



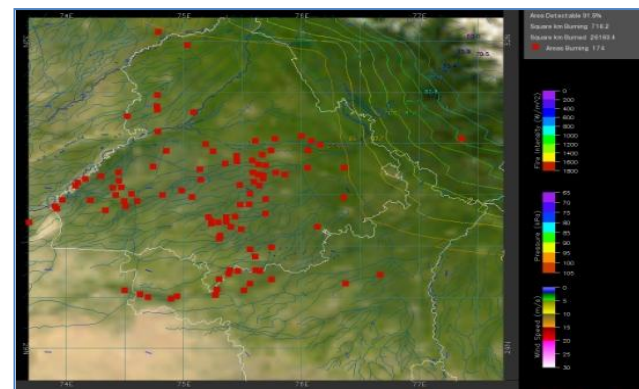
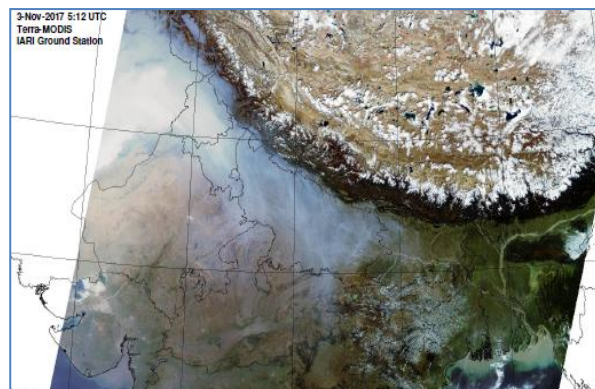
Bulletin No. 1

Events Date:
01-Oct-2018

Issued on:
02-Oct-2018



MONITORING PADDY RESIDUE BURNING IN NORTH INDIA USING SATELLITE REMOTE SENSING DURING 2018



Prepared by:

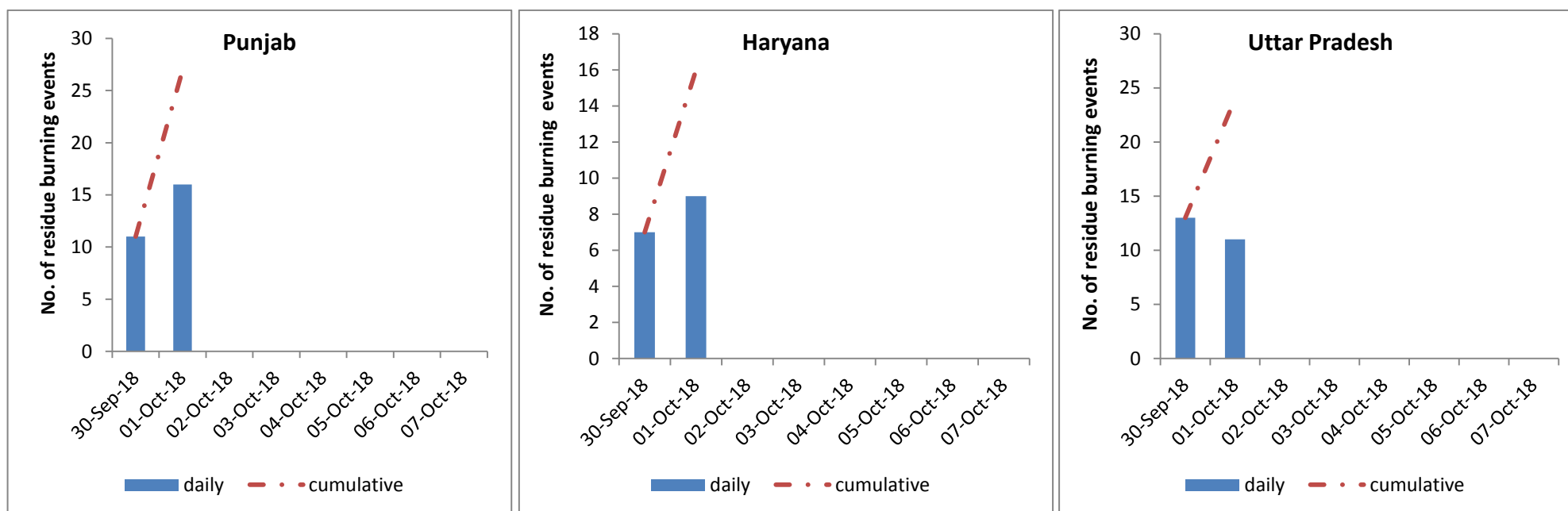
Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS) Laboratory,
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012

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

Highlights for 01-October-2018

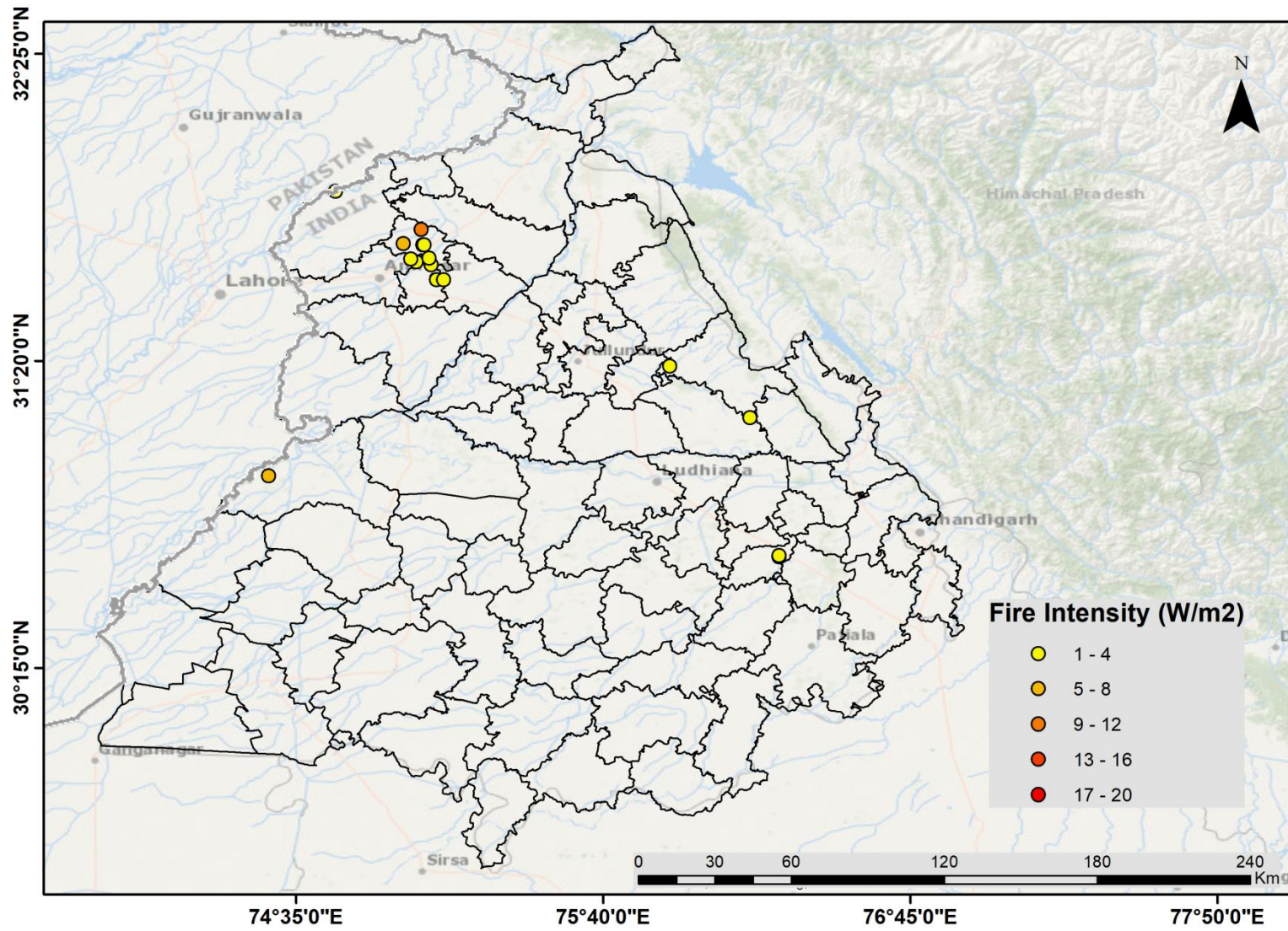
- Satellites detected 36 residue burning events in the three study States on 01-Oct-2018.
- In Punjab, majority of burning/fire events were concentrated in Amritsar district.
- In Haryana and Uttar Pradesh, majority of the burning/fire events were scattered across State.
- Overall, the residue burning/fire events are very few till date in the three study States being monitored.

Temporal distribution of residue burning events for the three study States



(a) Punjab

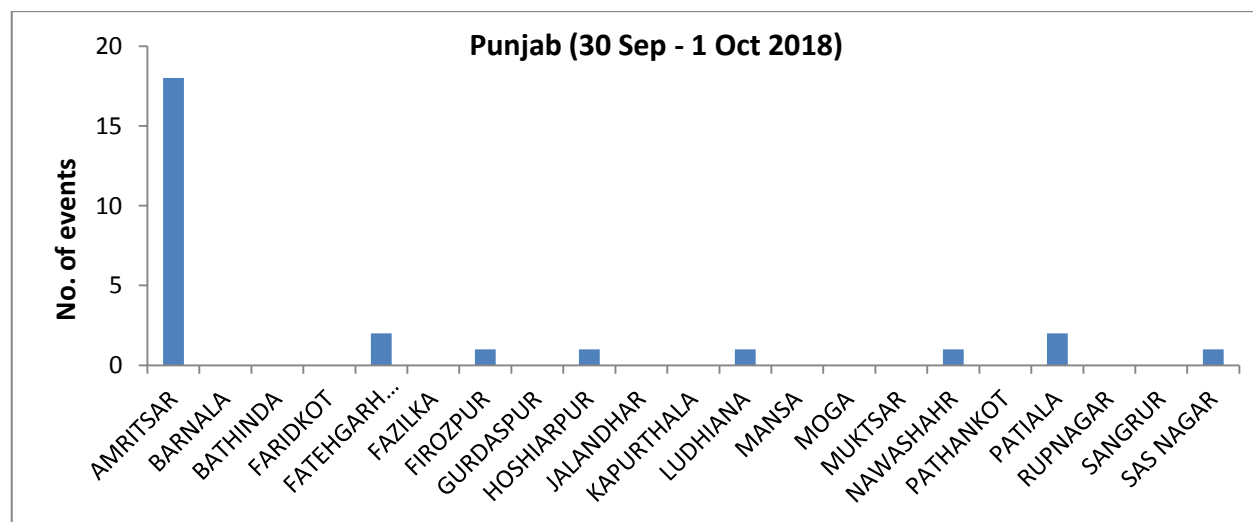
Paddy Residue Burning in Punjab on 1st Oct 2018



Details of residue burning events in Punjab on 01-Oct-2018

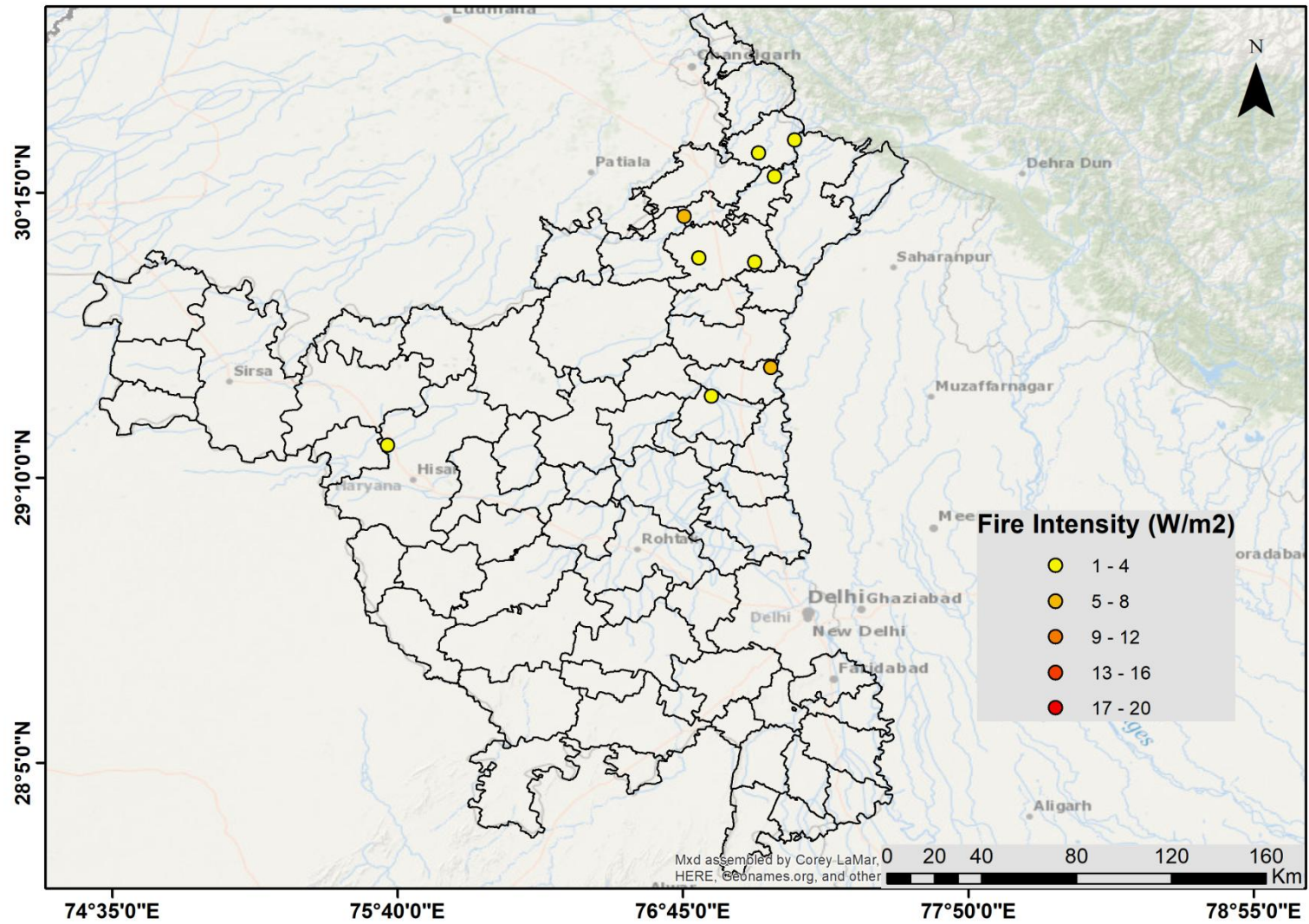
S. No.	District	Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m ²)
1	FATEHGARH SAHIB	ALMOH	S-NPP	76.286	30.642	02:18:00	N	0.80
2	FATEHGARH SAHIB	ALMOH	S-NPP	76.287	30.645	02:18:00	N	0.40
3	FIROZPUR	FIROZPUR	S-NPP	74.486	30.927	13:36:00	D	5.20
4	NAWASHAHR	NAWASHAHR	S-NPP	76.184	31.133	13:36:00	D	2.40
5	HOSHIARPUR	GARHSHANKAR	S-NPP	75.901	31.314	13:36:00	D	2.10
6	AMRITSAR	BABA BAKALA	S-NPP	75.078	31.618	13:36:00	D	2.90
7	AMRITSAR	BABA BAKALA	S-NPP	75.103	31.618	13:36:00	D	3.40
8	AMRITSAR	AMRITSAR I	S-NPP	75.060	31.672	13:36:00	D	4.00
9	AMRITSAR	AMRITSAR II	S-NPP	75.007	31.682	13:36:00	D	3.20
10	AMRITSAR	AMRITSAR II	S-NPP	74.988	31.693	13:36:00	D	2.50
11	AMRITSAR	AMRITSAR I	S-NPP	75.051	31.695	13:36:00	D	2.60
12	AMRITSAR	AMRITSAR I	S-NPP	75.030	31.742	13:36:00	D	3.30
13	AMRITSAR	AMRITSAR I	S-NPP	75.035	31.742	13:36:00	D	3.30
14	AMRITSAR	AMRITSAR I	S-NPP	74.961	31.746	13:36:00	D	6.60
15	AMRITSAR	AMRITSAR I	S-NPP	75.024	31.796	13:36:00	D	8.50
16	AMRITSAR	AJNALA	S-NPP	74.722	31.931	13:36:00	D	2.50

District-wise cumulative number of residue burning events in Punjab (30-Sep-2018 to 01-Oct-2018)



(b) Haryana

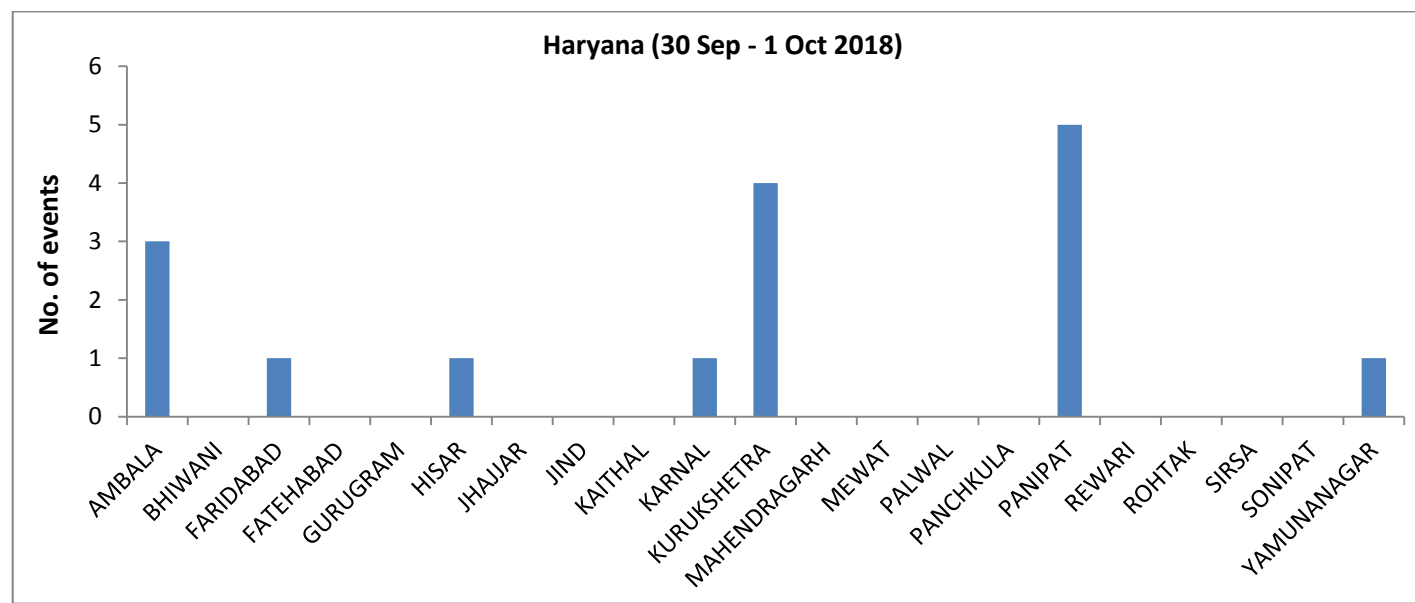
Paddy Residue Burning in Haryana on 1st Oct 2018



Details of residue burning events in Haryana on 01-Oct-2018

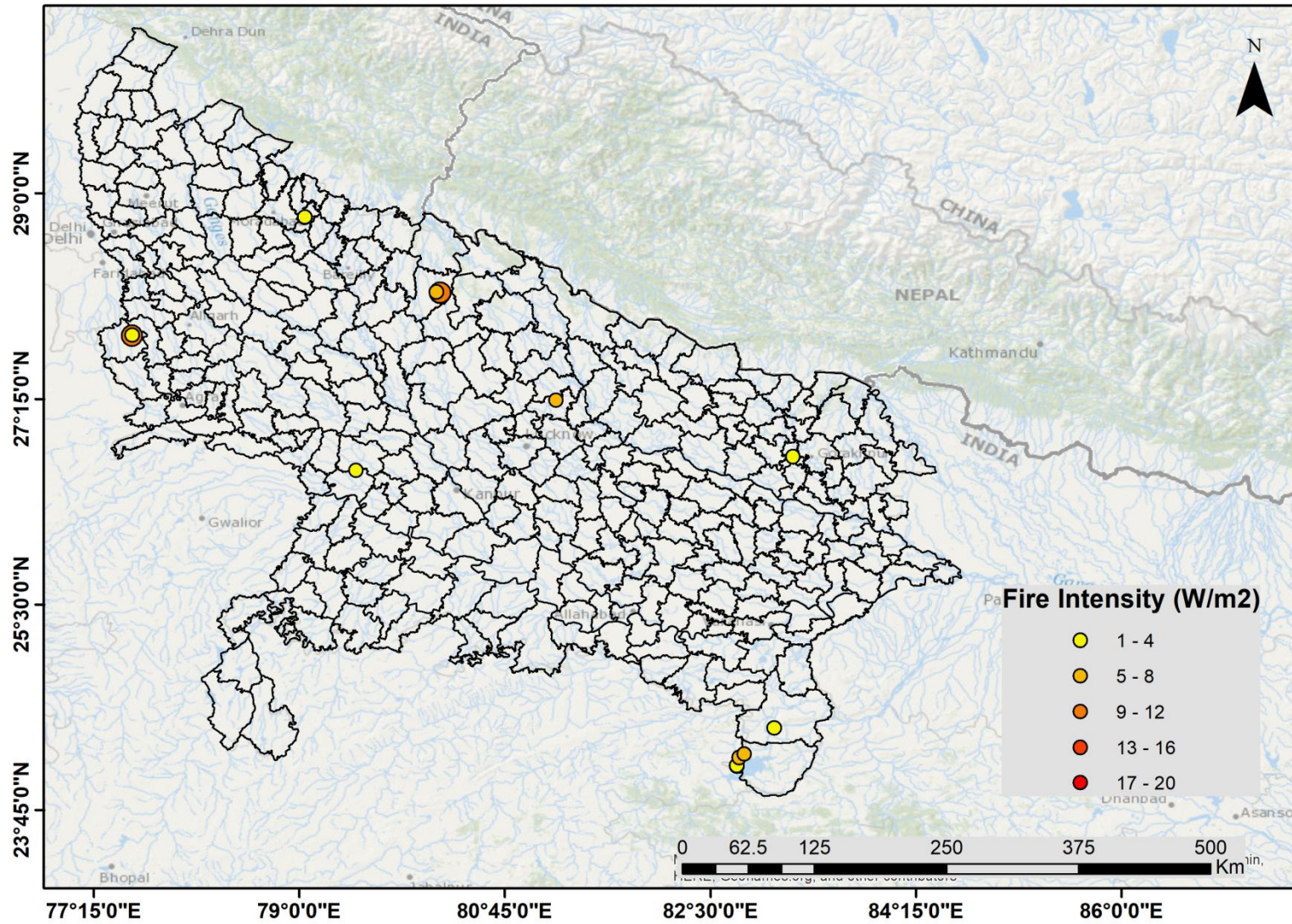
S. No.	District	Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m ²)
1	HISAR	HISAR	S-NPP	75.628	29.288	13:36:00	D	2.30
2	PANIPAT	PANIPAT	S-NPP	76.859	29.475	13:36:00	D	3.60
3	KARNAL	GHARAUNDA	TERRA-1	77.082	29.584	11:07:00	D	6.89
4	KURUKSHETRA	THANESAR	S-NPP	77.023	29.985	13:36:00	D	2.30
5	KURUKSHETRA	THANESAR	S-NPP	76.810	30.000	13:36:00	D	2.30
6	KURUKSHETRA	PEHOWA	S-NPP	76.754	30.158	13:36:00	D	5.60
7	AMBALA	BARARA	S-NPP	77.098	30.311	13:36:00	D	2.80
8	AMBALA	NARAYANGARH	S-NPP	77.037	30.399	13:36:00	D	1.80
9	YAMUNANAGAR	JAGADHRI	S-NPP	77.174	30.449	13:36:00	D	2.20

District-wise cumulative number of residue burning events in Haryana (30-Sep-2018 to 01-Oct-2018)



(c) Uttar Pradesh

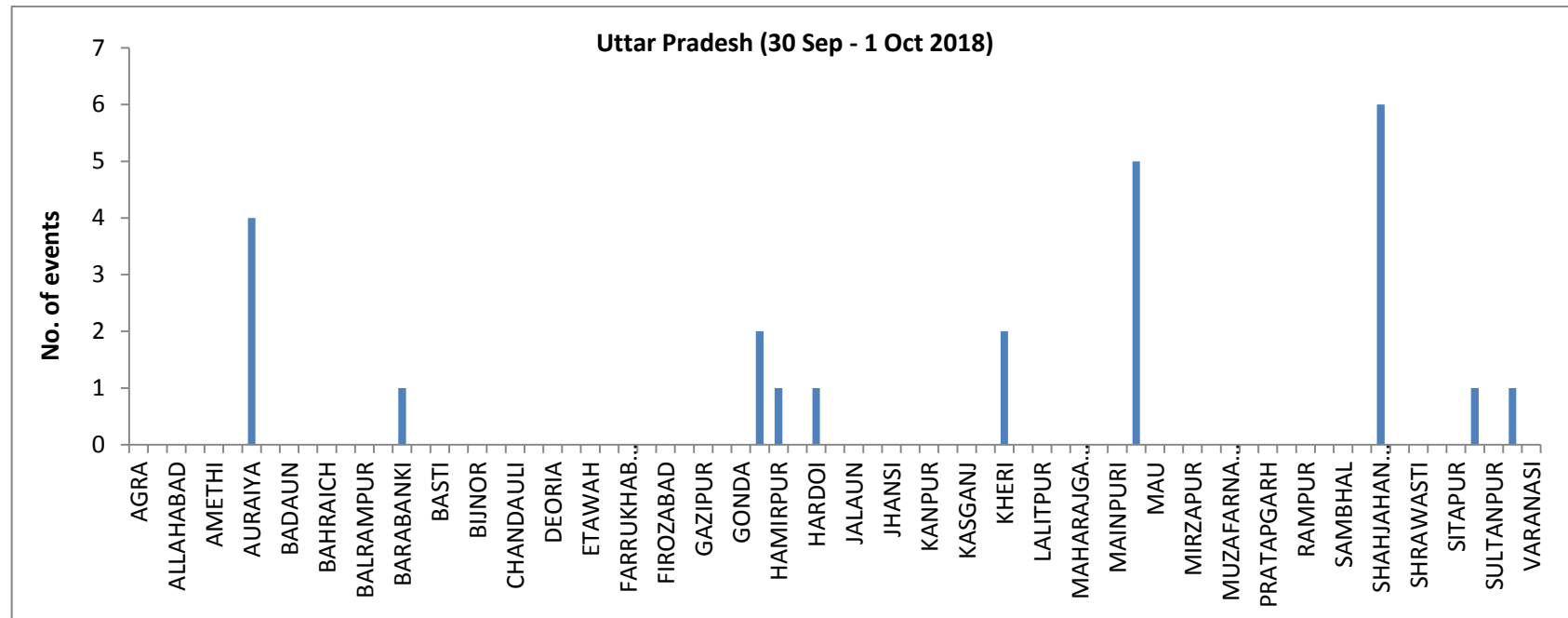
Paddy Residue Burning in Uttar Pradesh on 1st Oct 2018



Details of residue burning events in Uttar Pradesh on 01-Oct-2018

S. No.	District	Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m ²)
1	SONBHADRA	REBUTSHGANJ	S-NPP	83.040	24.448	02:18:00	N	0.60
2	AURAIYA	BIDHUNA	S-NPP	79.481	26.642	02:18:00	N	2.10
3	GORAKHPUR	SAHJANWA	S-NPP	83.202	26.760	02:18:00	N	0.80
4	BARABANKI	FATEHPUR	S-NPP	81.187	27.237	13:36:00	D	5.50
5	MATHURA	CHHATA	S-NPP	77.561	27.780	13:36:00	D	3.90
6	MATHURA	CHHATA	S-NPP	77.577	27.790	13:36:00	D	9.00
7	MATHURA	CHHATA	S-NPP	77.577	27.793	13:36:00	D	3.90
8	SHAHJAHANPUR	PUWANYA	S-NPP	80.182	28.139	13:36:00	D	2.30
9	SHAHJAHANPUR	PUWANYA	S-NPP	80.197	28.149	13:36:00	D	8.50
10	SHAHJAHANPUR	PUWANYA	S-NPP	80.197	28.153	13:36:00	D	8.50
11	SHAHJAHANPUR	PUWANYA	S-NPP	80.167	28.162	13:36:00	D	6.40

District-wise cumulative number of residue burning events in Uttar Pradesh (30-Sep-2018 to 01-Oct-2018)



The study used images received from following Satellites at IARI Satellite Ground Station

S. No.	Satellite Name	Sensor	Resolution (meter)	Day / Night Passes
1.	Suomi NPP	VIIRS	375 / 1000	Both
2.	Terra	MODIS	1000	Both
3.	Aqua	MODIS	1000	Both
4.	NOAA – 18	AVHRR	1000	Night
5.	NOAA – 19	AVHRR	1000	Night
6.	Metop - 1	AVHRR	1000	Night
7.	Metop - 2	AVHRR	1000	Night

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GIS Maps of fire events can be visualized online on ICAR KRISHI Geoportal website:

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