



# MONITORING PADDY RESIDUE BURNING IN NORTH INDIA USING SATELLITE REMOTE SENSING DURING 2019



## Districtwise Paddy Residue Burning Statistics in (2019)

### (A) Punjab

- Paddy area and burnt area was estimated by using moderate resolution multitemporal satellite images. The images were classified using hierarchical decision rule based algorithm and ground truth.
- In 2019 the total paddy area was estimated to be 2.96 million ha in Punjab. About 1.12 million ha area under paddy was burnt which is about 37.42% of sown area.
- In comparison to 2018, sown area under paddy in 2019 reduced by 104.7 '000 ha. The paddy area burnt in 2019 reduced by 406.2 '000 ha.
- In 2019 the percent area burnt was 37.42% as compared to 49.39% in 2018. So about 12.0% reduction in paddy area burning was estimated as compared to 2018.

### District-wise Paddy Area Burnt and Paddy Straw Burnt in Punjab in 2019 and its comparison with 2018

District	2018			2019		
	Paddy area by RS ('000 ha)	Paddy Area Burnt by RS ('000 ha)	Percent Burnt Area by RS (%)	Paddy area by RS ('000 ha)	Paddy Area Burnt by RS ('000 ha)	Percent Burnt Area by RS (%)
AMRITSAR	186.76	33.72	18.06	143.0	18.47	12.91
BARNALA	118.42	66.99	56.58	136.8	51.69	37.78
BATHINDA	154.91	121.18	78.22	167.2	81.19	48.56
FARIDKOT	116.25	84.42	72.63	117.0	94.82	81.06
FATEHGARH SAHIB	81.88	36.18	44.19	62.7	19.75	31.49
FAZILKA	103.96	78.56	75.57	106.0	35.05	33.08
FIROZPUR	189.11	147.48	77.99	190.0	116.45	61.30
GURDASPUR	181.17	35.90	19.81	176.2	38.46	21.83
HOSHIARPUR	74.0	4.72	6.37	69.6	12.08	17.36
JALANDHAR	166.27	75.73	45.55	146.2	51.09	34.95
KAPURTHALA	118.02	62.09	52.61	108.4	45.86	42.29
LUDHIANA	255.71	101.52	39.70	249.3	85.65	34.36
MANSA	111.40	84.49	75.85	112.0	41.50	37.06
MOGA	152.01	82.35	54.17	156.5	71.05	45.41
MUKTSAR	186.58	142.17	76.19	167.9	89.33	53.20
NAWASHAHR (SBS NAGAR)	65.76	12.22	18.59	61.3	14.21	23.19
PATHANKOT	28.0	0.28	1.02	16.7	0.26	1.56
PATIALA	231.49	92.67	40.03	207.8	67.54	32.50
RUPNAGAR	34.56	6.19	17.92	47.0	5.26	11.20
SANGRUR	290.37	143.14	49.30	293.8	95.52	32.52
SAS NAGAR	32.56	2.13	6.54	28.7	1.43	5.00
TARN TARAN	187.58	100.38	53.51	198.2	71.64	36.14
<b>TOTAL</b>	<b>3066.77</b>	<b>1514.51</b>	<b>49.39</b>	<b>2962.1</b>	<b>1108.29</b>	<b>37.42</b>

**(B) Haryana**

- In 2019 the total paddy area was estimated to be 1.34 million ha in Haryana. About 237.21 '000 ha area under paddy was burnt which is about 17.70% of sown area.
- In comparison to 2018, sown area under paddy in 2019 reduced by 106.8 '000 ha. The paddy area burnt in 2019 reduced by 8.21 '000 ha.
- In 2019 the percent area burnt was 17.70% as compared to 16.96% in 2018. So no change in paddy area burning in percent term was estimated as compared to 2018.

**District-wise Paddy Area Burnt and Paddy Straw Burnt in Haryana in 2019 in and its comparison with 2018**

District	2018			2019		
	Paddy area by SDA ('000 ha)	Paddy Area Burnt by RS ('000 ha)	Percent Burnt Area by RS (%)	Paddy area by RS ('000 ha)	Paddy Area Burnt by RS ('000 ha)	Percent Burnt Area by RS (%)
AMBALA	85.00	3.15	3.71	92.40	12.33	13.35
BHIWANI	26.00	0.49	1.90	23.93	4.73	19.78
CHARKHI DADRI	10.00	0.00	0.00	8.80	0.00	0.00
FARIDABAD	13.00	0.09	0.69	11.67	0.27	2.34
FATEHABAD	124.00	69.65	56.17	102.94	58.11	56.45
GURGAON	5.00	0.00	0.00	4.51	0.95	21.12
HISAR	76.00	12.93	17.02	62.46	11.73	18.78
JHAJJAR	45.00	0.78	1.74	32.02	2.84	8.88
JIND	141.00	29.23	20.73	125.65	16.38	13.03
KAITHAL	162.00	29.35	18.12	164.87	41.02	24.88
KARNAL	175.00	23.55	13.46	170.84	31.27	18.30
KURUKSHETRA	119.00	21.32	17.92	124.83	30.57	24.49
MAHENDRAGARH	0.00	0.00	0.00	0.00	0.00	0.00
MEWAT	11.00	0.00	0.00	4.85	0.83	17.23
PALWAL	36.00	4.12	11.45	33.02	2.17	6.56
PANCHKULA	11.00	0.00	0.00	12.60	0.14	1.14
PANIPAT	75.00	0.30	0.40	68.74	1.38	2.01
REWARI	2.00	0.00	0.00	2.19	0.45	20.60
ROHTAK	48.00	1.19	2.47	36.83	0.57	1.56
SIRSA	97.00	41.71	43.00	85.73	12.47	14.54
SONIPAT	108.00	2.89	2.68	102.07	1.44	1.41
YAMUNANAGAR	78.00	4.66	5.97	69.26	7.55	10.90
<b>Total</b>	<b>1447.00</b>	<b>245.42</b>	<b>16.96</b>	<b>1340.20</b>	<b>237.21</b>	<b>17.70</b>