Presentation

By

MSP Unit
Economics, Statistics and Evaluation Division
D/o Agriculture and Farmers Welfare

Cost of Cultivation Scheme

Introduction

- The "Comprehensive Scheme for Studying the Cost of Cultivation of Principal Crops in India" (CS Scheme) started in 1970-71.
- Objective of the Scheme: To generate cost of cultivation/production estimates (25 crops)- Annually
- Total number of estimates: 216 (19 States and 25 crops)
- Estimates used by CACP for recommending MSP.
- Cost data collection by 19 Implementing Agencies
- Crops are selected for a block period of three years. (Current Block: 2023-26)
    - Selection Criteria: Relative area and production share of the relevant crop at All-India level

Cost structure under Cost of Cultivation

	A2	10	Depreciation on implements and farm buildings
1	Value of hired human labour	11	Irrigation charges
2	Value of hired bullock labour	12	Land revenue, cesses and other taxes
3	Value of owned bullock labour	13	Interest on working capital
4	Value of owned machinery labour	14	Miscellaneous expenses (artisans, etc.)
5	Hired machinery charges	15	Rent paid for leased-in land
6	Value of seed (both farmer produced /purchased).		**A2+FL**
7	Value of insecticides and pesticides		A2+ Imputed value of Family Labour
8	Value of manure (owned and purchased).		**C2**
9	Value of fertilizer		A2 + FL + Rental Value of Own Land+ Interest on Fixed capital

List of Crops

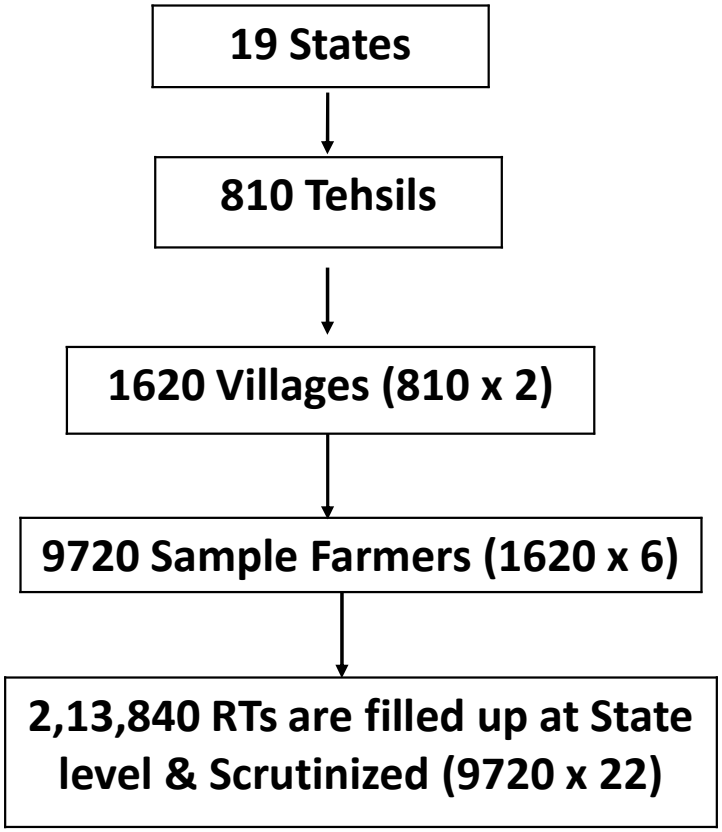
S.no.	Crop Group/ No. of crops	Crops Covered for 2023-26
1	Cereals (7)	Paddy, Jowar, Bajra, Maize, Wheat, Ragi and Barley
2	Pulses (5)	Bengal Gram, Arhar (Red Gram), Moong (Green Gram), Urad (Black Gram), and Masur (Lentil)
3	Oilseeds (7)	Groundnut, Rapeseed and Mustard (R&M), Soyabean, Sunflower, Safflower, Sesamum and Nigerseed
4	Fibers (2)	Cotton and Jute
5	Sugar (cane) (1)	Sugarcane
6	Fruits and Vegetables (3)	Coconut, Onion and Potato

Stratification of Zone

- Each State is divided into homogeneous agro- climatic Zones, based on Cropping Pattern, Soil Type and Rainfall etc..
- Soil Type is based on Soil Texture and Soil colour
- Topography (Low lying, Mid lying and High ground etc…)
- The Primary sampling tehsils are allocated in different zones in proportion to the total area of all crops.
  - A = Cropped Area of Zone 1 x Total Tehsils in the State/ Total cropped Area

E.g. For Gujarat State for zone 1: No. of Tehsils = 3,72,452 x 60 / 99,20,923 = 2.25 (2 Tehsils)

Sample Size for 25 Mandate Crops



State wise breakup of Tehsils

S. no.	State	No. of Tehsils	S. no.	State	No. of Tehsils
1	Assam	45	11	Odisha	45
2	Andhra Pradesh	34	12	Punjab	30
3	Bihar	45	13	Rajasthan	60
4	Gujarat	60	14	Tamil Nadu	60
5	Haryana	30	15	Uttar Pradesh	**75**
6	Himachal Pradesh	30	16	West Bengal	60
7	Karnataka	45	17	Chhattisgarh	15
8	Kerala	30	18	Jharkhand	**15**
9	Madhya Pradesh	45	19	Telangana	26
10	Maharashtra	60	**Total Tehsils**		**810**

Targets of Estimates

S.no.	Crops	Deadline
1	Kharif crops **(151 estimates)**	31st January, 2025
2	Rabi crops **(51 estimates)**	15th June, 2025
3	Coconut & Jute crop **(4+3 estimates)**	15th August, 2024
4	Sugarcane **(7 estimates)**	30th September, 2024

State wise crop complex for Block Period 2023-26

S.no.	State	Crop Complex for Block Period - 2023-26
1	Andhra Pradesh	Paddy, Maize, Jowar, Gram, Tur, Moong, Urad, Sunflower, Groundnut, Sesamum, Cotton, Onion, Sugarcane, Coconut**(14)**
2	Assam	Paddy, R& M, Jute, Potato **(4)**
3	Bihar	Paddy, Maize, Wheat, Moong, Gram, Lentil, Sunflower, R&M, Potato, Jute **(10)**
4	Gujarat	Paddy, Maize, Bajra, Wheat, Tur, Moong, Urad, Gram, Groundnut, Sesamum, Soyabean, R&M, Cotton, Onion, Potato, Sugarcane**. (16)**
5	Haryana	Paddy, Bajra, Wheat, Moong, Gram, R&M, Cotton, Sugarcane **(8)**
6	Himachal Pradesh	Paddy, Maize, Wheat, Barley, Urad, Gram, Lentil, R&M, Sesamum, Soyabean, Potato **(11)**
7	Karnataka	Paddy, Maize, Jowar, Bajra, Ragi, Wheat, Tur, Moong, Urad, Gram, Groundnut, Soyabean, Sunflower, Safflower, Cotton, Sugarcane, Onion, Coconut **(18)**
8	Kerala	Paddy, Groundnut, Sesamum, Coconut **(4)**
9	Madhya Pradesh	Paddy, Maize, Bajra, Wheat, Tur, Moong, Urad, Gram, Lentil, R&M, Sesamum, Soyabean, Cotton, Onion, Potato**(15)**

State wise crop complex for Block Period 2023-26

S.no.	State	Crop Complex for Block Period - 2023-26
10	Maharashtra	Paddy, Maize, Jowar, Bajra, Wheat, Arhar, Moong, Urad, Gram, Groundnut, Soybean, Safflower, Cotton, Onion, Sugarcane **(Total crops- 15)**
11	Punjab	Paddy, Maize, Wheat, Moong, R&M, Cotton **(6)**
12	Rajasthan	Bajra, Maize, Jowar, Wheat, Barley, Moong, Urad, Gram, Groundnut, Soyabean, Sesamum, R&M, Cotton, Onion **(14)**
13	Tamil Nadu	Paddy, Maize, Jowar, Bajra, Ragi, Moong, Urad, Groundnut, Sesamum, Onion, Cotton, Sugarcane, Coconut **(13)**
14	Uttar Pradesh	Paddy, Maize, Bajra, Wheat, Barley, Tur, Moong, Urad, Gram, Lentil, Groundnut, Sesamum, R&M, Potato, Sugarcane **(15)**
15	West Bengal	Paddy, Maize, Wheat, Moong, Urad, Gram, Lentil, Sesamum, Groundnut, R&M, Jute, Potato, Onion **(13)**
16	Chhattisgarh	Paddy, Maize, Wheat, Urad, Gram, Groundnut, Nigerseed, Soyabean, R&M (**9**)
17	Jharkhand	Paddy, Maize, Wheat, Arhar, Moong, Urad, Gram, Lentil, Groundnut, R&M, Potato **(11)**
18	Telangana	Paddy, Maize, Tur, Moong, Gram, Groundnut, Sesamum, Soyabean, Cotton **(9)**
19	Odisha	Paddy, Maize, Ragi, Moong, Tur, Urad, Groundnut, Sesamum, Nigerseed, R&M, Cotton**(11)**

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Crop wise States

S.no.	Crops	States	No. of estimates
1	Wheat	Bihar, Gujarat, Haryana, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Uttar Pradesh, West Bengal, Chhattisgarh, Jharkhand.	(13)
2	Paddy	Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Tamil Nadu, Uttar Pradesh, West Bengal, Chhattisgarh, Jharkhand, Telangana.	(18)
3	Maize	Andhra Pradesh, Bihar, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal, Chhattisgarh, Jharkhand, Telangana.	(16)
4	Jowar	Andhra Pradesh, Karnataka, Maharashtra, Rajasthan, Tamil Nadu.	(5)
5	Bajra	Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh.	(8)
6	Ragi	Karnataka, Odisha, Tamil Nadu.	(3)
7	Barley	Himachal Pradesh, Rajasthan, Uttar Pradesh.	(3)
8	Gram	Andhra Pradesh, Bihar, Gujarat, Haryana, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, West Bengal, Chhattisgarh, Jharkhand, Telangana.	(14)
9	Lentil	Bihar, Himachal Pradesh, Madhya Pradesh, Uttar Pradesh, West Bengal, Jharkhand.	(6)
10	Arhar	Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Uttar Pradesh, Jharkhand, Telangana.	(9)
11	Urad	Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal, Chhattisgarh, Jharkhand.	(13)
12	Moong	Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal, Jharkhand, Telangana.	(15)
13	Rapeseed / Mustard	Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Madhya Pradesh, Odisha, Punjab, Rajasthan, Uttar Pradesh, West Bengal, Chhattisgarh, Jharkhand.	(13)

Crop wise States

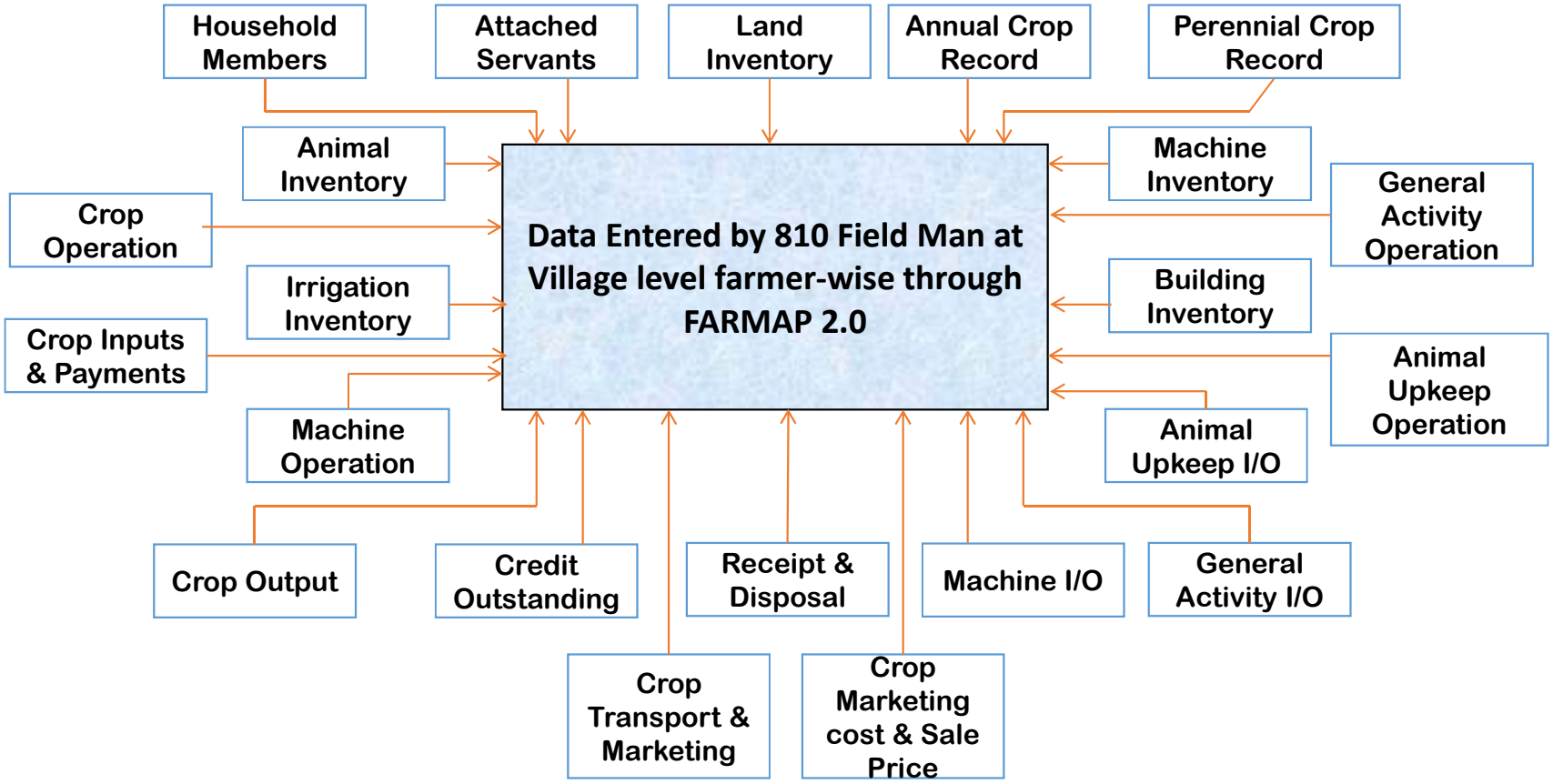
S.no.	Crops	States	No. of estimates
14	Safflower	Karnataka, Maharashtra	(2)
15	Nigerseed	Odisha, Chhattisgarh.	(2)
16	Groundnut	Andhra Pradesh, Gujarat, Karnataka, Kerala, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal, Chhattisgarh, Jharkhand, Telangana.	(13)
17	Sesamum	Andhra Pradesh, Gujarat, Himachal Pradesh, Kerala, Madhya Pradesh, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal, Telangana.	(11)
18	Sunflower	Andhra Pradesh, Bihar, Karnataka.	(3)
19	Soybean	Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Chhattisgarh, Telangana.	(8)
20	Cotton	Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana.	(11)
21	Jute	Assam, Bihar, West Bengal.	(3)
22	Sugarcane	Andhra Pradesh, Gujarat, Haryana, Karnataka, Maharashtra, Tamil Nadu, Uttar Pradesh.	(7)
23	Onion	Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, West Bengal.	(8)
24	Potato	Assam, Bihar, Gujarat, Himachal Pradesh, Madhya Pradesh, Uttar Pradesh, West Bengal, Jharkhand.	(8)
25	Coconut	Andhra Pradesh, Karnataka, Kerala, Tamil Nadu.	(4)
Total			**216**

Ensuring Credibility of Data

There is one Supervisor for every 10 Fieldmen to ensure quality of field data .

- Checking of data by Field Visits by:
  - i) Field Supervisor
  - ii) Field Officer
  - iii) Honorary Director
- Scrutiny:
  - i) Field Supervisor
  - ii) Field Officer
- A mobile application for tracking attendance of field officials has started w.e.f. February 2024.
  - In July 2024, more than 80% attendance has been recorded.
  - Follow up action is being taken for 100% compliance.

Web based Farm Analysis Package 2.0



CACP Report

- Based on CS Scheme data, CACP prepares 4 reports:

S.no.	Reports by CACP	Tentative timeline of CACP report	MSP notification (last year)
1	Kharif (14)	March/April	June/July (24th June)
2	Rabi (6)	July/August	(Sept/Oct) 10th October
3	Copra (1)	September/October	Dec (22 January)
4	Jute (1)	October/November	Jan/Feb (7th March)

- CACP reports contains Price and Non Price recommendations (NPR).
- NPR is circulated to concerned Divisions within Ministry and also to other Ministries/Departments.
  - Comments received are being compiled in MSP Unit

Present Crop Coverage

- MSP is fixed based on:

  -Recommendations of the Commission for Agricultural Costs and Prices (CACP)

  -Views of State Governments and Central Ministries/ Departments concerned

- There are 22 mandated crops for which MSP is fixed

  Kharif Crops (14): Paddy, Jowar, Bajra, Maize, Ragi, Tur (Arhar), Moong, Urad, Groundnut, Soyabean, Sunflower, Sesamum, Nigerseed, Cotton

  Rabi Crops (6): Wheat, Barley, Gram, Masur (Lentil), Rapeseed & Mustard, Safflower

  Commercial Crops (2): Jute and Copra.

- MSP for Toria and de-husked coconut are also fixed on the basis of MSP of rapeseed & mustard and copra respectively

MSP Crops (Kharif)

Paddy

Jowar

Bajra

Maize

Ragi

Arhar/tur

Moong

Urad

MSP Crops (Kharif)

Groundnut

Sunflower Seed

Soybean Yellow

Sesamum

Nigerseed

Cotton

MSP Crops (Rabi)

Wheat

Barley

Gram

Lentil

Mustard

Safflower

MSP Crops (Commercial & Others)

Jute

Toria

Copra

Dehusked Coconut

MSP Determinants

- **Cost of Production**

  -This is an important factor that goes as an input in determination of MSP, but it is not the only factor that determines MSP

- **Other Determinants**

  -Demand and supply

  -Price trends in the market, both domestic and international

  -Inter-crop price parity

  -Likely implications of MSP on consumers of that product

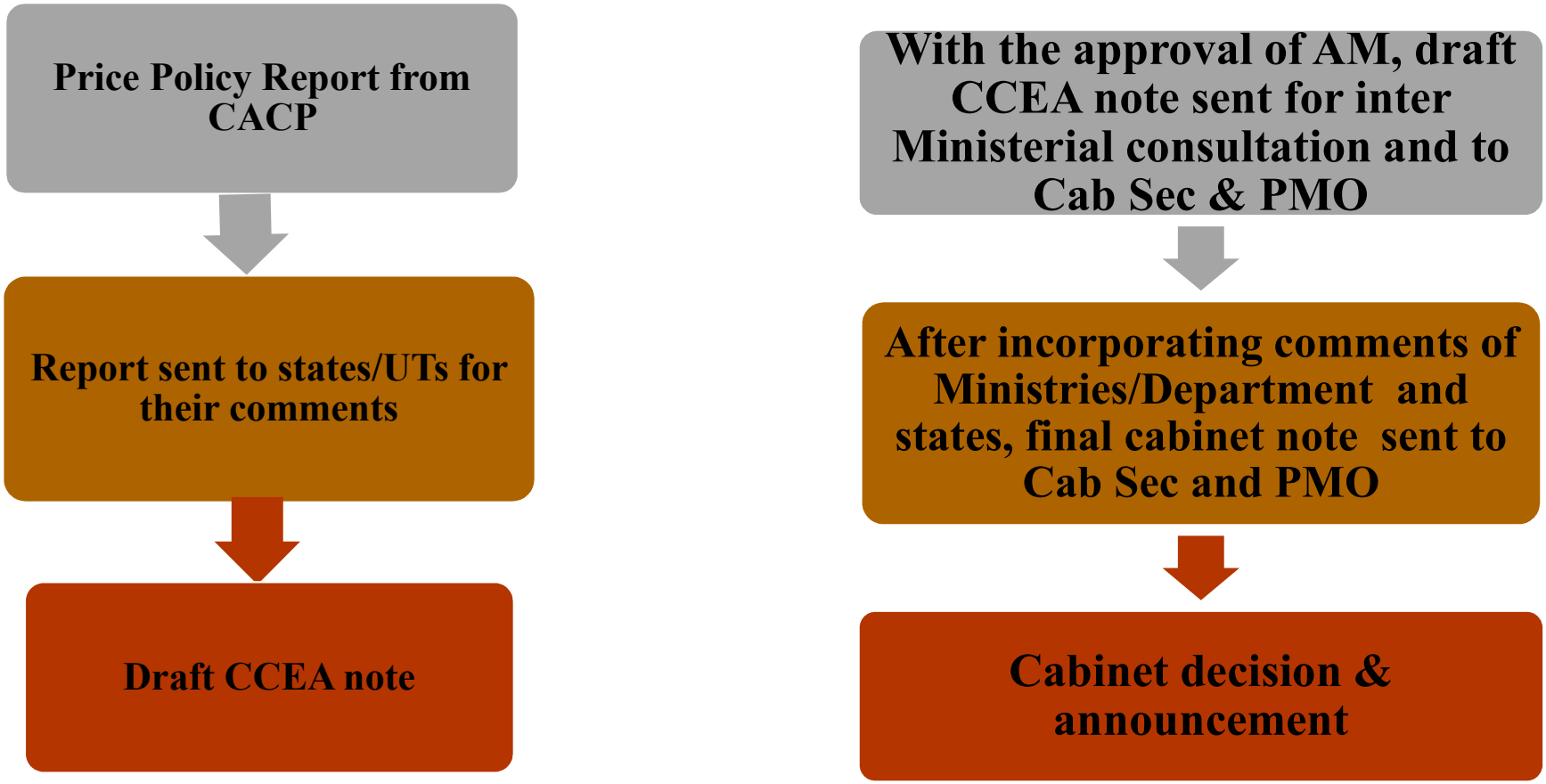
  -A minimum of 50 percent as the margin over cost of production (announced in Union Budget 2018-19)

Cost of Production Methodology

- CACP uses crop-wise and state-wise cost estimates on latest three years available data under 'Comprehensive Scheme for studying the Cost of Cultivation of Principal Crops in India'
- Cost of Production is based on:

A2+FL	C2
• Human Labour • Bullock Labour • Machine Labour • Seed (both farmer produced and purchased). • Insecticides and pesticides. • Manure (owned and purchased). • Fertilizer • Depreciation on implements and farm buildings. • Irrigation charges. • Land revenue, cesses and other taxes. • Interest on working capital. • Miscellaneous expenses • Rent paid for leased in land	• A2+FL • Rental Value of owned land • Interest on Fixed capital

MSP Fixation Process



Post MSP Implementation Operations

Commodity	Agencies Involved	Procurement Mechanism
 Cereals and coarse cereals	FCI	Off- Loading • NFSA • Mid Day Scheme • Others Welfare Schemes
 Pulses and Oilseeds	NAFED/ NCCF	Price Intervention • MSP > Market Price • PM-AASHA
 Commercial Crops	Cotton Corporation of India, Jute Corporation of India, NAFED, NCCF (copra)	Price Intervention • MSP > Market Price

Thanks

List of Implementing Agencies

S.no.			
1	Assam Agricultural University, Jorhat, Assam	11	Tamil Nadu Agriculure University, Coimbatore, Tamil Nadu
2	Professor Jayashankar Telangana State Agricultural University, Hyderabad, Telangana	12	Bidhan Chandra Krishi Viswa Vidyalaya, Mohanpur, West Bengal
3	Rajendra Agricultural University, Samastipur, Bihar	13	Acharya N.G.Ranga Agricultural University, Guntur, Andhra Pradesh
4	CCS Haryana Agriculture University, Hissar, Haryana	14	Birsa Agricultural University, Ranchi, Jharkhand
5	University of Agri. Sciences, Bangalore, Karnataka	15	Indira Gandhi Krishi Vishvidhalaya, Raipur, Chhattisgarh
6	JLN Krishi Viswa Vidyalaya, Jabalpur, M.P.	16	Sardar Patel University, Anand, Gujarat
7	Mahatma Phule Krishi Vidya Peeth, Ahmednagar, Maharashtra	17	Himachal Pradesh University, Shimla, H.P.
8	Orissa University of Agri. & Tech. Bhubaneshwar, Odisha	18	University of Kerala, Thiruvananthapuram, Kerala
9	Punjab Agricultural University, Ludhiana, Punjab	19	R.L.B.C.A.U, Jhansi, U.P.
10	Maharana Pratap U/o Agri & Technology, Udaipur, Rajasthan		

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Recommendations of Kharif MSP by CACP

Table S.1: Recommended MSPs of Mandated Crops: *Kharif* Marketing Season (KMS) 2024-25

(₹/qtl)

Crops	Projected A_2+FL Cost for KMS 2024-25	MSP for KMS 2023-24	Recommended MSP for KMS 2024-25	MSP as percent of A_2+FL
Paddy-Common	1533	2183	2300 (5.4)	150
Paddy-Grade A	-	2203	2320 (5.3)	-
Jowar-Hybrid	2247	3180	3371 (6.0)	150
Jowar-Maldandi	-	3225	3421 (6.1)	-
Bajra	1485	2500	2625 (5.0)	177
Ragi	2860	3846	4290 (11.5)	150
Maize	1447	2090	2225 (6.5)	154
Tur/Arhar	4761	7000	7550 (7.9)	159
Moong	5788	8558	8682 (1.4)	150
Urad	4883	6950	7400 (6.5)	152
Groundnut	4522	6377	6783 (6.4)	150
Sunflower Seed	4853	6760	7280 (7.7)	150
Soybean (Yellow)	3261	4600	4892 (6.3)	150
Sesamum	6178	8635	9267 (7.3)	150
Nigerseed	5811	7734	8717 (12.7)	150
Cotton (Medium Staple)	4747	6620	7121 (7.6)	150
Cotton (Long Staple)	-	7020	7521 (7.1)	-

Note: Figures in parenthesis represent increase in MSP over the previous year

Recommendations of Rabi MSP by CACP

Table S.1: MSPs Recommended for RMS2024-25

(₹/qtl)

Crops	Projected A_2+FL Cost for RMS 2024-25	MSP for RMS 2023-24	Recommended MSP for RMS 2024-25	MSP as percent of A_2+FL
Wheat	1128	2125	2275 (7.1)	202
Barley	1158	1735	1850 (6.6)	160
Gram	3400	5335	5440 (2.0)	160
Lentil (*Masur*)	3405	6000	6425 (7.1)	189
Rapeseed & Mustard	2855	5450	5650 (3.7)	198
Safflower	3807	5650	5800 (2.7)	152

Note: Figures in parenthesis represent increase in MSP over the previous year

Price Policy Recommendations

Jute for 2024-25

Considering all the relevant factors and consultations with various stakeholders, the Commission recommends that the Minimum Support Price (MSP) of raw jute (TDN-3 equivalent to earlier TD-5 grade) be fixed at ₹5,335 per quintal for the 2024-25 Season. This is 5.6 percent increase over the MSP of ₹5,050 per quintal for 2023-24 Season. The weighted all-India average A_2+FL cost of production is estimated at ₹3,237 per quintal in 2024-25, and the modified A_2+FL cost, which includes transportation costs, marketing charges and insurance premium is estimated at ₹3,314 per quintal. The recommended MSP would provide 64.8 percent margin over the A_2+FL cost of production and cover the cost of production in all major jute producing States.

Price Policy Recommendations

Copra for 2024

The Commission as per its mandate has duly considered cost of production, demand-supply and price situation in domestic and world market, inter-crop parity in returns, likely impact of the price policy on consumers and user industries, and a minimum of 50 percent as margin over the cost of production while recommending Minimum Support Price (MSP) for copra. The Commission recommends that MSP of milling copra be fixed at ₹11,160 per quintal and ball copra at ₹12,000 per quintal for the 2024 season. The recommended MSP of milling copra would give gross margin of 51.8 percent over cost of production.

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Record Type (RT) Details

RT	Title	Frequency of reporting in schedule
11	House hold members details	Yearly and changes (monthly)
12	Attached Farm Servants	Yearly and changes (monthly)
13	Land Inventory	Yearly and changes (monthly)
14	Annual Crop Records	Beginning and End of Season
15	Perennial Crop Records	Beginning and End of Season
16	Animal Inventory	Yearly and changes (monthly)
17	Building Inventory	Yearly and changes (monthly)
18	Irrigation Inventory	Yearly and changes (monthly)
19	Machinery Implements & Tools	Yearly and changes (monthly)
20	Crop Operation Hours and Payment	Collect daily record weekly
21	Crop Inputs and Payments	Collect daily record weekly
22	Crop Outputs	Collect daily record weekly

RT Details

RT	Title	Frequency of reporting
23	Crop Transport & Marketing Operations Hours and Payments	Collect daily record weekly
24	Post Harvest Crop Marketing Costs Incurred	Collect daily record weekly
25	Animal Upkeep Operation Hours & Payments	Collect daily record weekly
26	Animal Upkeep Physical Input and Outputs	Collect daily record weekly
27	Machinery Implements & Tools Upkeep Operations Hours and Payments	Collect daily record weekly
28	Machinery, Implements, Tools Upkeep Inputs & Outputs	Collect daily record weekly
29	Credit Outstanding	Yearly
30	Receipts and Disposals of Important Crop Products	Monthly
31	General Farm Activity Operations and Payments	Collect daily record weekly
32	General Farm Activity Physical Inputs and Outputs	Collect daily record weekly

New Initiatives in Agriculture Statistics

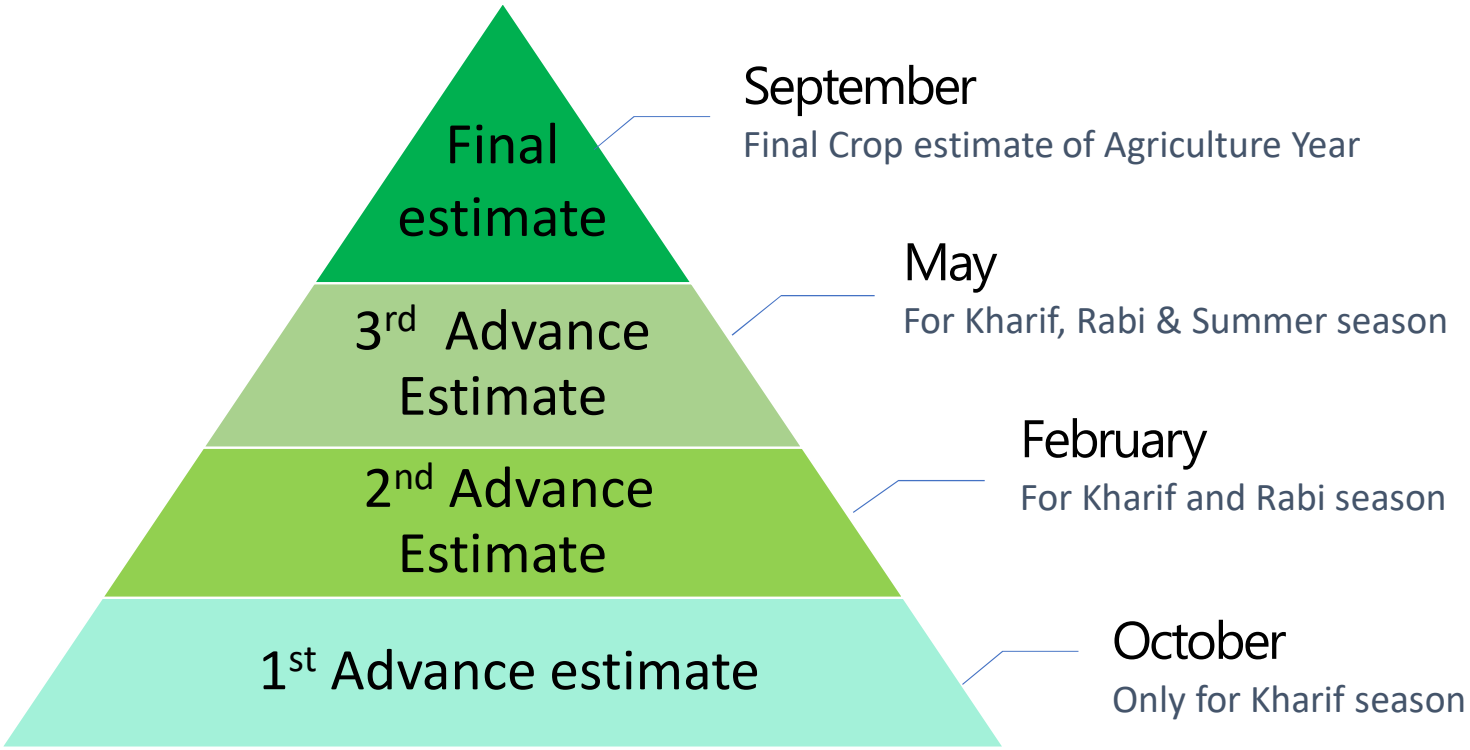
Agriculture Statistics and Crop Estimation

- Agriculture is State subject, but Agricultural Statistics is in Concurrent list.
- Primary responsibility of collection of crop statistics from field rests with States/UTs.
- Crop statistics used for various policy decisions such as crop planning, procurement etc; Trade policy: export, import, duty structure etc.

State Agriculture Statistics Authorities (SASA) *responsible for providing Area, Yield & Production estimates at prescribed intervals to DA&FW.*

- **Department of Agriculture** (Arunachal Pradesh, Gujarat, Goa, Haryana, Himachal Pradesh,, Madhya Pradesh, Maharashtra, Manipur, Mizoram, Nagaland, Punjab, Sikkim, Tripura, Uttar Pradesh, Uttarakhand and West Bengal)
- **Directorate of Economics & Statistics** (Andaman & Nicobar Island, Andhra Pradesh, Assam, Bihar, Jharkhand, Ladakh, Karnataka, Kerala, Meghalaya, Odisha, Rajasthan, Tamil Nadu, Telangana, Puducherry)
- **Department of Land Records** (Chhattisgarh)

Timeline for Production Estimation



28 major crops and 3 minor crops are being considered for Advance and Final Estimates

Parameters of Crop Production Estimates

Estimates based on Field Data

Estimates based on Remote Sensing & Modelling (FASAL)

Traditional System of Crop Estimation

CROP AREA

- Byproduct of Land Record System primarily maintained by State Revenue Department (Girdawari)
- Compiled by SASAs

Field Data

CROP YIELD

- Crop Cutting Experiments (CCEs) by States under General Crop Estimation Surveys
- Coordinated & compiled by SASAs

Supervised by NSSO under ICS

Present System of Ggeneration of Crop Estimates

Data Sources

FASAL

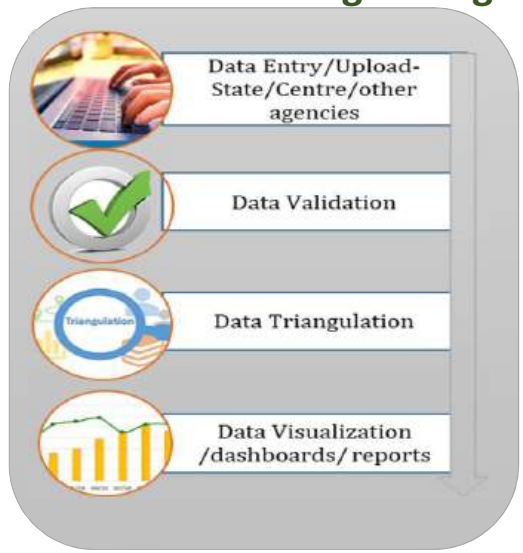
- State/ UT Govt through SASA
  - Area (Girdawari) Yield (CCE)
- Remote Sensing (9 crops)
- Econometric Modelling (14 crops)
- Previous APY Trends
- Other Sources such as NSSO, KPS etc

Validation/ verification

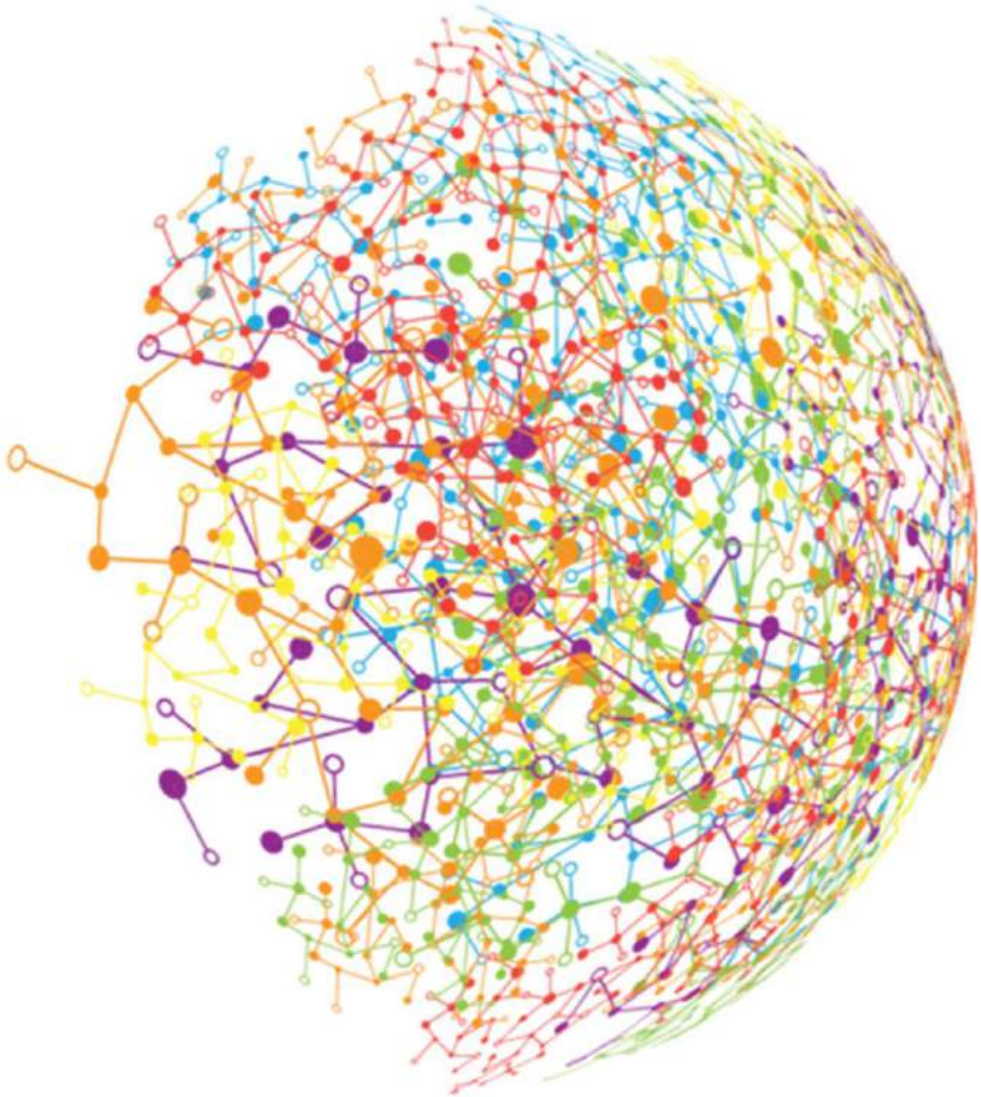
Data Triangulation

Advance & Final estimates (28 major & 3 minor crops)

Automation through UPAg



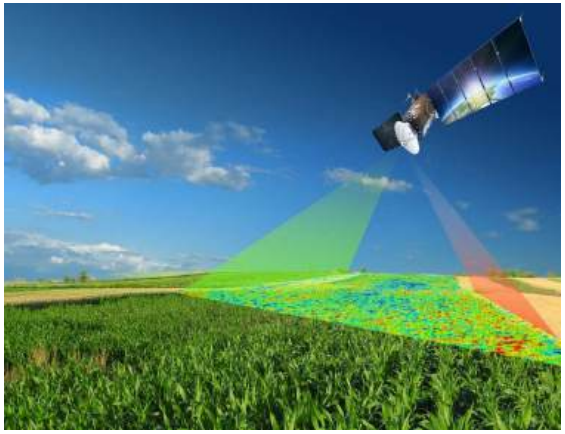
Key Interventions



Key Initiatives

Improvement in Estimates based on field data

- DCS
- DGCES
- Yield through independent supervision by NSSO



Improving the Estimates based on Remote Sensing

- Automated Crop mapping,
- Improved Yield Models,
- Crop-specific surveillance and monitoring systems for close monitoring of selected crops using satellite indices

Triangulation and validation with other data sources

(PMFBY CCEs, Supervised CCEs by NSSO, Farmers Survey etc..)

Re-engineered process of Agricultural Statistics collected from Field

To overcome the challenges of manual system and delay in reporting of field data

CROP AREA - DCS

A robust, effective, on-time, transparent digitally driven crop survey system through which Plot-level crop-sown data is collected for every season with 'Geotagged photographs'

CROP YIELD- DGCES

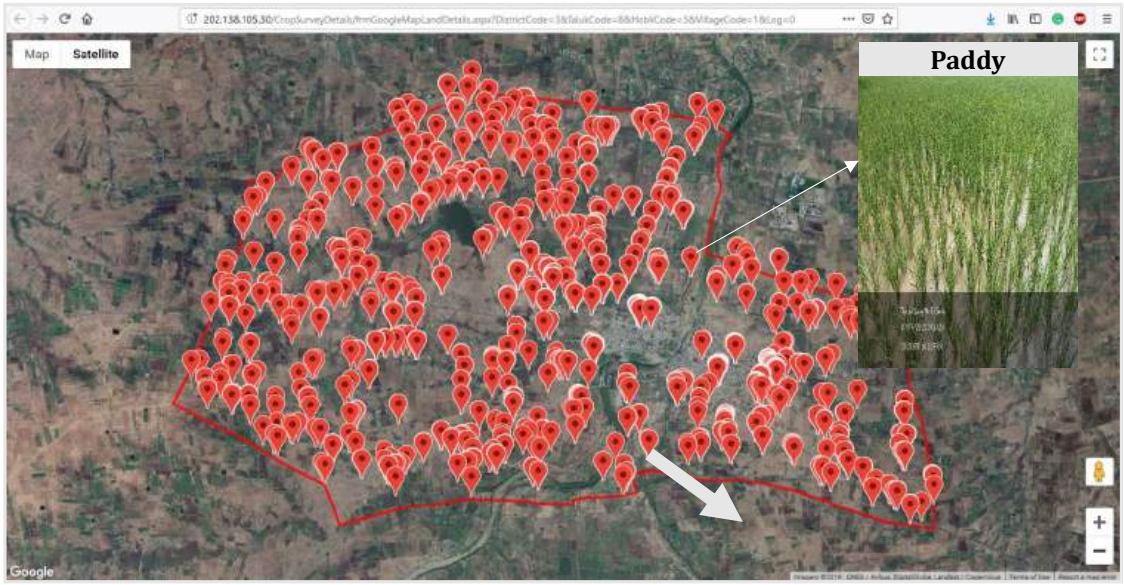
The traditional process of crop cutting experiments and yield estimation has been re-engineered using advanced technologies like online data synchronization, geo-referencing and image data to ensure real time and accurate data

Digital Crop Survey (DCS)

Plot-level crop grown data for every season

With Physical inspection and verification

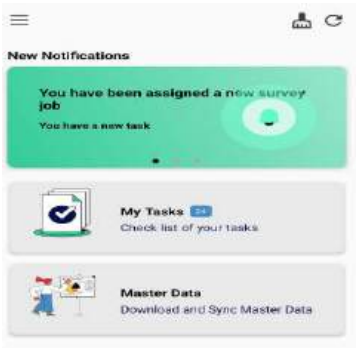
And Proofs – Geotagged photographs



- Single Source of Truth
- Data available for ecosystem as Crop Sown Registry in Agri Stack
- Utilize for various purposes – Schemes benefits, Crop Loan, Area Estimation etc.

Digital Crop Survey Process

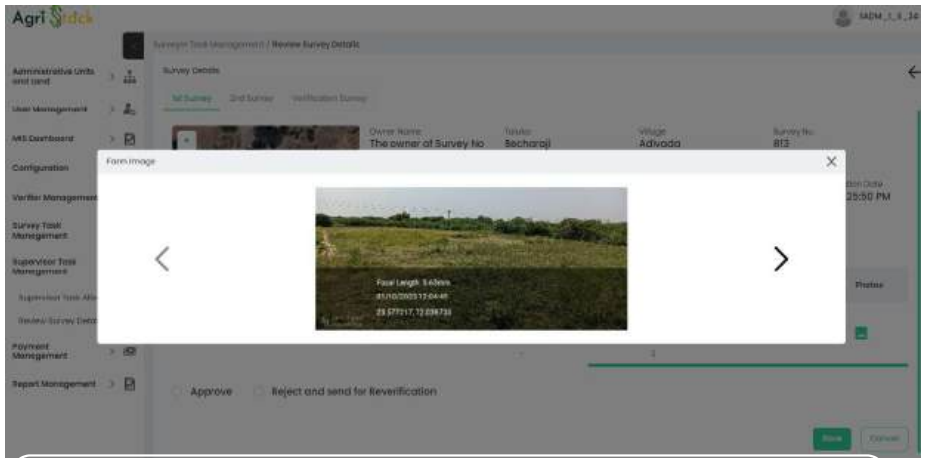
RoR Data
+
Geo Reference Village Maps



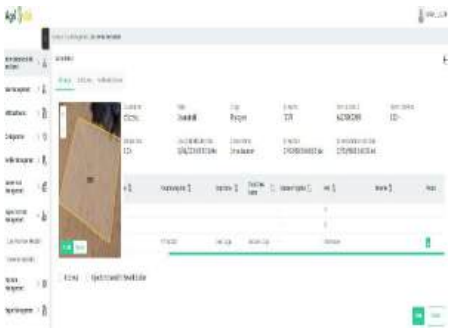
Crop Survey Mobile Application

Farmer performing Crop Survey

Photo of crop captured in phone while performing survey with timestamp details



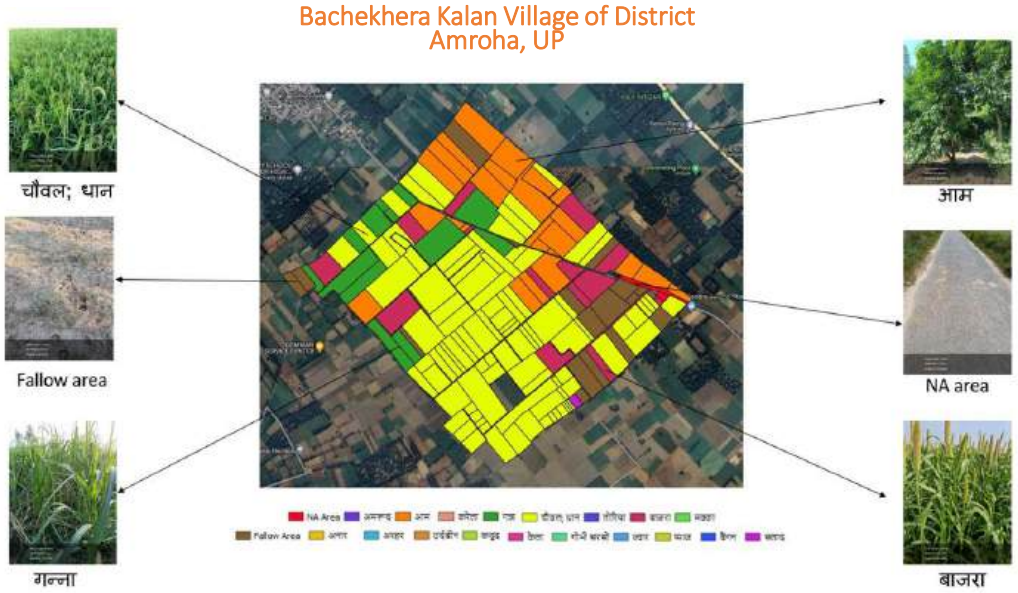
Crop details captured with photo by Surveyor on Web Portal



Web Portal screen for Supervisor to review survey details

Digital Crop Survey – as a source for Area Estimation

- Digital Crop Survey provides Plot-level crop-sown data for every season with ‘Geotagged photographs’
- Crop area generated through DCS to be used for Area Estimation.

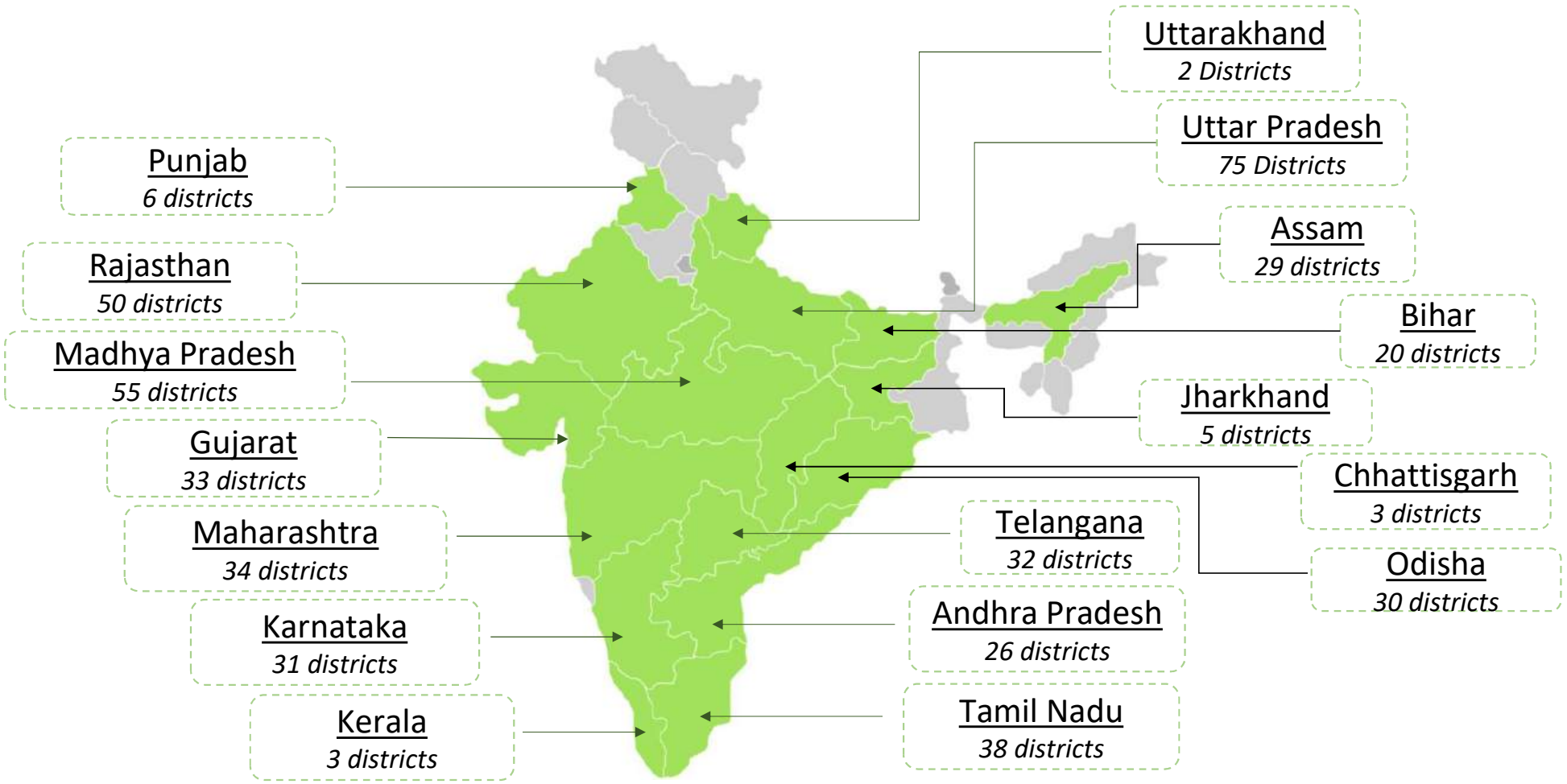


Crop	Sown Area (in ha)
Rice	251.543
Sugarcane	63.158
Mango	53.219
Bajra	48.99
Eucalyptus	11.446
Jamun	3.202
Teak	3.002
Lettuce	0.765

Plot Level Crop sown data with State

Village level Aggregated Crop-sown Area as Area Estimate

Implementation of DCS in Kharif 2024



Digital General Crop Estimation Survey

To overcome the delayed reporting and to strengthen and digitize the recording of Crop Cutting Experiments (CCEs) under the General Crop Estimation Survey (GCES), the Ministry has developed a dedicated GCES CCE mobile application and web portal.

- Registration of Users
- GCES plan upload & Village allotment to primary worker.
- Progress monitoring
- Data approval
- Generation of yield estimates on real time

- Field Level Data collection
- Automation of the plot selection
- Geo-tagging of the plot
- Automation of Plot selection procedure
- In-built features to display the activity status of CCE.

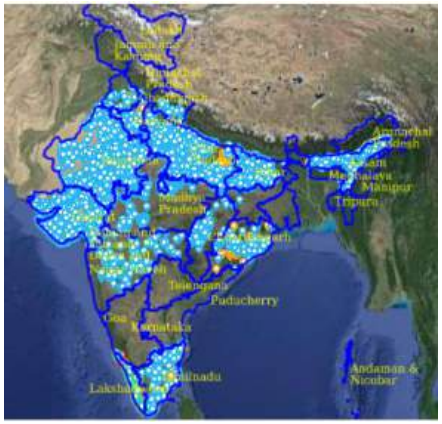
Conducting a CCE under Digital GCES

Data collection-
Experiment wise forms will be filled up using mobile application by the primary workers

Geo-tagging and Image data- Boundary of the experimental plot and plot photo before harvesting are uploaded using mobile application (Form 1)

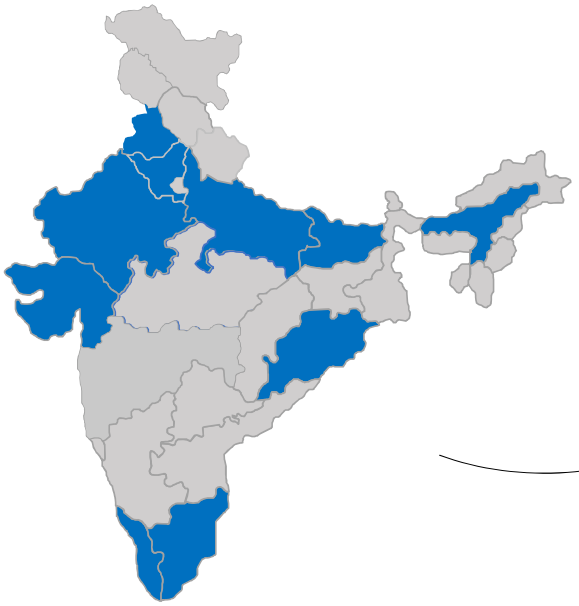
Image of crop harvesting are uploaded during harvesting in form 2 using mobile application at the field

Image of green weight of the harvested crops are being uploaded after each picking



Implementation Status of DGCES

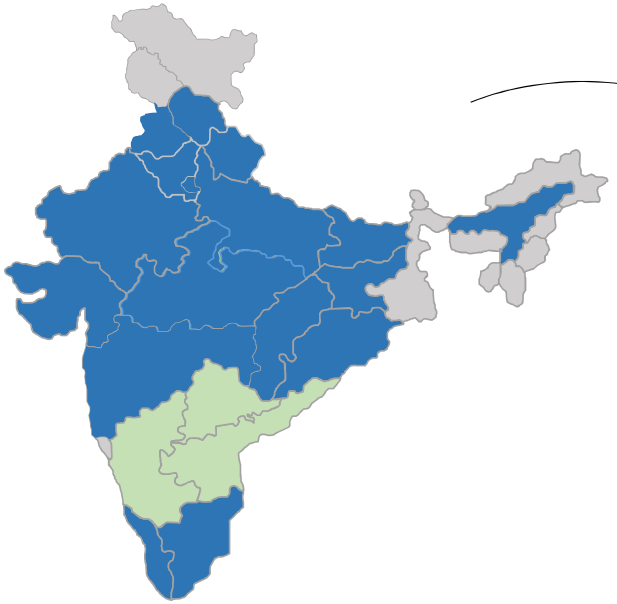
Kharif 2023



Pilot-

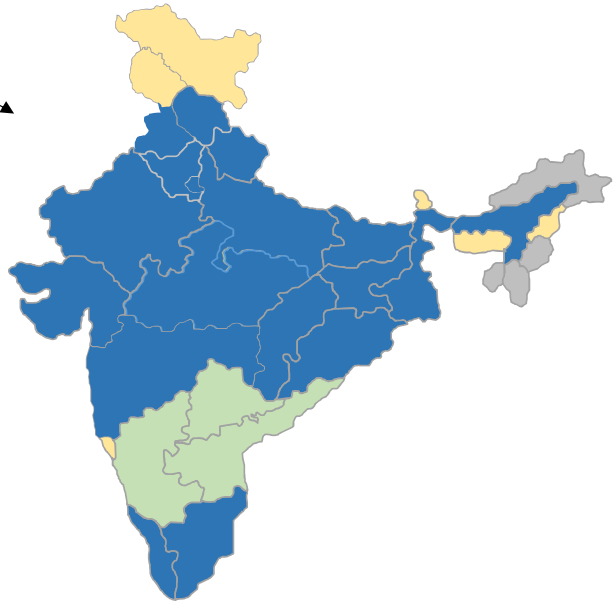
- 10 States
- Few districts of the covered states were included

Rabi 2023-24



- 22 major states
- All districts of the covered states were included

Kharif 2024



- All major states
- All districts of the covered states will be included
- Goa and NE States to be included

Covered States

Covered States with own application

States to be included from Kharif 2024

Strengthening Supervision of CCEs by NSSO

1

Increased Sample size

NSSO to increase the number of supervised sample to 40,000

2

Digitalized Process

Supervision module on DGCES application.

More robust yield estimates based on increased sample size

FASAL 2:0 Strengthening of Estimates by Improving Yield Estimation Methods

Crop Mapping and area statistics

- Accurate crop mapping with extensive ground truth base
- MNCFC & other private players being engaged in generation of crop maps

Crop Surveillance and Health Monitoring

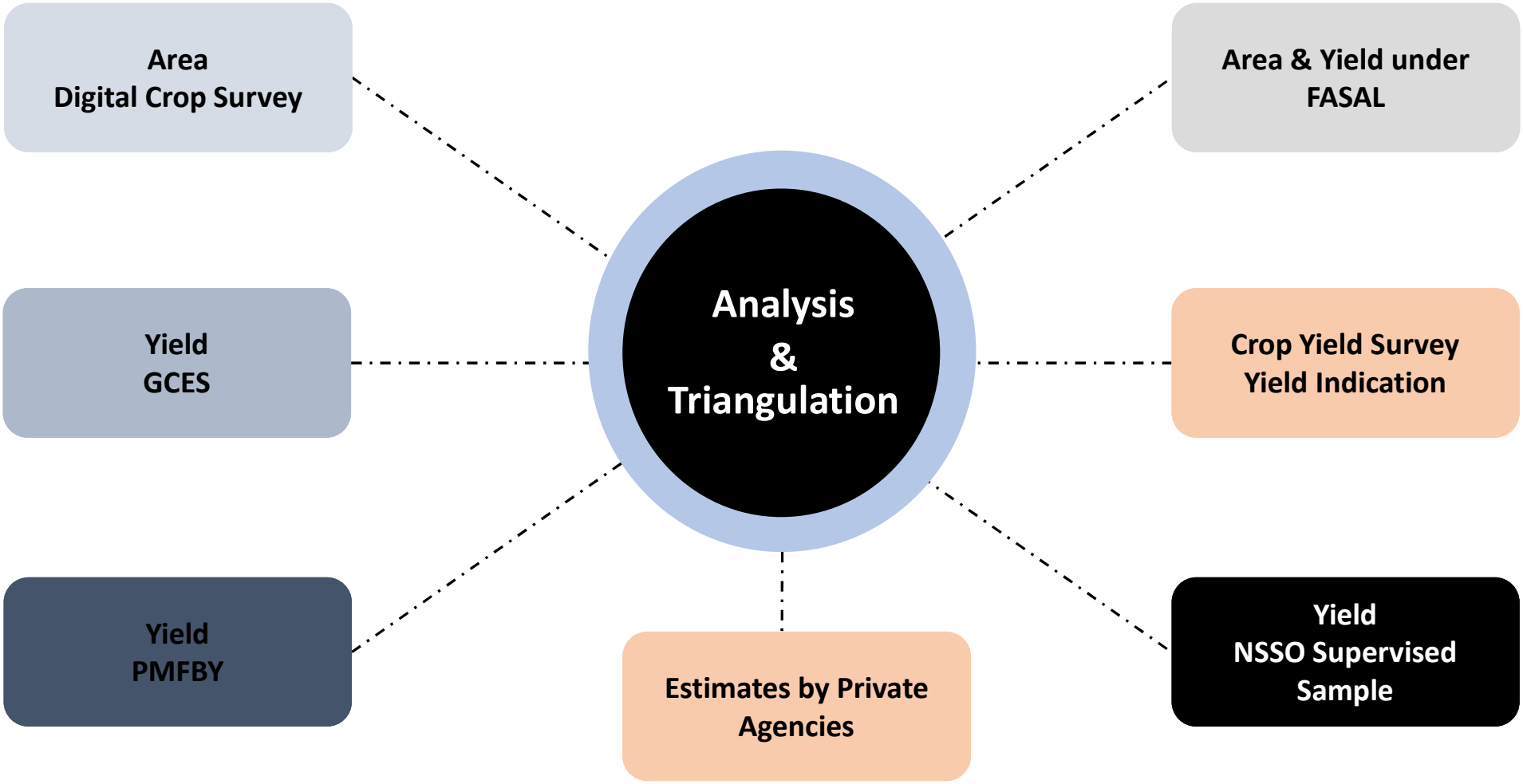
- Close monitoring of crops with satellite and weather indices and field data

Crop Yield Forecasting System

- Engagement with IARI-ICAR, SAC , ISI etc. for more robust Yield Models like Crop Simulation/Semi-physical/AI-ML

Focus on 10 crops – Paddy, Wheat, Mustard/rapeseed, Soybean, Tur, Chana, Lentil, Cotton, Potato and Sugarcane

Crop Production Estimation



About Unified Portal for Agriculture Statistics (UPAg)

UPAg is an advanced platform where agricultural data is seamlessly managed enabling efficiency & informed decisions by integrating with systems, generating precise crop estimates and offering in-depth data insights.

Generating crop production estimates

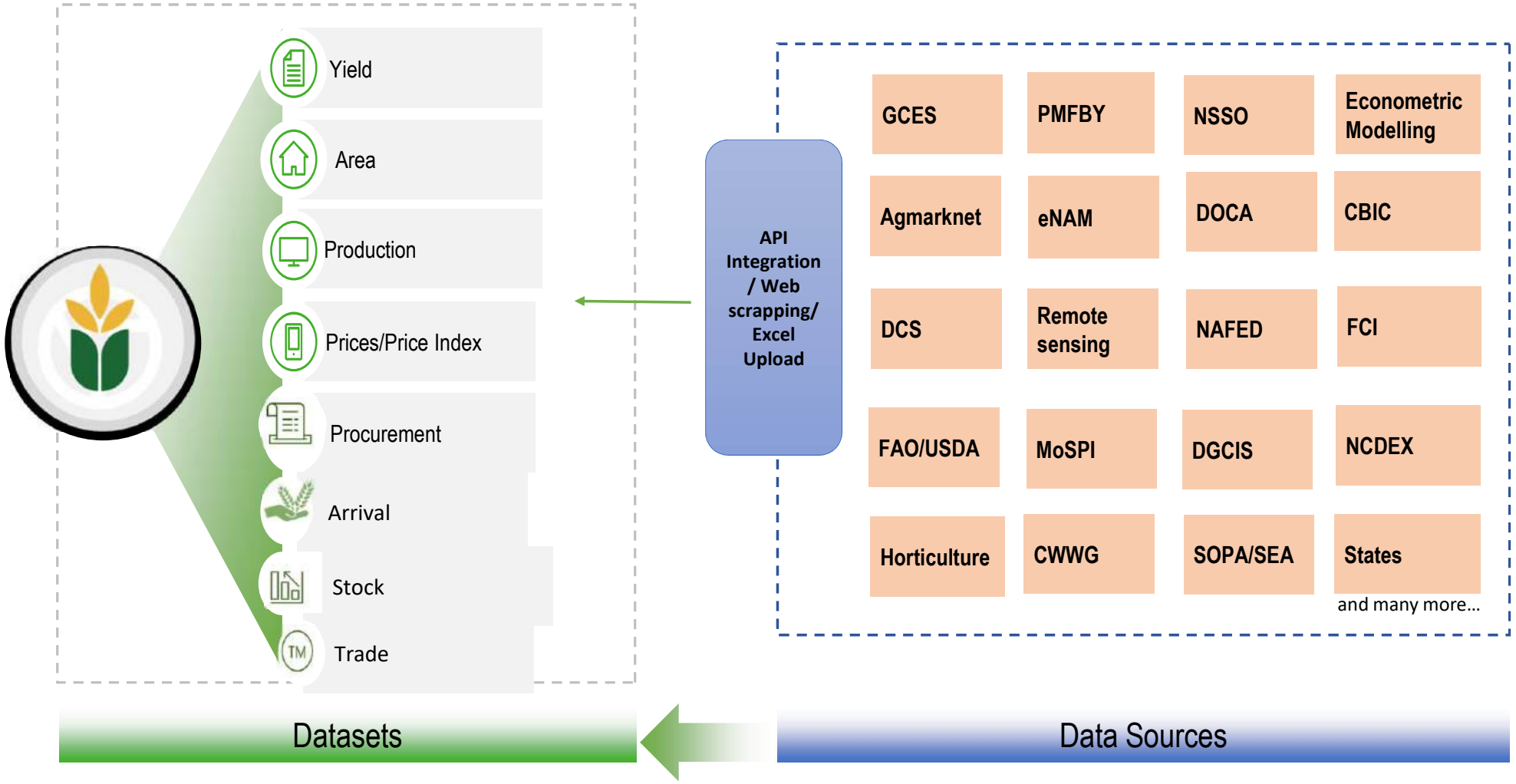
Secondary Datasets onboarding: API/web scrapping/ excel entry upload

Advance analytics- providing Integrated Decision Support System

Data Hub

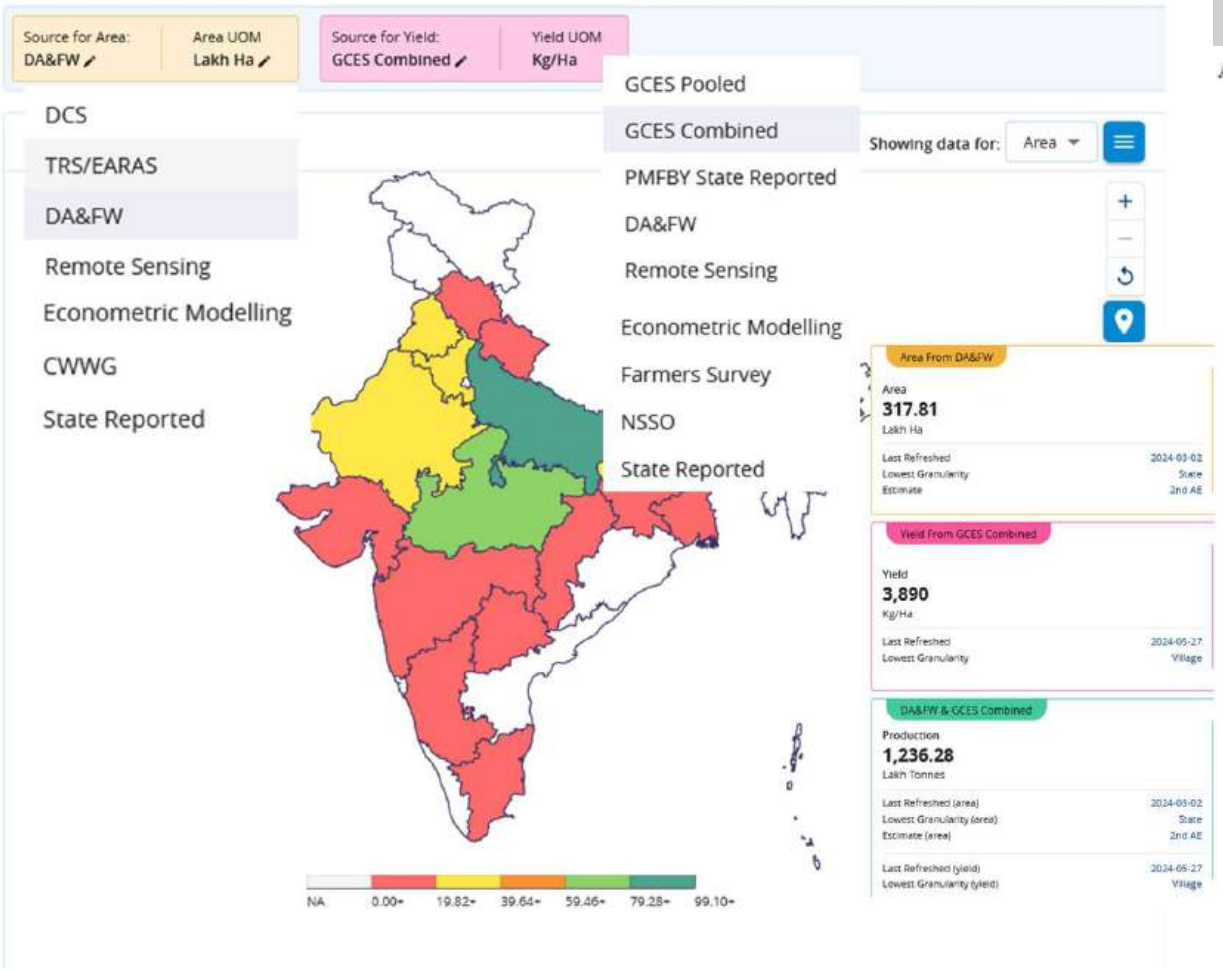
25+	27+	From 1967	25+	50+
No of Sources	No of Variables	To till Date	Dashboards	Reports

Data Sources & Parameters

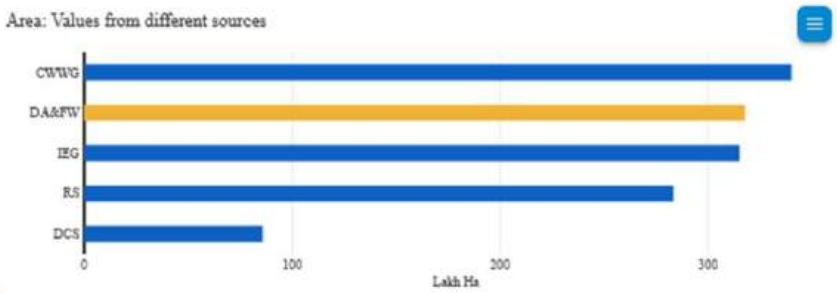


Crop Estimates

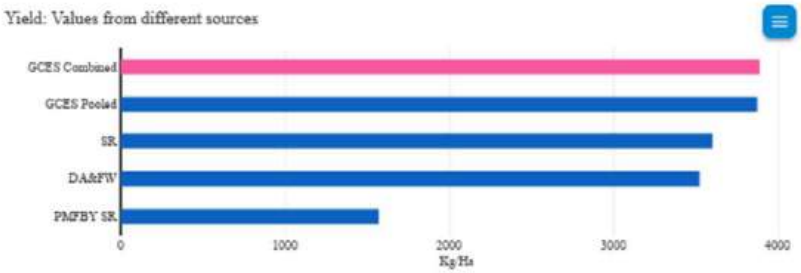
Source Status & Comparison for **Wheat**, **Rabi, 2023 - 24.**



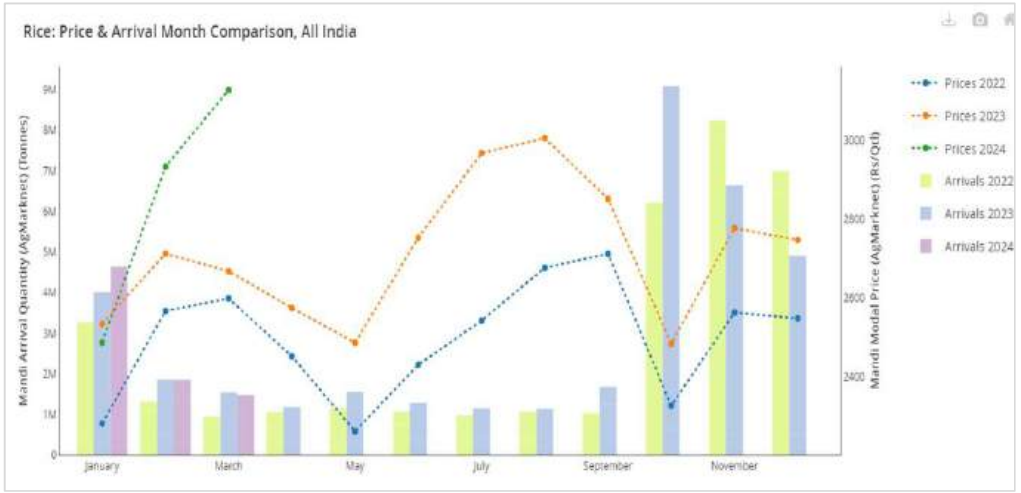
Comparison of Area from various sources

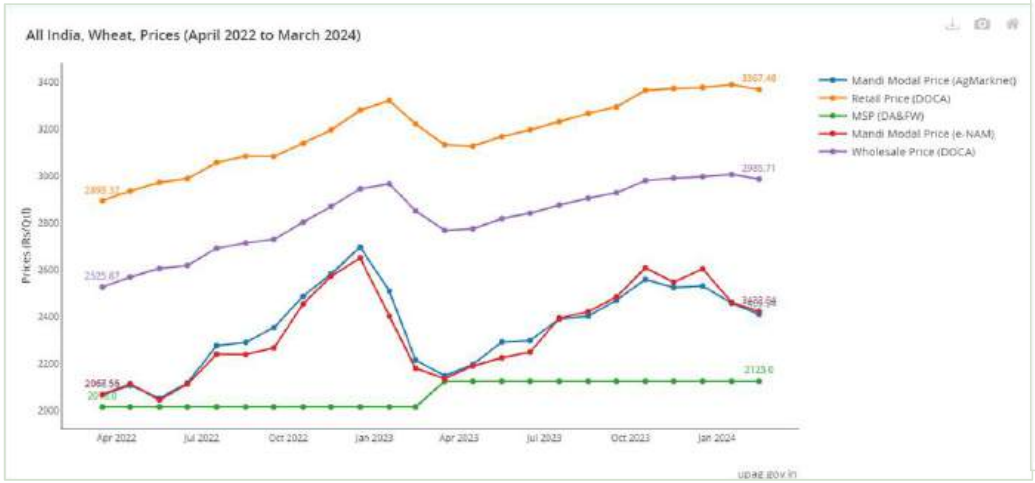


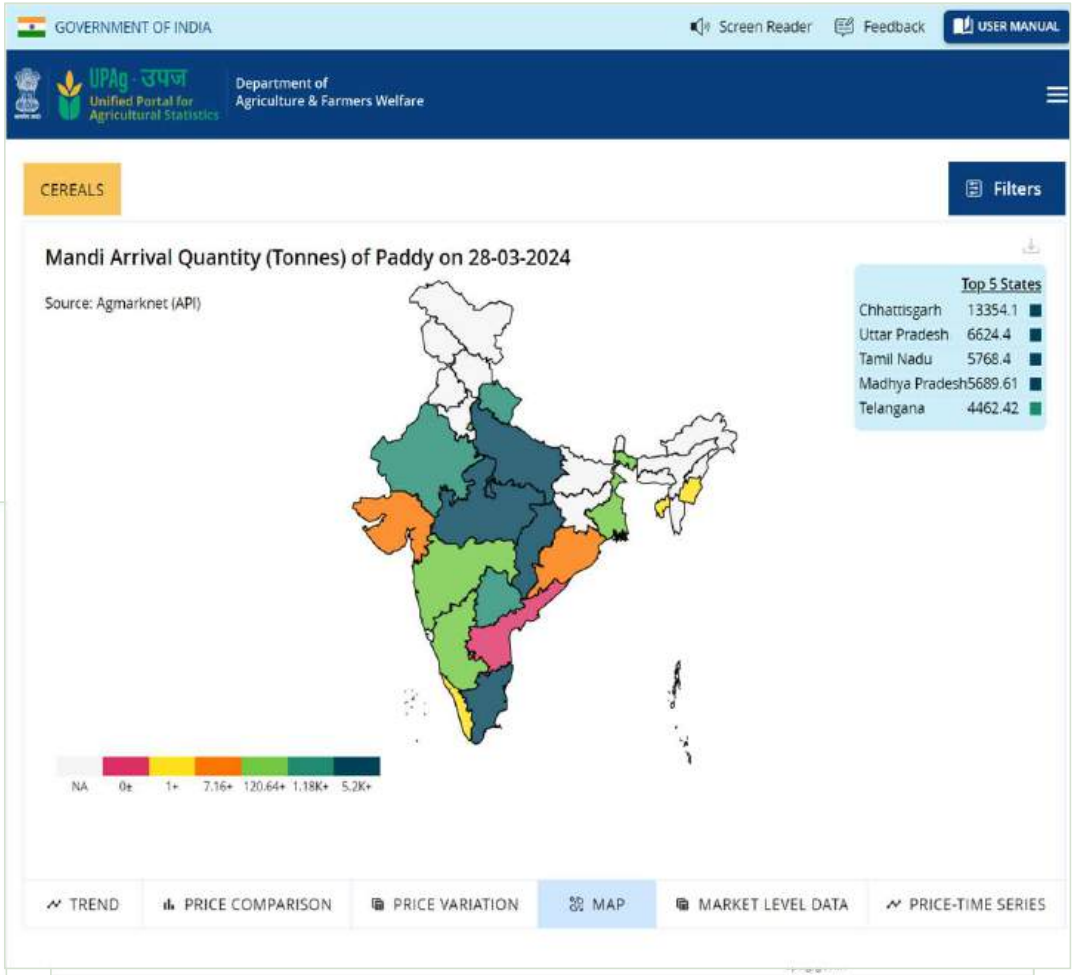
Comparison of Yield from various sources



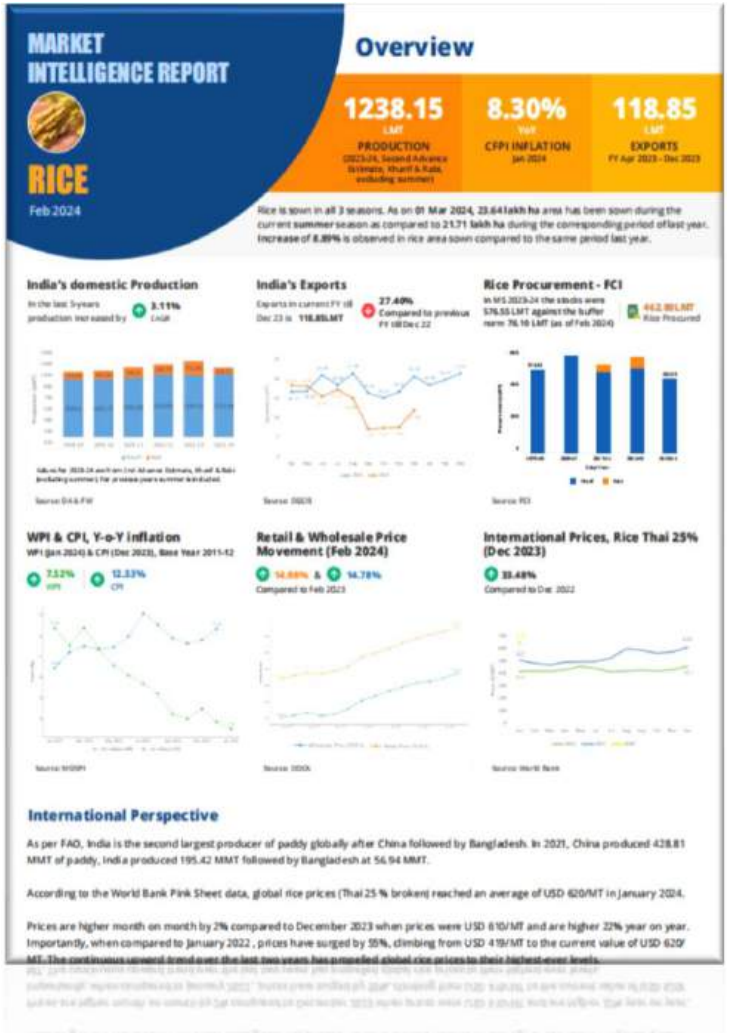
Prices & Arrival







Market Intelligence Report


MARKET INTELLIGENCE REPORT

RICE

Feb 2024

Overview

1238.15 LMT PRODUCTION

8.30% YoY CPI INFLATION Jan 2024

118.85 LMT EXPORTS FY Apr 2023 - Dec 2023

Rice is sown in all 3 seasons. As on 01 Mar 2024, 23.641lakh ha area has been sown during the current summer season as compared to 21.71 lakh ha during the corresponding period of last year. Increase of 8.89% is observed in rice area sown compared to the same period last year.

India's domestic Production

India's Exports

27.40% Compared to previous FY till Dec 22

Rice Procurement - FCI

WPI & CPI, Y-o-Y Inflation

7.12% WPI 12.33% CPI

Retail & Wholesale Price Movement (Feb 2024)

International Prices, Rice Thai 25% (Dec 2023)

33.48% Compared to Dec 2022

International Perspective

As per FAO, India is the second largest producer of paddy globally after China followed by Bangladesh. In 2021, China produced 428.81 MMT of paddy, India produced 195.42 MMT followed by Bangladesh at 56.94 MMT.

According to the World Bank Pink Sheet data, global rice prices (Thai 25 % broken) reached an average of USD 620/MT in January 2024.

Prices are higher month on month by 2% compared to December 2023 when prices were USD 610/MT and are higher 22% year on year. Importantly, when compared to January 2022 , prices have surged by 35%, climbing from USD 419/MT to the current value of USD 620/ MT. The continuous upward trend over the last two years has propelled global rice prices to their highest-ever levels.

Market Intelligence Reports (MIR) brings together the scattered agricultural data in a systematic manner to assist the stakeholders develop a holistic picture of the agricultural commodity, thereby providing effective assistance in taking informed policy decisions.

Content

- Snapshot view of a commodity
- International perspective
- Key parameters on commodity situation:
  - Production
  - Sowing
  - Stock & Procurement
  - Price & Arrivals
  - Inflation
  - Trade

THANK YOU

Quality improvement of Area and production Estimates of Horticulture crops

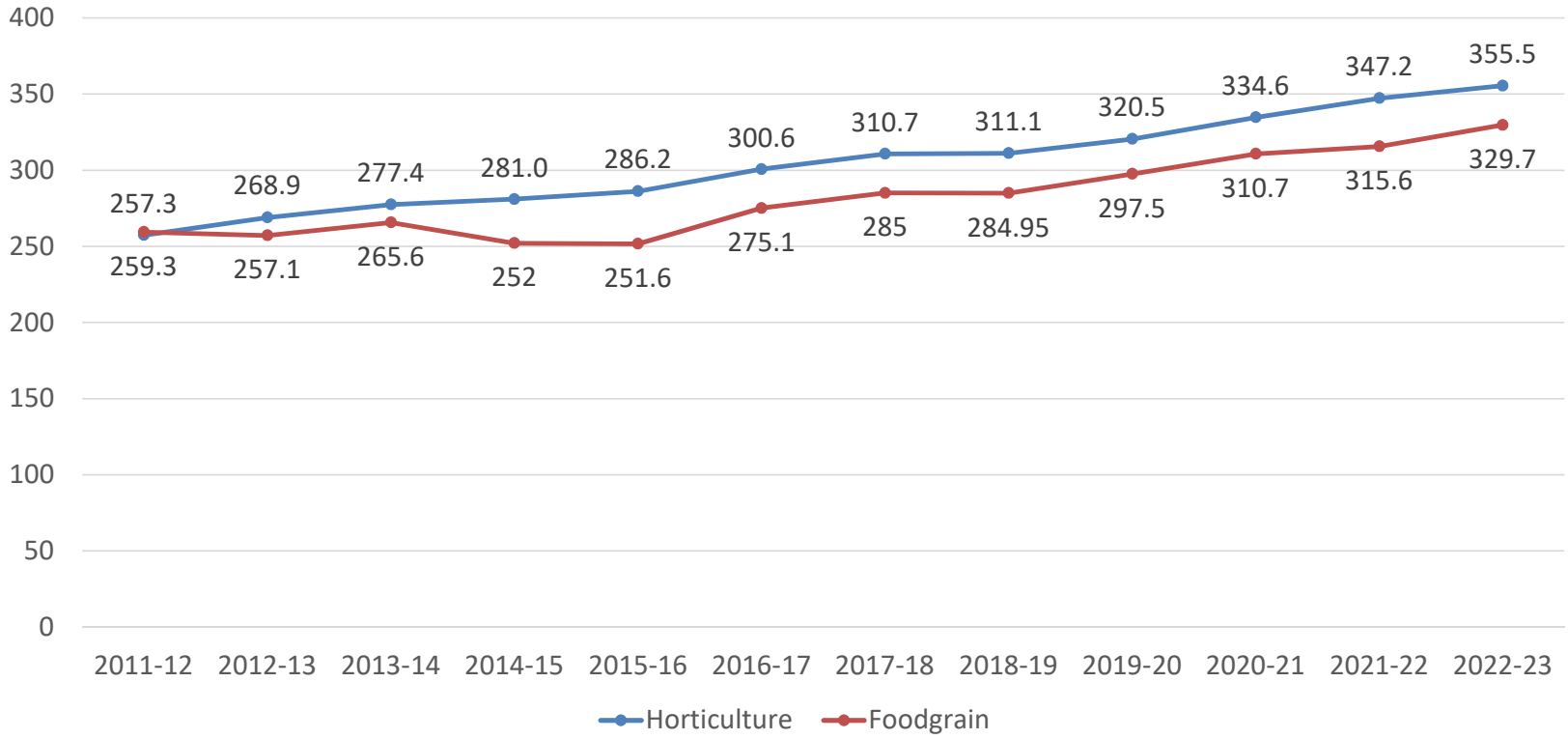
Horticulture Statistics Unit

DA&FW

Horticulture Production in India

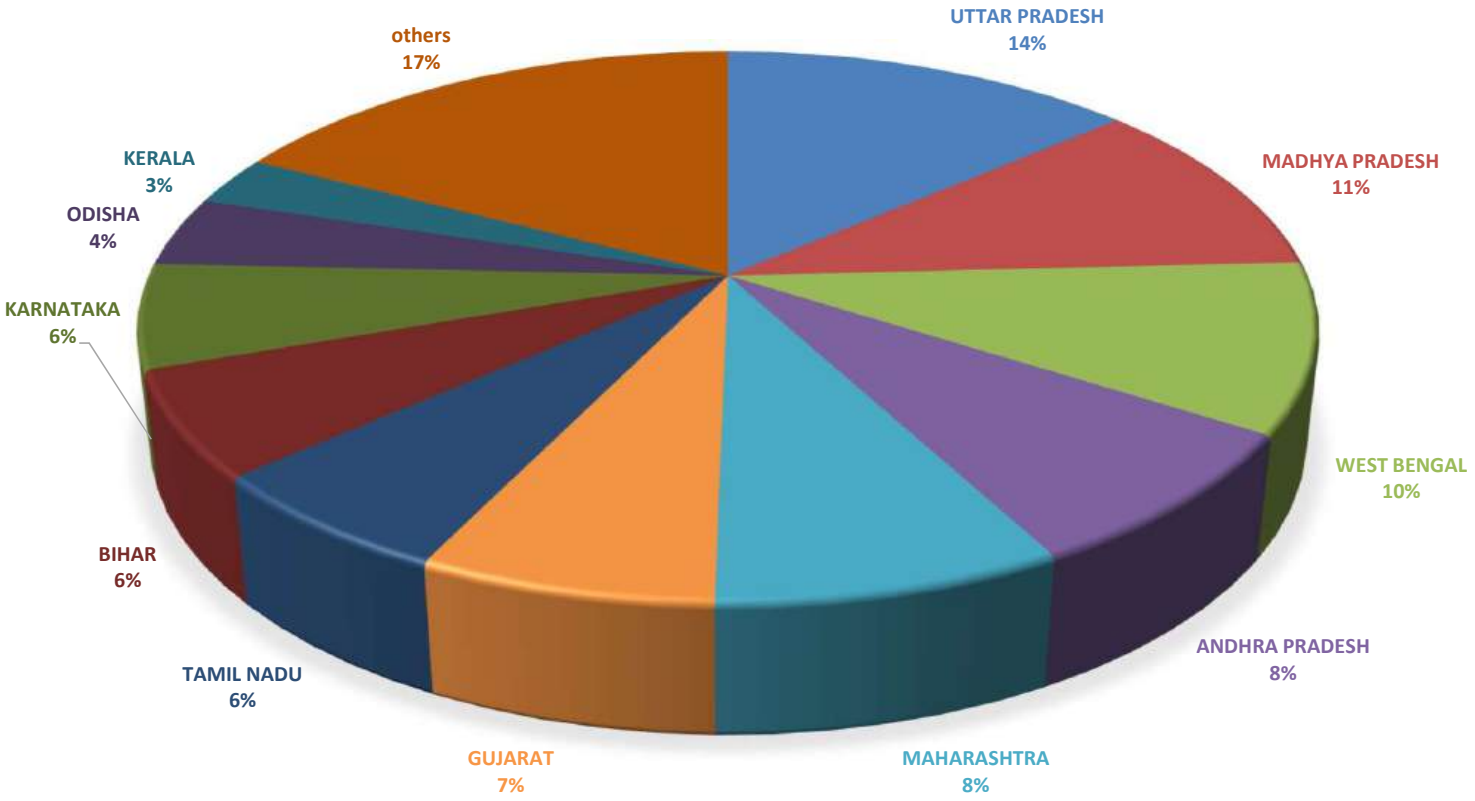
- India is the second largest producer of Fruits and Vegetables in the World and leader in many crops like
  - Mango, banana, papaya, onion, arecanut, okra
- As per 2nd Advance Estimates of 2023-24, for Horticulture crops
  - Area : 28.6 Million hectares, and
  - Production : 352.2 Million Tonnes
- Horticulture production during the last 10 years on an average, has registered a growth of 2.54 (CAGR)%

Production (Million Tonne) of Horticulture vis-à-vis Foodgrain



• Since 2012-13, the production of horticulture has outpaced the production of food grains

MAJOR HORTICULTURE PRODUCING STATES



Source: 2023-24 (2nd AE)

Share of Horticulture Crops in Gross Value of Output

- An an important sub-sector of the Agriculture with its contribution of about 18% in the economy of Agriculture and Allied sectors
- About 35% of the GVO of Crop Sector comes from horticulture crops
  - More than the share of food-grains

Share of Horticulture Crops in Consumption

- Fastest growing sector within agriculture thanks to the economic prosperity that has induced marked changes in the life styles and the consumption habits
- There has been a perceptible change in the consumption pattern characterized by declining share of food grains and the increasing share of non-food grain items in the consumption baskets particularly fruits and vegetables.

Weightage of Horticulture Crops in the CPI

- Over-all weight of fruits, vegetable and spices in CPI-11.43

  ~25% of *Food and beverages* group

Existing Reporting System for Horticulture Area/Production Estimates

- Crop-wise data is made available by respective State/UT Horticulture/Agriculture Department/DES and other designated Central Agencies
- Central Agencies like Directorate of Arecanut and Spices Development (DASD), Directorate of Cashew and Cocoa Development (DCCD), Directorate of Mushroom Research (DMR) are also involved with estimation/ scrutiny of the concerned crops.

Challenges in compiling Area/Production estimates of Horticulture Crops

- A wide variety of crops (including perennial crops) under Horticulture unlike in case of field crops
  - Information is separately collected for more than 180 crops through HAPIS portal and separate estimates are released at State-level for 89 crops
- Lack of standard methodology for estimation area and yield
- Lack of a separate scheme/ Fund support for the collection of Horticulture Statistics.

Activities undertaken to improve the quality of data

- Regular coordination with data reporting agencies giving feedback on discrepancies
- Verification of data with alternate sources
- Following up with States on the basis of weather reports, news items
- Field visits to major producing States/districts for ground level assessment in case of major crops

Crop Estimation Survey on Fruits, Vegetables and Minor Crops

- Yield estimation of some of the major horticulture crops were done under the scheme *"Crop Estimation Survey on Fruits, Vegetables and Minor Crops"*
- As per the "Manual on Area and Crop Production Statistics", 23 major horticulture crops have been covered in the Crop Estimation Survey
  - 8 spices, 5 fruits, 7 vegetables, 3 plantation crops and 1 medicinal plant
  - In 14 States.
- Though the scheme is discontinued, States are continuing to cover these horticulture crops under CES and brings out production estimates
- Some of other States are also doing CCE for their important horticulture crops

Horticulture Crops Covered under CES

Sl.no	Crop	No. of states covered /(% of production)	Additional number of states to be covered	Resultant share in production	Whether in CPI item basket (Yes/No)
1	Tapioca	2 (94%)	0	94%	N
2	Potato	12 (90.3%)	0	90.3%	Y
3	Onion	7(44%)	6	91%	Y
4	Brinjal	2(10%)	11	94%	Y
5	Tomato	2 (7%)	14	93%	Y
6	Cauliflower	1 (12%)	10	91%	Y

- Above 6 vegetable crops accounts for 64% of total vegetable production in the country
- Extending the coverage to some more major States, and by including two more crops like okra and cabbage, reliable estimates for vegetable production can be achieved for $3/4^{th}$ of the all-India production

Horticulture Crops Covered under CES

Sl.no	Crop	No. of states covered /(% of production)	Additional number of states to be covered	Resultant share in production	Whether in CPI item basket (Yes/No)
1	Chillies	5- 60%)	2	90%	Y
2	Cumin	2 (99.8%)	0	99.8%	Y
3	Fennel	1(85.2%)	1	98.4%	N
4	Black Pepper	1 (21.8%)	1	92.4%	Y
5	Saffron	1 (100%)	0	100%	N
6	Turmeric	2 (11.2%)	7	87%	Y
7	Ginger	1 (0.2%)	13	92.5%	Y
8	coriander	1 (0.3%)	3	88.8%	Y

- Above 8 spices account for 66% of total spices production in the country
- By extending the crop coverage in a handful of additional States and including Garlic (in 3-4 major States), reliable estimates for major horticulture crops (accounting almost 95% of spices production)

Horticulture Crops Covered under CES

Sl.no	Crop	No. of states covered /(% of production)	Additional number of states to be covered	Resultant share in production	Whether in CPI item basket (Yes/No)
1	Banana	3 (13%)	8	95%	Y
2	Mango	1 (7%)	9	88%	Y
3	Litchi	1 (42%)	6	92%	Y
4	Guava	1(8%)	9	82%	Y
5	Jackfruit	2(43%)	8	94%	Y
6	Papaya	1(11)	7	83%	Y

- Above 6 fruit crops accounts for 66% of total fruit production in the country
- Additional crops to be included: Citrus, Grapes and Pomegranate (covering 85% of total fruit production

Horticulture Crops Covered under CES

Sl.no	Crop	No. of states covered /(% of production)	Additional number of states to be covered	Resultant share in production	Whether in CPI item basket (Yes/No)
1	Arecanut	2(7.3%)	4	92.1%	N
2	Cashewnut	2 (35%)	4	88%	Y
3	Coconut	2(26%)	3	93%	Y

- Above 3 plantation crops accounts for 96% of total plantation crop production in the country
- Extending the coverage to 3-4 additional major States, reliable estimates for plantation crop production can be achieved

Proposed Activities

First Phase

- **TOP Crops**
  - There is an increasing demand for ensuring the availability of reliable estimates of area and production of TOP crops due to its importance (both in terms of production and consumption)
    - Accounts for nearly 50% of vegetable production and about 30% of total horticulture production in the country
    - Weightage in CPI: 2.203: 36% of weightage in vegetable basket and nearly 5% of total food & beverages basket of CPI
    - All the major producing States of Potato conducts CCE for yield estimation at present

Extension of CES for Tomato, Onion to additional States (major producers) to bring out reliable estimates of 90% of all-India production

Feasibility of extending NSS supervision of CCE for TOP crops at least in major producing States

Proposed Activities

- **Second Phase**
  - Garlic, and Seed spices (like coriander, fennel, Cumin, Fenugreek) are cultivated mainly in three States : MP, Gujarat and Rajasthan
  - Unlike other horticulture crops (that are perennial and multiple picking), these are annual crops with single harvesting where CES can be easily implemented
  - Reliable estimates of all-India production can be obtained by CCE in three major States

Steps Initiated by DA&FW

- **Consultation with States/UTs**
  - Starting with major producing States of TOP crops
  - Present Status of conducting CCEs for TOP crops are being collected
  - Detailed discussions with concerned States thereafter, to assess the feasibility within the existing system of CES
  - Information is being collected from all the States regarding the horticulture crops covered by them under CES

ICS SCHEME & ITS FINDINGS ON INTER-STATE AND INTER-SEASON VARIABILITY IN QUALITY OF DATA COLLECTED FOR AREA AND YIELD STATISTICS AMONG STATEs/UTs

Shri Sudhir Kumar, Joint Director
NSSO (FOD), AS Hqrs. Faridabad

Improvement of Crop Statistics (ICS)

Under the aegis of Governing Council of NSSO headed by Prof. V.M. Dandekar, after extensive deliberations between heads/representatives of sixteen State Statistical Bureaus (SSBs), Union M/o Agriculture, and Department of Statistics the scheme for Improvement of Crop Statistics (ICS) was envisaged on 2nd May, 1973.

The Cabinet Committee on Administration approved the Scheme on 22 November, 1973 and desired that action on it may be initiated from Rabi 1973-74. Accordingly, it was started in Rabi 1973-74 in nine major Rabi growing States. During agriculture year 1975-76, the ICS Scheme was extended to all 17 States as envisaged in the Scheme.

Improvement of Crop Statistics (ICS)

Currently, operational in 20 States and 2 U.Ts.

Objective

- The Scheme aimed at providing quality check on the State/UTs estimates of both Area and Yield of crops. This was to be achieved by locating, quantifying and analysing, through joint efforts of Central (NSSO) and State agencies, the methodological and procedural deviations and deficiencies in the State system of collection, tabulation and analysis of Crop Statistics.

- Concurrently, remedial measures are also suggested season-wise by NSSO (FOD), AS Hqrs.to the respective State(s)/UT government(s) to strengthen the existing system and take corrective action, if any, to address methodological issues and data gaps.

Improvement of Crop Statistics (ICS) (contd.)

- To achieve the objective
  - Physical verification of area enumeration in about 10,000 villages in each season for the Central and State Sample
  - Supervision in the conduct of approx. 31,000 crop cutting experiments in a year for the Central and State Sample
- Sample villages are a sub-sample of TRS/EARAS/GCES villages

Objective of the Sample Checks On Crop Cutting Experiments (Sch 2.0)

- ICS envisages sample checks on Crop Cutting Experiments (CCEs) under GCES for locating and quantifying following errors that may have bearing on quality of yield data:

- ***Procedural errors***- these are concerned with procedure for selection of survey number/sub survey numbers, field, field dimensions, locating and marking the plot, harvesting and weighment of the produce, supply and use of standard equipment during CCEs, planning and arrangement of driage, delegation of CCEs to untrained primary workers.

Objective of the Sample Checks On Crop Cutting Experiments (Sch 2.0)

- ***Observational errors***-these are errors related to area of the crop under survey number/sub survey numbers, area under crop mixtures, area under the field and proportion of crops.

- ***Recording and transcription errors-*** these errors are related to recording and transcription of agriculture inputs namely, seeds, irrigation, fertilizers, manures and pesticides in Form-I and Crop inspection register (Khasra/Adangal).

Inter-State and Inter-Season Variability of Incidence of Errors (in percentage) in conducting Crop Cutting Experiments during 2021-22

Sl.No	Early Kharif		Late Kharif		Rabi		Summer	
	State	% of no error	State	% of no error	State	% of no error	State	% of no error
1	Odisha	94	Chhattisgarh	95	Assam	95	Puducherry	100
2	Assam	94	Odisha	91	Chhattisgarh	94	Odisha	94
3	Kerala	89	Assam	89	Haryana	91	Kerala	91
4	Jharkhand	84	Haryana	88	Madhya Pradesh	90	Bihar	91
5	West Bengal	81	Kerala	87	Uttarakhand	90	Assam	90
6	Bihar	67	Himachal Pradesh	87	Andhra Pradesh	88	Kerala	85
7			Andhra Pradesh	86	Telangana	86	Karnataka	74
8			Jharkhand	84	Himachal Pradesh	85	West Bengal	74
9			Tamil Nadu	82	Puducherry	85	Uttar Pradesh	72
10			Madhya Pradesh	82	Punjab	84		
11			Puducherry	80	Tamil nadu	79		
12			West Bengal	79	Jammu & Kashmir	72		
13			Bihar	79	Rajasthan	71		
14			Telangana	74	Jharkhand	66		
15			Punjab	72	Bihar	65		
16			Rajasthan	68	Uttar Pradesh	62		
17			Uttrakhand	66	Gujarat	60		
18			Karnataka	63	Karnataka	57		
19			Uttar Pradesh	61	Maharashtra	54		
20			Gujarat	58	West Bengal	47		
21			Jammu& Kashmir	57				
22			Maharashtra	56				

Inter-State and Inter-Season Variability of Incidence of Errors (in percentage) in conducting Crop Cutting Experiments during 2020-21

Sl.No	Early Kharif		Late Kharif		Rabi		Summer	
	State	% of no error	State	% of no error	State	% of no error	State	% of no error
1	Odisha	94	Kerala	92	Haryana	91	Puducherry	100
2	Kerala	93	Puducherry	90	Puducherry	90	Odisha	99
3	Jharkhand	90	Jharkhand	90	Chhattisgarh	90	Kerala	92
4	West Bengal	82	Odisha	89	Andhra Pradesh	90	Bihar	85
5	Assam	82	Chhattisgarh	86	Assam	89	Assam	85
6	Bihar	46	Tamil Nadu	83	Punjab	88	Kerala	85
7			Andhra Pradesh	83	Jharkhand	86	Uttar Pradesh	74
8			Haryana	82	Telangana	83	Karnataka	73
9			Punjab	82	Rajasthan	80	West Bengal	73
10			Assam	79	Tamil Nadu	80		
11			West Bengal	78	Uttarakhand	79		
12			Madhya Pradesh	78	Madhya Pradesh	74		
13			Himachal Pradesh	71	Himachal Pradesh	67		
14			Karnataka	71	Karnataka	67		
15			Telangana	69	Gujarat	64		
16			Rajasthan	65	Jammu & Kashmir	61		
17			Maharashtra	65	Uttar Pradesh	60		
18			Gujarat	64	Bihar	58		
19			Uttrakhand	62	West Bengal	58		
20			Bihar	56	Maharashtra	42		
21			Uttar Pradesh	55				
22			Jammu& Kashmir	49				

Comparative statement of Inter-State and Inter-Season Variability of Incidence of Errors (in percentage) in conducting Crop Cutting Experiments during 2021-22 & 2020-21

2021-22								
Sl.No	Early Kharif		Late Kharif		Rabi		Summer	
	State	% of no error	State	% of no error	State	% of no error	State	% of no error
1	Odisha	94	Chhattisgarh	95	Assam	95	Puducherry	100
2	Assam	94	Odisha	91	Chhattisgarh	94	Odisha	94
3	Kerala	89	Assam	89	Haryana	91	Kerala	91
4	Jharkhand	84	Haryana	88	Madhya Pradesh	90	Bihar	91
5	West Bengal	81	Kerala	87	Uttarakhand	90	Assam	90
6	Bihar	67	Himachal Pradesh	87	Andhra Pradesh	88	Kerala	85
7			Andhra Pradesh	86	Telangana	86	Karnataka	74
8			Jharkhand	84	Himachal Pradesh	85	West bengal	74
9			Tamil Nadu	82	Puducherry	85	Uttar Pradesh	72
10			Madhya Pradesh	82	Punjab	84		
11			Puducherry	80	Tamil nadu	79		
12			West Bengal	79	Jammu & Kashmir	72		
13			Bihar	79	Rajasthan	71		
14			Telangana	74	Jharkhand	66		
15			Punjab	72	Bihar	65		
16			Rajasthan	68	Uttar pradesh	62		
17			Uttrakhand	66	Gujarat	60		
18			Karnataka	63	Karnataka	57		
19			Uttar Pradesh	61	Maharashtra	54		
20			Gujarat	58	West Bengal	47		
21			Jammu& Kashmir	57				
22			Maharashtra	56				

2020-21								
Sl.No	Early Kharif		Late Kharif		Rabi		Summer	
	State	% of no error	State	% of no error	State	% of no error	State	% of no error
1	Odisha	94	Kerala	92	Haryana	91	Puducherry	100
2	Kerala	93	Puducherry	90	Puducherry	90	Odisha	99
3	Jharkhand	90	Jharkhand	90	Chhattisgarh	90	Kerala	92
4	West Bengal	82	Odisha	89	Andhra Pradesh	90	Bihar	85
5	Assam	82	Chhattisgarh	86	Assam	89	Assam	85
6	Bihar	46	Tamil Nadu	83	Punjab	88	Kerala	85
7			Andhra Pradesh	83	Jharkhand	86		74
8			Haryana	82	Telangana	83	Karnataka	73
9			Punjab	82	Rajasthan	80	West bengal	73
10			Assam	79	Tamil nadu	80		
11			West Bengal	78	Uttarakhand	79		
12			Madhya Pradesh	78	Madhya Pradesh	74		
13			Himachal Pradesh	71	Himachal Pradesh	67		
14			Karnataka	71	Karnataka	67		
15			Telangana	69	Gujarat	64		
16			Rajasthan	65	Jammu & kashmir	61		
17			Maharashtra	65	Uttar Pradesh	60		
18			Gujarat	64	Bihar	58		
19			Uttrakhand	62	West bengal	58		
20			Bihar	56	Maharashtra	42		
21			Uttar Pradesh	55				
22			Jammu& Kashmir	49				

Objective of the Sample Checks on Area Enumeration (Sch 1.0)

- The objective is assess the robustness and updated status of land record documents and to locate & quantify errors in recording of land utilization under each field or parcel of land.
- The errors located & quantified essentially involves discrepancies in cropped area, non-reporting of crops by State Primary workers in crop inspection register (Khasra register) and reporting of crops not grown actually in the field.
- Inter alia the impact of discrepancies in terms of over/under reporting of cropped area and also under irrigation & high yield variety of seeds is estimated.

Inter-State and Inter-Season Variability in Timeliness in Submission of Girdawari during 2021-22

Sl.No.	State	Early Kharif	State	Late Kharif	State	Rabi	State	Summer
		GIRDAWARI COMPLETED IN TIME		GIRDAWARI COMPLETED IN TIME		GIRDAWARI COMPLETED IN TIME		GIRDAWARI COMPLETED IN TIME
1	Odisha	96	Puducherry	100	Puducherry	100	Puducherry	100
2	Kerala	85	Odisha	97	Himachal Pradesh	95	Odisha	99
3	Tamil Nadu	88	Chhattisgarh	97	Uttrakhand	94	Kerala	95
4	West Bengal	11	Kerala	96	Madhya Pradesh	93	Uttrakhand	95
5	Jharkhand	4	Madhya Pradesh	96	Rajasthan	86	Kerala	83
6	Bihar	0	Uttrakhand	94	Telangana	80	Haryana	65
7	Assam	0	Tamil Nadu	92	Tamil Nadu	78	Karnataka	48
8			Himachal Pradesh	91	Chhattisgarh	70	Uttar Pradesh	48
9			Rajasthan	73	Jammu & Kashmir	66	Maharashtra	22
10			Jammu& Kashmir	67	Haryana	65	West Bengal	14
11			Haryana	60	Andhra Pradesh	49	Jharkhand	2
12			Uttar Pradesh	55	Karnataka	37	Gujarat	0
13			Karnataka	47	Uttar Pradesh	36	Assam	0
14			Punjab	45	Punjab	29	Bihar	0
15			Andhra Pradesh	32	Maharashtra	26		
16			Telangana	21	West Bengal	21		
17			West Bengal	15	Jharkhand	6		
18			Jharkhand	14	Gujarat	0		
19			Maharashtra	13	Assam	0		
20			Gujarat	0	Bihar	0		
21			Bihar	0				
22			Assam	0				

Inter-State and Inter-Season Variability in Timeliness in Submission of Girdawari during 2020-21

Sl.No.	State	Early Kharif GIRDAWARI COMPLETED IN TIME	State	Late Kharif GIRDAWARI COMPLETED IN TIME	State	Rabi GIRDAWARI COMPLETED IN TIME	State	Summer GIRDAWARI COMPLETED IN TIME
1	Odisha	96	Puducherry	100	Puducherry	100	Puducherry	100
2	Kerala	68	Kerala	97	Himachal Pradesh	96	Odisha	98
3	Tamil Nadu	76	Madhya Pradesh	97	Uttrakhand	85	Uttrakhand	87
4	West Bengal	6	Chhattisgarh	95	Madhya Pradesh	76	Kerala	86
5	Jharkhand	5	Odisha	91	Tamil Nadu	73	Karnataka	61
6	Bihar	1	Himachal Pradesh	90	Chhattisgarh	72	West Bengal	22
7	Assam	0	Uttrakhand	85	Jammu& Kashmir	67	Haryana	17
8			Tamil Nadu	80	Rajasthan	66	Maharashtra	13
9			Rajasthan	77	Karnataka	48	Jharkhand	3
10			Jammu& Kashmir	63	Andhra Pradesh	46	Gujarat	0
11			Karnataka	53	Punjab	37	Assam	0
12			Uttar Pradesh	50	Uttar Pradesh	34	Bihar	0
13			Haryana	49	Telangana	27		
14			Punjab	34	West Bengal	20		
15			Andhra Pradesh	24	Haryana	18		
16			West Bengal	19	Maharashtra	14		
17			Maharashtra	19	Jharkhand	2.5		
18			Telangana	12	Gujarat	1		
19			Jharkhand	12	Assam	0		
20			Bihar	6	Bihar	0		
21			Gujarat	1				
22			Assam	0				

Comparative statement of Timeliness in Submission of Girdawari during 2021-22 & 2020-21

2021-22

Sl.No.	State	Early Kharif	State	Late Kharif	State	Rabi	State	Summer
		GIRDAWARI COMPLETED IN TIME		GIRDAWARI COMPLETED IN TIME		GIRDAWARI COMPLETED IN TIME		GIRDAWARI COMPLETED IN TIME
1	Odisha	96	Puducherry	100	Puducherry	100	Puducherry	100
2	Kerala	85	Odisha	97	Himachal Pradesh	95	Odisha	99
3	Tamil Nadu	88	Chhattisgarh	97	Uttarakhand	94	Kerala	95
4	West Bengal	11	Kerala	96	Rajasthan	86	Uttarakhand	95
5	Jharkhand	4	Madhya Pradesh	96	Telangana	80	Kerala	83
6	Bihar	0	Uttarakhand	94	Tamil Nadu	78	Haryana	65
7	Assam	0	Tamil Nadu	92	Chhattisgarh	70	Karnataka	48
8			Himachal Pradesh	91	Jammu& Kashmir	66	Uttar Pradesh	48
9			Rajasthan	73	Haryana	65	Maharashtra	22
10			Jammu& Kashmir	67	Andhra Pradesh	49	West Bengal	14
11			Haryana	60	Karnataka	37	Jharkhand	2
12			Uttar Pradesh	55	Uttar Pradesh	36	Gujarat	0
13			Karnataka	47	Punjab	29	Assam	0
14			Punjab	45	Maharashtra	26	Bihar	0
15			Andhra Pradesh	32	West Bengal	21		
16			Telangana	21	Madhya Pradesh	14		
17			West Bengal	15	Jharkhand	6		
18			Jharkhand	14	Gujarat	0.3		
19			Maharashtra	13	Assam	0		
20			Gujarat	1	Bihar	0		
21			Bihar	0				
22			Assam	0				

2020-21

Sl.No.	State	Early Kharif	State	Late Kharif	State	Rabi	State	Summer
		GIRDAWARI COMPLETED IN TIME		GIRDAWARI COMPLETED IN TIME		GIRDAWARI COMPLETED IN TIME		GIRDAWARI COMPLETED IN TIME
1	Odisha	96	Puducherry	100	Puducherry	100	Puducherry	100
2	Kerala	68	Kerala	97	Himachal Pradesh	96	Odisha	98
3	Tamil Nadu	76	Madhya Pradesh	97	Uttarakhand	85	Uttrakhand	87
4	West Bengal	6	Chhattisgarh	95	Madhya Pradesh	76	Kerala	86
5	Jharkhand	5	Odisha	91	Tamil Nadu	73	Karnataka	61
6	Bihar	1	Himachal Pradesh	90	Chhattisgarh	72	West Bengal	22
7	Assam	0	Uttarakhand	85	Jammu& Kashmir	67	Haryana	17
8			Tamil Nadu	80	Rajasthan	67	Maharashtra	13
9			Rajasthan	77	Karnataka	48	Jharkhand	3
10			Jammu& Kashmir	63	Andhra Pradesh	46	Gujarat	0
11			Karnataka	53	Punjab	37	Assam	0
12			Uttar Pradesh	50	Uttar Pradesh	34	Bihar	0
13			Haryana	49	Telangana	27		
14			Punjab	34	West Bengal	20		
15			Andhra Pradesh	24	Haryana	18		
16			West Bengal	19	Maharashtra	14		
17			Maharashtra	19	Jharkhand	2.5		
18			Telangana	12	Gujarat	0.9		
19			Jharkhand	12	Assam	0		
20			Bihar	6	Bihar	0		

Inter-State and Inter-Season Variability of Timeliness in Submission of TRS/ EARAS Statement during 2021-22

Sl. No.	State	Early Kharif	State	Late Kharif	State	Rabi	State	Summer
		TRS Statement submitted after completing Girdawari		TRS Statement submitted after completing Girdawari		TRS Statement submitted after completing Girdawari		TRS Statement submitted after completing Girdawari
1	Kerala	95	Puducherry	100	Puducherry	100	Puducherry	100
2	Odisha	92	Chhattisgarh	100	Rajasthan	99	Uttarakhand	100
3	Tamil Nadu	72	Uttrakhand	99	Uttrakhand	96	Odisha	95
4	West Bengal	28	Rajasthan	97	Madhya Pradesh	94	Kerala	93
5	Jharkhand	22	Madhya Pradesh	97	Telangana	94	Uttar Pradesh	51
6	Bihar	8	Kerala	96	Chhattisgarh	91	Karnataka	48
7	Assam	0	Tamil Nadu	94	Tamil Nadu	89	Maharashtra	37
8			Odisha	93	Himachal Pradesh	78	West Bengal	26
9			Haryana	77	Jammu & Kashmir	75	Jharkhand	22
10			Jammu& Kashmir	72	Haryana	68	Bihar	9
11			Telangana	68	Uttar Pradesh	60	Gujarat	2
12			Himachal Pradesh	67	Punjab	56	Assam	0
13			Uttar Pradesh	67	Andhra Pradesh	52		
14			Karnataka	54	Karnataka	43		
15			Andhra Pradesh	51	West Bengal	27		
16			Punjab	48	Maharashtra	23		
17			Maharashtra	30	Jharkhand	17		
18			Jharkhand	27	Bihar	5		
19			West Bengal	24	Gujarat	2		
20			Bihar	9	Assam	0		
21			Gujarat	1				
22			Assam	0				

Inter-State and Inter-Season Variability of Timeliness in Submission of TRS/ EARAS Statement during 2020-21

Sl. No.	State	Early Kharif	State	Late Kharif	State	Rabi	State	Summer
		TRS Statement submitted after completing Girdawari		TRS Statement submitted after completing Girdawari		TRS Statement submitted after completing Girdawari		TRS Statement submitted after completing Girdawari
1	Odisha	95	Puducherry	100	Puducherry	100	Puducherry	100
2	Kerala	94	Chhattisgarh	98	Uttarakhand	100	Uttarakhand	100
3	Tamil Nadu	72	Uttrakhand	97	Chhattisgarh	98	Odisha	96
4	West Bengal	16	Kerala	96	Madhya Pradesh	94	Kerala	87
5	Jharkhand	14	Rajasthan	96	Tamil Nadu	93	Karnataka	66
6	Bihar	10	Madhya Pradesh	96	Himachal Pradesh	82	Uttar Pradesh	58
7	Assam	0	Odisha	95	Rajasthan	79	Maharashtra	50
8			Tamil Nadu	94	Jammu & Kashmir	71	West Bengal	24
9			Himachal Pradesh	76	Haryana	67	Jharkhand	8
10			Haryana	75	Punjab	63	Bihar	3
11			Jammu& Kashmir	71	Uttar Pradesh	58	Gujarat	1
12			Karnataka	67	Karnataka	55	Assam	0
13			Punjab	59	Andhra Pradesh	50		
14			Uttar Pradesh	57	Telangana	46		
15			Andhra Pradesh	53	West Bengal	27		
16			Telangana	43	Maharashtra	23		
17			Maharashtra	37	Jharkhand	15		
18			West Bengal	27	Bihar	5		
19			Jharkhand	27	Gujarat	1		
20			Bihar	10	Assam	0		
21			Gujarat	2				
22			Assam	0				

Comparative statement of Timeliness in Submission of TRS/ EARAS Statement during 2021-22 & 2020-21

2021-22								
Sl. No.	State	Early Kharif	State	Late Kharif	State	Rabi	State	Summer
		TRS Statement submitted after completing Girdawari		TRS Statement submitted after completing Girdawari		TRS Statement submitted after completing Girdawari		TRS Statement submitted after completing Girdawari
1	Kerala	95	Puducherry	100	Puducherry	100	Puducherry	100
2	Odisha	92	Chhattisgarh	100	Rajasthan	99	Uttarakhand	100
3	Tamil Nadu	72	Uttrakhand	99	Uttarakhand	96	Odisha	95
4	West Bengal	28	Rajasthan	97	Madhya Pradesh	94	Kerala (Wet)	93
5	Jharkhand	22	Madhya Pradesh	97	Telangana	94	Kerala (Dry)	67
6	Bihar	8	Kerala	96	Chhattisgarh	91	Uttar Pradesh	51
7	Assam	0	Tamil Nadu	94	Tamil Nadu	89	Karnataka	48
8			Odisha	93	Himachal Pradesh	78	Maharashtra	37
9			Haryana	77	Jammu & Kashmir	75	West Bengal	26
10			Jammu& Kashmir	72	Haryana	68	Jharkhand	22
11			Telangana	68	Uttar Pradesh	60	Bihar	9
12			Himachal Pradesh	67	Punjab	56	Gujarat	2
13			Uttar Pradesh	67	Andhra Pradesh	52	Assam	0
14			Karnataka	54	Karnataka	43		
15			Andhra Pradesh	51	West Bengal	27		
16			Punjab	48	Maharashtra	23		
17			Maharashtra	30	Jharkhand	17		
18			Jharkhand	27	Bihar	5		
19			West Bengal	24	Gujarat	2		
20			Bihar	9	Assam	0		
21			Gujarat	1				
22			Assam	0				

2020-21								
Sl. No.	State	Early Kharif	State	Late Kharif	State	Rabi	State	Summer
		TRS Statement submitted after completing Girdawari		TRS Statement submitted after completing Girdawari		TRS Statement submitted after completing Girdawari		TRS Statement submitted after completing Girdawari
1	Odisha	95	Puducherry	100	Puducherry	100	Puducherry	100
2	Kerala	94	Chhattisgarh	98	Uttarakhand	100	Uttarakhand	100
3	Tamil Nadu	72	Uttrakhand	97	Chhattisgarh	98	Odisha	96
4	West Bengal	16	Kerala	96	Madhya Pradesh	94	Kerala	87
5	Jharkhand	14	Rajasthan	96	Tamil Nadu	93	Karnataka	66
6	Bihar	10	Madhya Pradesh	96	Himachal Pradesh	82	Uttar Pradesh	58
7	Assam	0	Odisha	95	Rajasthan	79	Maharashtra	50
8			Tamil Nadu	94	Jammu & Kashmir	71	West Bengal	24
9			Himachal Pradesh	76	Haryana	67	Jharkhand	8
10			Haryana	75	Punjab	63	Bihar	3
11			Jammu& Kashmir	71	Uttar Pradesh	58	Gujarat	1
12			Karnataka	67	Karnataka	55	Assam	0
13			Punjab	59	Andhra Pradesh	50		
14			Uttar Pradesh	57	Telangana	46		
15			Andhra Pradesh	53	West Bengal	27		
16			Telangana	43	Maharashtra	23		
17			Maharashtra	37	Jharkhand	15		
18			West Bengal	27	Bihar	5		
19			Jharkhand	27	Gujarat	1		
20			Bihar	10	Assam	0		
21			Gujarat	2				
22			Assam	0				

THANKS