHRA GAGA	S-NPP	29.81870	75.76340	10/14/2021	13:42:05	D	10.50
147	SANGRUR	MALERKOTLA-1	S-NPP	30.55180	75.86970	10/14/2021	13:42:05	D	3.00
148	SANGRUR	MALERKOTLA-2	S-NPP	30.65580	75.87410	10/14/2021	13:42:05	D	3.00
149	SANGRUR	SHER PUR	S-NPP	30.51410	75.71420	10/14/2021	13:42:05	D	2.00
150	SAS NAGAR (MOHALI)	KHARAR	S-NPP	30.62220	76.71190	10/14/2021	13:42:05	D	1.70
151	SAS NAGAR (MOHALI)	KHARAR	S-NPP	30.62230	76.71480	10/14/2021	13:42:05	D	3.60
152	TARN TARAN	BHIKHIWIND	S-NPP	31.27590	74.73760	10/14/2021	13:42:05	D	3.70
153	TARN TARAN	BHIKHIWIND	S-NPP	31.33640	74.79140	10/14/2021	13:42:05	D	4.00
154	TARN TARAN	BHIKHIWIND	S-NPP	31.34970	74.75680	10/14/2021	13:42:05	D	8.40
155	TARN TARAN	BHIKHIWIND	S-NPP	31.35030	74.75780	10/14/2021	13:42:05	D	12.10
156	TARN TARAN	BHIKHIWIND	S-NPP	31.35550	74.71540	10/14/2021	13:42:05	D	3.30
157	TARN TARAN	BHIKHIWIND	S-NPP	31.37360	74.77220	10/14/2021	13:42:05	D	4.10
158	TARN TARAN	BHIKHIWIND	S-NPP	31.40180	74.63390	10/14/2021	13:42:05	D	2.20
159	TARN TARAN	BHIKHIWIND	S-NPP	31.41550	74.60400	10/14/2021	13:42:05	D	5.60
160	TARN TARAN	BHIKHIWIND	S-NPP	31.41940	74.71330	10/14/2021	13:42:05	D	2.10

161	TARN TARAN	CHOHLA SAHIB	S-NPP	31.25550	74.91460	10/14/2021	13:42:05	D	7.60
162	TARN TARAN	CHOHLA SAHIB	S-NPP	31.26490	74.90130	10/14/2021	13:42:05	D	5.00
163	TARN TARAN	CHOHLA SAHIB	S-NPP	31.28120	75.05750	10/14/2021	13:42:05	D	17.80
164	TARN TARAN	CHOHLA SAHIB	S-NPP	31.28470	75.05690	10/14/2021	13:42:05	D	17.80
165	TARN TARAN	CHOHLA SAHIB	S-NPP	31.29470	75.05050	10/14/2021	13:42:05	D	4.30
166	TARN TARAN	CHOHLA SAHIB	S-NPP	31.29770	75.04530	10/14/2021	13:42:05	D	4.80
167	TARN TARAN	CHOHLA SAHIB	S-NPP	31.35520	75.04470	10/14/2021	13:42:05	D	9.50
168	TARN TARAN	GANDIWIND TATLA	S-NPP	31.46460	74.69740	10/14/2021	13:42:05	D	2.40
169	TARN TARAN	GANDIWIND TATLA	S-NPP	31.46990	74.71040	10/14/2021	13:42:05	D	5.00
170	TARN TARAN	GANDIWIND TATLA	S-NPP	31.47740	74.74130	10/14/2021	13:42:05	D	3.00
171	TARN TARAN	GANDIWIND TATLA	S-NPP	31.48090	74.74070	10/14/2021	13:42:05	D	3.00
172	TARN TARAN	GANDIWIND TATLA	S-NPP	31.48740	74.76270	10/14/2021	13:42:05	D	3.80
173	TARN TARAN	GANDIWIND TATLA	S-NPP	31.48790	74.73950	10/14/2021	13:42:05	D	2.80
174	TARN TARAN	GANDIWIND TATLA	S-NPP	31.50510	74.62600	10/14/2021	13:42:05	D	1.90
175	TARN TARAN	GANDIWIND TATLA	S-NPP	31.51530	74.78560	10/14/2021	13:42:05	D	2.90
176	TARN TARAN	GANDIWIND TATLA	S-NPP	31.53210	74.72240	10/14/2021	13:42:05	D	2.50
177	TARN TARAN	GANDIWIND TATLA	S-NPP	31.53430	74.68510	10/14/2021	13:42:05	D	2.50
178	TARN TARAN	GANDIWIND TATLA	S-NPP	31.53930	74.80460	10/14/2021	13:42:05	D	3.00
179	TARN TARAN	KHADUR SAHIB	S-NPP	31.35190	75.15900	10/14/2021	13:42:05	D	27.70
180	TARN TARAN	KHADUR SAHIB	S-NPP	31.39520	75.08170	10/14/2021	13:42:05	D	7.70
181	TARN TARAN	KHADUR SAHIB	S-NPP	31.39640	75.09090	10/14/2021	13:42:05	D	1.80
182	TARN TARAN	KHADUR SAHIB	S-NPP	31.41460	75.12100	10/14/2021	13:42:05	D	3.00
183	TARN TARAN	KHADUR SAHIB	S-NPP	31.44530	75.16340	10/14/2021	13:42:05	D	2.50
184	TARN TARAN	KHADUR SAHIB	S-NPP	31.45420	75.20490	10/14/2021	13:42:05	D	4.40
185	TARN TARAN	KHADUR SAHIB	S-NPP	31.45780	75.20430	10/14/2021	13:42:05	D	4.60
186	TARN TARAN	KHADUR SAHIB	S-NPP	31.46010	75.16560	10/14/2021	13:42:05	D	21.80
187	TARN TARAN	KHADUR SAHIB	S-NPP	31.46360	75.16500	10/14/2021	13:42:05	D	21.80
188	TARN TARAN	KHADUR SAHIB	S-NPP	31.46540	75.17900	10/14/2021	13:42:05	D	5.60
189	TARN TARAN	KHADUR SAHIB	S-NPP	31.47720	75.15790	10/14/2021	13:42:05	D	2.60
190	TARN TARAN	KHADUR SAHIB	S-NPP	31.47770	75.10540	10/14/2021	13:42:05	D	2.60
191	TARN TARAN	KHADUR SAHIB	S-NPP	31.48940	75.08440	10/14/2021	13:42:05	D	2.80
192	TARN TARAN	KHADUR SAHIB	S-NPP	31.49910	75.05110	10/14/2021	13:42:05	D	3.40
193	TARN TARAN	KHADUR SAHIB	S-NPP	31.49930	75.04940	10/14/2021	13:42:05	D	3.70

194	TARN TARAN	KHADUR SAHIB	S-NPP	31.51090	75.05850	10/14/2021	13:42:05	D	2.40
195	TARN TARAN	KHADUR SAHIB	S-NPP	31.51380	75.08180	10/14/2021	13:42:05	D	11.40
196	TARN TARAN	NAUSHERA PANNUAN	S-NPP	31.39340	74.87070	10/14/2021	13:42:05	D	3.40
197	TARN TARAN	NAUSHERA PANNUAN	S-NPP	31.41330	74.91380	10/14/2021	13:42:05	D	2.40
198	TARN TARAN	PATTI	S-NPP	31.20030	74.76720	10/14/2021	13:42:05	D	3.90
199	TARN TARAN	PATTI	S-NPP	31.20410	74.90500	10/14/2021	13:42:05	D	3.60
200	TARN TARAN	PATTI	S-NPP	31.21890	74.77310	10/14/2021	13:42:05	D	2.30
201	TARN TARAN	PATTI	S-NPP	31.23340	74.93710	10/14/2021	13:42:05	D	14.00
202	TARN TARAN	PATTI	S-NPP	31.24090	74.91250	10/14/2021	13:42:05	D	2.20
203	TARN TARAN	PATTI	S-NPP	31.24150	74.91710	10/14/2021	13:42:05	D	2.70
204	TARN TARAN	PATTI	S-NPP	31.25070	74.87830	10/14/2021	13:42:05	D	3.10
205	TARN TARAN	PATTI	S-NPP	31.25130	74.88290	10/14/2021	13:42:05	D	3.10
206	TARN TARAN	PATTI	S-NPP	31.25330	74.81070	10/14/2021	13:42:05	D	2.10
207	TARN TARAN	PATTI	S-NPP	31.30330	74.81110	10/14/2021	13:42:05	D	3.60
208	TARN TARAN	TARN TARAN	S-NPP	31.35570	74.80190	10/14/2021	13:42:05	D	7.80
209	TARN TARAN	TARN TARAN	S-NPP	31.36370	74.80630	10/14/2021	13:42:05	D	3.40
210	TARN TARAN	TARN TARAN	S-NPP	31.38460	74.80260	10/14/2021	13:42:05	D	8.60
211	TARN TARAN	TARN TARAN	S-NPP	31.43880	74.80700	10/14/2021	13:42:05	D	2.90
212	TARN TARAN	TARN TARAN	S-NPP	31.44390	74.76440	10/14/2021	13:42:05	D	2.20
213	TARN TARAN	TARN TARAN	S-NPP	31.44630	74.78250	10/14/2021	13:42:05	D	5.90
214	TARN TARAN	TARN TARAN	S-NPP	31.44980	74.78190	10/14/2021	13:42:05	D	5.90
215	TARN TARAN	TARN TARAN	S-NPP	31.46000	74.77220	10/14/2021	13:42:05	D	2.00
216	TARN TARAN	TARN TARAN	S-NPP	31.47150	74.97400	10/14/2021	13:42:05	D	11.00
217	TARN TARAN	TARN TARAN	S-NPP	31.48910	74.83200	10/14/2021	13:42:05	D	11.20
218	TARN TARAN	TARN TARAN	S-NPP	31.50320	74.91370	10/14/2021	13:42:05	D	3.10
219	TARN TARAN	TARN TARAN	S-NPP	31.51910	75.03810	10/14/2021	13:42:05	D	2.00
220	TARN TARAN	TARN TARAN	AQUA	31.51300	75.00200	10/14/2021	13:01:50	D	26.90
221	TARN TARAN	TARN TARAN	AQUA	31.51500	75.00800	10/14/2021	13:01:50	D	33.20
222	TARN TARAN	VALTOHA	S-NPP	31.13200	74.71420	10/14/2021	13:42:05	D	10.60
223	TARN TARAN	VALTOHA	S-NPP	31.13300	74.71500	10/14/2021	13:42:05	D	10.60
224	TARN TARAN	VALTOHA	S-NPP	31.21390	74.65500	10/14/2021	13:42:05	D	4.80
225	TARN TARAN	VALTOHA	S-NPP	31.21570	74.66840	10/14/2021	13:42:05	D	4.20
226	TARN TARAN	VALTOHA	S-NPP	31.28470	74.53540	10/14/2021	13:42:05	D	3.00



227	TARN TARAN	VALTOHA	S-NPP	31.29070	74.60700	10/14/2021	13:42:05	D	2.60
228	TARN TARAN	VALTOHA	S-NPP	31.29180	74.58860	10/14/2021	13:42:05	D	17.10
229	TARN TARAN	VALTOHA	S-NPP	31.29580	74.59240	10/14/2021	13:42:05	D	17.10

### Details of residue burning events in Haryana on 14-Oct-2021

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_DATE	ACQ_TIME	Day / Night	Fire Power (W/m <sup>2</sup> )
1	AMBALA	AMBALA-I	S-NPP	30.32900	76.79430	10/14/2021	13:42:05	D	1.60
2	AMBALA	AMBALA-II	S-NPP	30.21750	76.75540	10/14/2021	13:42:05	D	2.60
3	AMBALA	BARARA	AQUA	30.17100	76.98400	10/14/2021	13:01:50	D	18.00
4	FATEHABAD	JAKHAL	S-NPP	29.76360	75.82850	10/14/2021	13:42:05	D	4.70
5	FATEHABAD	TOHANA	S-NPP	29.58560	75.85130	10/14/2021	13:42:05	D	2.80
6	FATEHABAD	TOHANA	S-NPP	29.66970	75.89680	10/14/2021	13:42:05	D	1.80
7	FATEHABAD	TOHANA	S-NPP	29.67070	75.67270	10/14/2021	13:42:05	D	35.30
8	JIND	ALEWA	S-NPP	29.48950	76.47690	10/14/2021	13:42:05	D	5.90
9	JIND	NARWANA	S-NPP	29.69870	76.04240	10/14/2021	13:42:05	D	23.60
10	JIND	PILLUKHERA	S-NPP	29.42780	76.51010	10/14/2021	13:42:05	D	3.00
11	JIND	SAFIDON	S-NPP	29.40820	76.59450	10/14/2021	13:42:05	D	9.30
12	JIND	UCHANA	S-NPP	29.53170	76.07100	10/14/2021	13:42:05	D	3.90
13	KAITHAL	GUHLA	AQUA	30.06000	76.37500	10/14/2021	13:01:50	D	28.90
14	KAITHAL	KAITHAL	S-NPP	29.86590	76.41130	10/14/2021	13:42:05	D	2.30
15	KAITHAL	KAITHAL	AQUA	29.85400	76.35600	10/14/2021	13:01:50	D	25.40
16	KAITHAL	KALAYAT	S-NPP	29.55940	76.29300	10/14/2021	13:42:05	D	2.10
17	KAITHAL	PUNDRI	S-NPP	29.67960	76.67800	10/14/2021	13:42:05	D	3.70
18	KAITHAL	PUNDRI	S-NPP	29.79660	76.63100	10/14/2021	13:42:05	D	4.20
19	KAITHAL	PUNDRI	S-NPP	29.79780	76.67250	10/14/2021	13:42:05	D	2.60
20	KAITHAL	PUNDRI	S-NPP	29.81460	76.62300	10/14/2021	13:42:05	D	2.60
21	KAITHAL	PUNDRI	S-NPP	29.82700	76.63140	10/14/2021	13:42:05	D	4.50
22	KAITHAL	PUNDRI	S-NPP	29.84130	76.62400	10/14/2021	13:42:05	D	3.70
23	KAITHAL	PUNDRI	S-NPP	29.86680	76.54450	10/14/2021	13:42:05	D	5.70

24	KAITHAL	PUNDRI	S-NPP	29.87140	76.64760	10/14/2021	13:42:05	D	2.30
25	KAITHAL	PUNDRI	S-NPP	29.87570	76.68350	10/14/2021	13:42:05	D	2.70
26	KAITHAL	SIWAN	S-NPP	29.86850	76.27930	10/14/2021	13:42:05	D	5.00
27	KAITHAL	SIWAN	S-NPP	29.88440	76.34740	10/14/2021	13:42:05	D	4.30
28	KAITHAL	SIWAN	S-NPP	29.88810	76.28620	10/14/2021	13:42:05	D	13.70
29	KAITHAL	SIWAN	S-NPP	29.88870	76.29120	10/14/2021	13:42:05	D	13.70
30	KARNAL	ASSANDH	S-NPP	29.45880	76.53250	10/14/2021	13:42:05	D	7.70
31	KARNAL	ASSANDH	S-NPP	29.50930	76.57550	10/14/2021	13:42:05	D	2.60
32	KARNAL	ASSANDH	S-NPP	29.54420	76.82940	10/14/2021	13:42:05	D	2.80
33	KARNAL	ASSANDH	S-NPP	29.54520	76.68310	10/14/2021	13:42:05	D	10.30
34	KARNAL	ASSANDH	S-NPP	29.54610	76.84490	10/14/2021	13:42:05	D	2.80
35	KARNAL	ASSANDH	S-NPP	29.54630	76.68110	10/14/2021	13:42:05	D	3.70
36	KARNAL	ASSANDH	S-NPP	29.56980	76.71900	10/14/2021	13:42:05	D	14.10
37	KARNAL	ASSANDH	S-NPP	29.59170	76.61720	10/14/2021	13:42:05	D	2.10
38	KARNAL	ASSANDH	S-NPP	29.59840	76.70410	10/14/2021	13:42:05	D	7.70
39	KARNAL	ASSANDH	S-NPP	29.60900	76.72860	10/14/2021	13:42:05	D	6.70
40	KARNAL	CHIRAO	S-NPP	29.61020	76.70750	10/14/2021	13:42:05	D	2.00
41	KARNAL	CHIRAO	S-NPP	29.71120	76.75140	10/14/2021	13:42:05	D	2.70
42	KARNAL	CHIRAO	S-NPP	29.71310	76.67270	10/14/2021	13:42:05	D	6.90
43	KARNAL	CHIRAO	S-NPP	29.72050	76.82910	10/14/2021	13:42:05	D	6.60
44	KARNAL	CHIRAO	S-NPP	29.72860	76.73820	10/14/2021	13:42:05	D	2.50
45	KARNAL	CHIRAO	S-NPP	29.73240	76.73760	10/14/2021	13:42:05	D	2.50
46	KARNAL	CHIRAO	S-NPP	29.73550	76.82670	10/14/2021	13:42:05	D	2.80
47	KARNAL	CHIRAO	S-NPP	29.73610	76.83190	10/14/2021	13:42:05	D	6.40
48	KARNAL	CHIRAO	S-NPP	29.74800	76.70900	10/14/2021	13:42:05	D	1.80
49	KARNAL	CHIRAO	S-NPP	29.74920	76.75080	10/14/2021	13:42:05	D	5.20
50	KARNAL	CHIRAO	AQUA	29.69300	76.92800	10/14/2021	13:01:50	D	19.50
51	KARNAL	GHARAUNDA	S-NPP	29.49540	77.06600	10/14/2021	13:42:05	D	1.60
52	KARNAL	GHARAUNDA	S-NPP	29.51210	76.94550	10/14/2021	13:42:05	D	2.60
53	KARNAL	GHARAUNDA	S-NPP	29.51640	77.04670	10/14/2021	13:42:05	D	10.20
54	KARNAL	GHARAUNDA	S-NPP	29.53350	76.93160	10/14/2021	13:42:05	D	3.80
55	KARNAL	GHARAUNDA	S-NPP	29.56240	76.91650	10/14/2021	13:42:05	D	3.50
56	KARNAL	GHARAUNDA	S-NPP	29.56750	76.92640	10/14/2021	13:42:05	D	5.50
57	KARNAL	GHARAUNDA	S-NPP	29.57370	76.91480	10/14/2021	13:42:05	D	8.40

58	KARNAL	GHARAUNDA	S-NPP	29.58020	76.97080	10/14/2021	13:42:05	D	3.70
59	KARNAL	INDRI	S-NPP	29.81310	77.06490	10/14/2021	13:42:05	D	2.00
60	KARNAL	INDRI	S-NPP	29.82300	77.11810	10/14/2021	13:42:05	D	4.90
61	KARNAL	INDRI	S-NPP	29.94030	77.17490	10/14/2021	13:42:05	D	4.10
62	KARNAL	KARNAL	S-NPP	29.64510	77.03070	10/14/2021	13:42:05	D	5.50
63	KARNAL	KARNAL	S-NPP	29.68690	77.08940	10/14/2021	13:42:05	D	7.10
64	KARNAL	KARNAL	S-NPP	29.75740	77.01070	10/14/2021	13:42:05	D	6.00
65	KARNAL	KARNAL	AQUA	29.61900	77.06100	10/14/2021	13:01:50	D	18.50
66	KARNAL	NILOKHERI	S-NPP	29.86950	76.82470	10/14/2021	13:42:05	D	7.20
67	KARNAL	NILOKHERI	S-NPP	29.89730	76.93540	10/14/2021	13:42:05	D	4.20
68	KARNAL	NILOKHERI	S-NPP	29.89800	76.93270	10/14/2021	13:42:05	D	3.00
69	KURUKSHETRA	BABAIN	S-NPP	30.07260	77.02020	10/14/2021	13:42:05	D	7.00
70	KURUKSHETRA	ISMAILABAD	S-NPP	30.09730	76.74460	10/14/2021	13:42:05	D	3.70
71	KURUKSHETRA	ISMAILABAD	S-NPP	30.09760	76.74660	10/14/2021	13:42:05	D	2.70
72	KURUKSHETRA	ISMAILABAD	S-NPP	30.15680	76.69820	10/14/2021	13:42:05	D	0.90
73	KURUKSHETRA	ISMAILABAD	S-NPP	30.18130	76.80640	10/14/2021	13:42:05	D	2.70
74	KURUKSHETRA	ISMAILABAD	S-NPP	30.18750	76.76260	10/14/2021	13:42:05	D	7.70
75	KURUKSHETRA	PEHOWA	S-NPP	29.92860	76.52440	10/14/2021	13:42:05	D	4.10
76	KURUKSHETRA	PEHOWA	S-NPP	29.93300	76.49790	10/14/2021	13:42:05	D	5.90
77	KURUKSHETRA	PEHOWA	S-NPP	29.98030	76.65930	10/14/2021	13:42:05	D	5.00
78	KURUKSHETRA	PEHOWA	S-NPP	30.08780	76.56700	10/14/2021	13:42:05	D	3.20
79	KURUKSHETRA	SHAHBAD	S-NPP	30.09280	76.89740	10/14/2021	13:42:05	D	3.00
80	KURUKSHETRA	SHAHBAD	S-NPP	30.19330	76.87450	10/14/2021	13:42:05	D	3.60
81	KURUKSHETRA	THANESAR	S-NPP	29.89600	76.75940	10/14/2021	13:42:05	D	4.00
82	KURUKSHETRA	THANESAR	S-NPP	29.89980	76.75880	10/14/2021	13:42:05	D	11.40
83	KURUKSHETRA	THANESAR	S-NPP	29.95350	76.92130	10/14/2021	13:42:05	D	5.30
84	KURUKSHETRA	THANESAR	S-NPP	29.96810	76.91370	10/14/2021	13:42:05	D	3.00
85	KURUKSHETRA	THANESAR	S-NPP	29.99410	76.81060	10/14/2021	13:42:05	D	5.50
86	KURUKSHETRA	THANESAR	S-NPP	30.00090	76.83630	10/14/2021	13:42:05	D	4.80
87	KURUKSHETRA	THANESAR	S-NPP	30.00140	76.83880	10/14/2021	13:42:05	D	6.50
88	KURUKSHETRA	THANESAR	S-NPP	30.02600	76.85390	10/14/2021	13:42:05	D	6.10
89	KURUKSHETRA	THANESAR	S-NPP	30.11480	76.76320	10/14/2021	13:42:05	D	9.70
90	PALWAL	HASSANPUR	S-NPP	27.95710	77.45960	10/14/2021	13:42:05	D	4.10
91	PALWAL	HODAL	S-NPP	27.91330	77.47400	10/14/2021	13:42:05	D	21.70

92	PANIPAT	BAPPAULI	S-NPP	29.24700	77.09590	10/14/2021	13:42:05	D	4.20
93	PANIPAT	ISRANA	S-NPP	29.30800	76.71560	10/14/2021	13:42:05	D	3.60
94	SIRSA	RANIA	S-NPP	29.50270	74.83620	10/14/2021	13:42:05	D	3.10
95	SONIPAT	MURTHAL	S-NPP	29.06130	77.01950	10/14/2021	13:42:05	D	3.40
96	YAMUNANAGAR	MUSTAFABAD	S-NPP	30.15110	77.11100	10/14/2021	13:42:05	D	3.80
97	YAMUNANAGAR	RADAUR	S-NPP	29.97610	77.18060	10/14/2021	13:42:05	D	3.20
98	YAMUNANAGAR	SADHAURA	S-NPP	30.45660	77.18860	10/14/2021	13:42:05	D	5.80

**Details of residue burning events in Uttar Pradesh on 14-Oct-2021**

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_DATE	ACQ_TIME	Day / Night	Fire Power (W/m <sup>2</sup> )
1	ALIGARH	KHAIR	S-NPP	27.93380	77.57840	10/14/2021	13:42:05	D	4.90
2	ALIGARH	KHAIR	S-NPP	27.97090	77.54340	10/14/2021	13:42:05	D	6.10
3	ALIGARH	KHAIR	S-NPP	28.06490	77.49970	10/14/2021	13:42:05	D	2.30
4	BAGHPAT	BARAUT	S-NPP	29.07890	77.35340	10/14/2021	13:42:05	D	3.30
5	BARABANKI	FATEHPUR	S-NPP	27.27090	81.13070	10/14/2021	13:42:05	D	5.00
6	BAREILLY	BAHERI	S-NPP	28.84930	79.50440	10/14/2021	13:42:05	D	7.40
7	ETAHAH	SAIFAI	S-NPP	26.93510	79.04260	10/14/2021	13:42:05	D	2.90
8	ETAHAH	SAIFAI	S-NPP	26.93710	79.04240	10/14/2021	13:42:05	D	4.10
9	FATEHPUR	FATEHPUR	S-NPP	25.93170	80.68250	10/14/2021	13:42:05	D	4.80
10	FIROZABAD	SIKOHABAD	AQUA	27.04900	78.63400	10/14/2021	13:01:50	D	20.50
11	FIROZABAD	SIKOHABAD	AQUA	27.05100	78.64000	10/14/2021	13:01:50	D	12.80
12	GAUTAMBUDHNAGAR	DADRI	S-NPP	28.50390	77.58860	10/14/2021	13:42:05	D	2.30
13	GAUTAMBUDHNAGAR	JEVAR	S-NPP	28.11330	77.61180	10/14/2021	13:42:05	D	10.40
14	KAUSHAMBI	SIRATHU	S-NPP	25.61790	81.26950	10/14/2021	13:42:05	D	3.20
15	KHERI	GOLA	S-NPP	27.96620	80.33970	10/14/2021	13:42:05	D	6.20
16	KHERI	GOLA	S-NPP	27.98130	80.35340	10/14/2021	13:42:05	D	4.30
17	KHERI	MOHMADI	S-NPP	27.98570	80.26040	10/14/2021	13:42:05	D	5.60
18	MAINPURI	KARHAL	S-NPP	27.01460	79.00670	10/14/2021	13:42:05	D	2.40
19	MATHURA	CHHATA	S-NPP	27.77470	77.56630	10/14/2021	13:42:05	D	3.00
20	MATHURA	CHHATA	S-NPP	27.77800	77.36930	10/14/2021	13:42:05	D	5.50

21	MATHURA	CHHATA	S-NPP	27.77850	77.56570	10/14/2021	13:42:05	D	3.00
22	MATHURA	CHHATA	S-NPP	27.79700	77.46150	10/14/2021	13:42:05	D	6.50
23	MATHURA	CHHATA	S-NPP	27.88800	77.42460	10/14/2021	13:42:05	D	8.90
24	MEERUT	MAWANA	S-NPP	29.22020	78.06420	10/14/2021	13:42:05	D	3.60
25	MUZAFARNAGAR	JANSATH	S-NPP	29.29970	78.03400	10/14/2021	13:42:05	D	6.30
26	PILHIBHIT	PURANPUR	S-NPP	28.34130	80.16780	10/14/2021	13:42:05	D	7.00
27	PILHIBHIT	PURANPUR	S-NPP	28.34660	80.15880	10/14/2021	13:42:05	D	3.60
28	PILHIBHIT	PURANPUR	S-NPP	28.35800	80.18290	10/14/2021	13:42:05	D	4.60
29	PILHIBHIT	PURANPUR	S-NPP	28.54200	80.05010	10/14/2021	02:31:23	N	1.60
30	PILHIBHIT	PURANPUR	S-NPP	28.63460	80.02370	10/14/2021	13:42:05	D	4.80
31	PILHIBHIT	PURANPUR	S-NPP	28.63680	80.02630	10/14/2021	13:42:05	D	5.10
32	PILHIBHIT	PURANPUR	AQUA	28.35300	80.15600	10/14/2021	13:01:50	D	10.80
33	PILHIBHIT	PURANPUR	AQUA	28.62600	80.01100	10/14/2021	13:01:50	D	22.60
34	PILHIBHIT	PURANPUR	AQUA	28.62900	80.01700	10/14/2021	13:01:50	D	25.10
35	RAMPUR	BILASPUR	S-NPP	28.77290	79.22550	10/14/2021	13:42:05	D	3.70
36	RAMPUR	BILASPUR	S-NPP	28.79410	79.26390	10/14/2021	13:42:05	D	5.30
37	RAMPUR	BILASPUR	S-NPP	28.89030	79.20710	10/14/2021	13:42:05	D	4.60
38	RAMPUR	BILASPUR	S-NPP	28.90970	79.22750	10/14/2021	13:42:05	D	1.40
39	RAMPUR	BILASPUR	S-NPP	28.95240	79.26330	10/14/2021	13:42:05	D	6.70
40	RAMPUR	MILAK	S-NPP	28.60860	79.15920	10/14/2021	13:42:05	D	1.20
41	RAMPUR	MILAK	S-NPP	28.71460	79.19550	10/14/2021	13:42:05	D	2.80
42	RAMPUR	MILAK	S-NPP	28.71890	79.19500	10/14/2021	13:42:05	D	2.80
43	RAMPUR	SUAR	S-NPP	29.00030	79.11160	10/14/2021	13:42:05	D	8.00
44	RAMPUR	SUAR	S-NPP	29.00970	79.07860	10/14/2021	13:42:05	D	6.40
45	RAMPUR	SUAR	S-NPP	29.03380	79.14360	10/14/2021	13:42:05	D	2.60
46	SAMBHAL	SAMBHAL	S-NPP	28.55920	78.58980	10/14/2021	13:42:05	D	10.20
47	SHAHJAHANPUR	PUWANYA	S-NPP	27.99850	80.07740	10/14/2021	13:42:05	D	4.00
48	SHAHJAHANPUR	PUWANYA	S-NPP	28.04730	80.12820	10/14/2021	13:42:05	D	4.10
49	SHAHJAHANPUR	PUWANYA	S-NPP	28.04780	80.13320	10/14/2021	13:42:05	D	4.10
50	SHAHJAHANPUR	PUWANYA	S-NPP	28.09610	80.20820	10/14/2021	13:42:05	D	6.30
51	SHAHJAHANPUR	PUWANYA	S-NPP	28.10270	80.22770	10/14/2021	13:42:05	D	5.50
52	SHAHJAHANPUR	PUWANYA	S-NPP	28.10320	80.23280	10/14/2021	13:42:05	D	6.40
53	SHAHJAHANPUR	PUWANYA	S-NPP	28.14000	80.22100	10/14/2021	13:42:05	D	4.50

54	SHAHJAHANPUR	PUWANYA	S-NPP	28.14450	80.22040	10/14/2021	13:42:05	D	3.40
55	SHAHJAHANPUR	PUWANYA	S-NPP	28.19130	80.14350	10/14/2021	13:42:05	D	5.00
56	SHAHJAHANPUR	PUWANYA	S-NPP	28.24660	80.17450	10/14/2021	13:42:05	D	5.50
57	SHAHJAHANPUR	PUWANYA	S-NPP	28.25460	80.16330	10/14/2021	13:42:05	D	4.60
58	SHAHJAHANPUR	PUWANYA	S-NPP	28.26580	80.10540	10/14/2021	02:31:23	N	0.90
59	SHAHJAHANPUR	PUWANYA	S-NPP	28.26650	80.10100	10/14/2021	13:42:05	D	2.80
60	SHAHJAHANPUR	PUWANYA	S-NPP	28.27900	80.18060	10/14/2021	13:42:05	D	3.70
61	SHAHJAHANPUR	PUWANYA	S-NPP	28.32800	80.08330	10/14/2021	13:42:05	D	2.10
62	SHAHJAHANPUR	PUWANYA	S-NPP	28.33030	80.08470	10/14/2021	13:42:05	D	4.10
63	SHAHJAHANPUR	SHAHJAHANPUR	S-NPP	27.93670	79.95690	10/14/2021	13:42:05	D	2.60
64	SHARANPUR	NAKUR	S-NPP	29.75860	77.15220	10/14/2021	13:42:05	D	4.30
65	SHARANPUR	SHARANPUR	S-NPP	29.97990	77.59110	10/14/2021	02:31:23	N	0.70
66	SITAPUR	MISRIK	S-NPP	27.64750	80.34240	10/14/2021	13:42:05	D	7.10
67	SITAPUR	SITAPUR	S-NPP	27.51170	80.56020	10/14/2021	13:42:05	D	9.60
68	SITAPUR	SITAPUR	S-NPP	27.51200	80.56200	10/14/2021	13:42:05	D	7.80

### Details of residue burning events in Rajasthan on 14-Oct-2021

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_DATE	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	HANUMANGARH	TIBI	S-NPP	29.60630	74.55320	10/14/2021	13:42:05	D	1.10

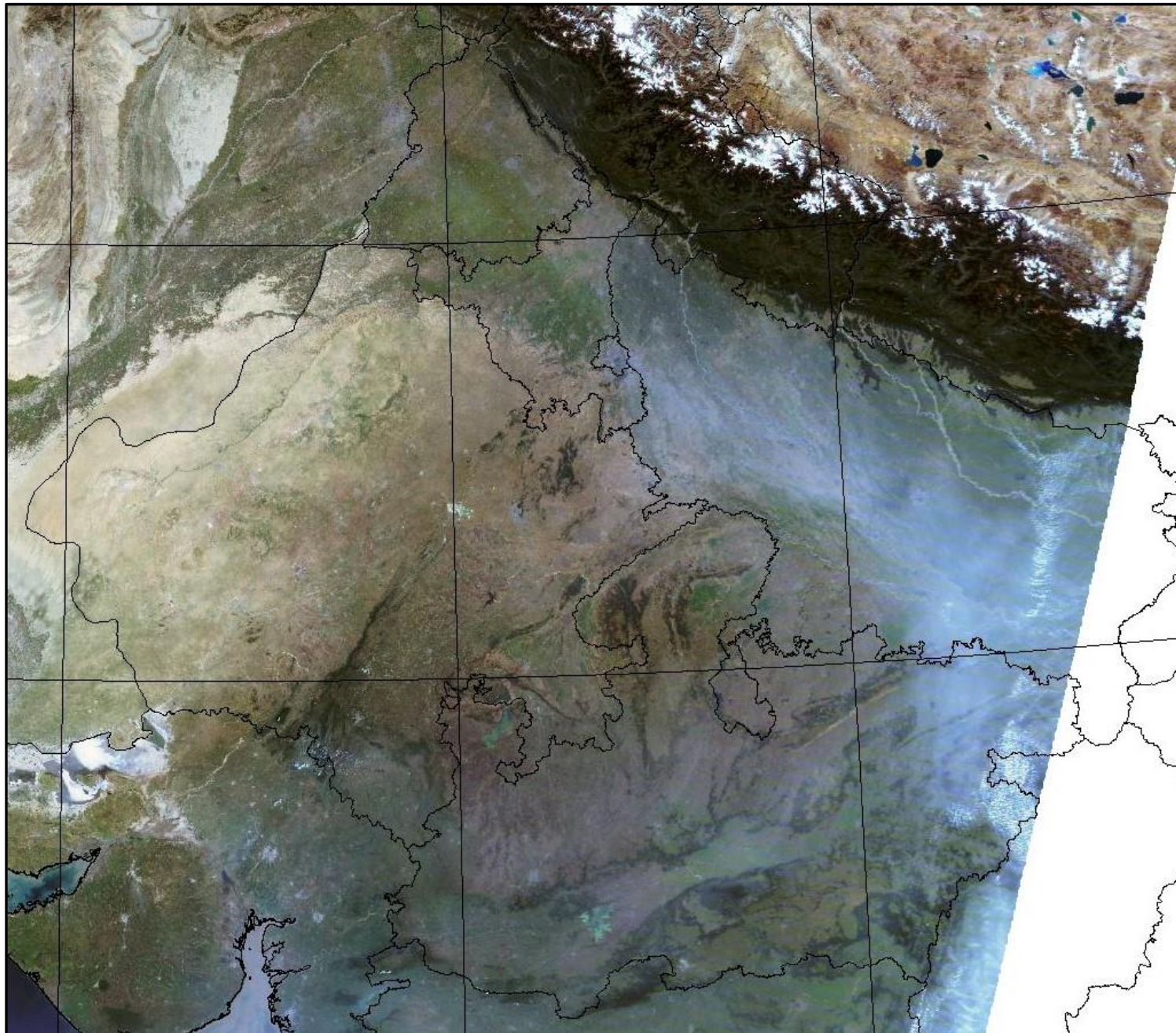
### Details of residue burning events in Madhya Pradesh on 14-Oct-2021

S. No.	District	Tehsil / Block	Satellite	Latitude	Longitude	ACQ_DATE	ACQ_TIME	Day / Night	Fire Power (W/m2)
1	BHIND	BHIND	S-NPP	26.59960	78.68420	10/14/2021	13:42:05	D	4.40
2	BHOPAL	BERASIYA	S-NPP	23.58660	77.45810	10/14/2021	13:42:05	D	2.90
3	BHOPAL	HUZUR	S-NPP	23.37360	77.25500	10/14/2021	13:42:05	D	1.80
4	DAMOH	DAMOH	S-NPP	23.88970	79.56030	10/14/2021	13:42:05	D	1.70
5	DATIA	SEONDHA	S-NPP	25.82460	78.53160	10/14/2021	13:42:05	D	3.20
6	NARSHIMAPURA	GOTECAON	S-NPP	22.92540	79.51920	10/14/2021	13:42:05	D	1.60

7	RAISEN	GAIRATGANJ	S-NPP	23.46490	78.24120	10/14/2021	13:42:05	D	1.60
8	SATNA	RAGURAJNAGAR	S-NPP	24.66980	80.84130	10/14/2021	13:42:05	D	8.50
9	SATNA	RAGURAJNAGAR	S-NPP	24.67200	80.83800	10/14/2021	13:42:05	D	5.60
10	SATNA	RAGURAJNAGAR	S-NPP	24.67250	80.84280	10/14/2021	13:42:05	D	5.60
11	SEHORE	BUDHNI	S-NPP	22.74310	77.56250	10/14/2021	13:42:05	D	3.20



TERRA (MODIS) Satellite image (TCC) of North and Central India Acquired on 14-Oct-2021 at 11:20:20 IST by IARI Ground Station





**The study used data received from following Satellites at NRSC 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

**The rice mask for the Punjab and Haryana were provided by MNCFC, MoA&FW, Govt of India  
The kharif crop mask for Delhi, Uttar Pradesh, Rajasthan and Madhya Pradesh were provided by NRSC**

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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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