



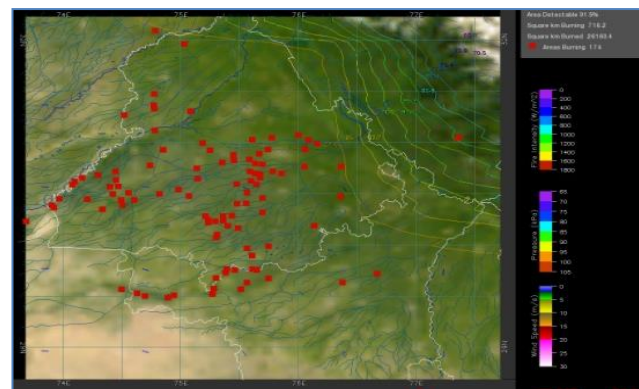
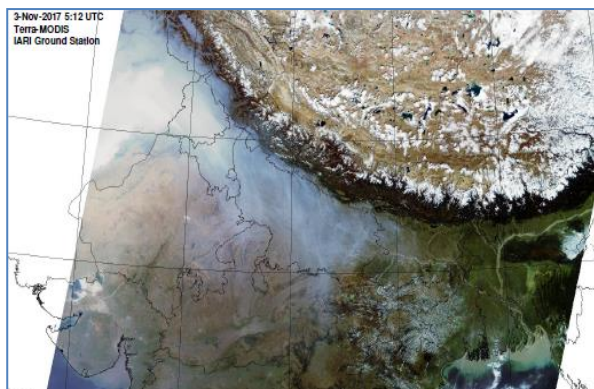
Bulletin No. 2

Events Date:
16-Sep-2021

Issued on:
16-Sep-2021



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



Prepared by:

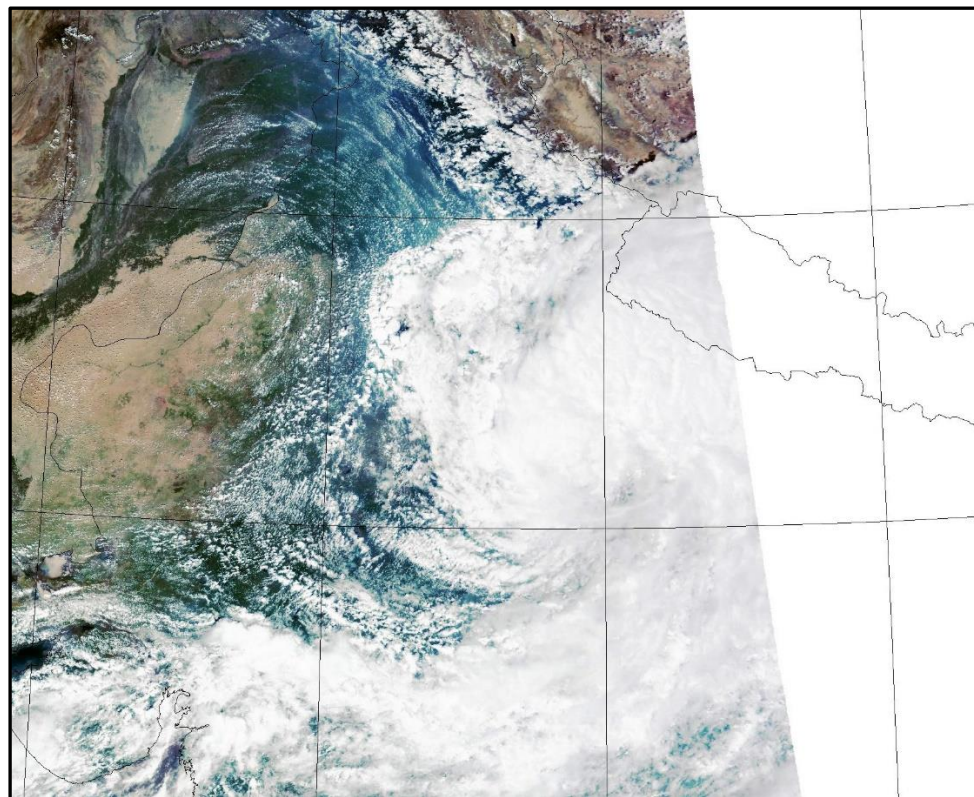
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<http://creams.iari.res.in>

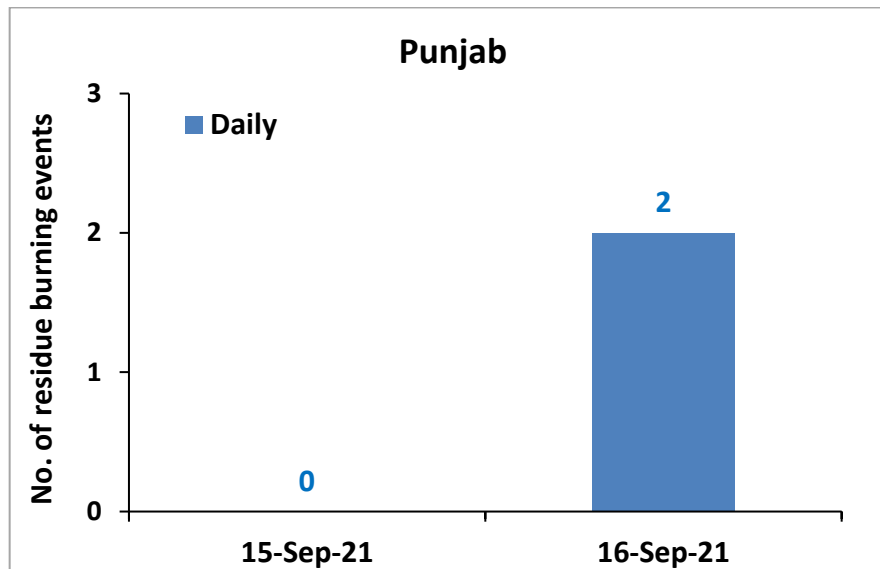
Highlights for 16-September-2021

- 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" developed on the directions of "Commission for Air Quality Management in National Capital Region and Adjoining Areas".
- Satellites detected **2** residue burning events in the six study States on 16-Sep-2021.
- The state wise events detected on 16-Sep-2021 were **2** in Punjab, **0** in Haryana, **0** in UP, **0** in Delhi, **0** in Rajasthan and **0** in MP.
- Detection of burning events by satellites was hampered due to cloud cover over Uttar Pradesh, Madhya Pradesh, Delhi, Southern Haryana and Eastern Rajasthan.

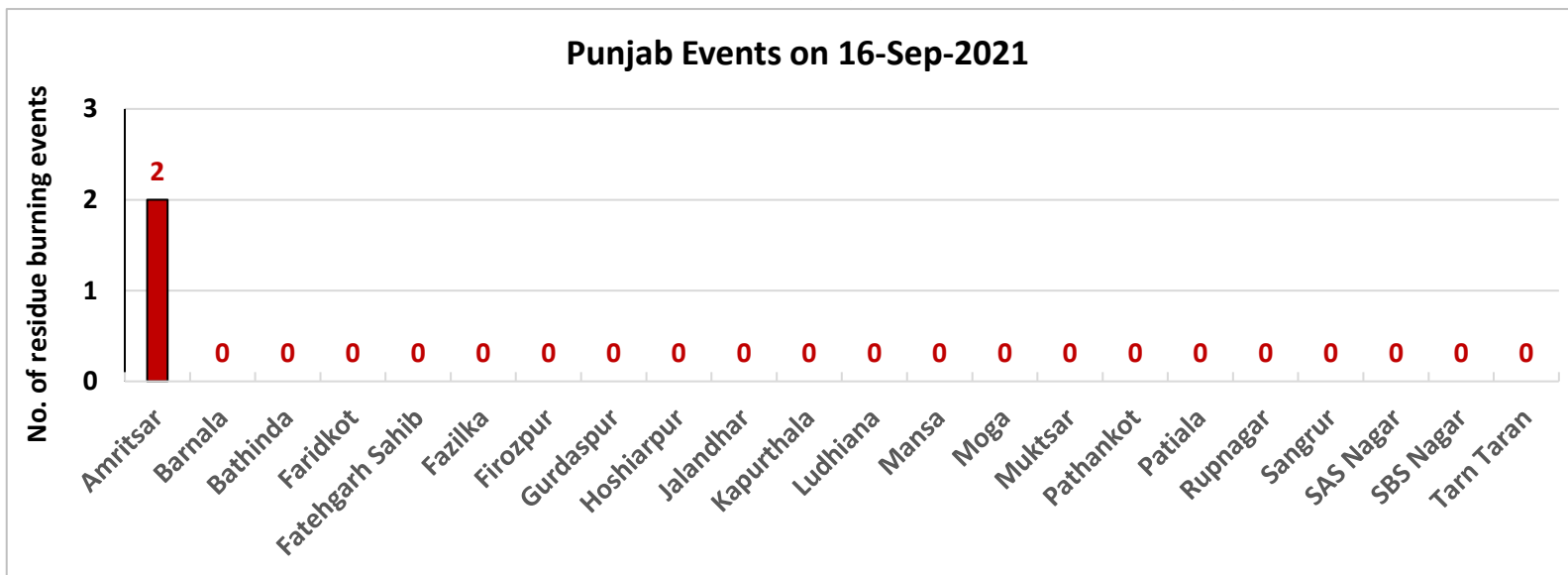
[S-NPP \(VIIRS\) Satellite image \(TCC\) of North and Central India Acquired on 16-Sep-2021 at 14:06 IST by IARI Ground Station](#)



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

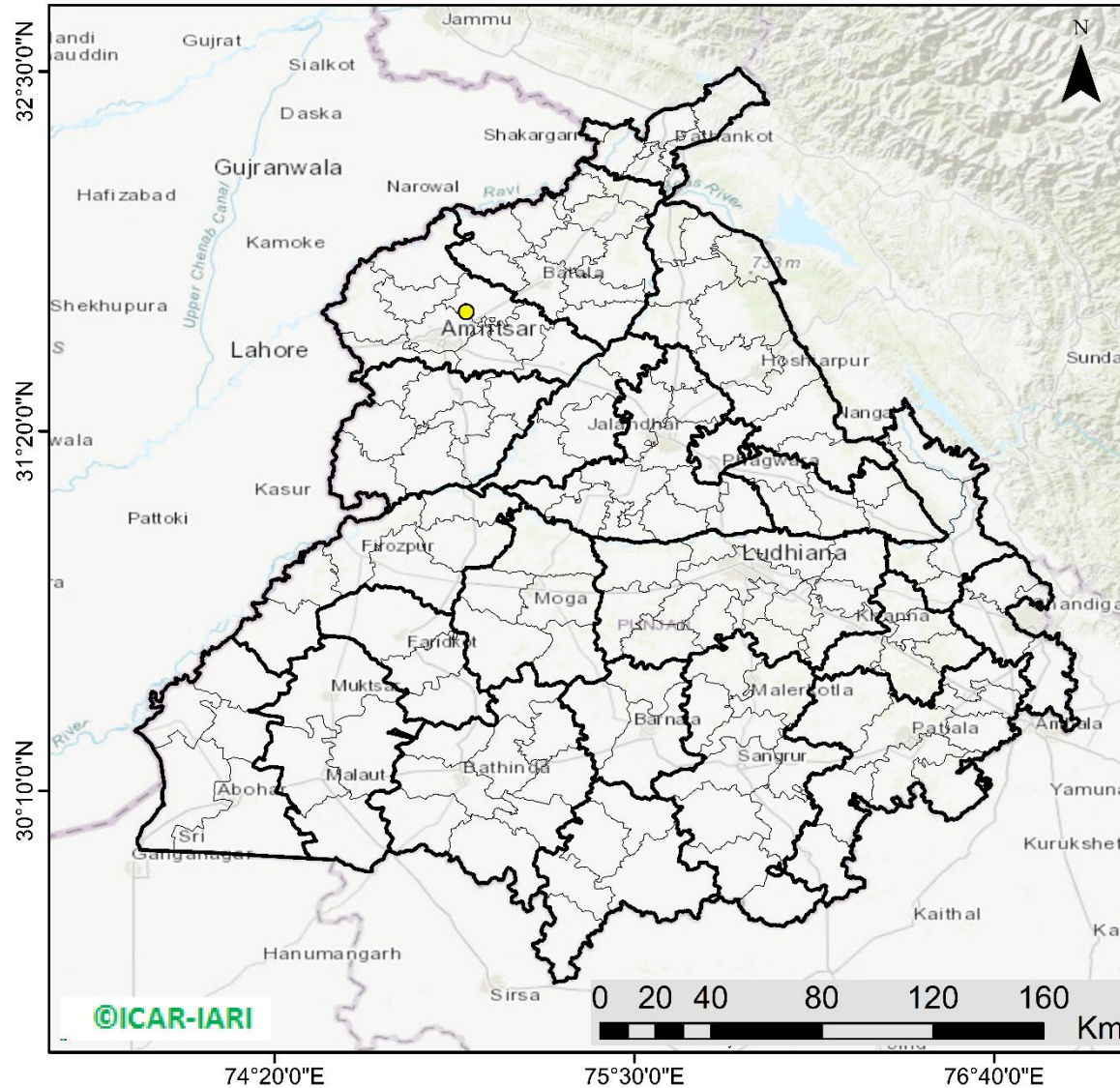


District-wise number of residue burning events in Punjab (16-Sep-2021)



(a) Punjab

RICE RESIDUE BURNING IN PUNJAB



02 burning events detected in Punjab on 16th September 2021

Fire Intensity (W/m²)

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



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

State-wise and date-wise number of rice residue burning events detected in 2020 and 2021
(Period: 15 - 16 September)

Number of Rice 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	6	0	1	0	0	0	0	0	0	0	0	0
16-Sep	0	2	2	0	0	0	0	0	0	0	0	0
Total	6	2	3	0	0	0	0	0	0	0	0	0

Details of residue burning events in Punjab on 16-Sep-2021

S. No.	District	Block	Satellite	Longitude	Latitude	Date	Time (IST)	Day / Night	Fire Power (W/m2)
1	Amritsar	Tarsikka	S-NPP	75.12810	31.57350	16-Sep-2021	02:06:56 PM	D	5.60
2	Amritsar	Majitha	S-NPP	74.95460	31.72030	16-Sep-2021	02:06:56 PM	D	4.80

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 States was provided by MNCFC, MoA&FW, Govt of India

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/>
(Part of KRISHI Portal: <https://krishi.icar.gov.in> initiative)
