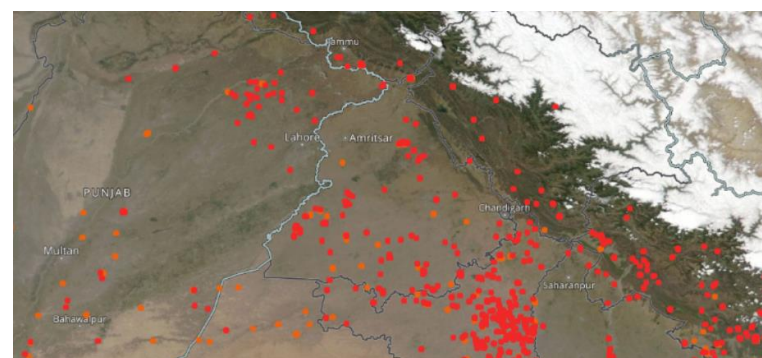


MONITORING WHEAT RESIDUE BURNING IN PUNJAB USING GEOSPATIAL TECHNOLOGIES 2024



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for
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Highlights for 21 April 2024

- The active fire incidents due to wheat 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 05 incidents in the Punjab State on 21 April 2024.

District-wise Active Fire Events in Punjab

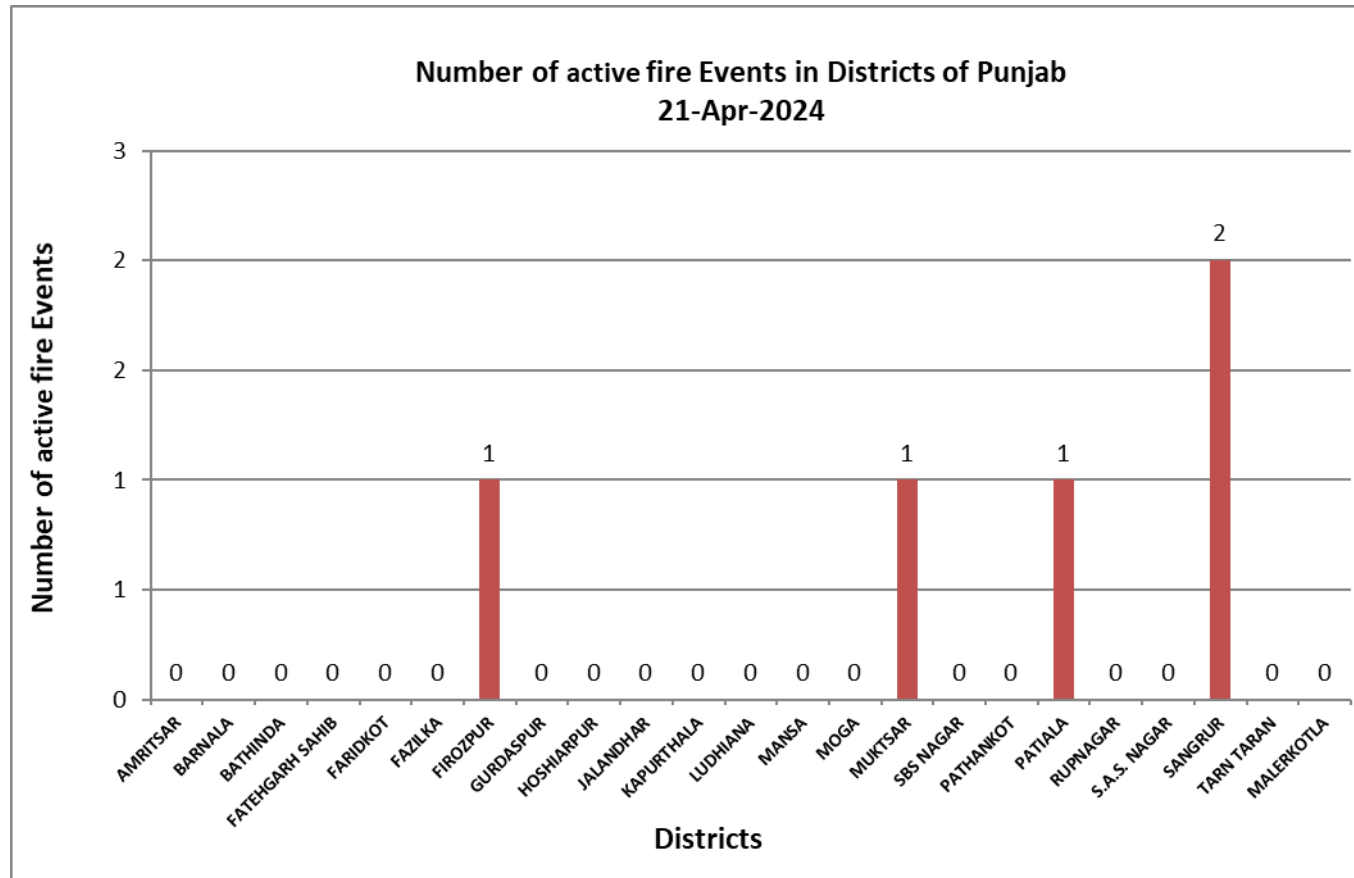


Fig. 1. District-wise fire incidents (Total events = 05) captured by Satellite in Punjab on 21 April 2024

On April, 21 2024, 05 active fire incidents were captured by the Satellite in state of Punjab.

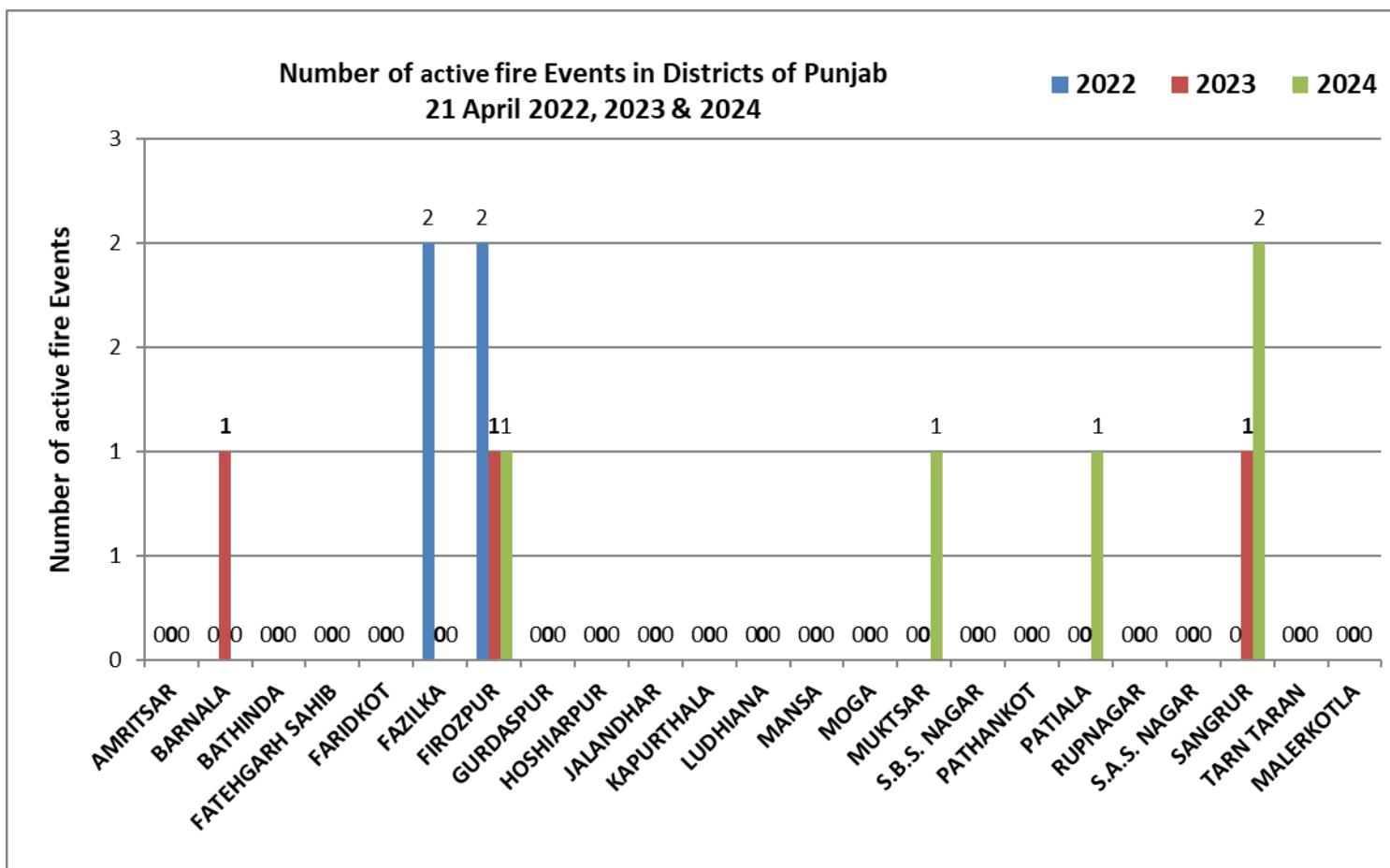


Fig 2 : District-wise comparison of fire incidents captured in Punjab on 21 April 2022, 2023 & 2024

On April, 21 2024, **05** active fire events were captured by the Satellite in state of Punjab. Whereas on the same day (i.e. April 21), in the year 2022, **04** active fire events were captured and in the year 2023 there were **03** active fire events in state of Punjab.

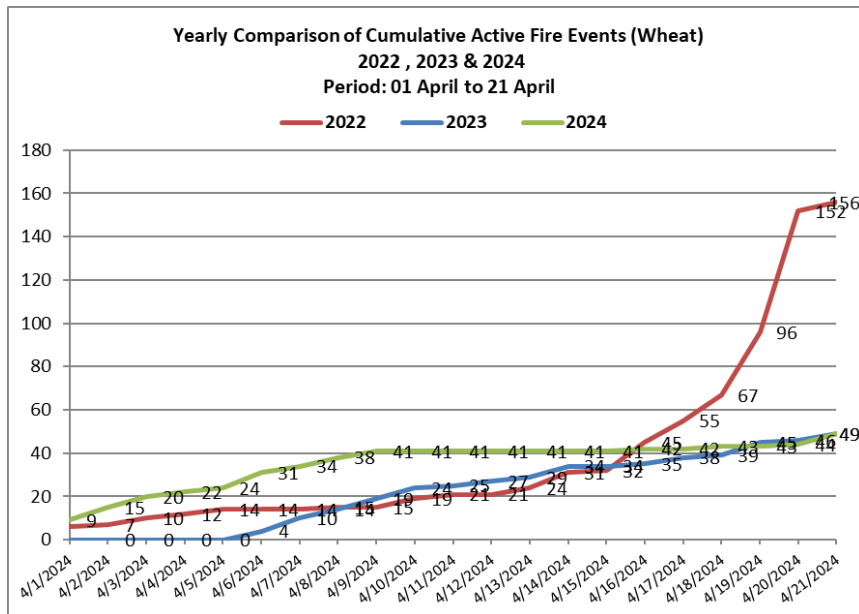


Fig 3 : Cumulative fire incidents captured in Punjab upto 21 April 2022, 2023 & 2024

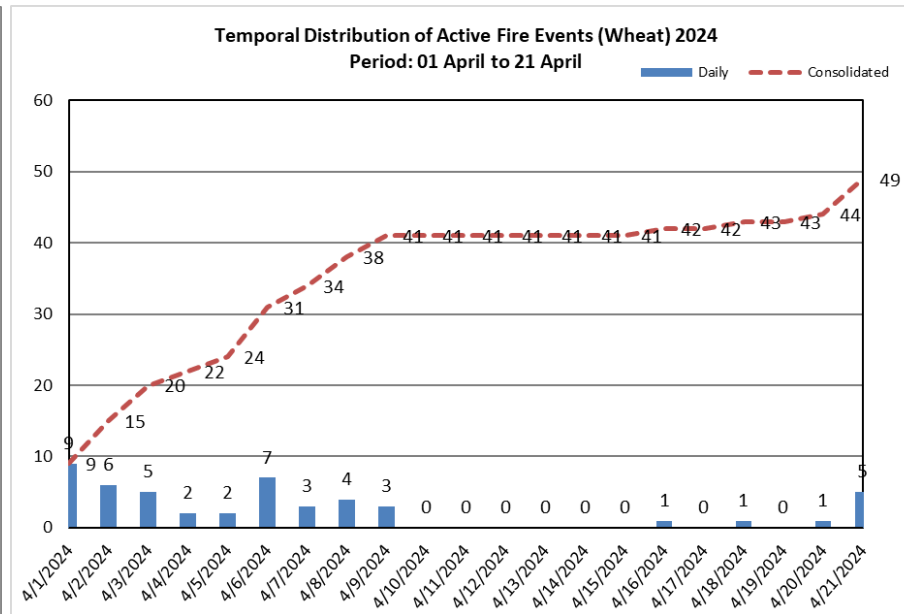
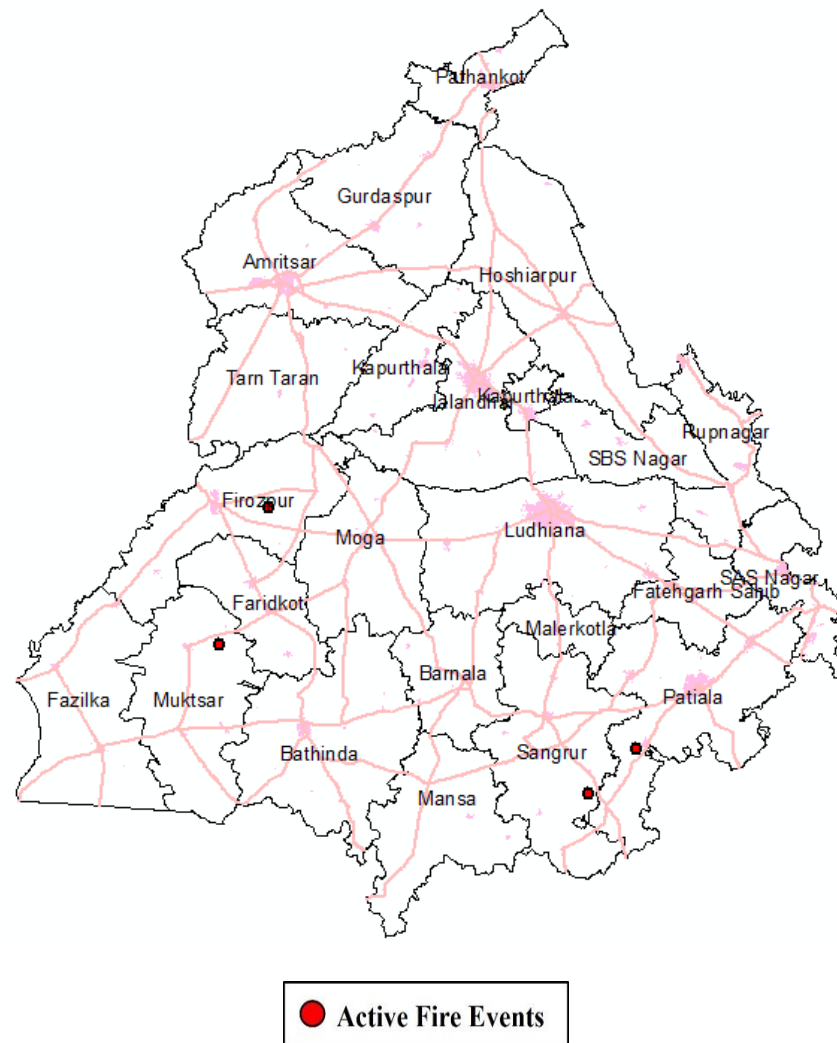


Fig 4: Date-wise Cumulative fire incidents captured in Punjab upto 21 April 2024



Map.1. Active fire locations detected in Punjab on 21 April 2024 by Satellite

Table.1. Active fire locations detected in Punjab on 21 April 2024 by Satellite

S.N.	Latitude	Longitude	Detection_Confidence	Radiative_power (W/m2)	sat	Acq-date	acqtime	District	Tehsil	Block	Village	Hadbast No	Thana
1	30.138000	76.165000	64	7.5	mod	4/21/2024	10:36:15 AM	Patiala	Samana	Samana	Sehjad Pur	65	Sadar Samana Patiala
2	30.478000	74.632000	81	67.9	mod	4/21/2024	2:44:16 PM	Muktsar	Gidderbaha	Kot Bhai At Gidderbaha	Bhatti Wala	72	Kotbhai Sri Muktsar Sahib
3	29.999070	75.988360	8	11.5	npp	4/21/2024	12:51:27 PM	Sangrur	Dirba	Dirba	Lad Banjara	147	Dirba Sangrur
4	29.997280	75.986860	8	7.7	npp	4/21/2024	12:51:27 PM	Sangrur	Dirba	Dirba	Lad Banjara	147	Dirba Sangrur
5	30.919850	74.815630	8	1.5	npp	4/21/2024	12:51:27 PM	Firozpur	Firozpur	Ghall Khurd	Karmu Wala	155	Ghall Khurd Firozpur

The data from following Satellites received at NRSC Ground Station were used

S. No.	Satellite Name	Sensor	Resolution (m)	Day/Night Passses
1	Suomi NPP	VIIRS	375	Both
2	Terra	MODIS	1000	Both
3	Aqua	MODIS	1000	Both

The Wheat mask for the States was provided by MNCFC, MoA&FW, Govt. of India

GIS Maps of fire events can be visualized online on Crop Residue Burning (CRB) Information and Management System of **Punjab Remote Sensing Centre**, Ludhiana by following the link: <http://202.164.39.172/residue/Index.aspx>