

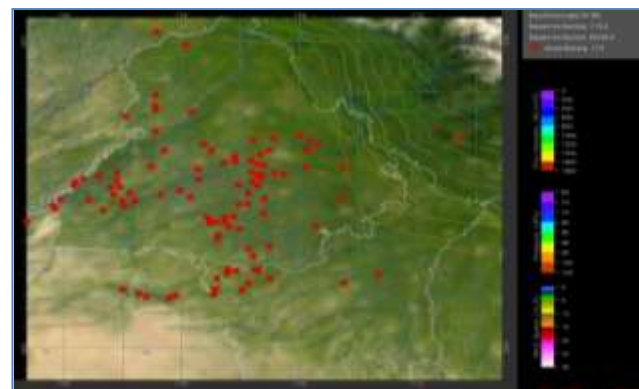
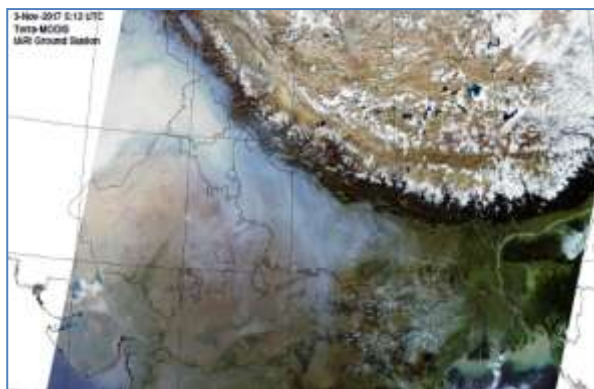


MONITORING PADDY RESIDUE BURNING IN NORTH INDIA USING SATELLITE REMOTE SENSING DURING 2020

**Bulletin
No. 2**

**Events Date:
02-Oct-2020**

**Issued on:
03-Oct-2020**



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**

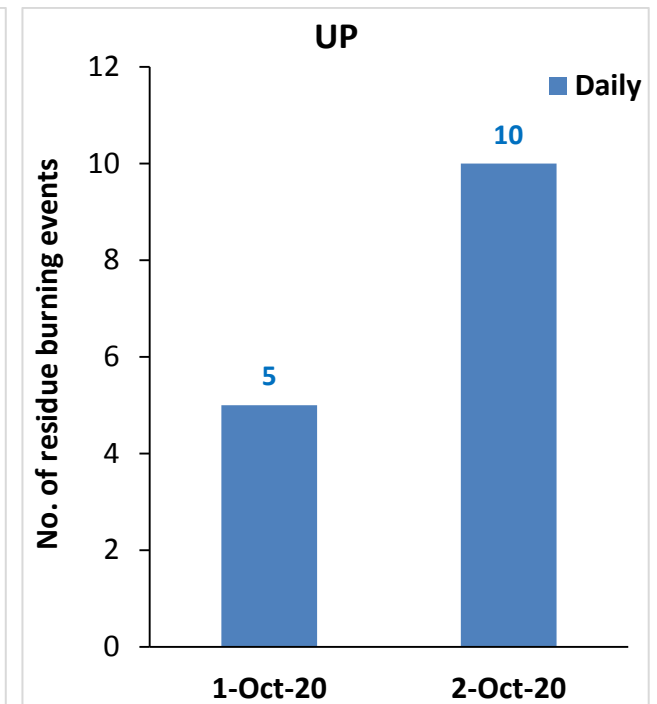
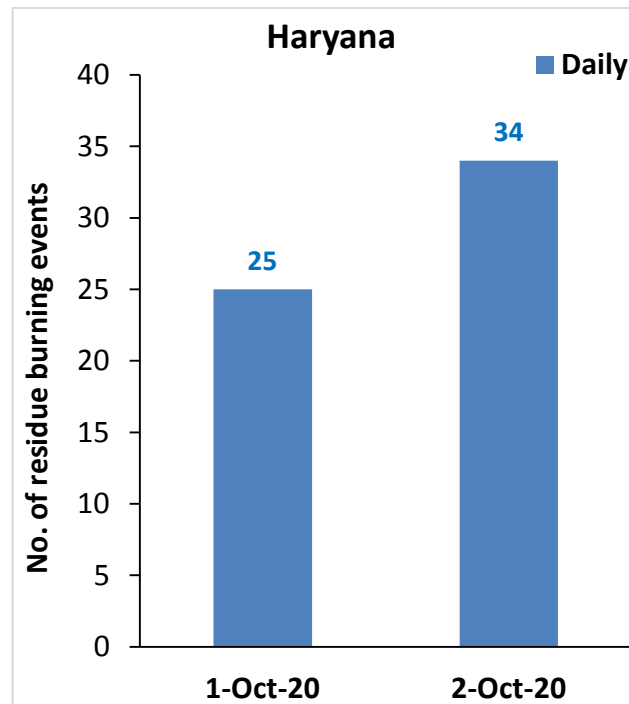
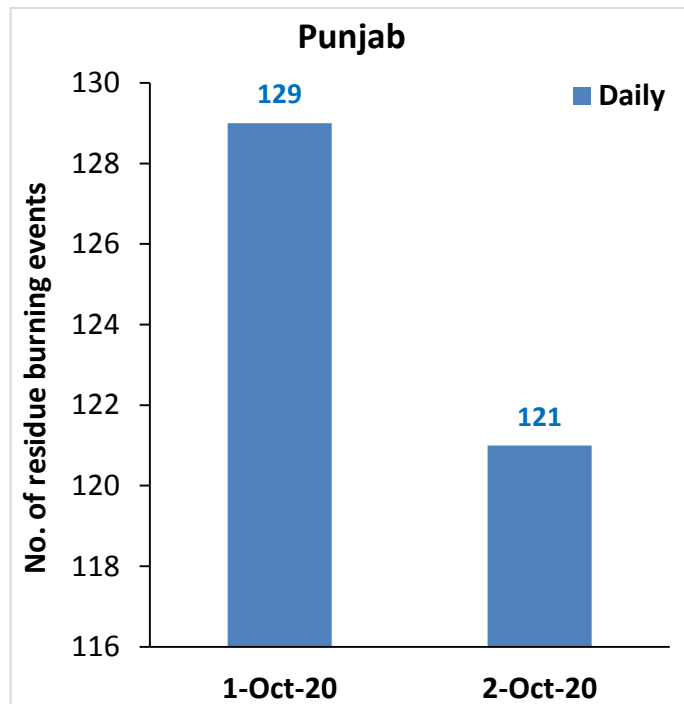
<http://creams.iari.res.in>



Highlights for 02-October-2020

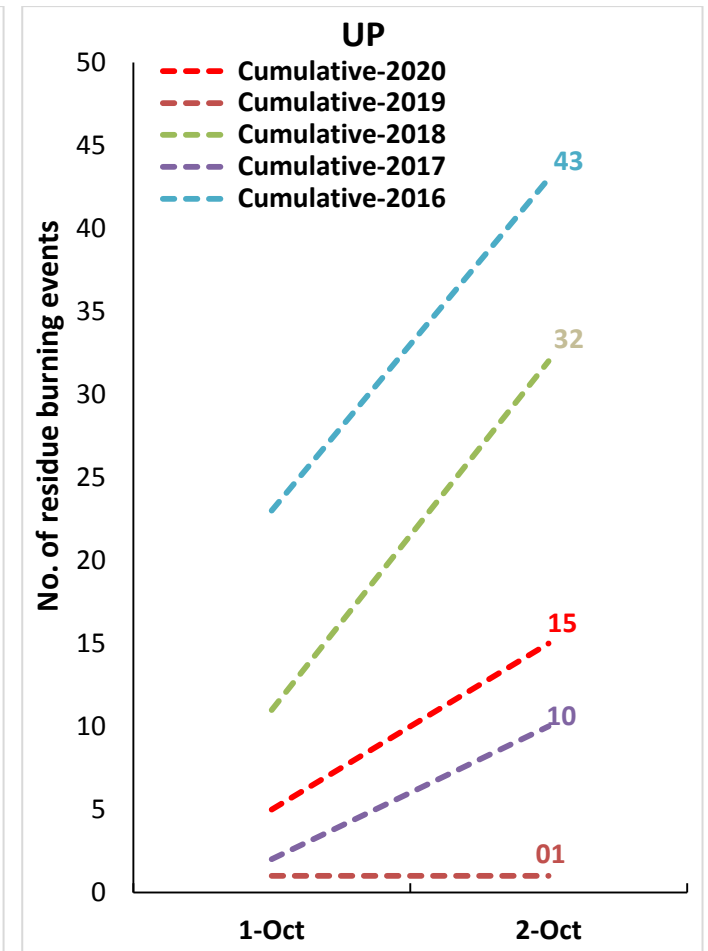
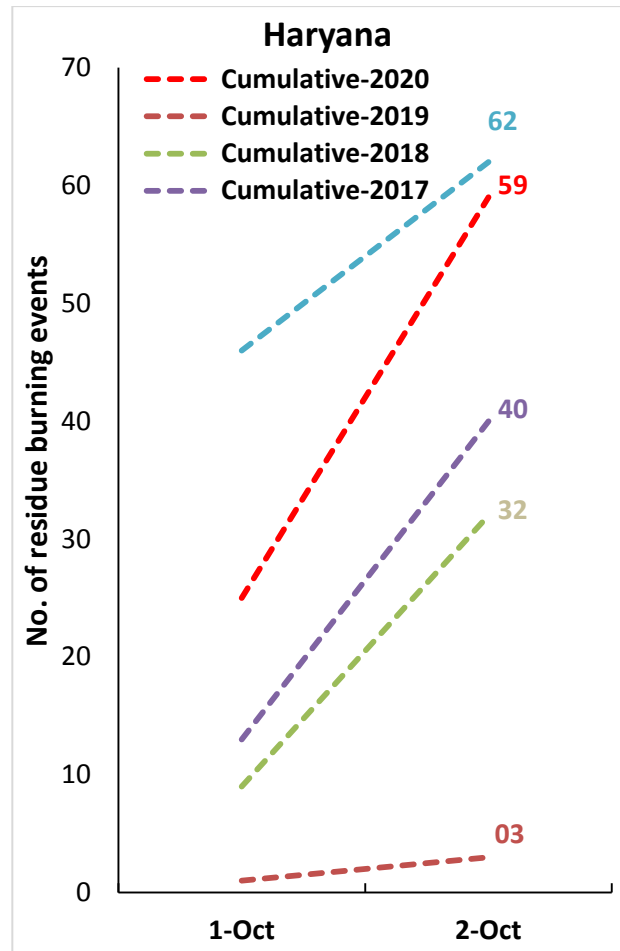
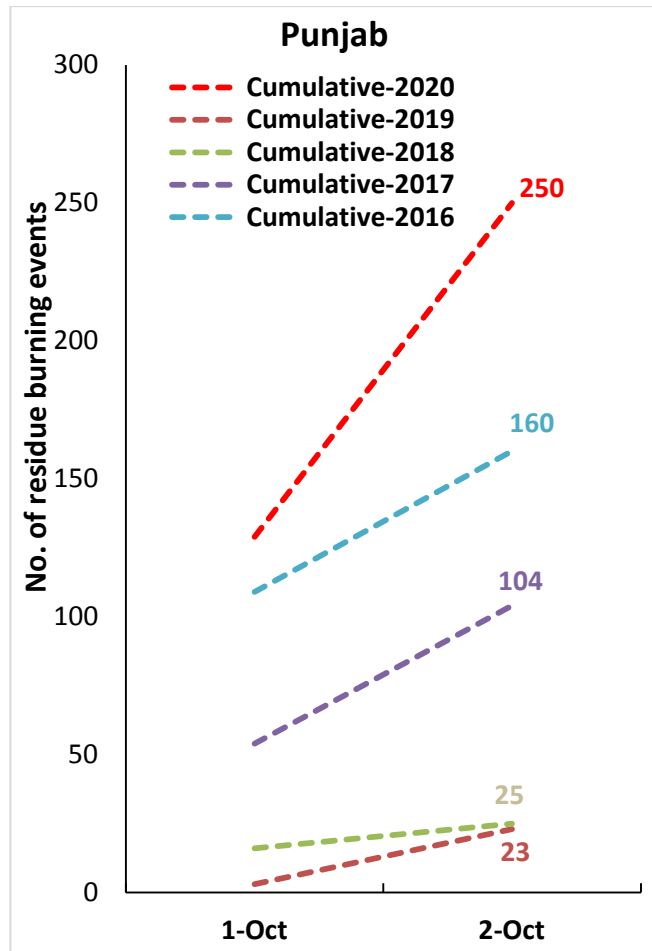
- Satellites detected **165** residue burning events in the three study States on **02-Oct-2020**.
- The state wise events detected were **121** in Punjab, **34** in Haryana and **10** in UP.
- In Punjab, burning events were concentrated in Amritsar and Tarn Taran.
- In Haryana, burning events were concentrated in Karnal, Kurukshetra, and Ambala.
- The few burning events in Uttar Pradesh were scattered across the state.
- The number of burning events was highest on 2-Oct in Punjab in the last four years.

Temporal distribution of residue burning events for the three study States

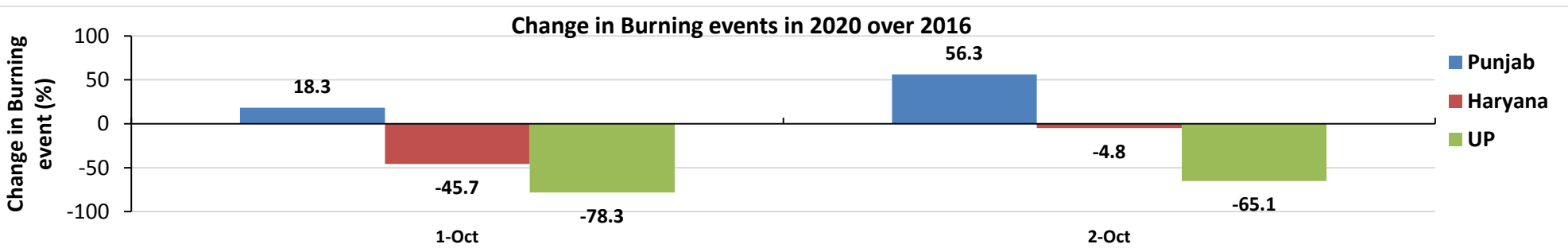
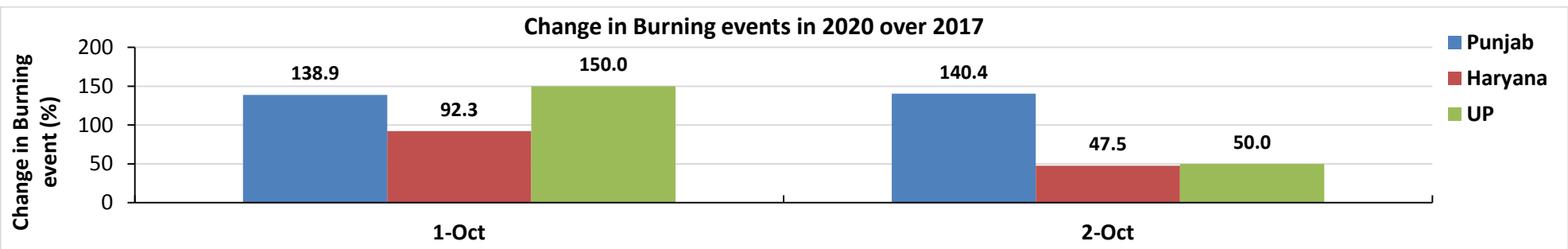
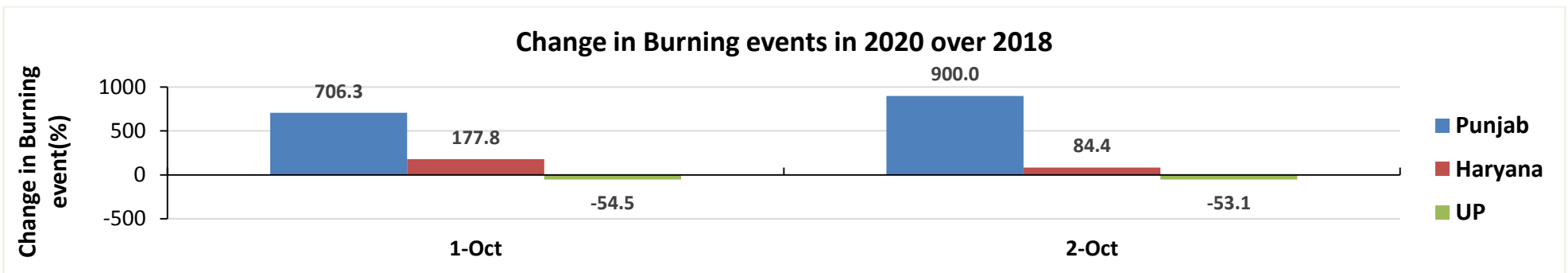
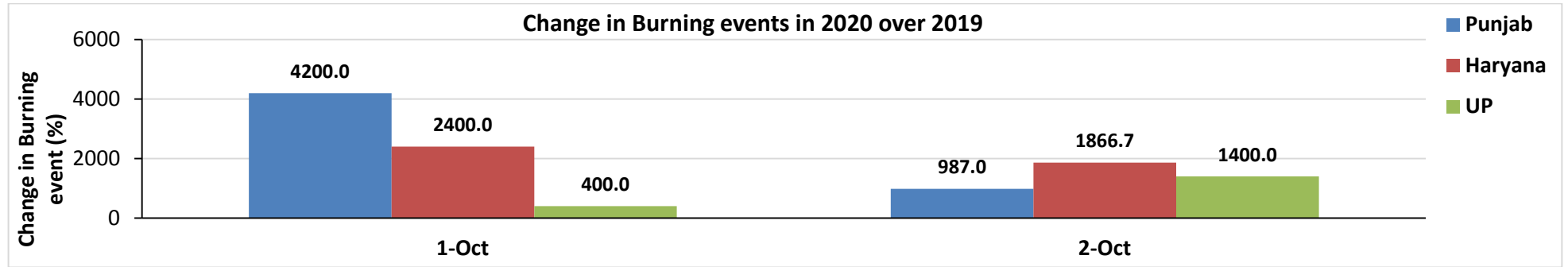


Comparison of cumulative residue burning events in current year (2020) with previous years (2019, 2018, 2017 & 2016) for the three study States

(01-Oct to 02-Oct)

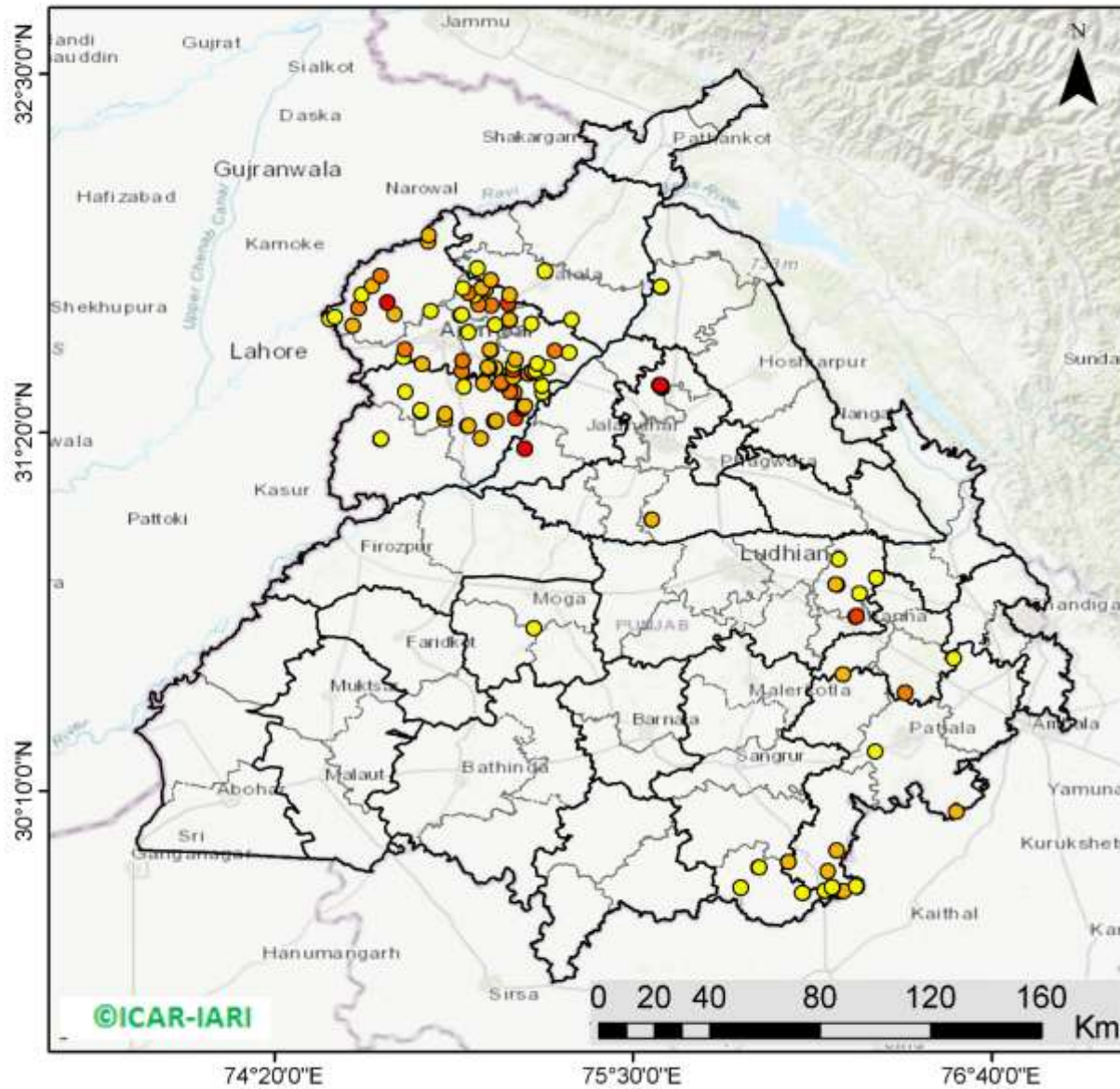


Percent Change in Burning events in 2020 over 2019, 2018, 2017 and 2016 (Daily Cumulative)



Punjab

RICE RESIDUE BURNING IN PUNJAB



121 burning events detected in Punjab on 02nd October 2020

Fire Intensity (W/m²)

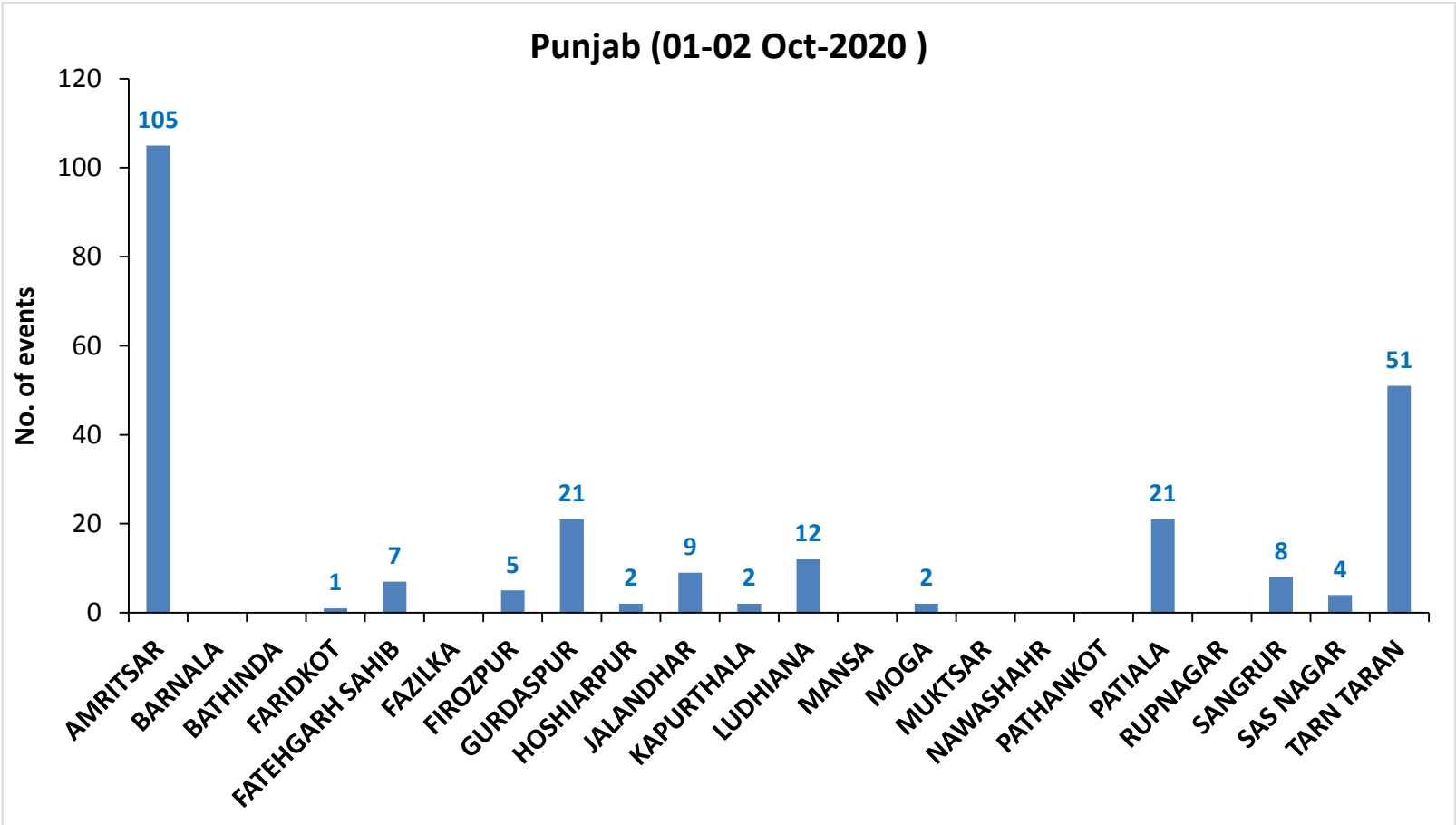
- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- >20

©ICAR-IARI



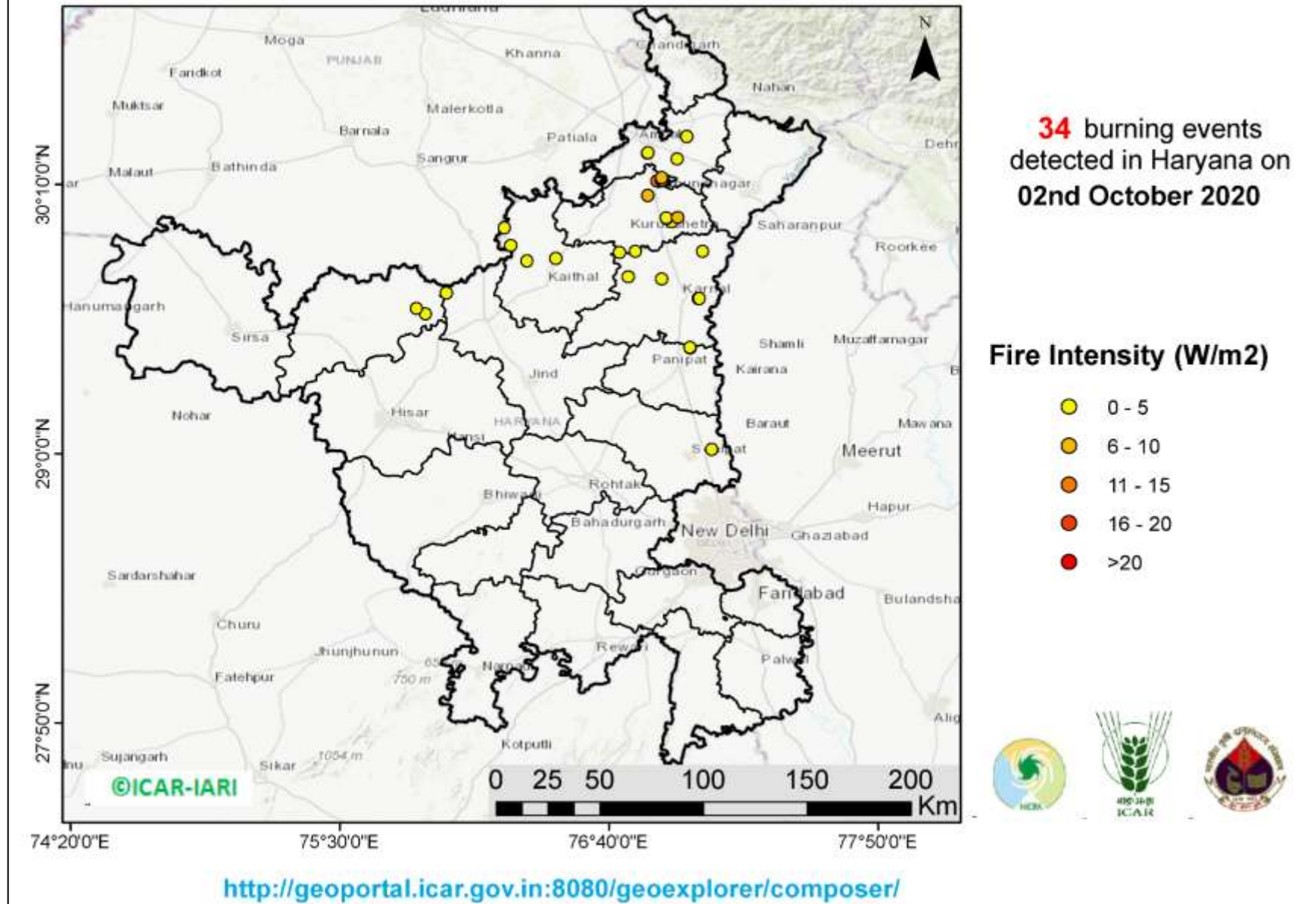
<http://geoportal.icar.gov.in:8080/geoexplorer/composer/>

District-wise cumulative number of residue burning events in Punjab (01-02 Oct 2020)

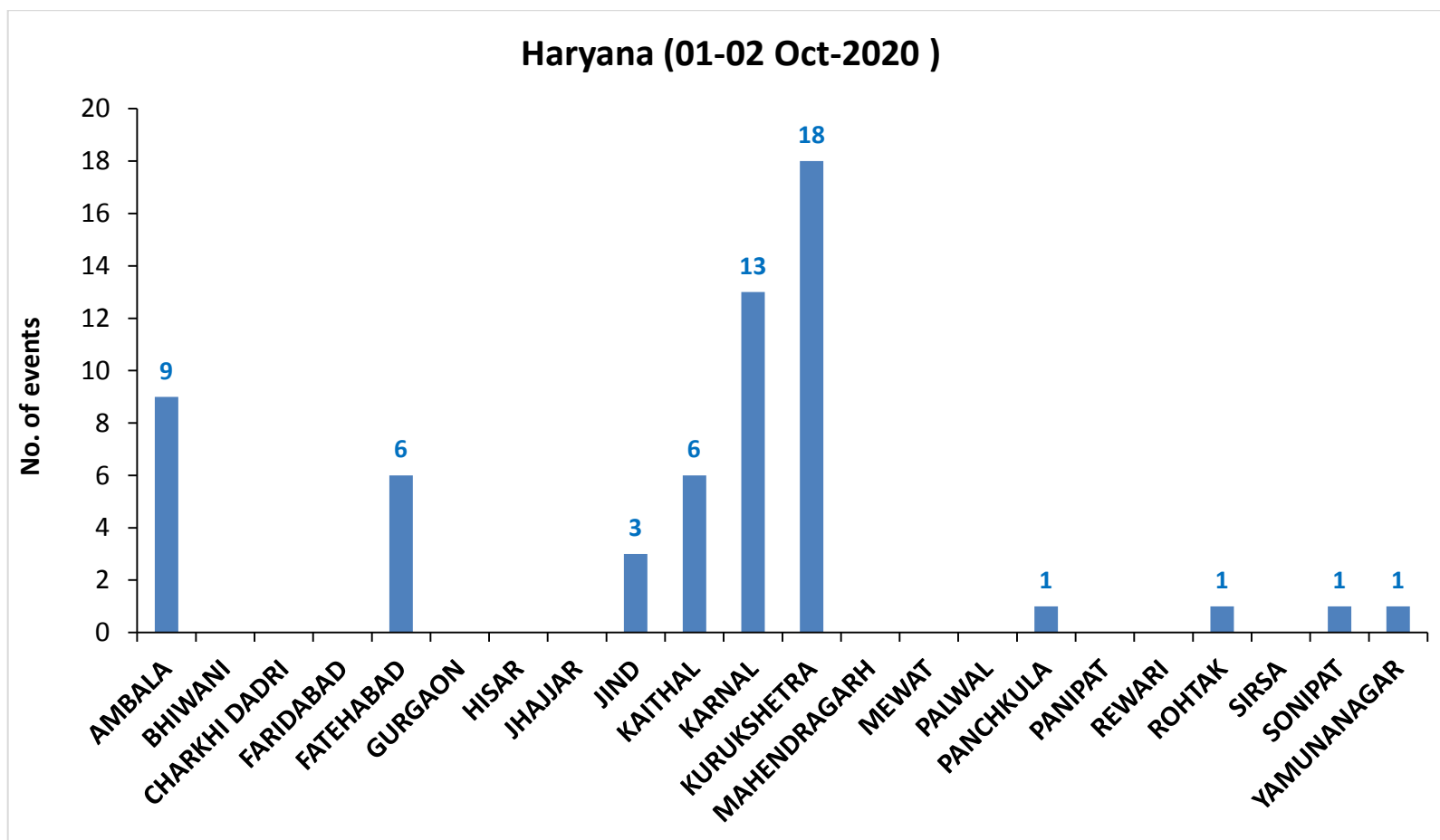


(b) Haryana

RICE RESIDUE BURNING IN HARYANA

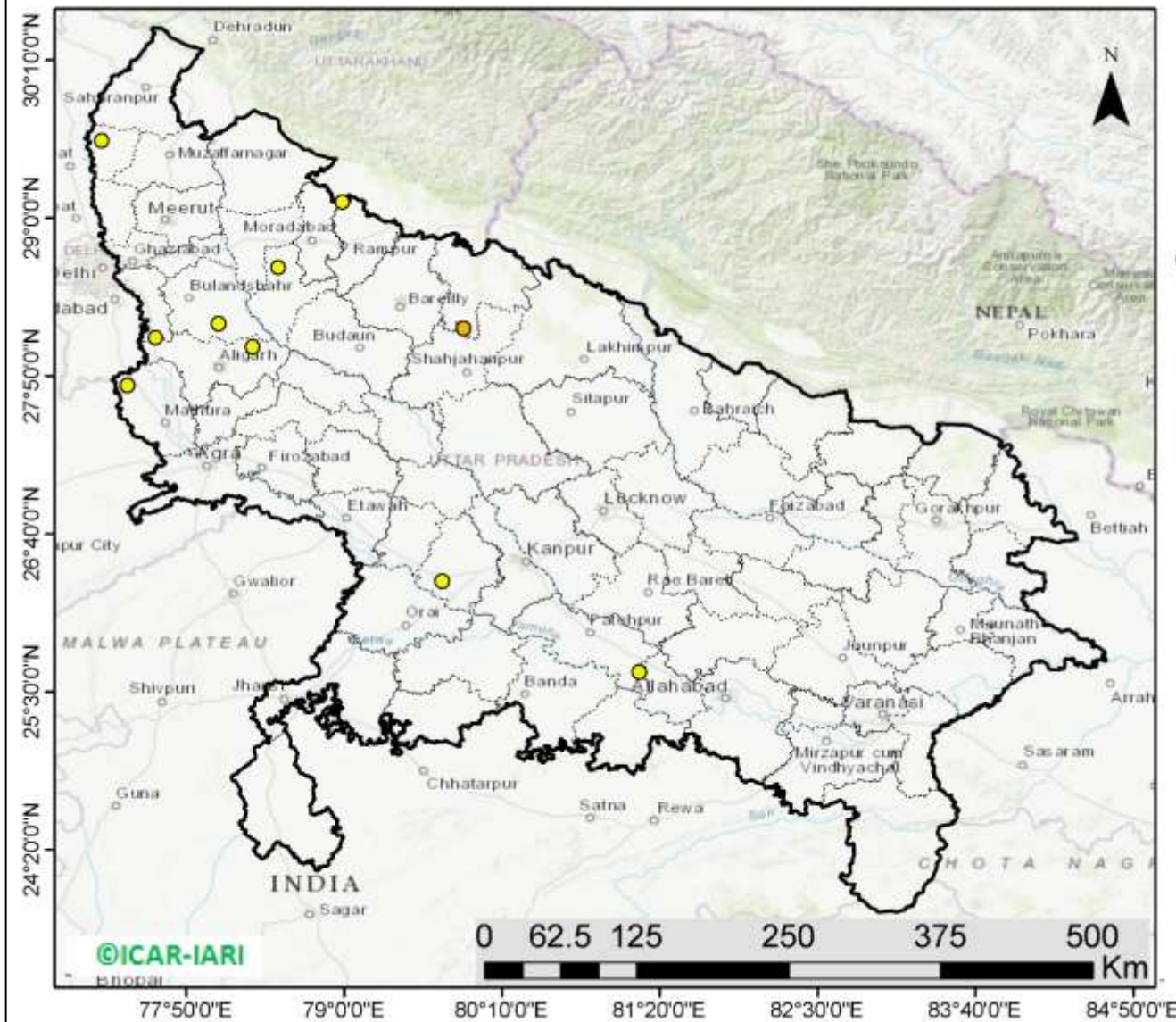


District-wise cumulative number of residue burning events in Haryana (01-02 Oct 2020)



(c) Uttar Pradesh

RICE RESIDUE BURNING IN UTTAR PRADESH



10 burning events detected in Uttar Pradesh on 02nd October 2020

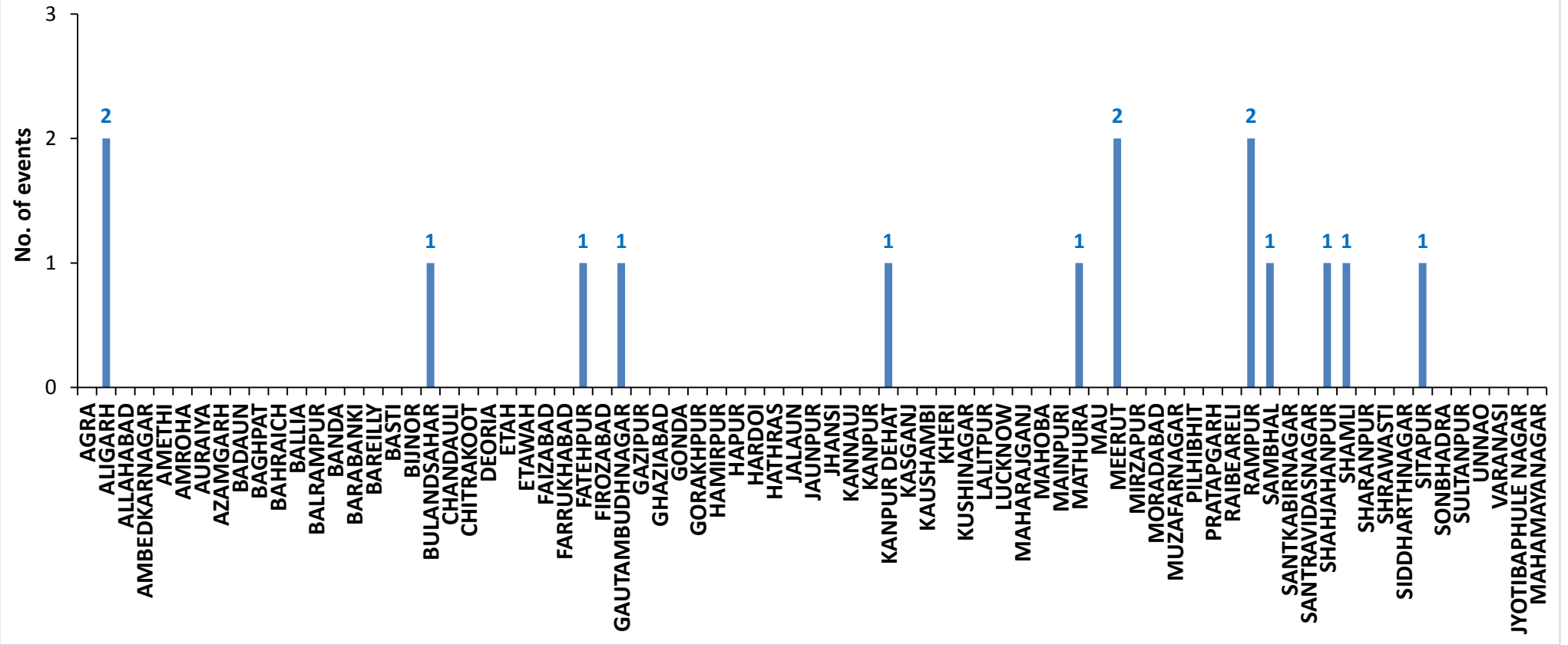
Fire Intensity (W/m²)

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

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

District-wise cumulative number of residue burning events in Uttar Pradesh (01-02 Oct 2020)

Uttar Pradesh (01-02 Oct-2020)



State-wise and date-wise number of residue burning events detected in 2016, 2017, 2018, 2019 and 2020
(Period: 01-02 October)

| Date | Punjab | | | | | Haryana | | | | | UP | | | | | Total | | | | |
|---------------|------------|-----------|-----------|------------|------------|-----------|----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|------------|-----------|-----------|------------|------------|
| | 2020 | 2019 | 2018 | 2017 | 2016 | 2020 | 2019 | 2018 | 2017 | 2016 | 2020 | 2019 | 2018 | 2017 | 2016 | 2020 | 2019 | 2018 | 2017 | 2016 |
| 01-Oct | 129 | 3 | 16 | 54 | 109 | 25 | 1 | 9 | 13 | 46 | 5 | 1 | 11 | 2 | 23 | 159 | 5 | 36 | 69 | 178 |
| 02-Oct | 121 | 20 | 9 | 50 | 51 | 34 | 2 | 23 | 27 | 16 | 10 | 0 | 21 | 8 | 20 | 165 | 22 | 53 | 85 | 87 |
| Total | 250 | 23 | 25 | 104 | 160 | 59 | 3 | 32 | 40 | 62 | 15 | 1 | 32 | 10 | 43 | 324 | 27 | 89 | 154 | 265 |

District-wise and date wise cumulative number of residue burning events detected in 2016, 2017, 2018, 2019 and 2020
(Period: 01-02 October)

(a) Punjab

| Districts | 01-02 Oct | | | | |
|-----------------|------------|------------|-----------|-----------|------------|
| | 2016 | 2017 | 2018 | 2019 | 2020 |
| AMRITSAR | 74 | 67 | 14 | 10 | 105 |
| BARNALA | 1 | 0 | 0 | 0 | 0 |
| BATHINDA | 3 | 1 | 2 | 0 | 0 |
| FARIDKOT | 3 | 0 | 0 | 0 | 1 |
| FATEHGARH SAHIB | 0 | 0 | 2 | 0 | 7 |
| FAZILKA | 0 | 0 | 0 | 1 | 0 |
| FIROZPUR | 8 | 0 | 2 | 0 | 5 |
| GURDASPUR | 2 | 0 | 1 | 0 | 21 |
| HOSHIARPUR | 1 | 0 | 1 | 0 | 2 |
| JALANDHAR | 6 | 0 | 0 | 0 | 9 |
| KAPURTHALA | 8 | 0 | 0 | 0 | 2 |
| LUDHIANA | 8 | 3 | 0 | 0 | 12 |
| MANSA | 2 | 0 | 0 | 0 | 0 |
| MOGA | 0 | 0 | 0 | 2 | 2 |
| MUKTSAR | 0 | 0 | 0 | 0 | 0 |
| NAWASHAHR | 0 | 0 | 1 | 1 | 0 |
| PATHANKOT | 0 | 0 | 0 | 0 | 0 |
| PATIALA | 2 | 3 | 0 | 0 | 21 |
| RUPNAGAR | 0 | 0 | 0 | 0 | 0 |
| SANGRUR | 4 | 1 | 0 | 0 | 8 |
| SAS NAGAR | 0 | 2 | 1 | 0 | 4 |
| TARN TARAN | 38 | 27 | 1 | 9 | 51 |
| Total | 160 | 104 | 25 | 23 | 250 |

(b) Haryana

| Districts | 01-02 Oct | | | | |
|---------------|-----------|-----------|-----------|----------|-----------|
| | 2016 | 2017 | 2018 | 2019 | 2020 |
| AMBALA | 3 | 3 | 6 | 0 | 9 |
| BHIWANI | 0 | 0 | 0 | 0 | 0 |
| CHARKHI DADRI | 0 | 0 | 0 | 0 | 0 |
| FARIDABAD | 0 | 0 | 1 | 0 | 0 |
| FATEHABAD | 1 | 6 | 0 | 1 | 6 |
| GURGAON | 0 | 0 | 0 | 0 | 0 |
| HISAR | 2 | 0 | 1 | 0 | 0 |
| JHAJJAR | 0 | 0 | 1 | 0 | 0 |
| JIND | 2 | 2 | 0 | 0 | 3 |
| KAITHAL | 10 | 0 | 1 | 0 | 6 |
| KARNAL | 26 | 10 | 9 | 0 | 13 |
| KURUKSHETRA | 15 | 17 | 9 | 2 | 18 |
| MAHENDRAGARH | 0 | 0 | 0 | 0 | 0 |
| MEWAT | 0 | 0 | 0 | 0 | 0 |
| PALWAL | 0 | 0 | 0 | 0 | 0 |
| PANCHKULA | 0 | 0 | 0 | 0 | 1 |
| PANIPAT | 1 | 1 | 2 | 0 | 0 |
| REWARI | 0 | 0 | 0 | 0 | 0 |
| ROHTAK | 0 | 0 | 0 | 0 | 1 |
| SIRSA | 0 | 0 | 0 | 0 | 0 |
| SONIPAT | 0 | 0 | 1 | 0 | 1 |
| YAMUNANAGAR | 2 | 1 | 1 | 0 | 1 |
| Total | 62 | 40 | 32 | 3 | 59 |

(C)

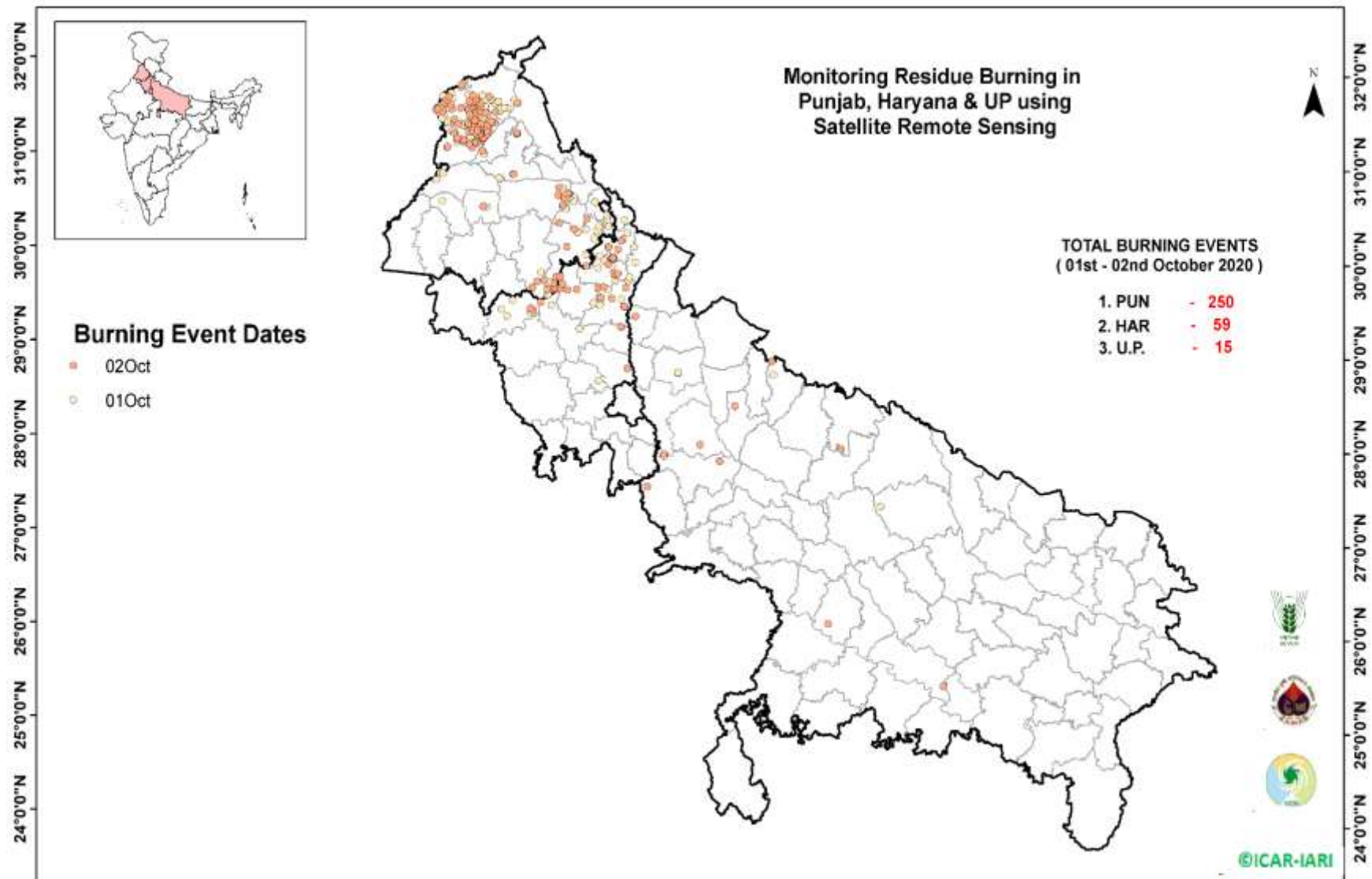
Uttar Pradesh

Districts

01-02 Oct

| | 2016 | 2017 | 2018 | 2019 | 2020 | GAUTAMBUDHNAGAR | 1 | 0 | 0 | 0 | 1 | PILHIBHIT | 2 | 0 | 0 | 0 | 0 |
|---------------|------|------|------|------|------|-----------------|---|---|---|---|---|--------------------|-----------|-----------|-----------|----------|-----------|
| AGRA | 0 | 0 | 0 | 0 | 0 | GAZIPUR | 0 | 0 | 0 | 0 | 0 | PRATAPGARH | 0 | 0 | 0 | 0 | 0 |
| ALIGARH | 0 | 0 | 1 | 0 | 2 | GHAZIABAD | 0 | 0 | 1 | 0 | 0 | RAE BARELI | 0 | 0 | 0 | 0 | 0 |
| ALLAHABAD | 0 | 0 | 0 | 0 | 0 | GONDA | 0 | 0 | 0 | 0 | 0 | RAMPUR | 15 | 1 | 4 | 0 | 2 |
| AMBEDKARNAGAR | 0 | 0 | 0 | 0 | 0 | GORAKHPUR | 0 | 0 | 1 | 0 | 0 | SHARANPUR | 0 | 0 | 0 | 0 | 1 |
| AMETHI | 0 | 0 | 0 | 0 | 0 | HAMIRPUR | 0 | 0 | 0 | 0 | 0 | SAMBHAL | 0 | 0 | 0 | 0 | 0 |
| AMROHA | 0 | 0 | 0 | 0 | 0 | HAPUR | 0 | 0 | 0 | 0 | 0 | SANTKABIRNAGAR | 0 | 0 | 0 | 0 | 0 |
| AURAIYA | 3 | 3 | 2 | 0 | 0 | HARDOI | 0 | 0 | 0 | 0 | 0 | SHAHJAHANPUR | 10 | 2 | 11 | 0 | 1 |
| AZAMGARH | 0 | 0 | 0 | 0 | 0 | HATHRAS | 0 | 0 | 0 | 0 | 0 | SHAMALI | 0 | 0 | 0 | 0 | 1 |
| BADAUN | 0 | 0 | 0 | 0 | 0 | JALAUN | 0 | 0 | 0 | 0 | 0 | SHRAWASTI | 2 | 0 | 0 | 0 | 0 |
| BAGHPAT | 0 | 0 | 0 | 0 | 0 | JAUNPUR | 0 | 0 | 0 | 0 | 0 | SIDDHARTHANAGAR | 0 | 0 | 0 | 0 | 0 |
| BAHRAICH | 0 | 0 | 0 | 0 | 0 | JHANSI | 0 | 0 | 0 | 0 | 0 | SITAPUR | 0 | 0 | 0 | 0 | 0 |
| BALLIA | 0 | 0 | 0 | 0 | 0 | KANNAUJ | 0 | 0 | 0 | 0 | 0 | SONBHADRA | 1 | 0 | 0 | 0 | 1 |
| BALRAMPUR | 0 | 0 | 0 | 0 | 0 | KANPUR | 0 | 0 | 0 | 0 | 0 | SULTANPUR | 0 | 1 | 1 | 0 | 0 |
| BANDA | 0 | 0 | 1 | 0 | 0 | KANPUR DEHAT | 0 | 0 | 0 | 0 | 1 | UNNAO | 0 | 0 | 0 | 0 | 0 |
| BARABANKI | 2 | 0 | 2 | 0 | 0 | KASGANJ | 0 | 0 | 0 | 0 | 0 | VARANASI | 0 | 0 | 0 | 0 | 0 |
| BAREILLY | 4 | 0 | 0 | 0 | 0 | KAUSHAMBI | 0 | 0 | 2 | 0 | 0 | JYOTIBAPHULE NAGAR | 0 | 0 | 0 | 0 | 0 |
| BASTI | 0 | 0 | 0 | 0 | 0 | KHERI | 1 | 1 | 1 | 0 | 0 | MAHAMAYANAGAR | 0 | 0 | 0 | 0 | 0 |
| BHADOHI | 0 | 0 | 0 | 0 | 0 | KUSHINAGAR | 0 | 0 | 0 | 0 | 0 | Total | 43 | 10 | 32 | 1 | 15 |
| BIJNOR | 0 | 1 | 0 | 0 | 1 | LALITPUR | 0 | 0 | 0 | 0 | 0 | | | | | | |
| BULANDSAHAR | 0 | 0 | 0 | 0 | 0 | LUCKNOW | 0 | 0 | 0 | 0 | 0 | | | | | | |
| CHANDAULI | 0 | 0 | 0 | 0 | 0 | MAHARAJGANJ | 0 | 0 | 0 | 0 | 0 | | | | | | |
| CHITRAKOOT | 0 | 0 | 0 | 0 | 0 | MAHOBA | 0 | 0 | 0 | 0 | 0 | | | | | | |
| DEORIA | 0 | 0 | 0 | 0 | 0 | MAINPURI | 0 | 0 | 1 | 0 | 0 | | | | | | |
| ETAH | 0 | 0 | 0 | 0 | 0 | MATHURA | 0 | 0 | 3 | 0 | 1 | | | | | | |
| ETAWAH | 0 | 0 | 0 | 0 | 0 | MAU | 0 | 0 | 0 | 0 | 0 | | | | | | |
| FAIZABAD | 0 | 0 | 0 | 0 | 0 | MEERUT | 0 | 0 | 0 | 0 | 2 | | | | | | |
| FARRUKHABAD | 0 | 0 | 0 | 0 | 1 | MIRZAPUR | 0 | 1 | 0 | 0 | 0 | | | | | | |
| FATEHPUR | 0 | 0 | 0 | 0 | 0 | MORADABAD | 0 | 0 | 1 | 1 | 0 | | | | | | |
| FIROZABAD | 0 | 0 | 0 | 0 | 0 | MUZAFARNAGAR | 2 | 0 | 0 | 0 | 0 | | | | | | |

Map of Cumulative Burning Events (01-02 Oct 2020)



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

Details of residue burning events in Punjab on 02-Oct-2020

| S. No. | District | Tehsil / Block | Satellite | Longitude | Latitude | Time (IST) | Day / Night | Fire Power (W/m2) |
|---------------|-----------------|-----------------------|------------------|------------------|-----------------|-------------------|--------------------|--------------------------|
| 1 | AMRITSAR | AJNALA | TERRA | 74.58800 | 31.67900 | 11:35:00 | D | 6.90 |
| 2 | AMRITSAR | AJNALA | S-NPP | 74.51444 | 31.69997 | 13:12:00 | D | 4.10 |
| 3 | AMRITSAR | AJNALA | S-NPP | 74.53073 | 31.70722 | 13:12:00 | D | 4.20 |
| 4 | AMRITSAR | AJNALA | TERRA | 74.72500 | 31.71700 | 11:35:00 | D | 6.60 |
| 5 | AMRITSAR | AJNALA | S-NPP | 74.84146 | 31.72729 | 13:12:00 | D | 3.30 |
| 6 | AMRITSAR | AJNALA | TERRA | 74.60800 | 31.73800 | 11:35:00 | D | 12.50 |
| 7 | AMRITSAR | AJNALA | AQUA | 74.70100 | 31.75600 | 13:10:00 | D | 29.10 |
| 8 | AMRITSAR | AJNALA | S-NPP | 74.61761 | 31.78116 | 13:12:00 | D | 4.00 |
| 9 | AMRITSAR | AJNALA | S-NPP | 74.65229 | 31.80819 | 13:12:00 | D | 5.20 |
| 10 | AMRITSAR | AJNALA | S-NPP | 74.67912 | 31.84166 | 13:12:00 | D | 11.40 |
| 11 | AMRITSAR | AJNALA | S-NPP | 74.83534 | 31.95296 | 13:12:00 | D | 6.90 |
| 12 | AMRITSAR | AJNALA | S-NPP | 74.83585 | 31.97300 | 13:12:00 | D | 7.20 |
| 13 | AMRITSAR | AMRITSAR I | S-NPP | 75.05084 | 31.54102 | 13:12:00 | D | 3.80 |
| 14 | AMRITSAR | AMRITSAR I | S-NPP | 75.03345 | 31.54164 | 13:12:00 | D | 6.40 |
| 15 | AMRITSAR | AMRITSAR I | S-NPP | 75.02698 | 31.54436 | 13:12:00 | D | 5.90 |
| 16 | AMRITSAR | AMRITSAR I | S-NPP | 75.11079 | 31.55260 | 13:12:00 | D | 2.20 |
| 17 | AMRITSAR | AMRITSAR I | S-NPP | 75.03601 | 31.59776 | 13:12:00 | D | 5.30 |
| 18 | AMRITSAR | AMRITSAR I | S-NPP | 75.03863 | 31.60069 | 13:12:00 | D | 18.30 |
| 19 | AMRITSAR | AMRITSAR I | S-NPP | 75.03501 | 31.60154 | 13:12:00 | D | 5.30 |
| 20 | AMRITSAR | AMRITSAR I | S-NPP | 75.05161 | 31.68257 | 13:12:00 | D | 4.40 |
| 21 | AMRITSAR | AMRITSAR I | S-NPP | 75.09957 | 31.69569 | 13:12:00 | D | 5.10 |
| 22 | AMRITSAR | AMRITSAR I | S-NPP | 75.09859 | 31.69946 | 13:12:00 | D | 5.10 |
| 23 | AMRITSAR | AMRITSAR I | S-NPP | 74.93807 | 31.71416 | 13:12:00 | D | 4.90 |
| 24 | AMRITSAR | AMRITSAR I | S-NPP | 74.94357 | 31.71523 | 13:12:00 | D | 4.90 |
| 25 | AMRITSAR | AMRITSAR I | S-NPP | 75.03914 | 31.74575 | 13:12:00 | D | 13.60 |
| 26 | AMRITSAR | AMRITSAR I | S-NPP | 74.99798 | 31.74967 | 13:12:00 | D | 10.70 |
| 27 | AMRITSAR | AMRITSAR I | S-NPP | 75.09441 | 31.75249 | 13:12:00 | D | 16.10 |
| 28 | AMRITSAR | AMRITSAR I | S-NPP | 74.98457 | 31.77885 | 13:12:00 | D | 2.80 |
| 29 | AMRITSAR | AMRITSAR I | S-NPP | 75.09836 | 31.78089 | 13:12:00 | D | 7.80 |
| 30 | AMRITSAR | AMRITSAR I | S-NPP | 74.96513 | 31.78704 | 13:12:00 | D | 14.60 |

| | | | | | | | | |
|----|-----------------|-----------------|-------|----------|----------|----------|---|-------|
| 31 | AMRITSAR | AMRITSAR I | TERRA | 75.02200 | 31.79900 | 11:35:00 | D | 9.10 |
| 32 | AMRITSAR | AMRITSAR I | TERRA | 75.00800 | 31.80100 | 11:35:00 | D | 7.60 |
| 33 | AMRITSAR | AMRITSAR I | S-NPP | 74.94744 | 31.80187 | 13:12:00 | D | 3.80 |
| 34 | AMRITSAR | AMRITSAR II | S-NPP | 74.94332 | 31.53217 | 13:12:00 | D | 12.40 |
| 35 | AMRITSAR | AMRITSAR II | TERRA | 74.94600 | 31.56500 | 11:35:00 | D | 13.90 |
| 36 | AMRITSAR | AMRITSAR II | S-NPP | 74.75304 | 31.57665 | 13:12:00 | D | 2.50 |
| 37 | AMRITSAR | AMRITSAR II | S-NPP | 74.75823 | 31.60187 | 13:12:00 | D | 14.50 |
| 38 | AMRITSAR | AMRITSAR II | S-NPP | 74.96595 | 31.65818 | 13:12:00 | D | 4.90 |
| 39 | AMRITSAR | BABA BAKALA | S-NPP | 75.10973 | 31.51277 | 13:12:00 | D | 7.20 |
| 40 | AMRITSAR | BABA BAKALA | S-NPP | 75.16068 | 31.52422 | 13:12:00 | D | 5.50 |
| 41 | AMRITSAR | BABA BAKALA | S-NPP | 75.19086 | 31.52856 | 13:12:00 | D | 2.00 |
| 42 | AMRITSAR | BABA BAKALA | S-NPP | 75.17373 | 31.52918 | 13:12:00 | D | 10.40 |
| 43 | AMRITSAR | BABA BAKALA | S-NPP | 75.17275 | 31.53294 | 13:12:00 | D | 10.40 |
| 44 | AMRITSAR | BABA BAKALA | S-NPP | 75.18353 | 31.53503 | 13:12:00 | D | 3.60 |
| 45 | AMRITSAR | BABA BAKALA | S-NPP | 75.10929 | 31.53646 | 13:12:00 | D | 15.30 |
| 46 | AMRITSAR | BABA BAKALA | S-NPP | 75.22118 | 31.54233 | 13:12:00 | D | 3.80 |
| 47 | AMRITSAR | BABA BAKALA | S-NPP | 75.18943 | 31.55590 | 13:12:00 | D | 4.10 |
| 48 | AMRITSAR | BABA BAKALA | S-NPP | 75.11772 | 31.56977 | 13:12:00 | D | 6.70 |
| 49 | AMRITSAR | BABA BAKALA | S-NPP | 75.29264 | 31.59143 | 13:12:00 | D | 2.50 |
| 50 | AMRITSAR | BABA BAKALA | S-NPP | 75.24607 | 31.59825 | 13:12:00 | D | 15.00 |
| 51 | AMRITSAR | BABA BAKALA | S-NPP | 75.17027 | 31.68553 | 13:12:00 | D | 3.30 |
| 52 | FATEHGARH SAHIB | ALMOH | S-NPP | 76.18321 | 30.54569 | 13:12:00 | D | 5.90 |
| 53 | FATEHGARH SAHIB | FATEHGARH SAHIB | S-NPP | 76.38560 | 30.48504 | 13:12:00 | D | 11.30 |
| 54 | GURDASPUR | BATALA | S-NPP | 75.30137 | 31.69882 | 13:12:00 | D | 4.90 |
| 55 | GURDASPUR | BATALA | S-NPP | 75.03828 | 31.82759 | 13:12:00 | D | 8.80 |
| 56 | GURDASPUR | BATALA | S-NPP | 75.21362 | 31.85782 | 13:12:00 | D | 3.40 |
| 57 | GURDASPUR | BATALA | S-NPP | 74.99374 | 31.86647 | 13:12:00 | D | 4.70 |
| 58 | HOSHIARPUR | DASUYA | S-NPP | 75.59158 | 31.80389 | 13:12:00 | D | 3.00 |
| 59 | HOSHIARPUR | DASUYA | S-NPP | 75.59064 | 31.80757 | 13:12:00 | D | 3.00 |
| 60 | JALANDHAR | JALANDHAR II | AQUA | 75.59400 | 31.47700 | 13:10:00 | D | 18.80 |
| 61 | JALANDHAR | JALANDHAR II | S-NPP | 75.58989 | 31.48334 | 13:12:00 | D | 23.10 |
| 62 | JALANDHAR | JALANDHAR II | S-NPP | 75.59229 | 31.48508 | 13:12:00 | D | 37.60 |
| 63 | JALANDHAR | JALANDHAR II | AQUA | 75.58600 | 31.48600 | 13:10:00 | D | 22.60 |

| | | | | | | | | |
|----|------------|-----------------|-------|----------|----------|----------|---|-------|
| 64 | JALANDHAR | JALANDHAR II | S-NPP | 75.58894 | 31.48704 | 13:12:00 | D | 23.10 |
| 65 | JALANDHAR | PHILLAUR | S-NPP | 75.56033 | 31.04912 | 13:12:00 | D | 4.30 |
| 66 | JALANDHAR | PHILLAUR | S-NPP | 75.56278 | 31.04923 | 13:12:00 | D | 5.60 |
| 67 | KAPURTHALA | SULTANPUR LODHI | S-NPP | 75.14829 | 31.27953 | 13:12:00 | D | 30.80 |
| 68 | LUDHIANA | KHANNA | S-NPP | 76.22448 | 30.73380 | 13:12:00 | D | 15.80 |
| 69 | LUDHIANA | KHANNA | S-NPP | 76.22710 | 30.73485 | 13:12:00 | D | 15.40 |
| 70 | LUDHIANA | SAMRALA | S-NPP | 76.23717 | 30.80814 | 13:12:00 | D | 2.30 |
| 71 | LUDHIANA | SAMRALA | S-NPP | 76.16302 | 30.83631 | 13:12:00 | D | 8.10 |
| 72 | LUDHIANA | SAMRALA | S-NPP | 76.15944 | 30.83825 | 13:12:00 | D | 9.90 |
| 73 | LUDHIANA | SAMRALA | S-NPP | 76.29325 | 30.85942 | 13:12:00 | D | 5.10 |
| 74 | LUDHIANA | SAMRALA | S-NPP | 76.29128 | 30.85955 | 13:12:00 | D | 4.10 |
| 75 | LUDHIANA | SAMRALA | S-NPP | 76.17027 | 30.91996 | 13:12:00 | D | 4.20 |
| 76 | MOGA | BAGHA PURANA | S-NPP | 75.17796 | 30.69440 | 13:12:00 | D | 4.00 |
| 77 | PATIALA | PATIALA | S-NPP | 76.55143 | 30.09770 | 13:12:00 | D | 5.60 |
| 78 | PATIALA | PATIALA | S-NPP | 76.28876 | 30.29451 | 13:12:00 | D | 3.70 |
| 79 | PATIALA | RAJPURA | S-NPP | 76.54371 | 30.59713 | 13:12:00 | D | 1.50 |
| 80 | PATIALA | SAMANA | S-NPP | 76.18514 | 29.83916 | 13:12:00 | D | 7.60 |
| 81 | PATIALA | SAMANA | S-NPP | 76.12653 | 29.83995 | 13:12:00 | D | 3.40 |
| 82 | PATIALA | SAMANA | S-NPP | 76.12360 | 29.84064 | 13:12:00 | D | 3.70 |
| 83 | PATIALA | SAMANA | S-NPP | 76.15018 | 29.85201 | 13:12:00 | D | 3.20 |
| 84 | PATIALA | SAMANA | S-NPP | 76.14721 | 29.85282 | 13:12:00 | D | 3.70 |
| 85 | PATIALA | SAMANA | S-NPP | 76.22883 | 29.85487 | 13:12:00 | D | 5.10 |
| 86 | PATIALA | SAMANA | S-NPP | 76.22571 | 29.85608 | 13:12:00 | D | 4.50 |
| 87 | PATIALA | SAMANA | S-NPP | 76.13462 | 29.90448 | 13:12:00 | D | 5.30 |
| 88 | PATIALA | SAMANA | S-NPP | 76.00424 | 29.93450 | 13:12:00 | D | 2.90 |
| 89 | PATIALA | SAMANA | S-NPP | 76.00661 | 29.93524 | 13:12:00 | D | 6.30 |
| 90 | PATIALA | SAMANA | S-NPP | 76.16277 | 29.97248 | 13:12:00 | D | 7.70 |
| 91 | SANGRUR | MOONAK | S-NPP | 76.05305 | 29.83418 | 13:12:00 | D | 3.80 |
| 92 | SANGRUR | MOONAK | S-NPP | 76.05025 | 29.83447 | 13:12:00 | D | 4.20 |
| 93 | SANGRUR | MOONAK | S-NPP | 75.85080 | 29.85134 | 13:12:00 | D | 4.20 |
| 94 | SANGRUR | MOONAK | S-NPP | 75.90841 | 29.91655 | 13:12:00 | D | 3.20 |
| 95 | SANGRUR | MOONAK | S-NPP | 75.91101 | 29.91729 | 13:12:00 | D | 2.90 |
| 96 | TARN TARAN | KHADOOR SAHIB | S-NPP | 75.00537 | 31.31337 | 13:12:00 | D | 5.50 |

| | | | | | | | | |
|-----|------------|---------------|-------|----------|----------|----------|---|-------|
| 97 | TARN TARAN | KHADOOR SAHIB | S-NPP | 74.96018 | 31.35266 | 13:12:00 | D | 5.80 |
| 98 | TARN TARAN | KHADOOR SAHIB | S-NPP | 74.96572 | 31.35373 | 13:12:00 | D | 5.80 |
| 99 | TARN TARAN | KHADOOR SAHIB | S-NPP | 75.04863 | 31.36959 | 13:12:00 | D | 6.20 |
| 100 | TARN TARAN | KHADOOR SAHIB | S-NPP | 75.05413 | 31.37064 | 13:12:00 | D | 6.20 |
| 101 | TARN TARAN | KHADOOR SAHIB | S-NPP | 74.88740 | 31.37601 | 13:12:00 | D | 7.70 |
| 102 | TARN TARAN | KHADOOR SAHIB | TERRA | 75.11800 | 31.38000 | 11:35:00 | D | 16.30 |
| 103 | TARN TARAN | KHADOOR SAHIB | S-NPP | 74.88898 | 31.39240 | 13:12:00 | D | 7.40 |
| 104 | TARN TARAN | KHADOOR SAHIB | S-NPP | 74.80995 | 31.40114 | 13:12:00 | D | 4.00 |
| 105 | TARN TARAN | KHADOOR SAHIB | S-NPP | 74.80894 | 31.40498 | 13:12:00 | D | 3.80 |
| 106 | TARN TARAN | KHADOOR SAHIB | AQUA | 75.14100 | 31.41100 | 13:10:00 | D | 22.70 |
| 107 | TARN TARAN | KHADOOR SAHIB | S-NPP | 75.14277 | 31.41793 | 13:12:00 | D | 6.90 |
| 108 | TARN TARAN | KHADOOR SAHIB | S-NPP | 75.14820 | 31.41898 | 13:12:00 | D | 6.90 |
| 109 | TARN TARAN | KHADOOR SAHIB | S-NPP | 75.20528 | 31.46165 | 13:12:00 | D | 2.50 |
| 110 | TARN TARAN | KHADOOR SAHIB | TERRA | 75.11500 | 31.46300 | 11:35:00 | D | 10.90 |
| 111 | TARN TARAN | KHADOOR SAHIB | S-NPP | 74.76109 | 31.46442 | 13:12:00 | D | 3.50 |
| 112 | TARN TARAN | KHADOOR SAHIB | TERRA | 75.10100 | 31.46500 | 11:35:00 | D | 10.40 |
| 113 | TARN TARAN | KHADOOR SAHIB | S-NPP | 74.95074 | 31.48164 | 13:12:00 | D | 5.00 |
| 114 | TARN TARAN | KHADOOR SAHIB | S-NPP | 75.20483 | 31.48524 | 13:12:00 | D | 3.60 |
| 115 | TARN TARAN | KHADOOR SAHIB | S-NPP | 75.07210 | 31.49161 | 13:12:00 | D | 4.30 |
| 116 | TARN TARAN | KHADOOR SAHIB | S-NPP | 75.01426 | 31.49254 | 13:12:00 | D | 8.50 |
| 117 | TARN TARAN | KHADOOR SAHIB | S-NPP | 75.07455 | 31.49398 | 13:12:00 | D | 9.50 |
| 118 | TARN TARAN | KHADOOR SAHIB | S-NPP | 75.07111 | 31.49539 | 13:12:00 | D | 11.40 |
| 119 | TARN TARAN | KHADOOR SAHIB | S-NPP | 74.81413 | 31.55537 | 13:12:00 | D | 6.20 |
| 120 | TARN TARAN | PATTI | S-NPP | 74.67839 | 31.31034 | 13:12:00 | D | 3.00 |
| 121 | TARN TARAN | PATTI | S-NPP | 74.68028 | 31.31087 | 13:12:00 | D | 3.80 |

Details of residue burning events in Haryana on 02-Oct-2020

| S. No. | District | Tehsil / Block | Satellite | Longitude | Latitude | Time (IST) | Day / Night | Fire Power (W/m ²) |
|--------|-------------|----------------|-----------|-----------|----------|------------|-------------|--------------------------------|
| 1 | AMBALA | AMBALA | S-NPP | 76.89606 | 30.19697 | 13:12:00 | D | 5.10 |
| 2 | AMBALA | AMBALA | S-NPP | 76.96253 | 30.27740 | 13:12:00 | D | 3.30 |
| 3 | AMBALA | AMBALA | S-NPP | 76.83446 | 30.30268 | 13:12:00 | D | 1.90 |
| 4 | AMBALA | AMBALA | S-NPP | 76.83574 | 30.30416 | 13:12:00 | D | 3.10 |
| 5 | AMBALA | NARAYANGARH | S-NPP | 77.00389 | 30.37516 | 13:12:00 | D | 3.50 |
| 6 | FATEHABAD | TOHANA | S-NPP | 75.87278 | 29.60575 | 13:12:00 | D | 4.30 |
| 7 | FATEHABAD | TOHANA | S-NPP | 75.83376 | 29.62981 | 13:12:00 | D | 4.40 |
| 8 | JIND | NARWANA | S-NPP | 75.96252 | 29.69657 | 13:12:00 | D | 4.70 |
| 9 | KAITHAL | GUHLA | S-NPP | 76.24105 | 29.90121 | 13:12:00 | D | 2.30 |
| 10 | KAITHAL | GUHLA | S-NPP | 76.21405 | 29.97828 | 13:12:00 | D | 4.00 |
| 11 | KAITHAL | KAITHAL | S-NPP | 76.31214 | 29.83568 | 13:12:00 | D | 2.30 |
| 12 | KAITHAL | KAITHAL | S-NPP | 76.43674 | 29.84648 | 01:54:00 | N | 0.60 |
| 13 | KAITHAL | KAITHAL | S-NPP | 76.71250 | 29.87130 | 13:12:00 | D | 3.80 |
| 14 | KARNAL | GHARAUNDA | S-NPP | 77.01987 | 29.45741 | 13:12:00 | D | 3.30 |
| 15 | KARNAL | GHARAUNDA | S-NPP | 77.01772 | 29.45985 | 13:12:00 | D | 2.10 |
| 16 | KARNAL | INDRI | S-NPP | 77.07391 | 29.87606 | 13:12:00 | D | 1.10 |
| 17 | KARNAL | KARNAL | S-NPP | 77.05423 | 29.67311 | 13:12:00 | D | 4.90 |
| 18 | KARNAL | KARNAL | S-NPP | 77.05891 | 29.67394 | 13:12:00 | D | 4.90 |
| 19 | KARNAL | KARNAL | S-NPP | 76.75084 | 29.76575 | 13:12:00 | D | 4.20 |
| 20 | KARNAL | NILOKHERI | S-NPP | 76.89485 | 29.75721 | 13:12:00 | D | 2.70 |
| 21 | KURUKSHETRA | SHAHABAD | AQUA | 76.88200 | 30.17900 | 13:10:00 | D | 34.00 |
| 22 | KURUKSHETRA | SHAHABAD | AQUA | 76.87500 | 30.18100 | 13:10:00 | D | 12.00 |
| 23 | KURUKSHETRA | SHAHABAD | S-NPP | 76.89473 | 30.18192 | 13:12:00 | D | 19.90 |
| 24 | KURUKSHETRA | SHAHABAD | AQUA | 76.90300 | 30.18300 | 13:10:00 | D | 20.50 |
| 25 | KURUKSHETRA | SHAHABAD | AQUA | 76.89600 | 30.18500 | 13:10:00 | D | 33.70 |
| 26 | KURUKSHETRA | SHAHABAD | S-NPP | 76.89389 | 30.18547 | 13:12:00 | D | 4.80 |
| 27 | KURUKSHETRA | SHAHABAD | S-NPP | 76.89859 | 30.18631 | 13:12:00 | D | 4.80 |
| 28 | KURUKSHETRA | THANESAR | S-NPP | 76.78116 | 29.87635 | 13:12:00 | D | 3.80 |
| 29 | KURUKSHETRA | THANESAR | S-NPP | 76.94019 | 30.00345 | 13:12:00 | D | 3.70 |
| 30 | KURUKSHETRA | THANESAR | S-NPP | 76.91724 | 30.01784 | 13:12:00 | D | 5.60 |

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|----|-------------|----------|-------|----------|----------|----------|---|------|
| 31 | KURUKSHETRA | THANESAR | S-NPP | 76.91639 | 30.02139 | 13:12:00 | D | 4.60 |
| 32 | KURUKSHETRA | THANESAR | S-NPP | 76.96492 | 30.02275 | 13:12:00 | D | 6.50 |
| 33 | KURUKSHETRA | THANESAR | S-NPP | 76.83591 | 30.11940 | 13:12:00 | D | 9.60 |
| 34 | SONIPAT | SONIPAT | S-NPP | 77.11266 | 29.01854 | 13:12:00 | D | 4.40 |

Details of residue burning events in Uttar Pradesh on 02-Oct-2020

| S. No. | District | Tehsil / Block | Satellite | Longitude | Latitude | Time (IST) | Day / Night | Fire Power (W/m2) |
|--------|-----------------|----------------|-----------|-----------|----------|------------|-------------|-------------------|
| 1 | ALIGARH | ATRAULI | S-NPP | 78.32509 | 28.04752 | 01:54:00 | N | 0.40 |
| 2 | BULANDSAHAR | SHIKARPUR | S-NPP | 78.07103 | 28.21777 | 01:54:00 | N | 0.50 |
| 3 | FATEHPUR | KHAGA | S-NPP | 81.18198 | 25.64609 | 13:12:00 | D | 2.00 |
| 4 | GAUTAMBUDHNAGAR | JEVAR | S-NPP | 77.60685 | 28.11455 | 13:12:00 | D | 3.00 |
| 5 | KANPUR DEHAT | SIKANDRA | S-NPP | 79.72401 | 26.31643 | 13:12:00 | D | 1.40 |
| 6 | MATHURA | CHHATA | S-NPP | 77.39668 | 27.76161 | 01:54:00 | N | 0.80 |
| 7 | RAMPUR | TANDA | S-NPP | 78.98798 | 29.11498 | 13:12:00 | D | 2.10 |
| 8 | SAMBHAL | SAMBHAL | S-NPP | 78.51254 | 28.63171 | 13:12:00 | D | 2.40 |
| 9 | SHAHJAHANPUR | TILHAR | S-NPP | 79.88293 | 28.18426 | 13:12:00 | D | 7.10 |
| 10 | SHAMLI | KAIRANA | S-NPP | 77.20658 | 29.57242 | 13:12:00 | D | 2.00 |

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 / 750 | 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 |

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| | | | |
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Softcopy of this report and latest statistics can be seen on <http://creams.iari.res.in>

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)
