



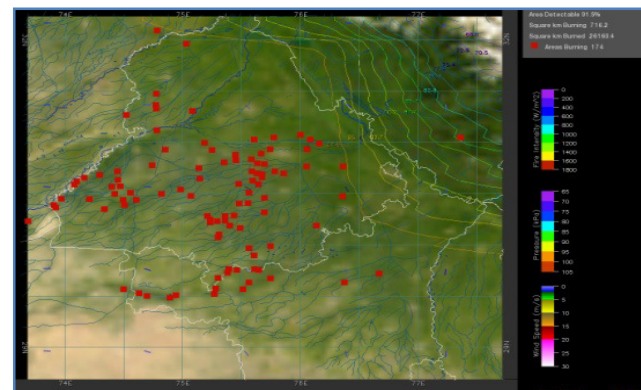
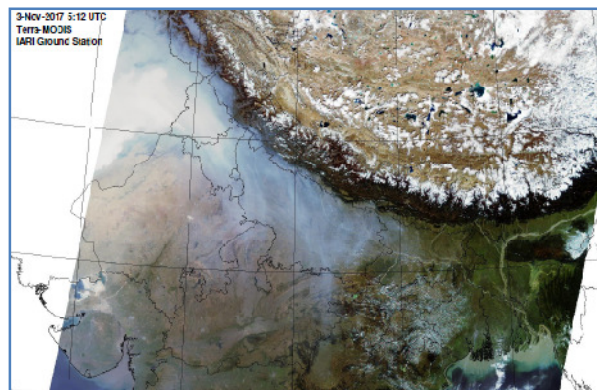
Bulletin No. 3

Events Date:
03-Oct-2018

Issued on:
04-Oct-2018



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



Prepared by:

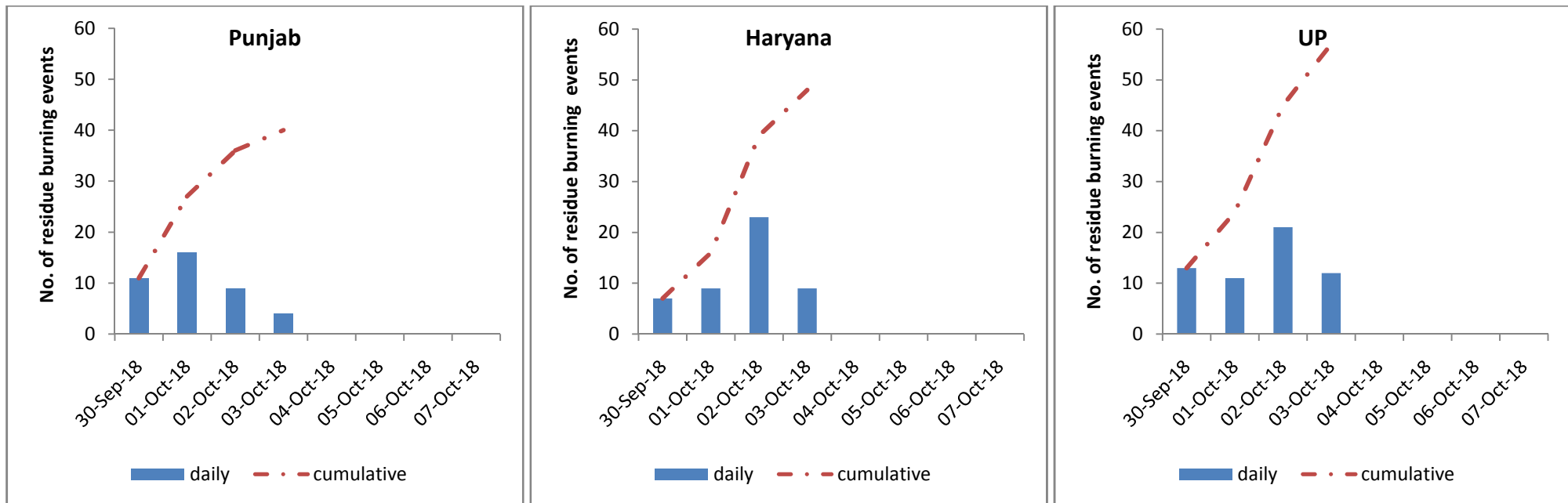
Consortium for Research on Agroecosystem Monitoring and Modeling from Space (CREAMS) Laboratory,
Division of Agricultural Physics, ICAR – Indian Agricultural Research Institute, New Delhi – 110012

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

Highlights for 03-October-2018

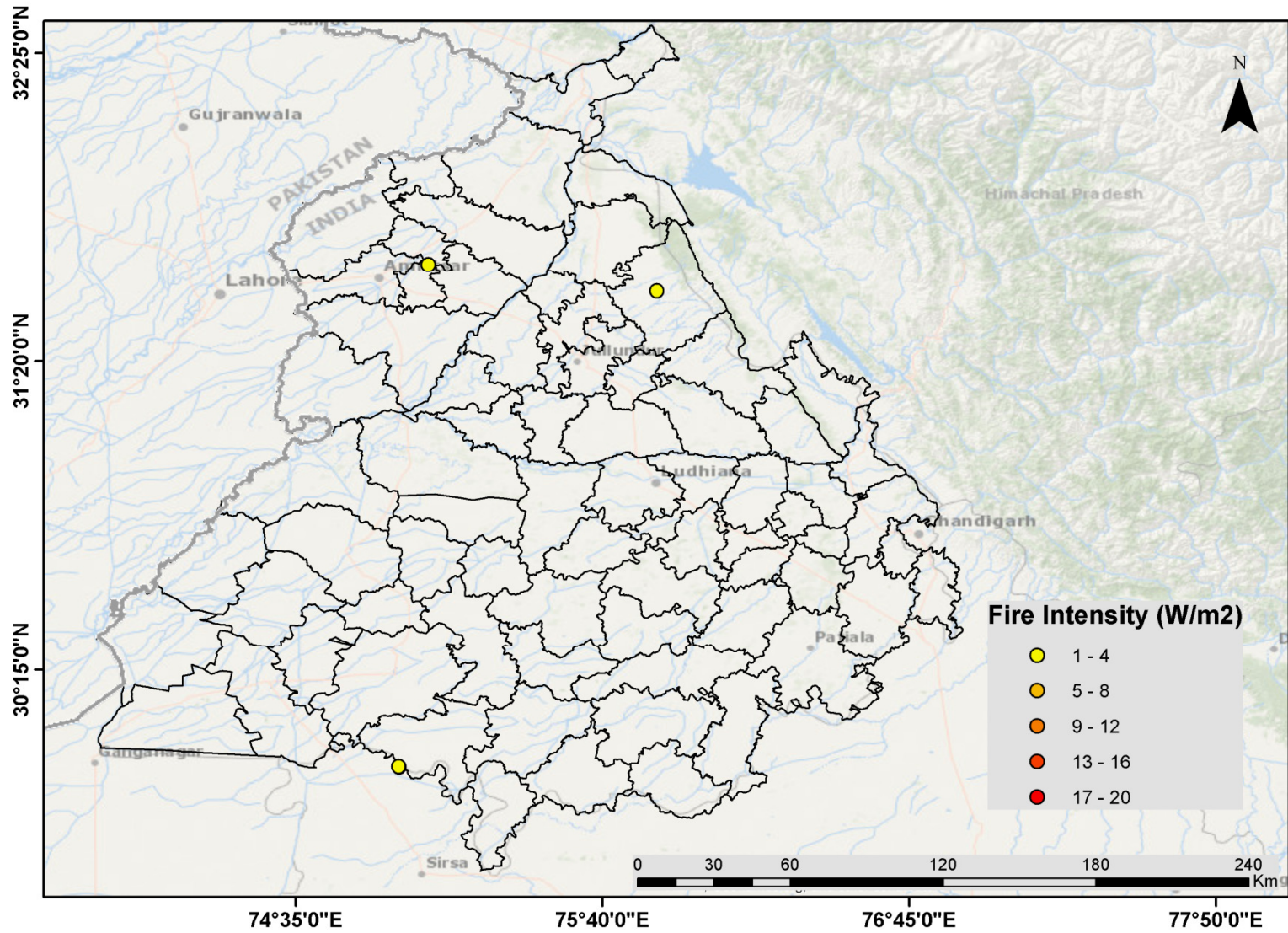
- Satellites detected 25 residue burning events in the three States (Punjab, Haryana & UP) on 03-Oct-2018.
- The burning events detected on 03-Oct-2018 are 04, 09 and 12 in Punjab, Haryana, and UP, respectively.
- The number events reduced from 53 on 02-Oct-2018 to 25 on 03-Oct-2018 in three States.
- Total 145 burning events were detected in three States between 30-Sept-2018 and 03-Oct-2018, which were distributed as 40, 48 and 57 in Punjab, Haryana and UP, respectively.
- Overall, the residue burning/fire events are few till date in the three States being monitored.

Temporal distribution of residue burning events for the three study States



(a) Punjab

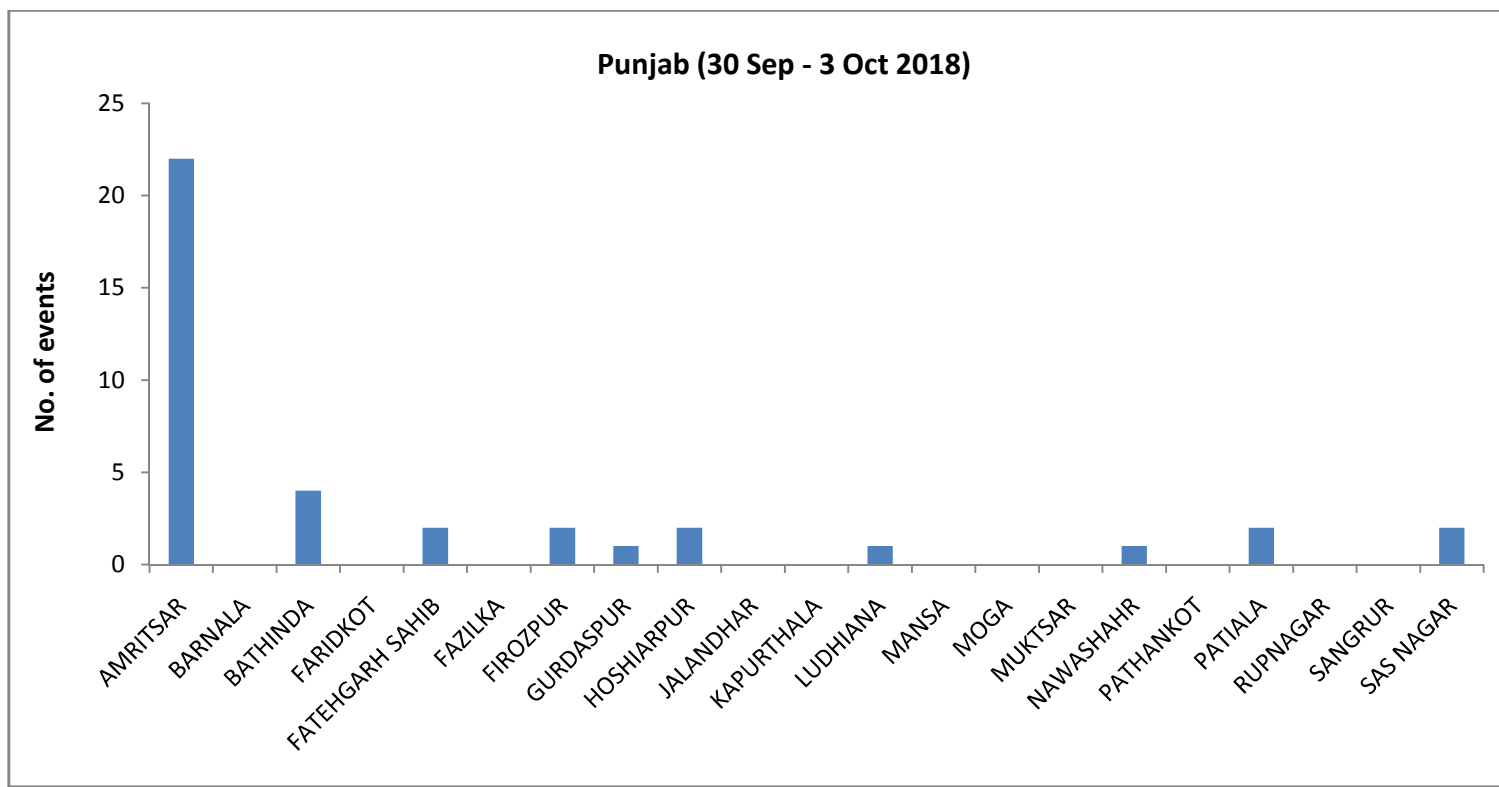
Paddy Residue Burning in Punjab on 3rd Oct 2018



Details of residue burning events in Punjab on 03-Oct-2018

Event S. No.	District	Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m ²)
1	AMRITSAR	AMRITSAR I	S-NPP	75.05095	31.67263	13:00:00	D	3.80
2	BATHINDA	TALWANDI SABO	S-NPP	74.94807	29.90849	01:42:00	N	1.80
3	BATHINDA	TALWANDI SABO	S-NPP	74.94723	29.90972	01:42:00	N	3.40
4	HOSHIARPUR	HOSHIARPUR	S-NPP	75.85838	31.57906	13:00:00	D	1.90

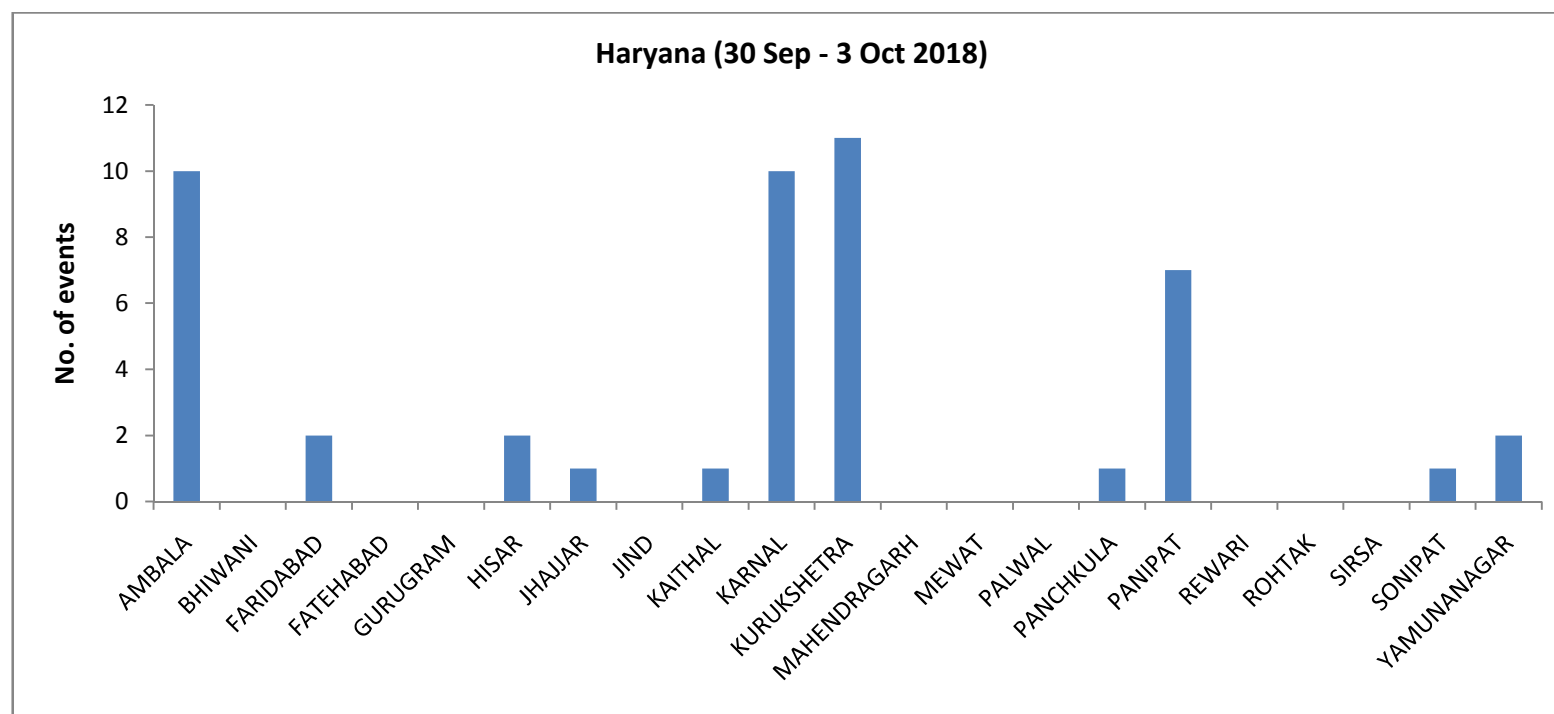
District-wise cumulative number of residue burning events in Punjab (30-Sep-2018 to 03-Oct-2018)



Details of residue burning events in Haryana on 03-Oct-2018

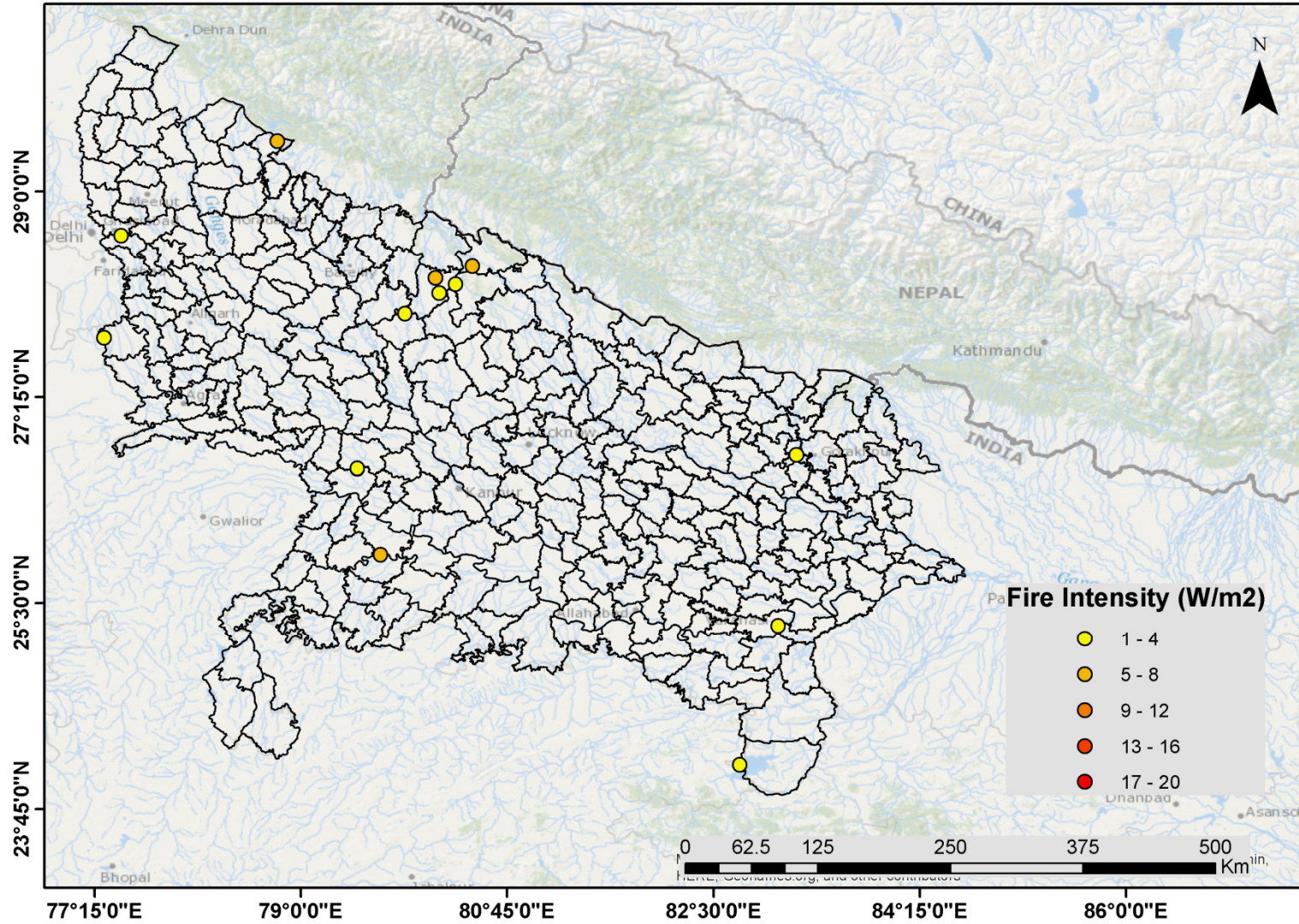
Events S. No.	District	Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m ²)
1	AMBALA	BARARA	S-NPP	77.07649	30.24535	13:00:00	D	3.40
2	AMBALA	NARAYANGARH	S-NPP	76.99917	30.40454	13:00:00	D	3.20
3	AMBALA	NARAYANGARH	S-NPP	77.14616	30.48763	13:00:00	D	2.10
4	HISAR	HISAR	S-NPP	75.77899	29.12380	01:42:00	N	0.80
5	KARNAL	GHARAUNDA	S-NPP	77.05740	29.52296	13:00:00	D	8.30
6	KURUKSHETRA	THANESAR	S-NPP	76.74819	30.08532	13:00:00	D	1.90
7	PANCHKULA	PANCHKULA	S-NPP	77.03986	30.56695	13:00:00	D	2.60
8	PANIPAT	PANIPAT	S-NPP	76.85542	29.47738	01:42:00	N	1.40
9	YAMUNANAGAR	JAGADHRI	S-NPP	77.07581	30.06961	13:00:00	D	2.90

District-wise cumulative number of residue burning events in Haryana (30-Sep-2018 to 03-Oct-2018)



(c) Uttar Pradesh

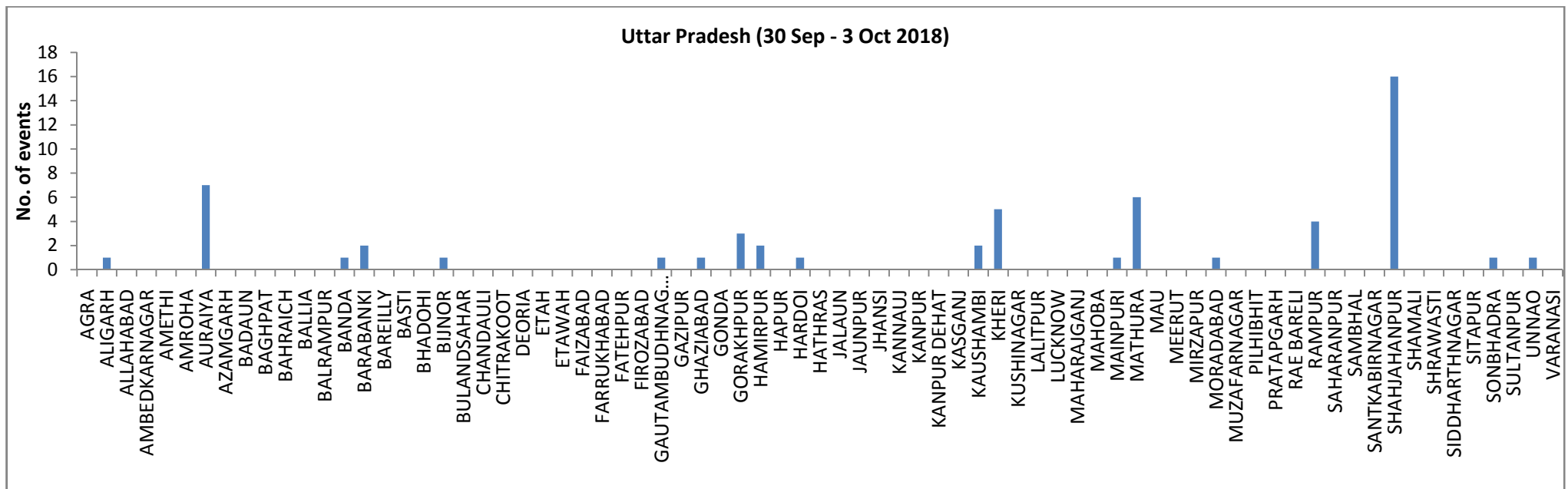
Paddy Residue Burning in Uttar Pradesh on 3rd Oct 2018



Details of residue burning events in Uttar Pradesh on 03-Oct-2018

Event S. No.	District	Block	Satellite	Longitude	Latitude	Time (IST)	Day / Night	Fire Power (W/m ²)
1	AURAIYA	BIDHUNA	S-NPP	79.47781	26.64028	01:42:00	N	0.60
2	AURAIYA	BIDHUNA	S-NPP	79.47841	26.64375	01:42:00	N	0.60
3	BIJNOR	AFZALGARH	S-NPP	78.80006	29.43063	13:00:00	D	5.40
4	GAUTAMBUDHNAGAR	DADRI	S-NPP	77.47506	28.62423	01:42:00	N	1.30
5	GORAKHPUR	SAHJANWA	S-NPP	83.20116	26.76021	01:42:00	N	1.20
6	HAMIRPUR	SARILA	METOP-2	79.67604	25.90955	20:46:00	N	6.00
7	KHERI	GOLA	S-NPP	80.31148	28.20643	13:00:00	D	3.10
8	KHERI	PALIA KALAN	S-NPP	80.45551	28.35949	13:00:00	D	4.30
9	MATHURA	CHHATA	S-NPP	77.33086	27.75461	13:00:00	D	2.70
10	SHAHJAHANPUR	SHAHJAHANPUR	S-NPP	79.88190	27.95753	13:00:00	D	3.20
11	SHAHJAHANPUR	PUWANYA	S-NPP	80.17324	28.13223	13:00:00	D	4.00
12	SHAHJAHANPUR	PUWANYA	S-NPP	80.14033	28.26151	13:00:00	D	4.80

District-wise cumulative number of residue burning events in Uttar Pradesh (30-Sep-2018 to 03-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

Study Team

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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/>
