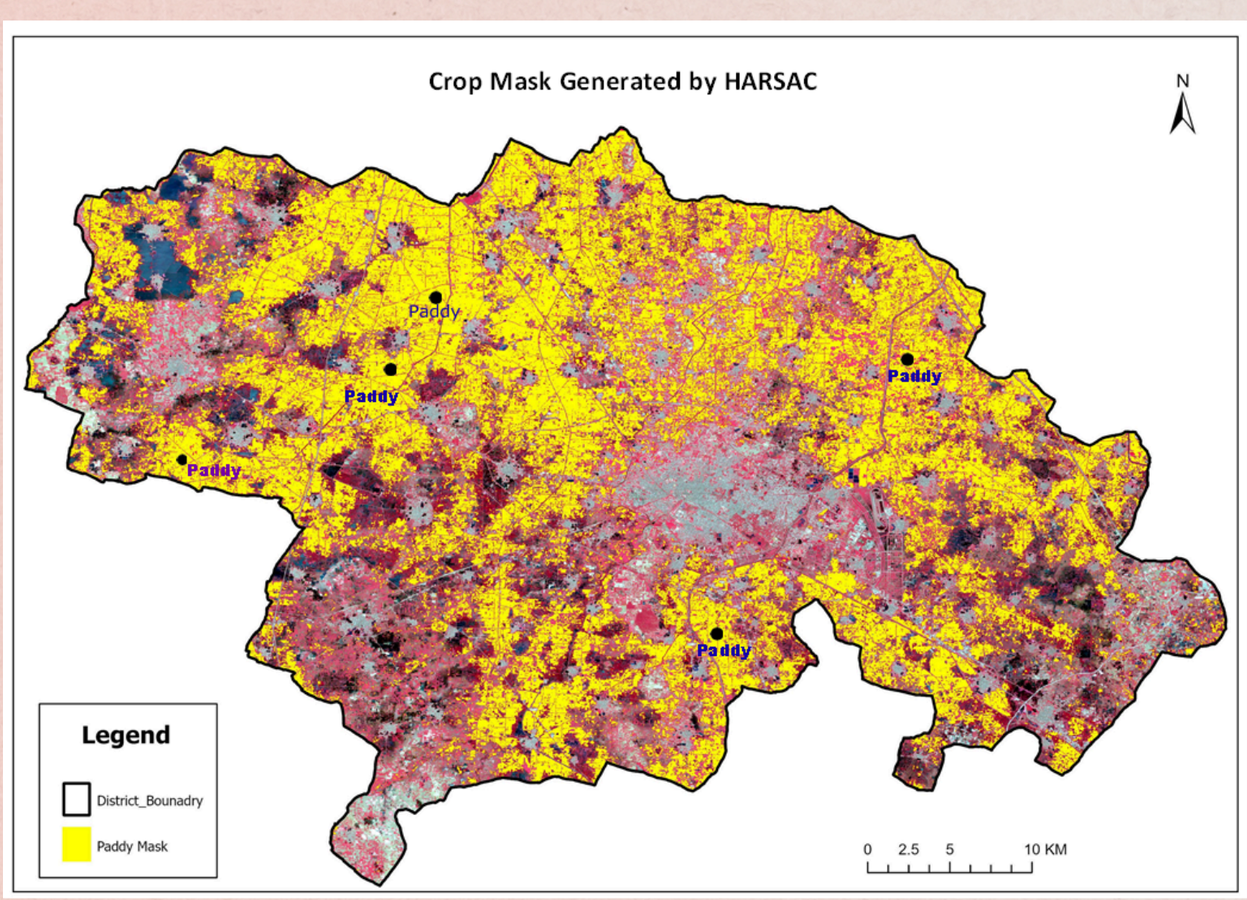
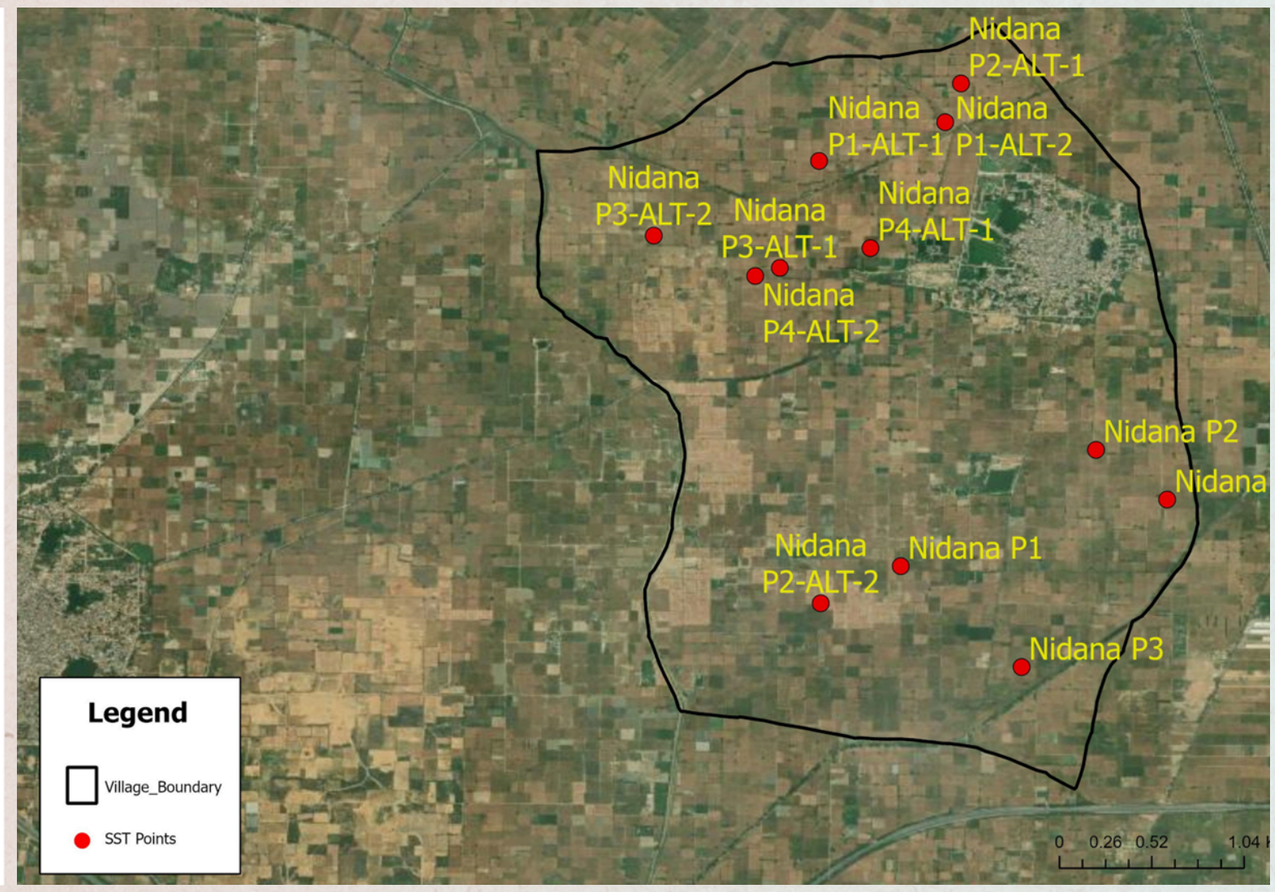
Geo-Enabled Crop Cutting Experiment (CCE) using Smart Sampling Technique(SST)

Remote Sensing(RS) data plays a crucial role in SST because it provides scientific information about crop growth and variability across the entire landscape using satellite data-based indices such as NDVI, LSWI, etc. Instead of selecting fields randomly, RS helps to identify high-, medium- and low-productivity zones, ensuring that sampling points truly represent the real crop conditions. This improves the transparency, accuracy and fairness of crop yield assessment. SST, supported by satellite data, is highly important for boththe government and farmers. For the government, it ensures unbiased and reliable yield estimation, which strengthens decision-making for crop insurance, compensation, procurement planning and food security policies. For farmers, SST increases trust in the crop insurance system by reducing sampling bias and ensuring that CCE is conducted in the right field, representing actual crop conditions. As a result, claim settlement becomes faster, more scientific and more transparent, ultimately benefiting farmers with fair compensation and better support from government schemes.

Sr_No.	State	District	Tehsil	Village	Category	Lat	Long	murraba_	killa_no
1	Haryana	Rohtak	Meham	Nidana	Nidana P1	28.94474	76.48027	90	15
2	Haryana	Rohtak	Meham	Nidana	Nidana P1-ALT-1	28.96526	76.47614	15	24
3	Haryana	Rohtak	Meham	Nidana	Nidana P1-ALT-2	28.96722	76.48252	17	8
4	Haryana	Rohtak	Meham	Nidana	Nidana P2	28.95064	76.49015	75	6
5	Haryana	Rohtak	Meham	Nidana	Nidana P2-ALT-1	28.96919	76.48333	6	14
6	Haryana	Rohtak	Meham	Nidana	Nidana P2-ALT-2	28.94286	76.47623	101	0
7	Haryana	Rohtak	Meham	Nidana	Nidana P3	28.93963	76.48638	109	7
8	Haryana	Rohtak	Meham	Nidana	Nidana P3-ALT-1	28.95984	76.47416	35	21
9	Haryana	Rohtak	Meham	Nidana	Nidana P3-ALT-2	28.96149	76.46779	33	9
10	Haryana	Rohtak	Meham	Nidana	Nidana P4	28.94812	76.49375	79	6
11	Haryana	Rohtak	Meham	Nidana	Nidana P4-ALT-1	28.96086	76.47875	36	13
12	Haryana	Rohtak	Meham	Nidana	Nidana P4-ALT-2	28.95944	76.47291	47	4

"The Haryana Space Applications Centre (HARSAC) department of Citizen Resources Information Department (CRID) in collaboration with the Department of Agriculture & Farmers Welfare, Haryana, is implementing the smart sampling approach in the conduct of CCEs for the Paddy, Wheat and Mustard crops. The initiative has also strengthened the use of technology for unbiased sample point selection and improved the representation of high-, medium-, and low-productivity zones. The result is better in policy support, faster decision-making on crop insurance, and improved trust in agricultural statistics."





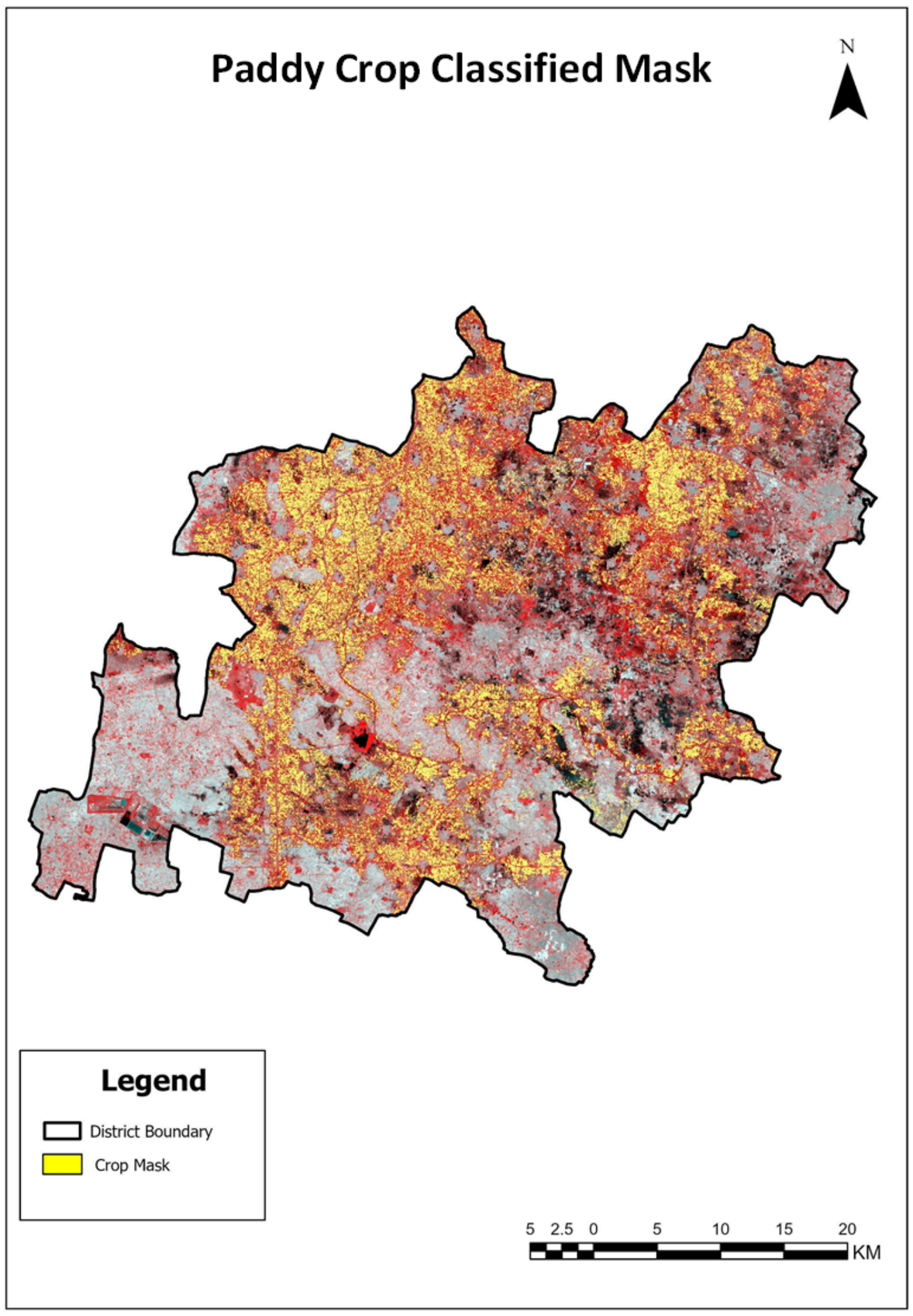
Forecasting Agricultural output using Space, Agro-meteorology and land-based observations (FASAL)

https://hsac.org.in/harsac/

HARSAC, CRID, CCS HAU CAMPUS, HISAR-125004

01662-232632 , 08046810976

The project aims at providing pre-harvest area and production estimates of major crops (Paddy, Sugarcane, Mustard & Wheat) in major growing districts at the districtas well as at the state level for Haryana stateusing satellite data.



	Paddy Production Forecast 2025_2026			
S. No.	District	Area ('000 ha)	Yield (kg/ha)	Production ('000 tonnes)
1	AMBALA	82.6	3908	322.801
2	BHIWANI	35.89	2520	90.443
3	CHARKHI DADRI	12.03	2546	30.628
4	FARIDABAD	11.77	2391	28.142
5	FATEHABAD	118.77	4194	498.121
6	HISAR	101.35	2788	282.564
7	JHAJJAR	48.12	3084	148.402
8	JIND	147.62	3379	498.808
9	KAITHAL	169.48	4049	686.225
10	KARNAL	185.45	4141	767.948
11	KURUKSHETRA	122.64	4144	508.22
12	MEWAT	7.96	2091	16.644
13	PALWAL	33.13	2938	97.336
14	PANCHKULA	10.57	3901	41.234
15	PANIPAT	79.83	3262	260.405
16	ROHTAK	72.35	3159	228.554
17	SIRSA	115.69	3004	347.533
18	SONIPAT	113.19	2829	320.215
19	YAMUNANAGAR	67.52	3850	259.952
State Total		1535.96	3538	5434.175

Mustard Production Forecast 2024_2025				
Sr. No.	**District**	**RS**	**DOA**	RD
1	Bhiwani	127.3	155,227	-0.9991799
2	Charkhi Dadri	60.01	64,350	-0.9990674
3	Fatehabad	13.07	10,694	-0.9987778
4	Gurugram	16.13	21,766	-0.9992589
5	Hisar	61.42	64,449	-0.999047
6	Jhajjar	18	28,979	-0.9993789
7	Mahendragarh	100.65	105,582	-0.9990467
8	Mewat (Nuh)	30.57	26,102	-0.9988288
9	Rewari	63.35	76,632	-0.9991733
10	Rohtak	8.67	12,330	-0.9992968
11	Sirsa	72.48	61,534	-0.9988221
	Total	**571.65**	658,523	**-0.9991319**
	State (Extrapolated)	611.66		

Wheat Production Forecast 2024-2025			
District	**RS**	**DOA**	**RD**
Ambala	68.14	103.65	-0.342595273
Bhiwani	106.14	108.03	-0.01749514
Charkhi Dadri	42.23	46.5	-0.091827957
Faridabad	20.75	34.52	-0.398899189
Fatehabad	188.07	197.31	-0.046829862
Gurugram	28.61	35.43	-0.192492238
Hisar	226.7	241.32	-0.060583458
Jhajjar	87.91	104.93	-0.162203374
Jind	209.17	218.78	-0.043925405
Kaithal	172.67	186.63	-0.074800407
Karnal	160.34	170.32	-0.058595585
Kurukshetra	93.47	116.17	-0.195403288
Mahendragarh	33.11	30.54	0.084151932
Mewat	51.91	73.78	-0.296421795
Palwal	81.08	101.7	-0.202753196
Panchkula	11.98	19.77	-0.394031361
Panipat	79.85	71.84	0.111497773
Rewari	37.58	35.17	0.06852431
Rohtak	95.4	107.28	-0.110738255
Sirsa	273.1	302.12	-0.096054548
Sonipat	133.43	149.94	-0.110110711
Yamunanagar	66.29	106.5	-0.377558685
State	2267.93	2562.23	-3.00914571

		Sugarcane Production Forecast 2025_2026		
S.No	DISTRICT	Area ('000 Ha.)	Yield (Tonnes/Ha.)	Production ('000 Tonnes)
1	Ambala	6.82	87.78	598.66
2	Kaithal	1.54	107.35	165.32
3	Karnal	10.01	90.54	906.31
4	Kurukshetra	7.22	83.25	601.07
5	Palwal	3.45	75.01	258.78
6	Panipat	7.55	91.91	693.92
7	Rohtak	5.47	67.22	367.69
8	Sonipat	7.81	85.1	664.63
9	Yamunanagar	14.25	93.44	1331.52
Total (9 districts)		64.12		5587.9
State (Extrapolated)#		76.3	87.15	6649.55

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