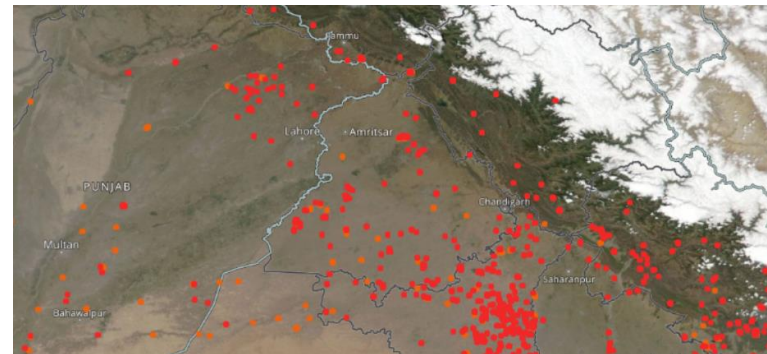


MONITORING WHEAT RESIDUE BURNING IN PUNJAB USING GEOSPATIAL TECHNOLOGIES 2024



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for
Punjab Pollution Control Board, Patiala, Punjab



Highlights for 03 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 5 incidents in the Punjab State on 03 April 2024.

District-wise Active Fire Events in Punjab

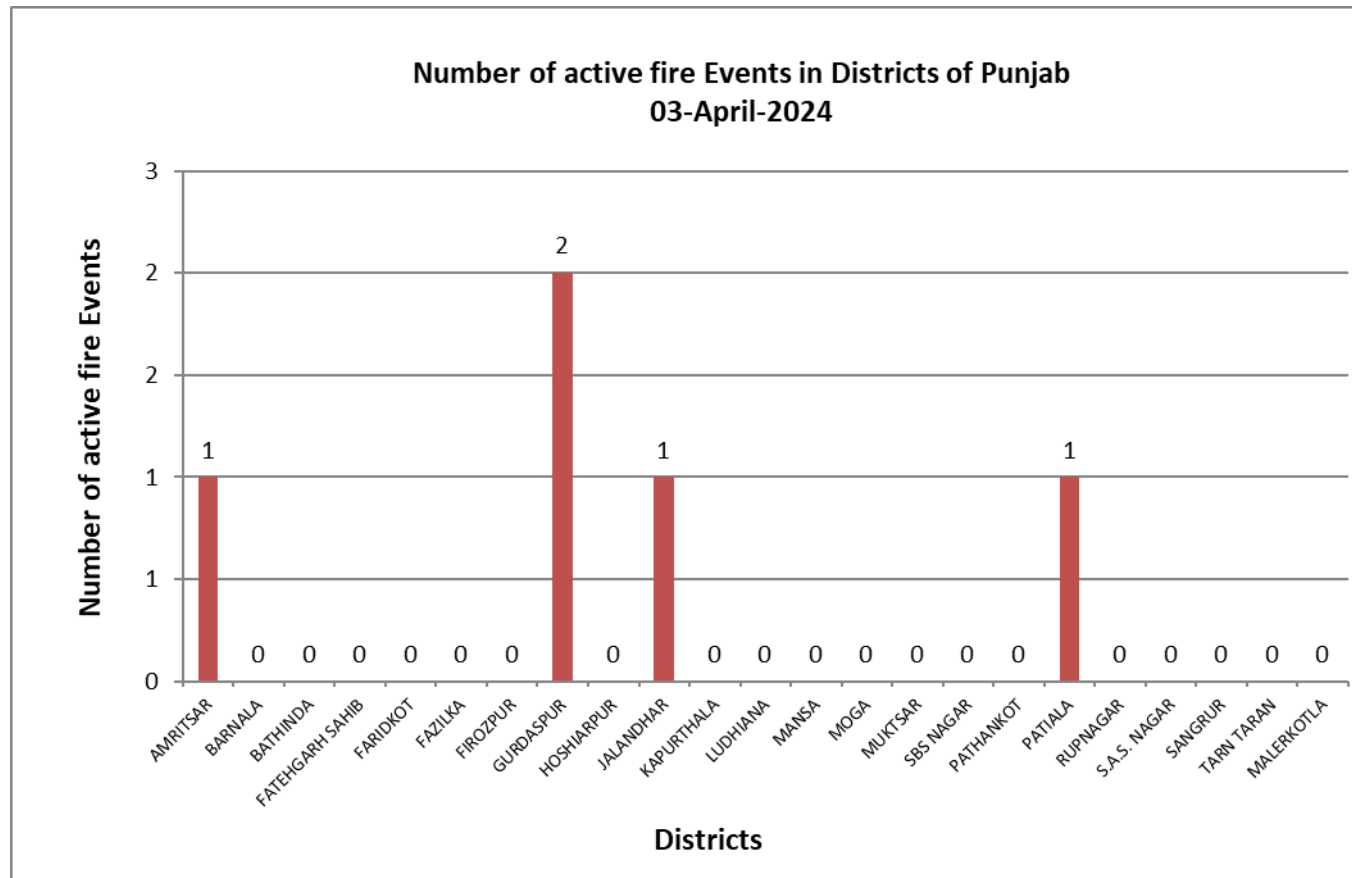


Fig. 1. District-wise fire incidents (Total events = 5) captured by Satellite in Punjab on 03 April 2024

On April, 03 2024, 05 active fire incidents were captured by the Satellite in state of Punjab.

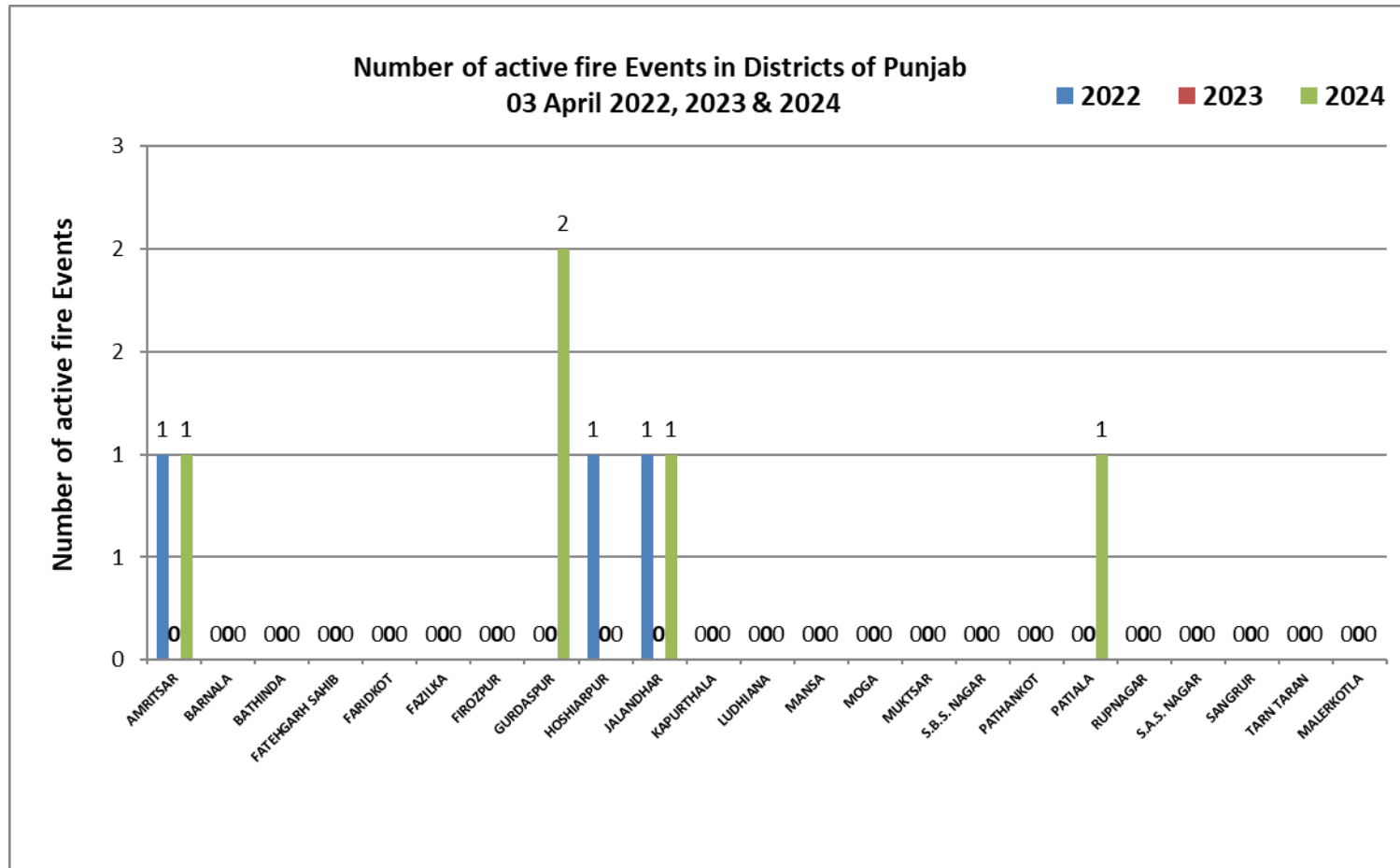


Fig 2 : District-wise comparison of fire incidents captured in Punjab on 03 April 2022, 2023 & 2024

On April, 03 2024, 05 active fire events were captured by the Satellite in state of Punjab. Whereas on the same day (i.e. April 03), in the year 2022, 03 active fire events were captured and in the year 2023 there were 0 active fire events in state of Punjab.

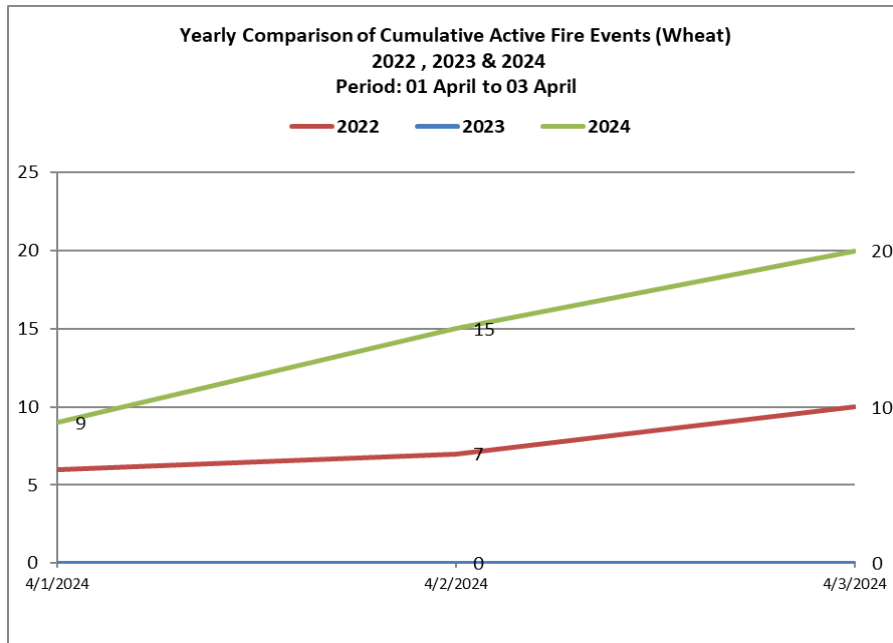


Fig 3 : Cumulative fire incidents captured in Punjab upto 03 April 2022, 2023 & 2024

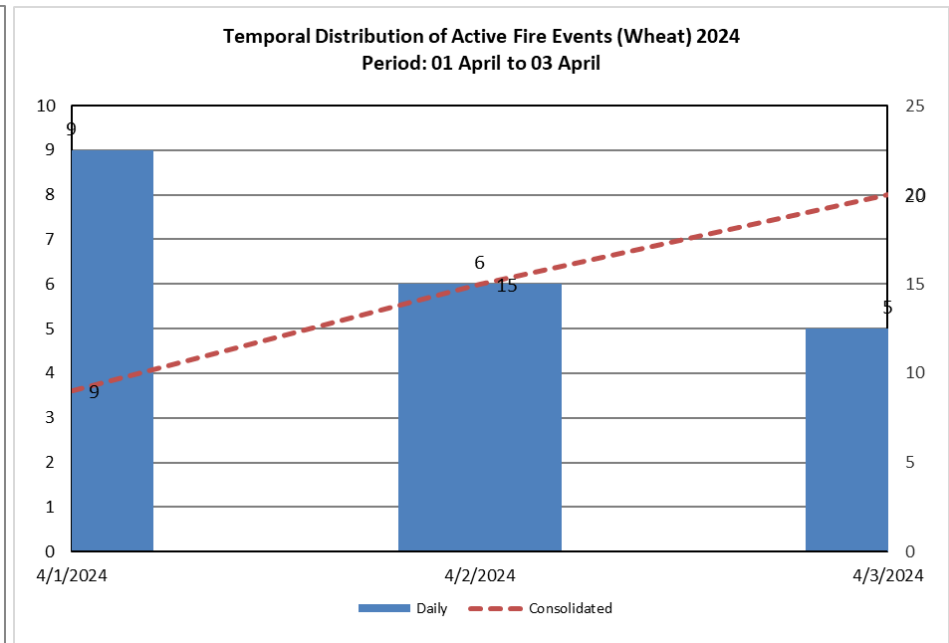
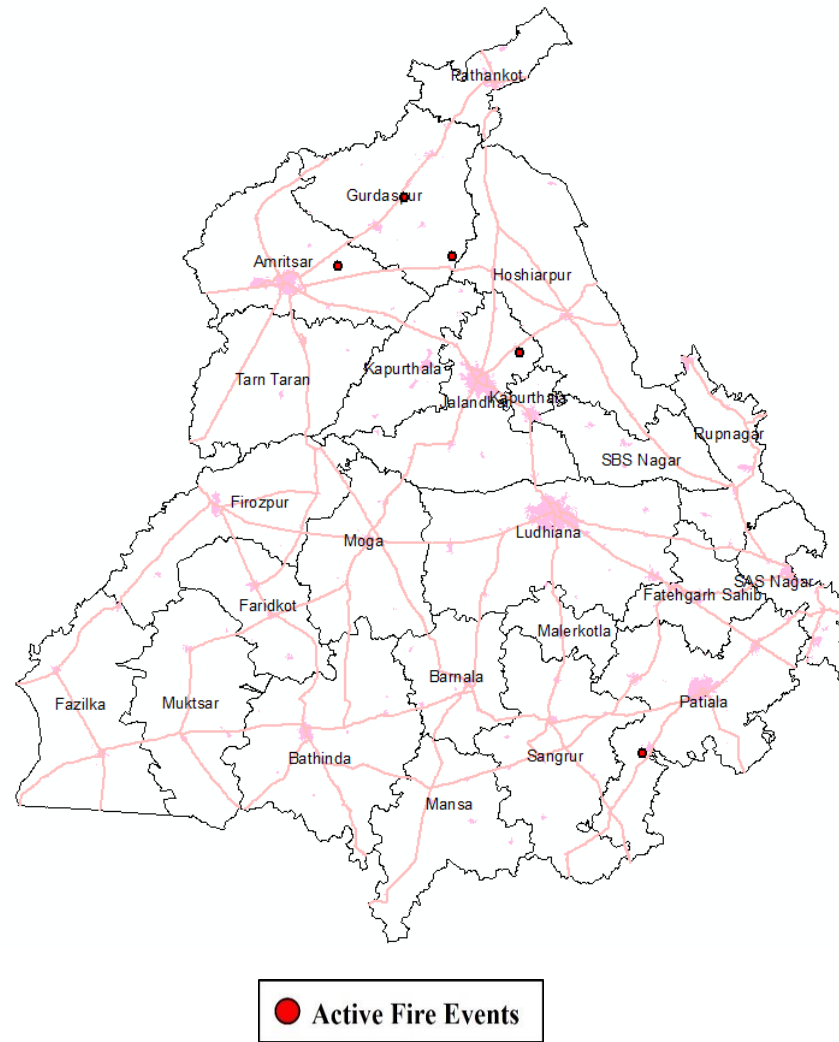


Fig 4: Date-wise Cumulative fire incidents captured in Punjab upto 03 April 2024



Map.1. Active fire locations detected in Punjab on 03 April 2024 by Satellite

Table.1. Active fire locations detected in Punjab on 03 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	31.69300	75.06500	49	9.0	mod	53:28.5		Amritsar	Amritsar i	Majitha	Hans	176	Kathu Nangal Amritsar Rural
2	31.72208	75.48778	8	2.9	npp	29:46.7	13:29:46	Gurdaspur	Batala	Sri Hargobindpur	Khohharwal	14	Sri Hargobindpur, Batala
3	31.90859	75.30873	8	3.7	npp	29:46.7	13:29:46	Gurdaspur	Gurdaspur	Dhariwal	Atwal	458	Sekhwan, Batala
4	31.41319	75.73562	8	1.8	npp	29:46.7	13:29:46	Jalandhar	Jalandhar I	Adampur	Chomon	58	Adampur Jalandhar Rural
5	30.14099	76.17641	8	0.5	npp	19:04.2	2:19:04	Patiala	Samana	Samana	Sehjad Pur	65	Sadar Samana Patiala

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>