MONITORING WHEAT CROP RESIDUE BURNING IN NORTH INDIA USING SATELLITE REMOTE SENSING DURING RABI 2018-2019

Summary Report (Period: 15-April-2019 to 26-May-2019)

(A) OVERALL

- **Rabi season wheat crop residue burning was monitored by multiple satellites with thermal sensors during the harvest period from 15-April to 26-May in the states of Punjab and Haryana.**
- **The total number burning events detected for two states from 15-Apr to 26-May were 17365 and 17558 in the years 2018 and 2019, respectively.**
- **Overall, till date about 1.1% increase in number of burning events were observed in current year (2019) as compared to that in 2018.**
- **Of the 17558 burning events detected in the two States between 15-Apr-2019 and 26-May-2019, these were distributed as 11797 (67.2%) and 5761 (32.8%) in Punjab and Haryana, respectively.**
- **The majority of burning happened between 04-May and 16-May in Punjab, while in Haryana majority of burning happened between 27-Apr and 13-May.**

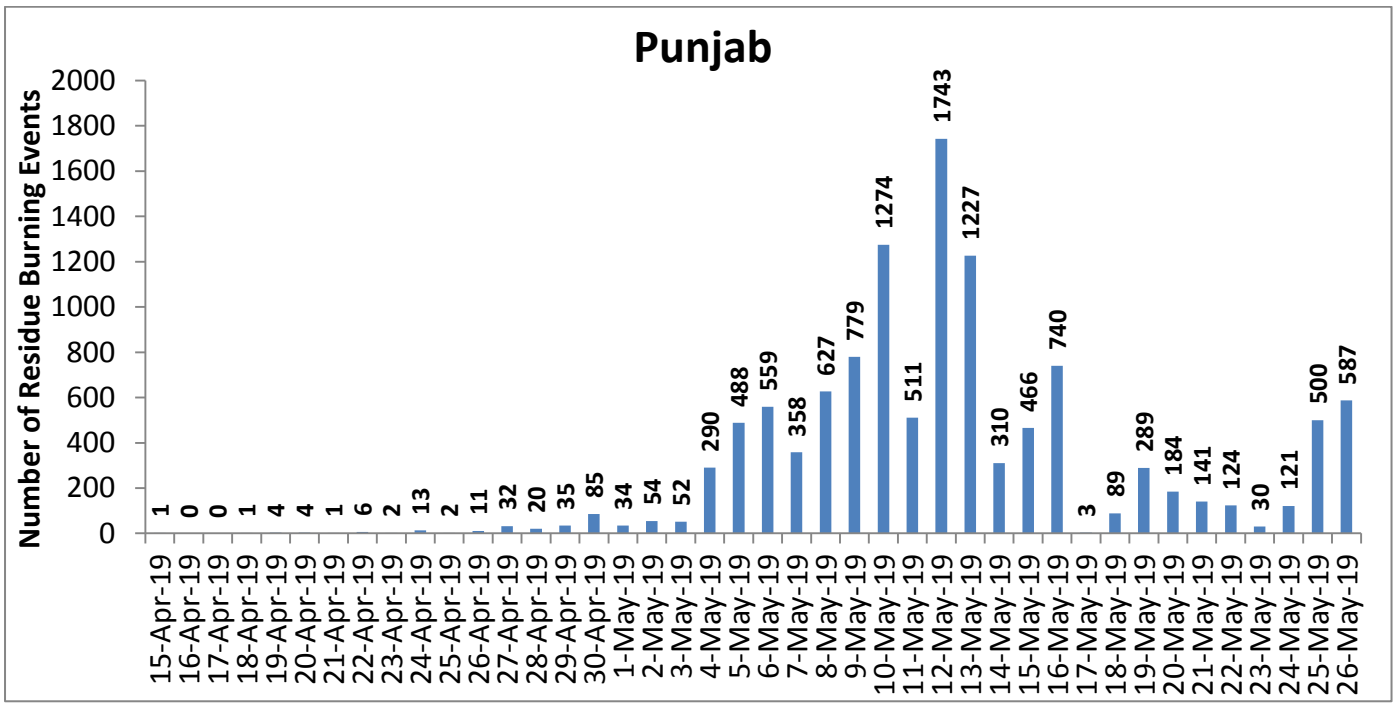
(B) PUNJAB

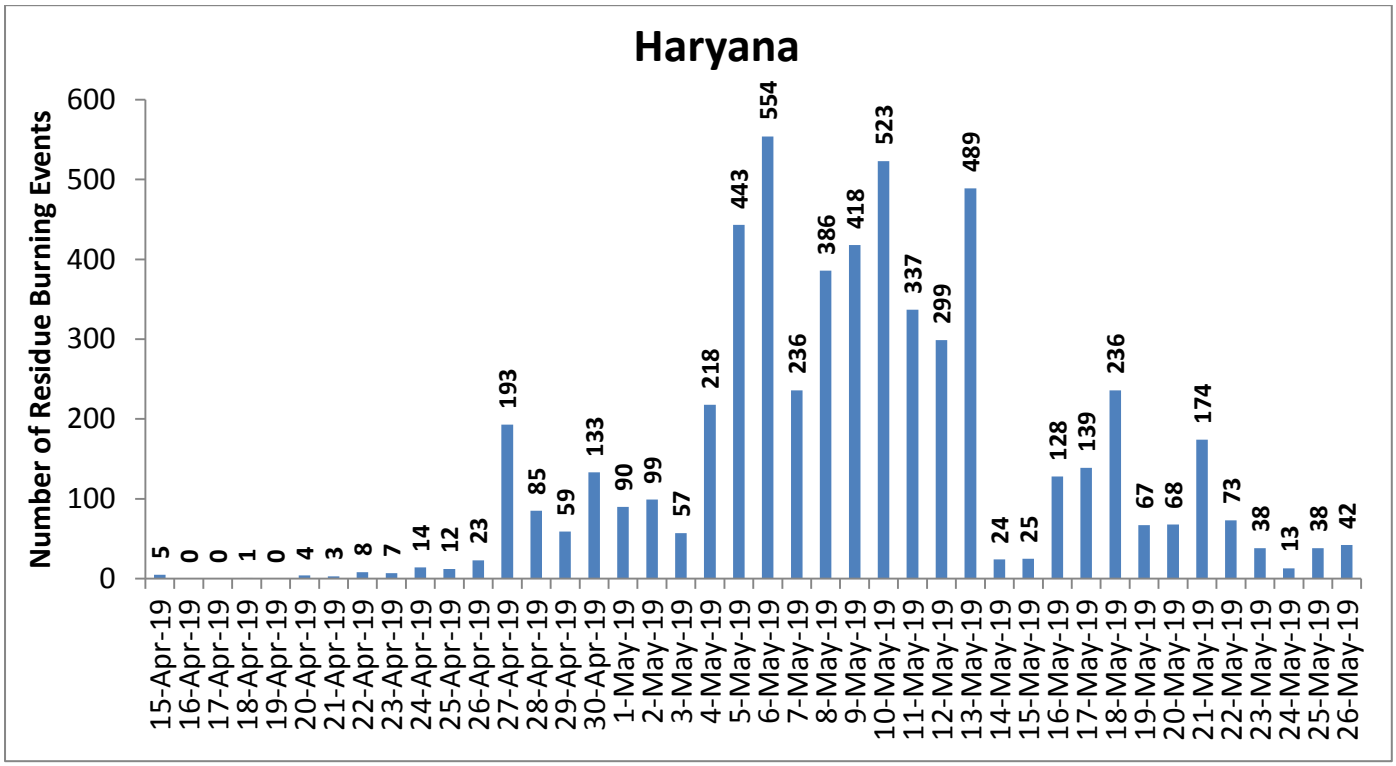
- **The burning events detected were 13425 and 11797 in the years 2018 and 2019, respectively.**
- **About 12.1% reduction in number of burning events were observed in current year (2019) as compared to that in 2018.**
- **Sangrur, Tarn Taran, Gurdaspur, Bhatinda and Amritsar districts reported highest burning events in 2019.**

(C) HARYANA

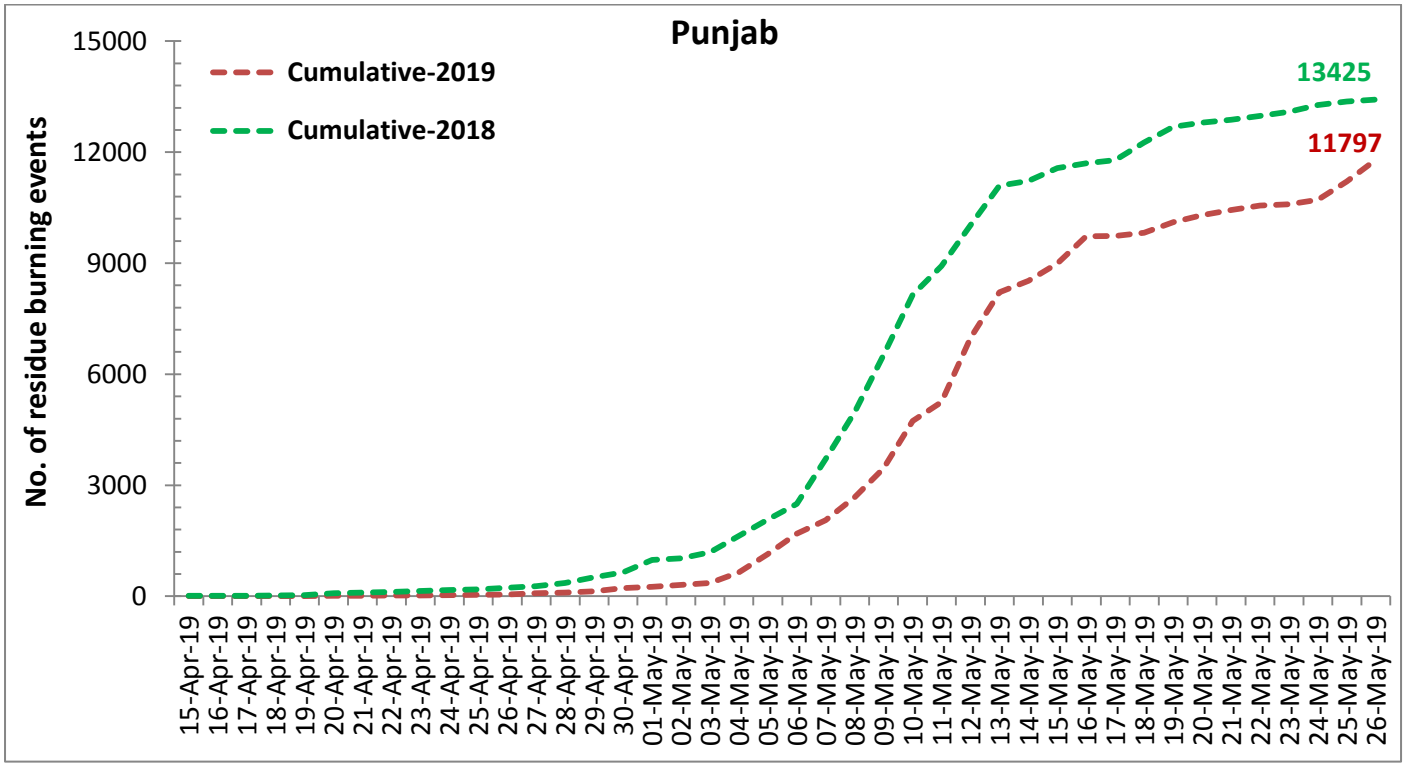
- **The burning events detected were 3940 and 5761 in the years 2018 and 2019, respectively.**
- **About 46.2% increase in number of burning events were observed in current year (2019) as compared to that in 2018.**
- **Karnal, Jind and Sonipat districts reported highest burning events in 2019.**

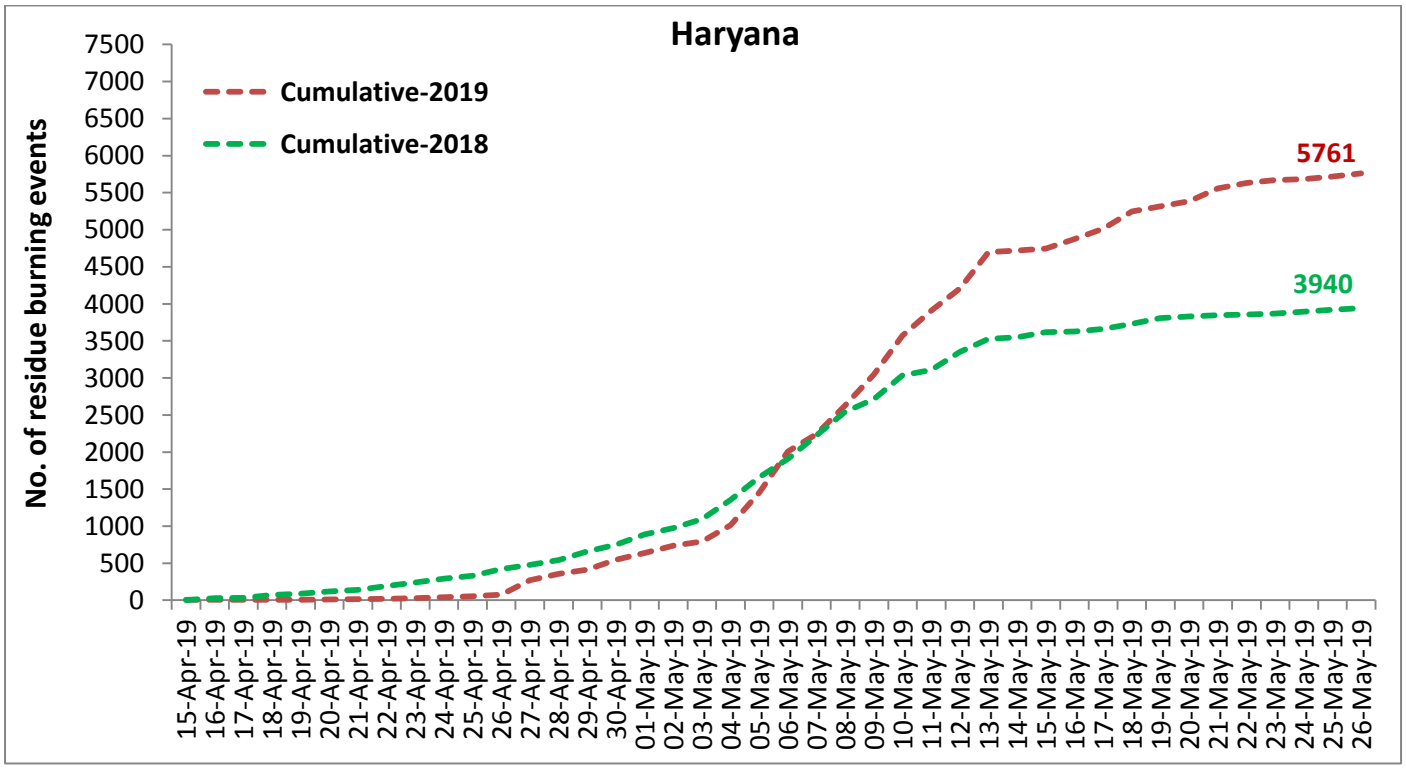
Daily and cumulative Graphs of Fire Events for 2019



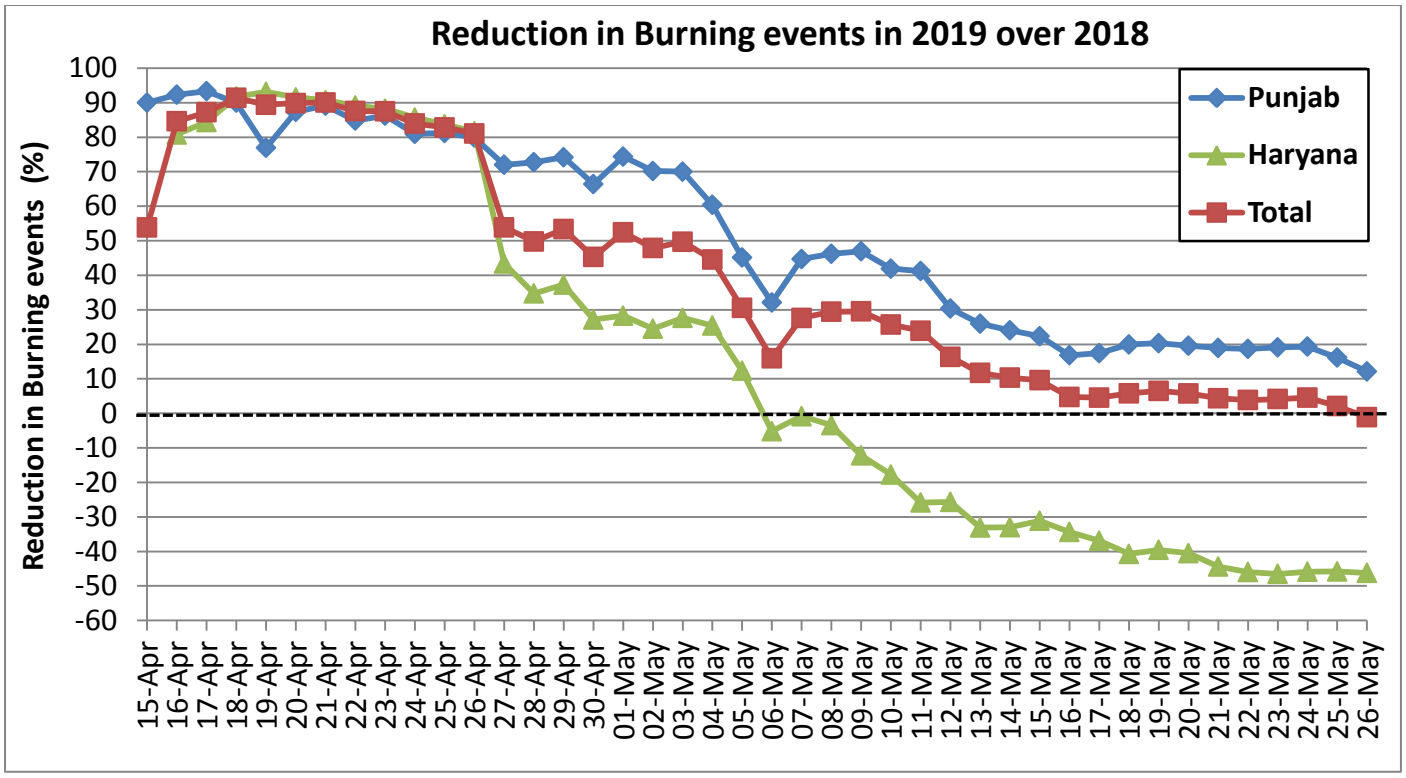


Comparison of burning events of 2019 with events in 2018

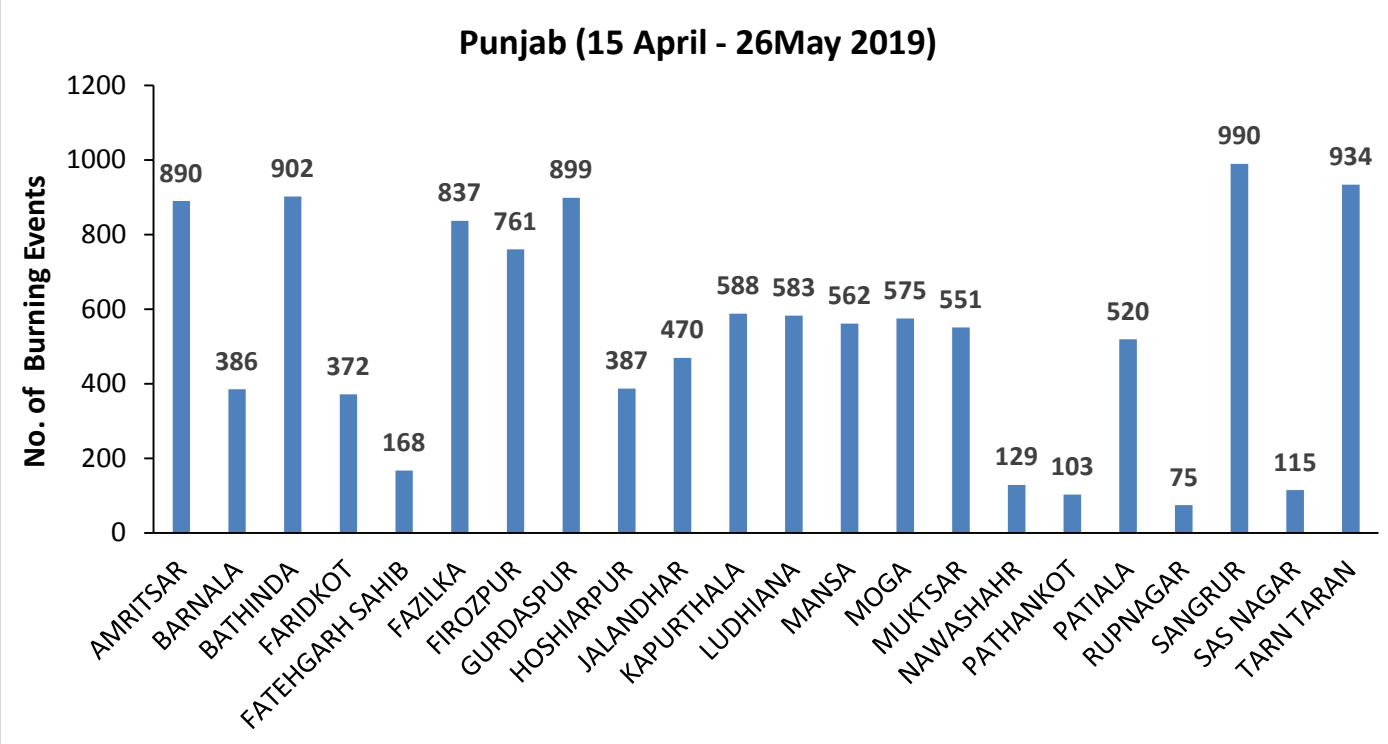


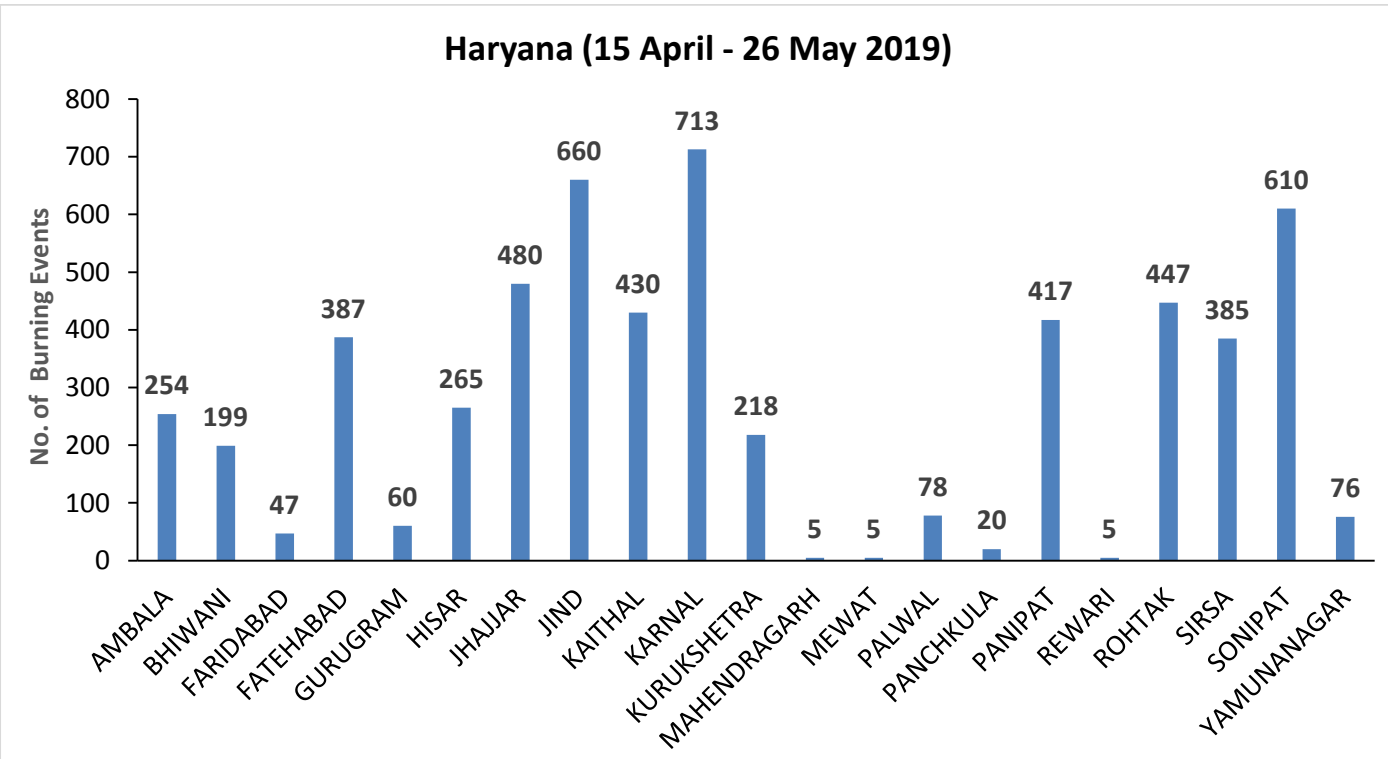


Percent Reduction in Burning events in 2019 over 2018 (Daily Cumulative)



District-wise cumulative number of wheat residue burning events (15-April-2019 to 26-May-2019)





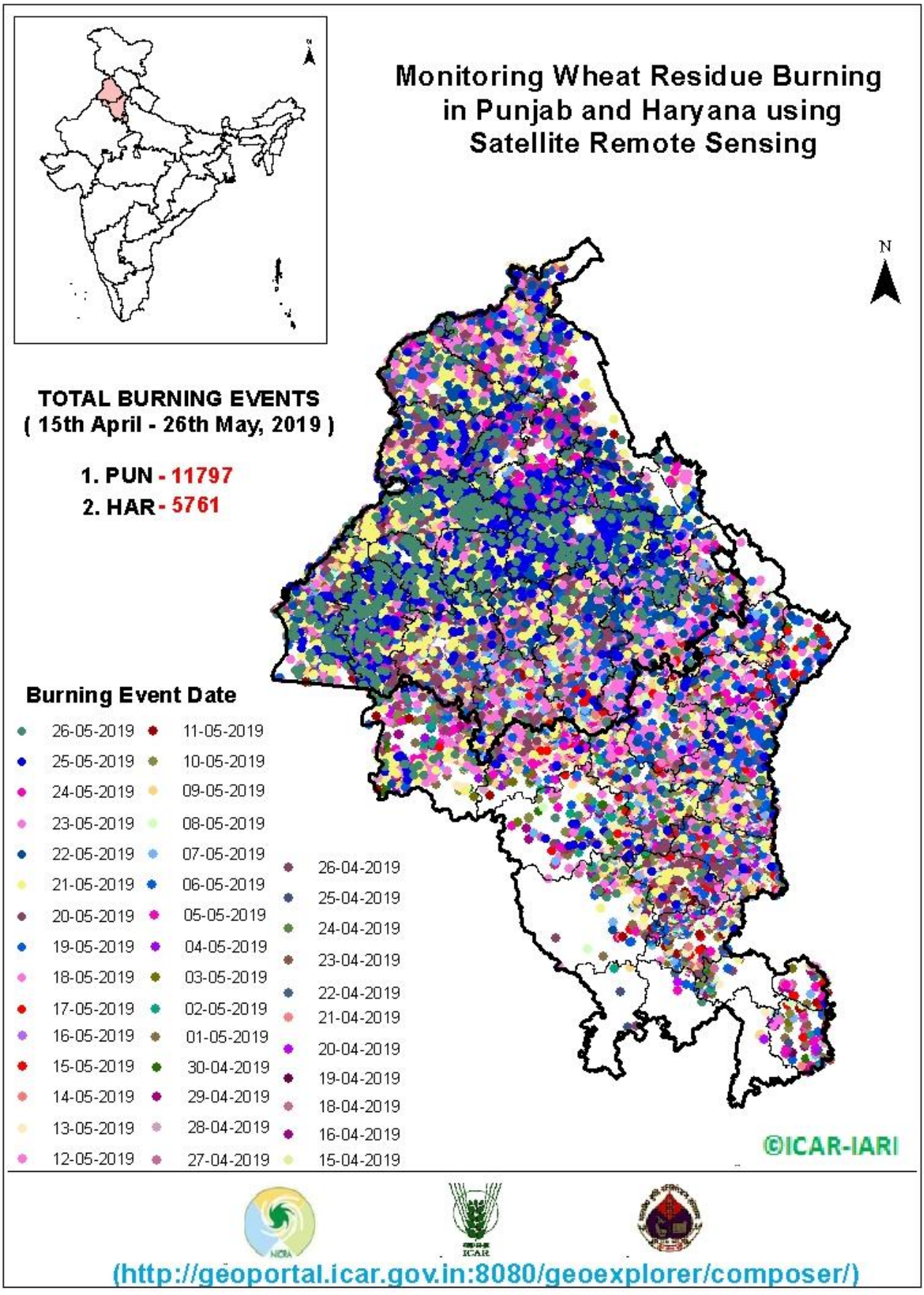
District-wise comparison of burning events in Punjab

Districts	15 April -26 May	
	2018	2019
AMRITSAR	1265	890
BARNALA	493	386
BATHINDA	871	902
FARIDKOT	496	372
FATEHGARH SAHIB	145	168
FAZILKA	680	837
FIROZPUR	1079	761
GURDASPUR	862	899
HOSHIARPUR	428	387
JALANDHAR	548	470
KAPURTHALA	553	588
LUDHIANA	858	583
MANSA	453	562
MOGA	640	575
MUKTSAR	738	551
NAWASHAHR	186	129
PATHANKOT	130	103
PATIALA	642	520
RUPNAGAR	120	75
SANGRUR	1110	990
SAS NAGAR	49	115
TARN TARAN	932	934
Total	**13425**	**11797**

District-wise comparison of burning events in Haryana

Districts	15 April -26 May	
	2018	2019
AMBALA	157	254
BHIWANI + C DADRI	128	199
FARIDABAD	24	47
FATEHABAD	231	387
GURUGRAM	22	60
HISAR	258	265
JHAJJAR	225	480
JIND	474	660
KAITHAL	341	430
KARNAL	519	713
KURUKSHETRA	170	218
MAHENDRAGARH	2	5
MEWAT	3	5
PALWAL	37	78
PANCHKULA	18	20
PANIPAT	238	417
REWARI	8	5
ROHTAK	309	447
SIRSA	296	385
SONIPAT	371	610
YAMUNANAGAR	63	76
Total	**3940**	**5761**

Map of Wheat Residue Burning Events in 2019



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GIS Maps of burning events can be visualized online: http://geoportal.icar.gov.in:8080/geoexplorer/composer/