

# ANNUAL REPORT : 2023-24



**GOVERNMENT OF INDIA**  
**MINISTRY OF AGRICULTURE & FARMERS WELFARE**  
**DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE**  
**DIRECTORATE OF PULSES DEVELOPMENT**  
**VINDHYACHAL BHAVAN, BHOPAL-462004**  
**(MADHYA PRADESH)**

# ANNUAL REPORT

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सत्यमेव जयते

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DIRECTORATE OF PULSES DEVELOPMENT  
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Dr. Subhash Chandra  
Director

## PREFACE

India's economy has been dominated by agriculture with its contribution to employment at 49%. Ensuring food and nutritional security at an affordable rate to >1.25 billion population remains a national concern and a priority agenda for the current government. The major food crops rice and wheat have been heavily incentivized with MSP and preferential treatment of PDS hence the farmers are motivated to grow either these crops or cash crops like cotton, sugarcane etc.

Pulses have been a secondary choice, mostly concentrated to the rainfed ecology. The rainfed regions supports > 40% of human population and 2/3<sup>rd</sup> of livestock of the country. More than 80% of total pulses are grown in this region. Pulses, historically vital constituent of cropping and consumption pattern are the only rich source protein (20-25%) for 43 percent vegetarians (Urban – 48%, rural – 41%). With the twin objectives i.e. achieving food and nutritional security vis-à-vis enhancing income of the rainfed farmers, the government decided to harness the potential of pulses. In 2015-16, many farmers centric strategies and programmes such as PMKSY, PMFBY, PKVY, SHM and SHC, e-NAM etc was initiated to achieve the targeted outcomes.

The production of pulses to the tune of 26.06 million tonnes during 2022-23 is close to self sufficiency in pulses and the country's hopeful to mitigate the projected demand of 35 Mt. by 2030. According to Final estimates of 2022-23, total foodgrain production in the country is estimated at a record 329.69 million tonnes, which is 78.14 million tonnes and 31% higher than that during 2015-16 (251.54 Million Tonnes) and CAGR by 3%.

The production of Pulses has increased at compound annual growth rates (CAGR) of 5 percent (Tur-1%, Gram-3%, Mung-11%, Urd-6% and Lentil-5%) respectively, during last Seven years from 2015-16 to 2022-23. It impacts the livelihood of over 5 crore farmers and their dependents. India is the largest consumer and producer of Pulses in the world shared 38% in area and 28% in production (FAO Stat, 2022).

As a result of enhanced per hectare productivity, the year 2021-22 witnessed a record pulse production of 27.30 million tonnes, a grand success story and revolution in pulses self-sufficiency after 2017-18 (25.42 Million Tonnes).

The annual report is an effort towards a brief summary of activities performed by this directorate for the development of Pulses, Global & National Scenario Strategies, various Participation/Workshop/Training/Meeting/IMCT, Field visit, Studies, Surveys etc.

I acknowledge the sincere efforts of Technical Officers Dr A.K. Shivhare, Joint Director & Shri Vipin Kumar, Joint Director and Technical Team of this Directorate in their contribution to this publication.

September, 2024

(Dr. Subhash Chandra)

## ABOUT THE DIRECTORATE

1. The Directorate of Pulses Development (DPD), one of the eight Crop Development Directorates (CDDs) viz Jute, Cotton, Wheat, Millets, Rice, Sugarcane and Oilseeds, under the *crops division* of the Ministry of Agriculture, Department of Agriculture & Cooperation (DAC), was established in 1971 at Lucknow (U.P.) by merging the Regional Extension Unit, Ahmedabad (Gujarat). On the recommendations of "CDDs Re-organization Committee", in 1996, the National Head Quarter of pulses commodity was subsequently shifted to Madhya Pradesh, Bhopal in the year 2020-21.

*Emphasizing on the welfare of farmers for overall growth of the agri-sector, the government renamed the Agriculture Ministry as "Ministry of Agriculture and Farmers Welfare" (DA&FW) in the year 2020-21.*

2. The Directorate of Pulses Development is mandated to co-ordinate and monitor the implementation of all Pulses related centrally sponsored/central sector schemes on crops development & research across the country.
3. At present, Food & Nutrition Security (Pulses), erstwhile - National Food Security Mission (NFSM)–Pulses, is operating in 28 States (638 Districts) + 2 UTs i.e. Jammu & Kashmir and Ladakh (28 Districts) in the Country.
4. With the bi-focal responsibilities for the assigned states of Madhya Pradesh & Chhattisgarh at present, it co-ordinates and monitors all crops related schemes/programmes/missions viz., FNS (Erstwhile-NFSM) -Rice, Wheat, Pulses, Targeting Rice Fallow Areas-Pulses & Oilseeds, Coarse Cereals, Nutri-Cereals, Commercial Crops-Sugarcane & Cotton), National Mission on Edible Oil & Oilpalm (NMEO)
5. Monitoring the implementation of 150 pulses seed hubs (Rs. 225.31 Cr) in 24 states covering 97 districts KVKs, 46 SAUs and 07 ICAR institutions to enhance location specific varieties and quality & quantity of pulses seed (Gram, Mung, Urd, Tur, Lentil and Pea etc..) availability on time in the country.
6. This Directorate represents Nodal office of DA&FW, Govt. of India, New Delhi for Madhya Pradesh & Chhattisgarh states in State Level Sanction Committees (SLSC), Inter-Ministerial Central Teams (IMCT) & Task-force etc.
7. Preparation of Weekly Weather Watch Report (WWWR), Area coverage and prospects of All India pulses for the all seasons (Kharif/Rabi/Summer) alongwith rainfall situation, market trends of pulses crops and Weekly Weather Watch Report (WWWR) of all Kharif/Rabi/Summer crops of Nodal states of Madhya Pradesh and Chhattisgarh & Crop-wise note on kharif, Rabi & summer pulses coverage and submitting to the Ministry including harvesting, status of crops on weekly basis.

8. To attend the Weekly Video Conference of Ministry of Agriculture & FW with States Deptt. of Agriculture on crop weather watch report on every Tuesday regularly.
9. Providing inputs for Formulation of Annual and Five year National plan, coordination in execution and monitoring of crop production programmes of pulses at national level, assisting states/UTs in initiation, planning, formulation and intensification of crop development programmes in consonance with the ongoing states programme/Crop diversification aspects & convergence and monitoring.
10. Analytical reports (prod. estimates/ scenario/ price regime/market trends/Import-Export/crop diversions etc.
11. Co-ordination with Seed Agencies (NSC/ NAFED /HIL/ IFFDC/ KRIBHCO/ KVSSL/NCCF etc.
12. Preparation and submission of crop specific technical notes of Pulses to the Ministry.
13. The DPD, Bhopal has been actively monitoring the programme implementation at the National level, through National Monitoring Team/Field visits, allocation of Seed Minikits, Seed-hub (Pulses), Interface with the Research and other stake-holder organizations/agencies in the country.
14. The DPD drafted the policy paper/guidelines for NFSM -Pulses, Seed- Rolling Plan for the strategies on area expansion and productivity enhancement in consultation with states and ICAR.
15. Monitoring of Cluster FLDs on Pulses/ Oilseeds organized by KVKs under ATARI Zone-IX-Jabalpur, Three Years Seed Rolling plan for purchase of breeder seed, production of foundation and certified seed of oilseeds during 2021-22, 2022-23 and 2023-24 under NFSM-OS & OP and Seed Minikit Programme on Pulses & Oilseeds in Madhya Pradesh and Chhattisgarh States.
16. The Directorate accomplishes the task relating to analysis of Area, Production and Productivity trends/impact of developmental programmes; research areas and identification of bottlenecks and suggest measures for their rectification and also feedback to ICAR-IIPR through institutionalized mechanism of National Conference/Group Meets on Chickpea, Pigeonpea, MULLaRP (Mung, Urd, Lentil, Lathyrus, Rajmash, Pea), Arid Legumes and DA&FW-ICAR Interface; Interface with National and International Research Organizations and Stake holders on area of crop Research, micro level planning of pulses crop development programme; fixing targets of production and suggest measures to achieve them; to co-ordinate in programmatic review of all CSSs and coordinate Seminar/Workshop/Conference /Review Meetings at State and National level.

17. To assess the crop loss/damage to agricultural sector during Natural Calamities as a Member in Inter-Ministerial Central Team (IMCT) representing the Govt. of India, Department of Agri. & FW.
18. To prepare and coordinate with assigned states of Madhya Pradesh & Chhattisgarh for reply of the Parliament Questions.
19. To prepare the All India Quarterly Progress Report and Annual Progress Report NFSM-Pulses and Seed hub-Pulses.
20. To act as Convener for National Level Monitoring Team (NLMT) to Madhya Pradesh and Chhattisgarh under FNS (Erstwhile-NFSM) Rice, Pulses, Wheat, Coarse Cereals, Nutri-Cereals, Commercial Crops).
21. To provide monthly crop specific advisories to the farmers in assigned states of Madhya Pradesh and Chhattisgarh and through m-kishan portal.
22. To collect & provide the various success stories on Centrally sponsored schemes benefits and other Technical inputs to extension agencies.
23. To participate in ICAR institutes, SAUs, International Research Organizations, NGOs and other stake holders in the field of Agri. and allied sectors for better Research-Development interface.
24. To represent on behalf of DA&FW in ICAR- Annual Group Meet (AGM) Pigeonpea/ Chickpea/ MULLaRP/ Arid Legumes and also represent in National conferences of DA&FW (Kharif, Rabi & Summer conference).
25. Also to represent Department on their Committee/ events with a view to have direct interface for onward benefits to formulate farmer friendly schemes at national level with a unified approach for the overall development of agriculture and in Crop Training Programmes; Developing leaflets/ Literatures on training, etc.
26. **Sathi Portal** : Actively Involvement of DPD, Bhopal for registration/enrolment of State seed agencies & Seed-hubs and followup.
27. **Krishi Mapper App** : Training for operation of Krishi Mapper app to all CFLD Pulses and Oilseed implemented KVKs in assigned states i.e. MP & CG and solve the issues related to the app through virtual meeting with ATARI, KVKs and National Programmer.



## Unit-I

### Pulses Overview

#### 1.1 Introduction

- With more people and smaller farms, the world is adopting sustainable production systems. India's Global Hunger Index position dropped after the COVID-19 incident. Nearly 14% of the population is undernourished, which is attributed to pandemic-induced poverty and food insecurity. India's population consumes too few proteins, fruits, and vegetables. 73% of urbanites surveyed were protein deficient. They contain about 20–25% protein by weight, which is double the protein content of wheat and three times that of rice, makes them an excellent source of protein for vegetarians and vegans.
- Madhya Pradesh (22%), Maharashtra (16%), Rajasthan(16%), Uttar Pradesh (10%), and Karnataka (08%), are the top five pulse-producing states. Current output cannot meet demand. India buys pulses because growth is insufficient. Pulses are attracting attention from government plans to double farmers' revenue by diversifying and diverting production from traditional cereal-based crops. India produces 27% of the world's pulses, although its contribution to total food grain fell from 16% in 1950 to 8% in 2022-23. Thus, pulses in the country have a huge demand–supply mismatch. The study forecasts >28 million tonnes of pulses by 2026. To meet demand of 32-33 million tonnes by 2030-31, it must expand 3% annually. Due to unpredictable output, the demand–supply gap for pulses is anticipated to expand. Due to poor pulse production, per capita availability is declining, which is not encouraged by government policy as it competes with wheat and rice.
- Pulses improve soil biodiversity and intercropping, which helps agricultural sustainability. Pulses are a low-carbon future food with a growing population and shift towards vegetarian and vegan diets. To fulfil population increase, 39 million tonnes of pulses are needed by 2050. In this setting, it is necessary to forecast pulse production and formulate policy. This work uses hybrid models to predict pulse production.
- Pulses are one of the important food crops globally due to higher protein content. Pulses are an important group of crops in India, which is also responsible for yielding large financial gains by amounting for a large part of the exports. Pulses are the major sources of protein in the diet. Of all categories of people pulses form an integral part of the Indian diet, providing much needed protein to the carbohydrate rich diet. India is the largest producer and consumer of pulses in the world.
- Major pulses are grown chickpeas (Gram/Chana), Pigeon pea (Tur/Arhar), Mungbeans, Urdbeans (Blackgram), Masur (Lentil), Peas and various kinds of Beans (Minor Pulses).
- The future agricultural operations are likely to be highly skilled and competitive. The serious challenges to the workforce/youth of these resource poor and rainfed regions viz. lack of skill in scientific crop cultivation, repair and maintenance of farm machineries and implements, production of quality seeds, primary processing, value

addition, modern animal husbandry, poor infrastructure (irrigation, godowns/warehouses, trading centres) and organized pulse markets etc. have been considered by the government while formulating the strategy and roadmap to increase the production of pulses.

- The poor nutritional status of the population is a major challenge where low income, small scale's households, has a long-term negative implication for economic development. The government has resolved this issue to be addressed through **nutrition-sensitive agriculture interventions**, focusing the pulse crops having multiple nutritional values with essential source of vitamins, micro-nutrient and protein to help attain **nutritional security**. Pulses have better enabling environment to promote dietary and production diversity to address hunger and malnutrition at national level.

**Focus on pulses production and consumption can help overcome malnutrition: India should include pulses in the public distribution system.**

- India, a country with high concentrations of poor and malnourished people, long promoted a cereal-centric diet composed of subsidized staple commodities such as rice and wheat to feed its population of more than a billion. Today, however, dietary patterns are changing. Policy makers, researchers, and health activists are looking for ways to fight hunger and malnutrition in the country. As they shift their focus from calorie intake to nutrition, neglected foods such as pulses (the dried, edible seeds of legumes) are gaining attention. There are three kinds of hunger that needed to be dealt with – calorie inadequacy, protein deficiency and micronutrient deficiency.
- Pulses are grown in all three seasons. The three crop seasons for the commodity are:
  - **Kharif** :Arhar (Tur), Urd (Blackgram), Moong (Greengram), Lobia (Cowpea), Kulthi (Horsegram) and Moth;
  - **Rabi** : Gram, Lentil, Pea, Lathyrus and Rajmash;
  - **Summer** :Greengram, Blackgram and Cowpea.

## 1.2 Pulses in Indian Context of last 05 years (Avg. of 2018-19 to 2022-23)

### 1.2.1 India's status of pulse production

- The total world acreage under pulses is about 93.93 (Million ha) with production of 90.24 (Million tonnes) at 961 kg/ha yields level (Avg. of 2018-19 to 2022-23). India, with >34 Million ha pulses cultivation area, is the largest pulse producing country in the world. It ranks first in area and production with 36 per cent and 27 per cent respectively.
- Thanks to pro-active pulse programme implementation strategies and robust monitoring mechanism of DA&FW significant growth in area, production and productivity of pulses has been recorded during 2021-22 and 2022-23, whereby the pulses production reached at 27 Million tonnes and 26 Million tonnes respectively, is a success story in itself. The productivity of pulses has increased by 37 per cent to reach 902 kg/ha during 2022-23 from the level of 656 kg/ha during 2015-16. The production growth from 16 Million tonnes to 26 Million tonnes has been 62 per cent and is the ever highest during 2022-23 from the base year 2015-16.

**1.2.2 Pulses share to total foodgrain basket :**

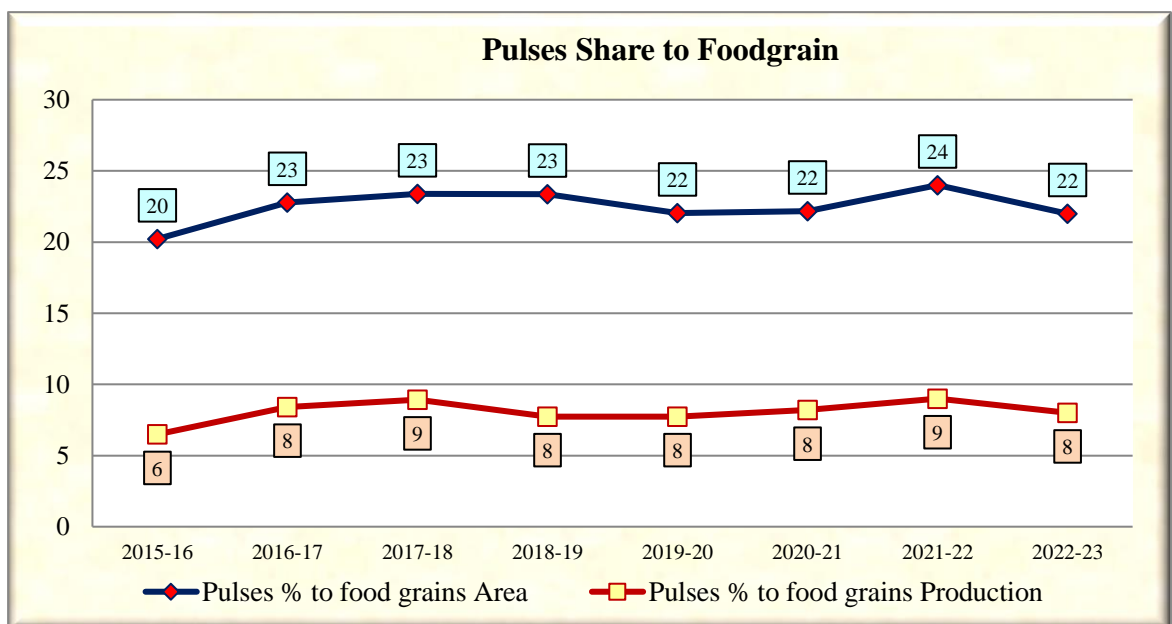
- Percent share of pulses to total foodgrain production basket stagnated is around 6 percent uptill 2016-17, since Green Revolution period (1960-70). It is increased to 8 per cent by 2022-23. The area remained stagnant between 22-24 Million ha i.e. 23 per cent of total foodgrain area till this same period. (Table-1, Fig.-1).
- Deceleration of percent production contribution of pulses to total food grains basket prompted the present dispensation in the Ministry of Agriculture &FW to vigorously pursue the FNS-Pulses (Erstwhile-NFSM) with synergistic approach on Research & Development, procurement, marketing, and import-export policies etc.

**(Table-1) :** Contribution of pulses to food grains basket.

{Area- Million ha, Production- Million Tones, Yield- kg/ha}

Year	Pulses			Food grains			Pulses share to foodgrains (%)	
	A	P	Y	A	P	Y	A	P
2015-16	24.91	16.32	655	123.22	251.54	2041	20	6
2016-17	29.45	23.13	786	129.23	275.11	2129	23	8
2017-18	29.81	25.42	853	127.52	285.01	2235	23	9
2018-19	29.16	22.08	757	124.78	285.21	2286	23	8
2019-20	27.99	23.03	823	126.99	297.50	2343	22	8
2020-21	28.78	25.46	885	129.80	310.74	2394	22	8
2021-22	30.73	27.30	888	130.17	315.62	2425	24	9
2022-23	28.90	26.06	902	132.20	329.69	2494	22	8

Source: DES, Ministry of Agri. &FW (DA&FW), Govt. of India.



**Fig-1:** Contribution of Pulses to Foodgrains Basket

**1.2.3 Season & crop contribution in total pulse production (2018-19 to 2022-23)**

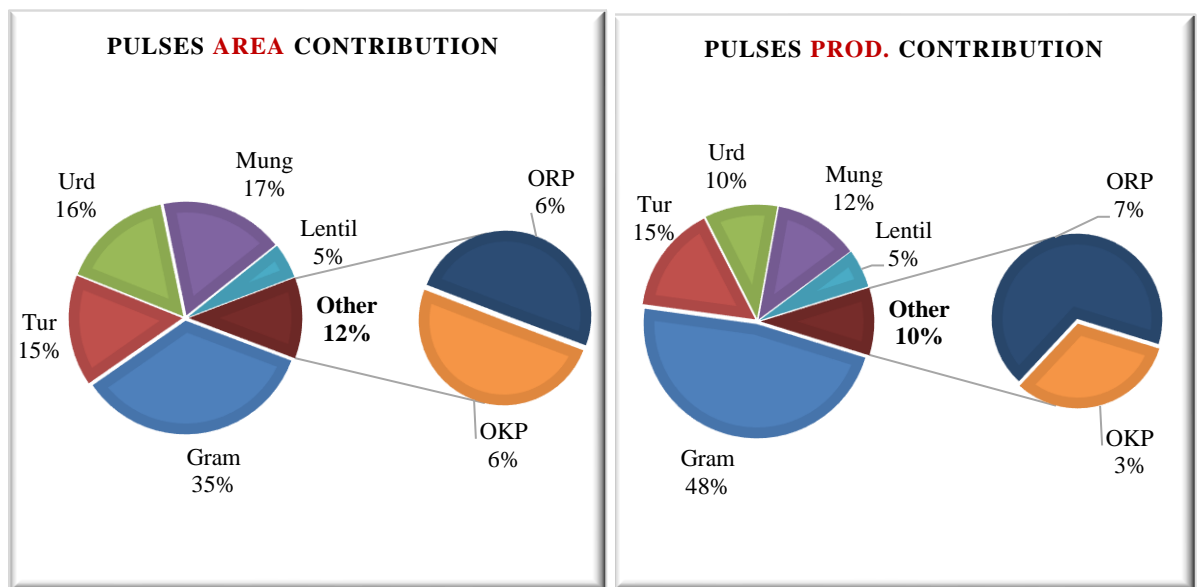
Under individual crop category gram with 47 per cent production share to total pulses is the highest contributor followed by Tur (15 per cent), Mung (12%), Urd (10%) and Lentil (5%). The crop-wise APY and per cent share to total pulses is given below (Table-2, Fig.-2).

**(Table -2):** Crop contribution to total pulse production

{Area-lakh ha, Production-lakh tons, Yield-kg/ha}

Crop	Normal (2018-19 to 2022-23)			Contribution (%)	
	Area	Production	Yield	Area	Production
Gram	100.91	117.48	1164	35	47
Tur	45.55	38.11	837	16	15
Urd	45.83	25.56	558	16	10
Mung	51.13	29.78	583	18	12
Lentil	14.36	13.30	926	5	5
Other Kharif Pulses (OKP)	16.73	7.59	454	6	3
Other Rabi Pulses (ORP)	16.61	16.03	965	6	6
<b>Total Kharif Pulses</b>	<b>136.02</b>	<b>80.97</b>	<b>595</b>	<b>47</b>	<b>33</b>
<b>Total Rabi Pulses</b>	<b>155.10</b>	<b>166.87</b>	<b>1076</b>	<b>53</b>	<b>67</b>
<b>Total</b>	<b>291.12</b>	<b>247.85</b>	<b>851</b>		

Source: Normal – 2018-19 to 2022-23, DES, Min. of Agri. & FW (DA&FW), GoI.



**Fig-2:** Crop contribution in Total Pulses

### 1.3 States' Contribution

#### 1.3.1 Total Pulses Scenario : Normal (2018-19 to 2022-23)

- In India, total normal pulse area and production has been > 291 Lakh hectares (Lha) and 247 Lakh tonnes (LT) respectively. Out of the total area, > 60 Lha is in Rajasthan alone, followed by Madhya Pradesh with about 54 Lha is in second position, however, Madhya Pradesh state earning a prime status in pulse production commodity registering a remarkable 22% of the country's pulse production, thereby Rajasthan state has ranking first in area and Madhya Pradesh state has first ranking in production.
- More than 91 per cent of total pulse production has been the contribution by 10 states namely, Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, Karnataka, Gujarat, Andhra Pradesh, Jharkhand, Telangana and Tamil Nadu (*Table-3, Fig.-3*).

(Table -3): States' Contribution in Area & Production – Total Pulses

{Area-lakh ha, Production-lakh tons}

States	Area	% Contri.	States	Production	% Contri.
Rajasthan	60.69	21	Madhya Pradesh	54.82	22
Madhya Pradesh	54.38	19	Maharashtra	40.80	16
Maharashtra	45.62	16	Rajasthan	40.36	16
Karnataka	31.21	11	Uttar Pradesh	25.59	10
Uttar Pradesh	24.45	8	Karnataka	19.45	8
Andhra Pradesh	12.16	4	Gujarat	16.08	6
Gujarat	12.07	4	Andhra Pradesh	10.26	4
Tamil Nadu	8.14	3	Jharkhand	8.23	3
Jharkhand	7.93	3	Telangana	5.30	2
Telangana	5.31	2	Tamil Nadu	5.26	2
Others	29.14	10	Others	21.70	9
<b>All India</b>	<b>291.12</b>		<b>All India</b>	<b>247.85</b>	

Source: Normal – 2018-19 to 2022-23, DES, Ministry of Agri. & FW (DA&FW), GoI.

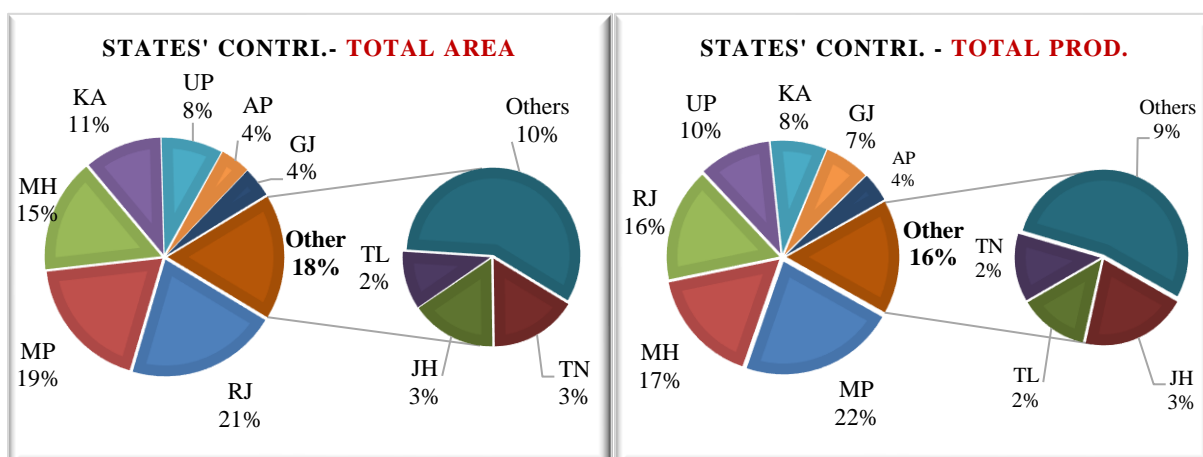


Fig. 3: States' Contribution in Area & Production–Total Pulses

**1.3.2 Kharif Pulses Scenario : Normal (2018-19 to 2022-23)**

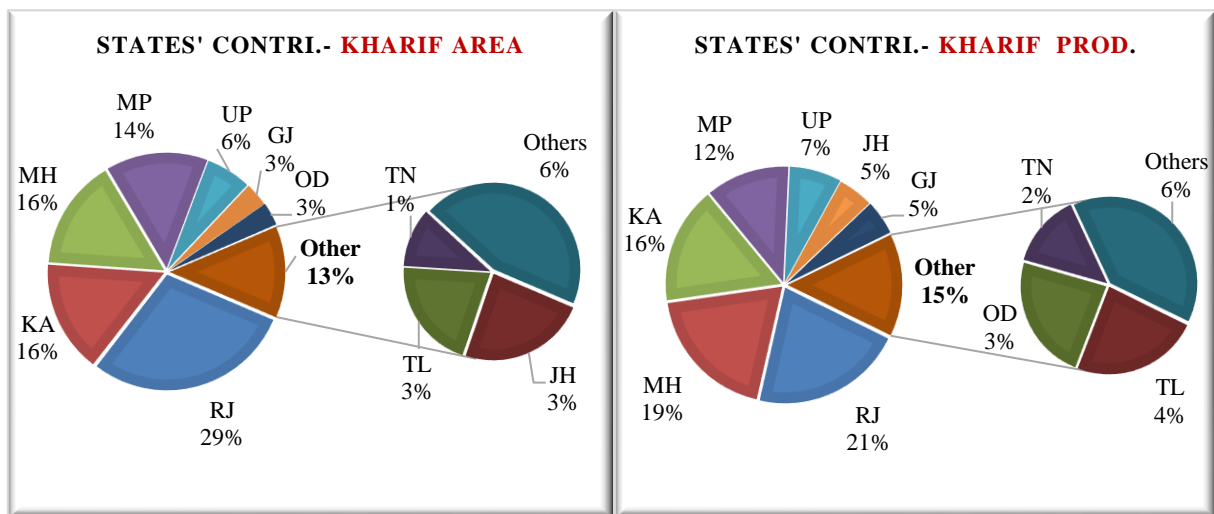
- The total normal area coverage and production of Kharif pulses has been 136 Lakh hectare (Lha) and 81 Lakh tonnes (LT) respectively. Rajasthan outshined with first rank in area and production both with 29% & 21% followed by Maharashtra and Karnataka with 19% & 16% in respect of production.
- More than 94 per cent of total kharif production was realized from 10 states of Rajasthan, Maharashtra, Karnataka, Madhya Pradesh, Uttar Pradesh, Jharkhand, Gujarat, Telangana, Odisha and Tamil Nadu (*Table-4, Fig.-4*).

**(Table-4): States’ Contribution in Area & Production– Kharif Pulses**

*{Area-lakh ha, Production-lakh tons}*

States	Area	% Contri.	States	Prod.	% Contri.
Rajasthan	39.51	29	Rajasthan	17.25	21
Karnataka	21.28	16	Maharashtra	15.50	19
Maharashtra	20.95	15	Karnataka	13.22	16
Madhya Pradesh	19.33	14	Madhya Pradesh	9.46	12
Uttar Pradesh	8.62	6	Uttar Pradesh	5.85	7
Gujarat	4.50	3	Jharkhand	4.02	5
Odisha	4.39	3	Gujarat	3.92	5
Jharkhand	4.15	3	Telangana	2.78	3
Telangana	3.62	3	Odisha	2.76	3
Tamil Nadu	1.88	1	Tamil Nadu	1.61	2
Others	7.79	6	Others	4.61	6
<b>All India</b>	<b>136.02</b>		<b>All India</b>	<b>80.97</b>	

Source: Normal – 2018-19 to 2022-23, DES, Ministry of Agri. & FW (DA&FW), GoI.



**Fig-4: States’ Contribution in Area & Production– Kharif Pulses**

**1.3.3 Rabi Pulses Scenario : Normal (2018-19 to 2022-23)**

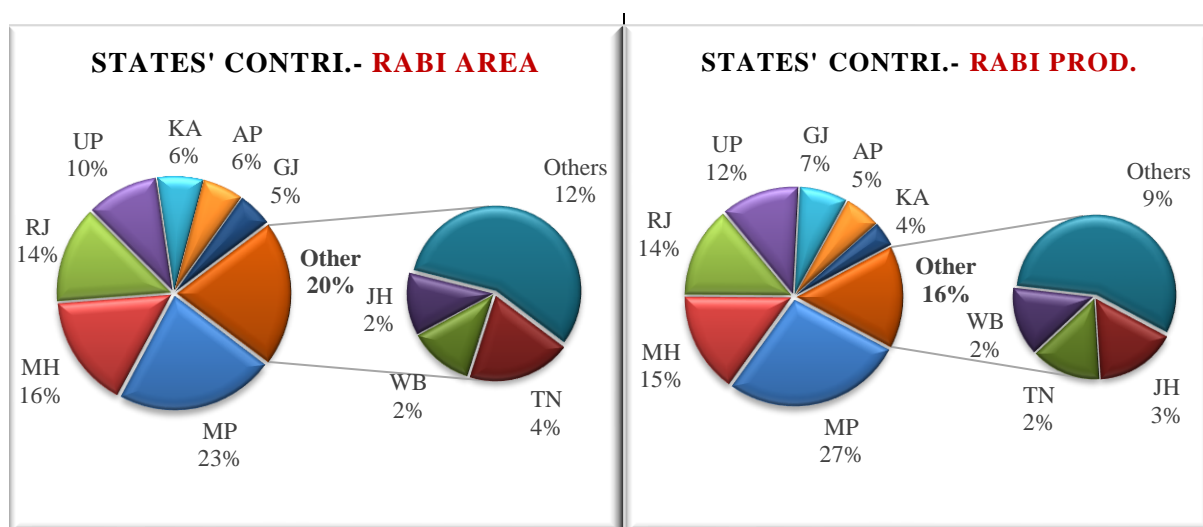
- All India Rabi pulse acreage and production has been recorded in 155 Lakh hectare (Lha) and production was 167 Lakh tonnes (LT). Madhya Pradesh with 23 per cent of area and 27 per cent of total rabi pulse production in the country ranked first among the states.
- More than 91 per cent pulse production was recorded from 10 states of Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, Karnataka, Andhra Pradesh, Gujarat, Tamil Nadu, West Bengal and Jharkhand (Table-5, Fig.,-5).

**(Table-5): States’ Contribution in Area & Production- Rabi Pulses**

{Area-lakh ha, Production-lakh tons}

States	Area	% Contri.	States	Production	% Contri.
Madhya Pradesh	35.05	23	Madhya Pradesh	45.36	27
Maharashtra	24.67	16	Maharashtra	25.29	15
Rajasthan	21.19	14	Rajasthan	23.11	14
Uttar Pradesh	15.83	10	Uttar Pradesh	19.73	12
Karnataka	9.93	6	Gujarat	12.17	7
Andhra Pradesh	8.96	6	Andhra Pradesh	9.06	5
Gujarat	7.57	5	Karnataka	6.23	4
Tamil Nadu	6.26	4	Jharkhand	4.21	3
West Bengal	3.89	3	Tamil Nadu	3.65	2
Jharkhand	3.78	2	West Bengal	3.55	2
Others	17.97	12	Others	14.51	9
<b>All India</b>	<b>155.10</b>		<b>All India</b>	<b>166.87</b>	

Source: Normal – 2018-19 to 2022-23, DES, Ministry of Agri. & FW (DA&FW), GoI.



**Fig- 5: States’ Contribution in Area & Production– Rabi Pulses**

### 1.3.4 Gram (Chickpea) Scenario : Normal (2018-19 to 2022-23)

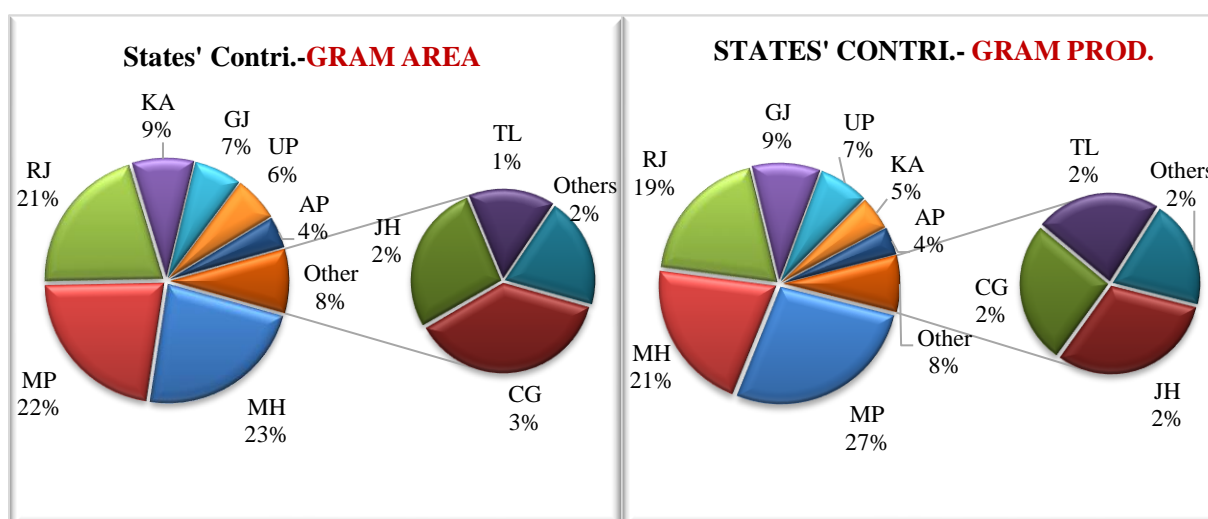
- Chickpea was cultivated in about 101 Lakh hectare (Lha). The country harvested a record production of > 117 Lakh tonnes (LT) at the productivity level of 1164 kg/ha. Maharashtra has contributed a significant about 23% of the total gram area (23.27 Lha), whereas in production as usual, Madhya Pradesh has the contributing state with 27% of total gram production (31.93 LT) in the country, thereby ranking first Maharashtra in area and Madhya Pradesh is in production. Madhya Pradesh (22%) and Rajasthan (21%) were the next in terms of area during this period (Normal 2018-19 to 2022-23).
- More than 98 per cent of gram production of the country during the period under report has been realized by 10 states of Madhya Pradesh, Maharashtra, Rajasthan, Gujarat, Uttar Pradesh, Karnataka, Andhra Pradesh, Jharkhand, Chhattisgarh and Telangana (*Table-6, Fig.-6*).

**(Table-6): States' Contribution in Area & Production- Gram**

{Area-lakh ha, Production-lakh tons}

States	Area	% Contri.	States	Production	% Contri.
Maharashtra	23.27	23	Madhya Pradesh	31.93	27
Madhya Pradesh	22.47	22	Maharashtra	24.62	21
Rajasthan	20.82	21	Rajasthan	22.51	19
Karnataka	8.48	8	Gujarat	11.10	9
Gujarat	6.52	6	Uttar Pradesh	8.11	7
Uttar Pradesh	6.18	6	Karnataka	5.49	5
Andhra Pradesh	4.36	4	Andhra Pradesh	4.49	4
Chhattisgarh	3.28	3	Jharkhand	2.86	2
Jharkhand	2.39	2	Chhattisgarh	2.41	2
Telangana	1.37	1	Telangana	2.11	2
Others	1.77	2	Others	1.84	2
<b>All India</b>	<b>100.91</b>		<b>All India</b>	<b>117.48</b>	

Source: Normal – 2018-19 to 2022-23, DES, Ministry of Agri. & FW (DA&FW), GoI.



**Fig- 6:** States' Contribution in Area & Production-Gram



### 1.3.5 Arhar / Tur (Pigeonpea) Scenario : Normal (2018-19 to 2022-23)

- The country's total area coverage and production of tur has been about 46 Lakh hectare (Lha) and 38 Lakh tonnes (LT) respectively. As known traditionally, Karnataka has contributed 33 per cent of area and 28 per cent of total production during this period (Normal 2018-19 to 2022-23), whereas in production Maharashtra state occupies first rank with 29% production share followed by Karnataka. With aggressive Transfer of Technology (ToT) in various thematic areas, the productivity level of 837 kg/ha was achieved (*Table-7*).
- More than 97 per cent of arhar production of the country during the period under report has been realized from 10 states of Maharashtra, Karnataka, Uttar Pradesh, Gujarat, Jharkhand, Telangana, Madhya Pradesh, Odisha, Andhra Pradesh and Tamil Nadu (*Table-7, Fig.-7*).

(Table-7): States' Contribution in Area & Production –Arhar /Tur

{Area-lakh ha, Production-lakh tons}

States	Area	% Contri.	States	Production	% Contri.
Karnataka	15.20	33	Maharashtra	11.13	29
Maharashtra	12.48	27	Karnataka	10.62	28
Uttar Pradesh	2.94	6	Uttar Pradesh	3.13	8
Telangana	2.92	6	Gujarat	2.76	7
Andhra Pradesh	2.43	5	Jharkhand	2.47	6
Gujarat	2.41	5	Telangana	2.31	6
Jharkhand	2.27	5	Madhya Pradesh	2.11	6
Madhya Pradesh	2.14	5	Odisha	1.43	4
Odisha	1.32	3	Andhra Pradesh	0.79	2
Tamil Nadu	0.44	1	Tamil Nadu	0.49	1
Others	0.99	2	Others	0.87	2
<b>All India</b>	<b>45.55</b>		<b>All India</b>	<b>38.11</b>	

Source: Normal – 2018-19 to 2022-23, DES, Ministry of Agri. & FW (DA&FW), GoI.

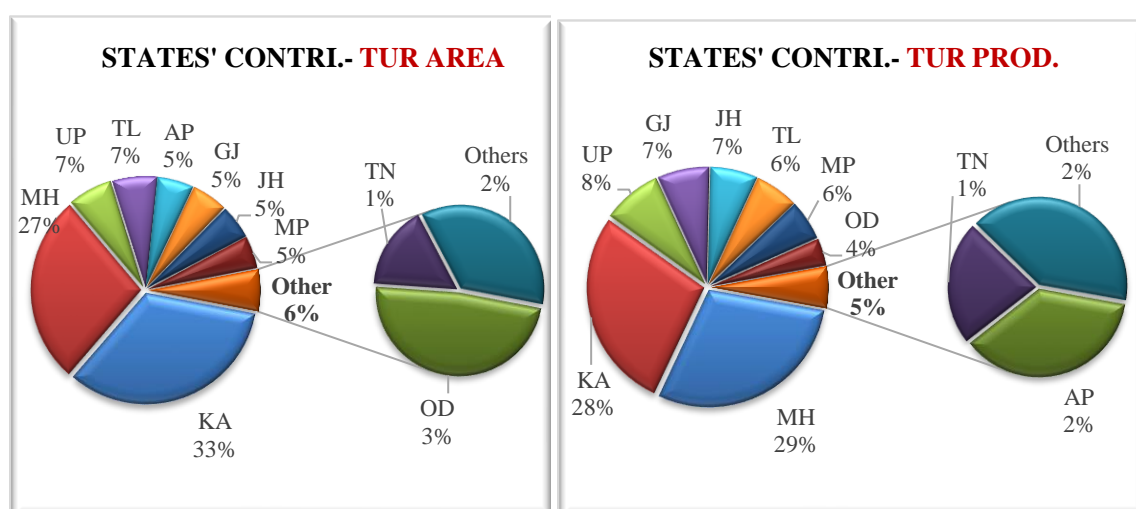


Fig.-7: States' Contribution in Area & Production – Arhar/Tur

**1.3.6 Mungbean (Greengram) Scenario : Normal (2018-19 to 2022-23)**

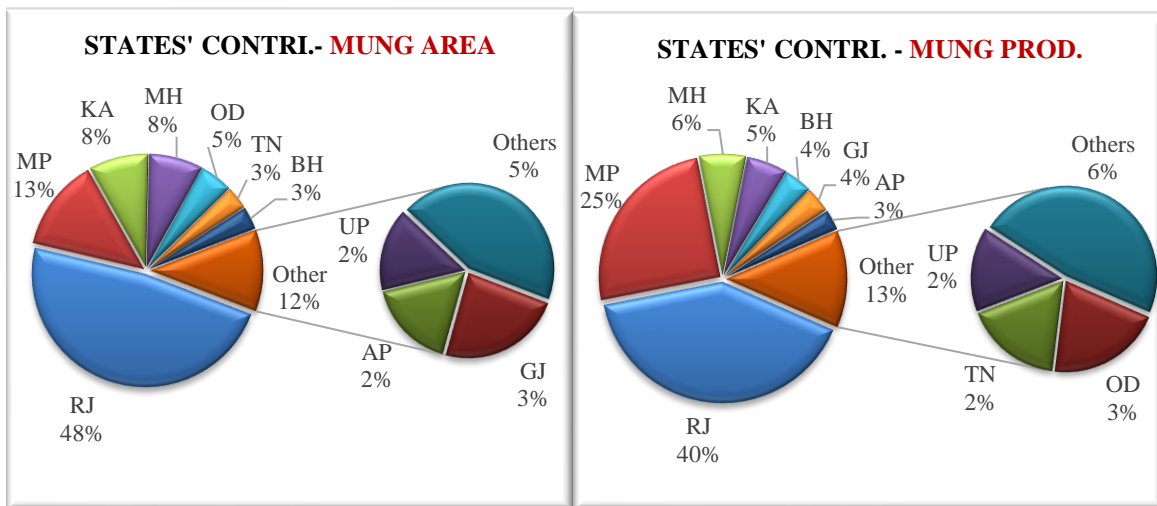
- The total coverage under mungbean has been about 51 Lakh hectare (Lha) with a production of 30 Lakh tonnes (LT). There has been phenomenal increase in area of mungbean in the country from 2015-16 onwards. Rajasthan with >40 per cent area and 48 per cent of production outshined in the total mungbean contribution in the country during this period (Normal 2018-19 to 2022-23).
- More than 93 per cent of mungbean production comes from 10 states of Rajasthan, Madhya Pradesh, Maharashtra, Karnataka, Bihar, Gujarat, Andhra Pradesh, Odisha, Tamil Nadu and Uttar Pradesh (Table-8, Fig.-8).

**(Table-8): States' Contribution in Area & Production – Mungbean**

{Area-lakh ha, Production-lakh tons}

States	Area	% Contri.	States	Production	% Contri.
Rajasthan	24.48	48	Rajasthan	12.04	40
Madhya Pradesh	6.72	13	Madhya Pradesh	7.45	25
Karnataka	4.35	9	Maharashtra	1.83	6
Maharashtra	3.89	8	Karnataka	1.62	5
Odisha	2.42	5	Bihar	1.13	4
Tamil Nadu	1.67	3	Gujarat	1.03	3
Bihar	1.66	3	Andhra Pradesh	0.82	3
Gujarat	1.39	3	Odisha	0.79	3
Andhra Pradesh	1.00	2	Tamil Nadu	0.67	2
Uttar Pradesh	0.94	2	Uttar Pradesh	0.58	2
Others	2.60	5	Others	1.84	6
<b>All India</b>	<b>51.13</b>		<b>All India</b>	<b>29.78</b>	

Source: Normal – 2018-19 to 2022-23, DES, Ministry of Agri. & FW (DA&FW), GoI.



**Fig.-8: State's Contribution in Area & Production-Mungbean**

**1.3.7 Urdbean (Blackgram) Scenario : Normal (2018-19 to 2022-23)**

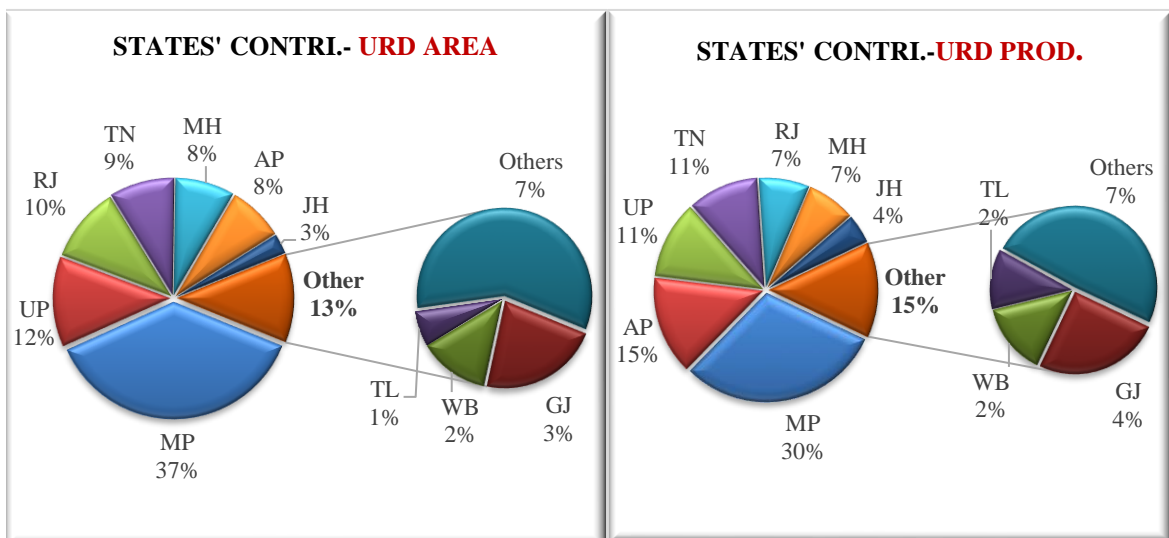
- Urdbean crop is also gaining momentum since 2015-16 and there has been phenomenal increase in its coverage. Crop was cultivated over an area of 46 Lakh hectare (Lha). The success of this crop was released with a harvest of about 26 Lakh tonnes (LT) at yield levels of 558 kg/ha.
- More than 93 per cent of urdbean production comes from 10 states of Madhya Pradesh, Andhra Pradesh, Uttar Pradesh, Tamil Nadu, Rajasthan, Maharashtra, Jharkhand, Gujarat, West Bengal and Telangana. (Table-9, Fig.-9).

**(Table-9): States’ Contribution in Area & Production- Urdbean**

{Area-lakh ha, Production-lakh tons}

States	Area	% Contri.	States	Production	% Contri.
Madhya Pradesh	17.03	37	Madhya Pradesh	7.75	30
Uttar Pradesh	5.71	12	Andhra Pradesh	3.72	15
Rajasthan	4.82	11	Uttar Pradesh	2.92	11
Tamil Nadu	4.10	9	Tamil Nadu	2.71	11
Maharashtra	3.75	8	Rajasthan	1.90	7
Andhra Pradesh	3.52	8	Maharashtra	1.86	7
Jharkhand	1.27	3	Jharkhand	1.11	4
Gujarat	1.25	3	Gujarat	0.90	4
West Bengal	0.73	2	West Bengal	0.51	2
Telangana	0.36	1	Telangana	0.42	2
Others	3.28	7	Others	1.76	7
<b>All India</b>	<b>45.83</b>		<b>All India</b>	<b>25.56</b>	

Source: Normal – 2018-19 to 2022-23, DES, Ministry of Agri. & FW (DA&FW), GoI.



**Fig.-9: States’ Contribution in Area & Production- Urdbean**

### 1.3.8 Lentil/Masoor Scenario : Normal (2018-19 to 2022-23)

- The total coverage under Lentil has been about 14 Lakh hectare (Lha) with a production of 13 Lakh tonnes (LT) at 926 kg/ha productivity level. Madhya Pradesh stands first in area with 35 per cent contributing to total lentil acreage Uttar Pradesh is in production with 36 percent (4.81 LT) share to total lentil production, whereas, Madhya Pradesh production is also very close to that with 35% (4.64 LT) of production in the country during this period (Normal 2018-19 to 2022-23).
- More than 96% has been realized from 06 states of Uttar Pradesh, Madhya Pradesh, West Bengal, Bihar, Jharkhand and Rajasthan (*Table-10, Fig.-10*).

(Table-10): States' Contribution in Area & Production-Lentil

{Area-lakh ha, Production-lakh tons}

States	Area	% Contri.	States	Production	% Contri.
Madhya Pradesh	4.98	35	Uttar Pradesh	4.81	36
Uttar Pradesh	4.90	34	Madhya Pradesh	4.64	35
West Bengal	1.62	11	West Bengal	1.39	10
Bihar	1.39	10	Bihar	1.24	9
Jharkhand	0.63	4	Jharkhand	0.55	4
Assam	0.25	2	Rajasthan	0.25	2
Rajasthan	0.19	1	Assam	0.19	1
Uttarakhand	0.11	1	Uttarakhand	0.10	1
Others	0.31	2	Others	0.16	1
<b>All India</b>	<b>14.36</b>		<b>All India</b>	<b>13.30</b>	

Source: Normal – 2018-19 to 2022-23, DES, Ministry of Agri. & FW (DA&FW), GoI.

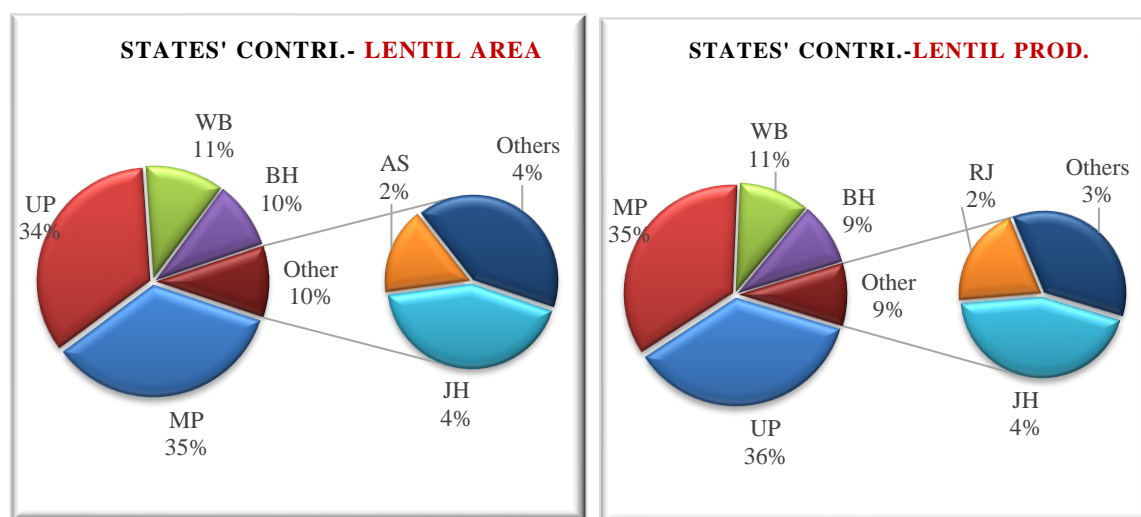


Fig.-10: States' Contribution in Area & Production-Lentil

## 1.4 Yearly Growth Rate of Pulses

### 1.4.1 Yearly Growth Rate of Total Pulses

From 2013-14 to 2022-23, the total acreage under pulses has almost slightly ( $\pm$ ) being showed, however, the maximum growth rate in area and production was recorded with 18% & 42% during 2016-17 over previous year (2015-16). This trend is continuously maintained with highest area (30.73 Mha) and production (27.30 Mt.) during 2021-22 and it was ever highest recorded both in area and production in last 08 years (Table11, Fig.-11).

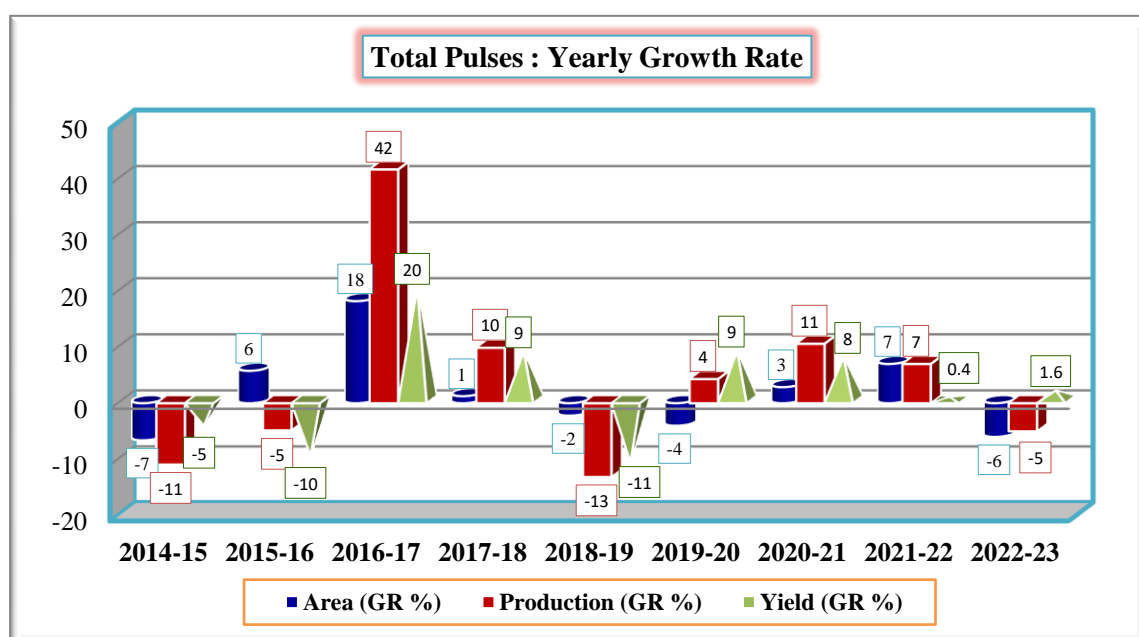
**(Table-11):** Yearly Growth Rate of Total Pulses

(Area-Million ha, P- Million tonnes, Y-kg/ha, Growth Rate (GR)-%)

Year	Area	YGR	Prod.	YGR	Yield	YGR	% coverage under irrigation
2013-14	25.21		19.25		764		19.89
2014-15	23.54	-7	17.15	-11	728	-5	20.05
2015-16	24.91	6	16.32	-5	655	-10	19.50
2016-17	29.44	18	23.12	42	785	20	19.08
2017-18	29.81	1	25.41	10	852	9	23.30
2018-19	29.15	-2	22.07	-13	757	-11	23.56
2019-20	27.98	-4	23.02	4	823	9	23.10
2020-21	28.78	3	25.46	11	885	8	-
2021-22	30.73	7	27.30	7	888	0.4	-
2022-23	28.90	-6	26.06	-5	902	1.6	-
<b>CAGR</b>	<b>2%</b>		<b>4%</b>		<b>2%</b>		<b>3%</b>

**Note:** YGR – Yearly Growth Rate over the Previous Year; **CAGR-** Compound Annual Growth Rate

**Source:** DES, Min. of Agri. & FW, GoI, (DA&FW).



**Fig.-11 :** Yearly Growth Rate of Total Pulses

1.4.2 Yearly Growth Rate of Tur/Arhar and Gram

- Tur/Arhar :** From 2013-14 to 2022-23, the total acreage under Tur has almost slightly ( $\pm$ ) being showed, however, the maximum growth rate in area and production was recorded with 35% & 90% during 2016-17 over previous year (2015-16). The highest area (5.34 Mha) and production (4.87 Mt) was also recorded during the same period (Table – 12, Fig.-12.1).
- Gram :** From 2013-14 to 2022-23, the total acreage under Gram has almost slightly ( $\pm$ ) being showed, however, the ever highest area (10.74 Mha) and production (13.54 Mt.) was recorded during 2021-22 followed by 10.56 Mha & 11.38 Mt. during 2017-18 with productivity 1078 kg/ha (Table – 12, Fig.-12.2).

(Table-12): Yearly Growth rate of Tur and Gram

(A- Million ha, P- Million tones, Y-kg/ha, Growth Rate (GR)- %)

Year	Tur/Arhar						Gram					
	Area	YGR	Prod.	YGR	Yield	YGR	Area	YGR	Prod.	YGR	Yield	YGR
2013-14	3.90		3.17		813		9.93		9.53		960	
2014-15	3.85	-1	2.81	-12	729	-10	8.25	-17	7.33	-23	889	-7
2015-16	3.96	3	2.56	-9	646	-11	8.40	2	7.06	-4	840	-5
2016-17	5.34	35	4.87	90	913	41	9.63	15	9.38	33	974	16
2017-18	4.44	-17	4.29	-12	967	6	10.56	10	11.38	21	1078	11
2018-19	4.55	3	3.32	-23	729	-25	9.55	-10	9.94	-13	1041	-3
2019-20	4.53	-0.4	3.89	17	859	18	9.70	2	11.08	11	1142	10
2020-21	4.72	4	4.32	11	914	6	10.00	3	11.91	8	1192	4
2021-22	4.90	4	4.22	-2	861	-6	10.74	7	13.54	14	1261	6
2022-23	4.07	-20	3.31	-27	814	-6	10.47	-3	12.27	-10	1172	-8
<b>CAGR</b>	<b>1%</b>		<b>1%</b>		<b>0.02%</b>		<b>1%</b>		<b>3%</b>		<b>3%</b>	

Note: YGR – Yearly Growth Rate over the Previous Year; CAGR- Compound Annual Growth Rate  
 Source: DES, Min. of Agri. & FW, GoI, (DA&FW).

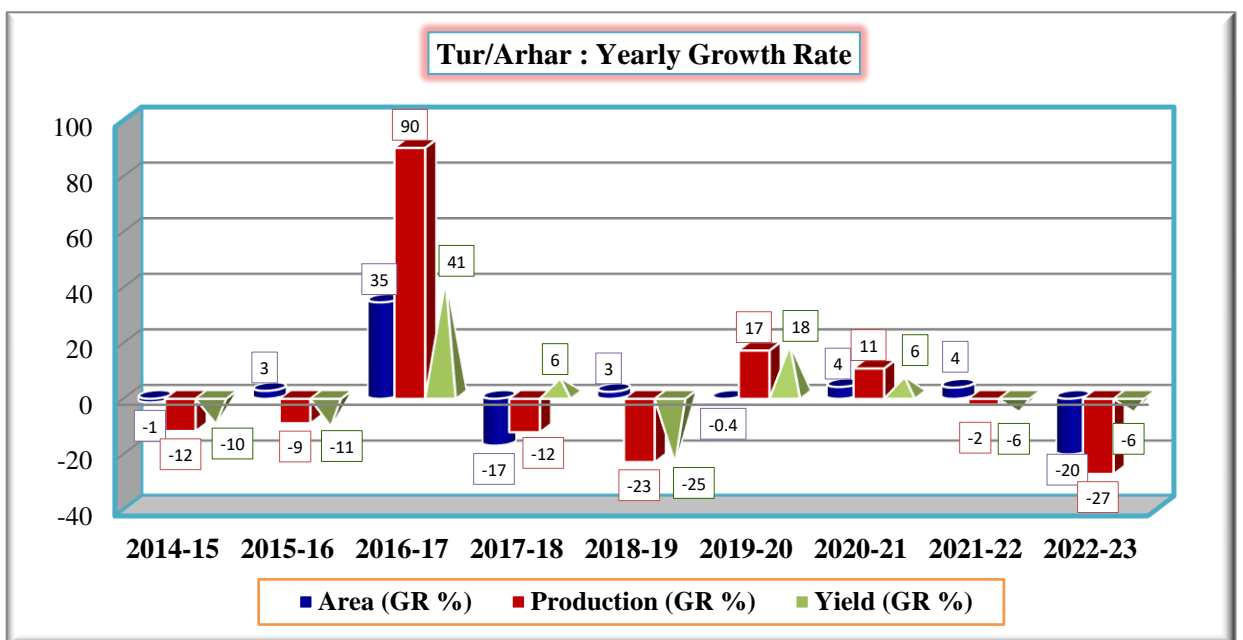


Fig. – 12.1: Yearly Growth Rate of Tur/ Arhar

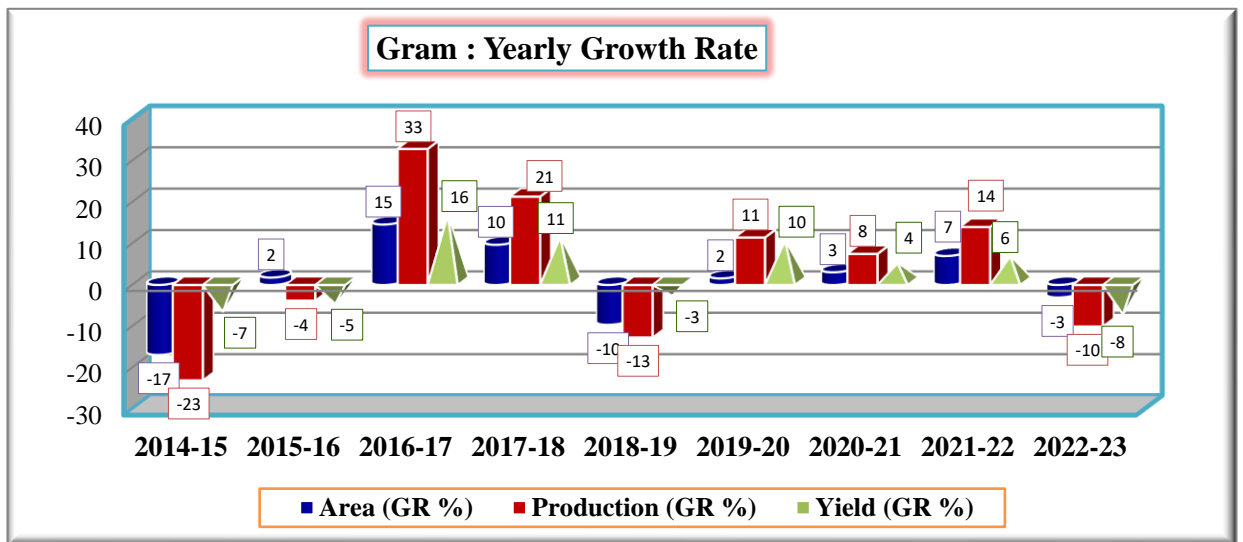


Fig. – 12.2 : Yearly Growth Rate of Gram

### 1.4.3 Yearly Growth Rate of Mungbean and Urdbean

- **Mungbean** : From 2013-14 to 2022-23, the total acreage under Mungbean has almost slightly (+) being showed, however, the maximum growth rate in production and productivity was recorded during 2016-17 & 2020-21 over previous year, whereas, the ever highest area (5.55 Mha), Production (3.68 Mt) was recorded during the 2022-23 (Table-13, Fig. – 13.1).
- **Urdbean** : From 2013-14 to 2022-23, the total acreage under Urdbean has almost slightly (+) being showed, however, the maximum growth rate in production and productivity was recorded during 2016-17 over previous year, whereas, the ever highest area (5.60 Mha) was recorded during the 2018-19 (Table-13, Fig. – 13.2).

(Table-13): Yearly Growth rate of Mungbean and Urdbean

(Area- Million ha, P- Million tones, Y-kg/ha, Growth Rate (GR)- %)

Year	Mungbean						Urdbean					
	Area	YGR	Prod.	YGR	Yield	YGR	Area	YGR	Prod.	YGR	Yield	YGR
2013-14	3.38		1.61		475		3.06		1.70		555	
2014-15	3.02	-11	1.50	-6	498	5	3.25	6	1.96	15	604	9
2015-16	3.83	27	1.59	6	416	-16	3.62	12	1.95	-1	537	-11
2016-17	4.33	13	2.17	36	500	20	4.48	24	2.83	46	632	18
2017-18	4.24	-2	2.02	-7	477	-5	5.28	18	3.49	23	662	5
2018-19	4.75	12	2.46	21	516	8	5.60	6	3.06	-12	546	-17
2019-20	4.58	-4	2.51	2	548	6	4.53	-19	2.08	-32	459	-16
2020-21	5.13	12	3.09	23	601	10	4.14	-9	2.23	7	538	17
2021-22	5.55	8	3.17	3	570	-5	4.63	12	2.78	25	599	11
2022-23	5.55	0	3.68	16	663	16	4.00	-14	2.63	-6	657	9
<b>CAGR</b>	<b>6%</b>		<b>11%</b>		<b>4%</b>		<b>3%</b>		<b>6%</b>		<b>2%</b>	

**Note:** YGR – Yearly Growth Rate over the Previous Year; CAGR- Compound Annual Growth Rate**Source:** DES, Min. of Agri. & FW, GoI, (DA&FW).

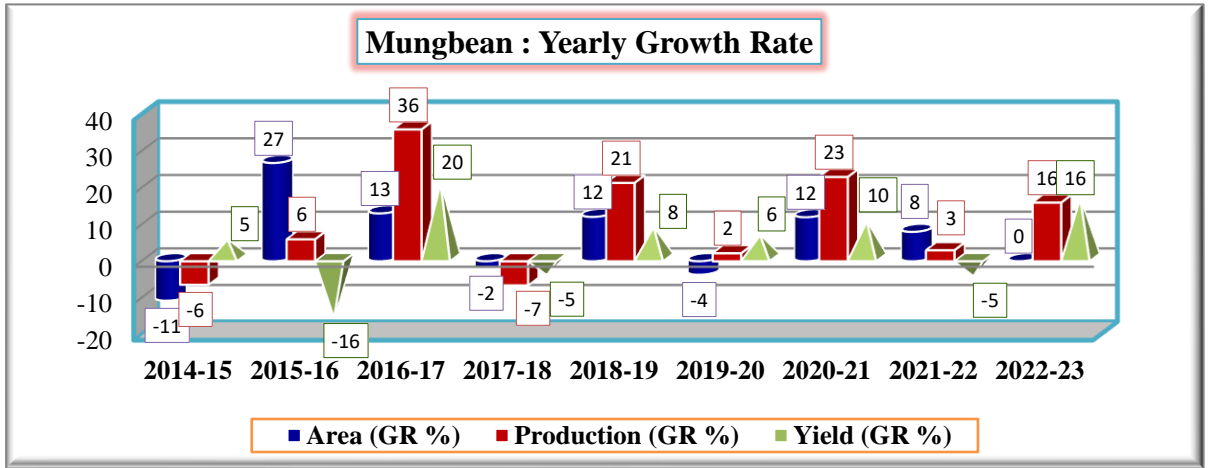


Fig. - 13.1 : Yearly Growth rate of Mungbean

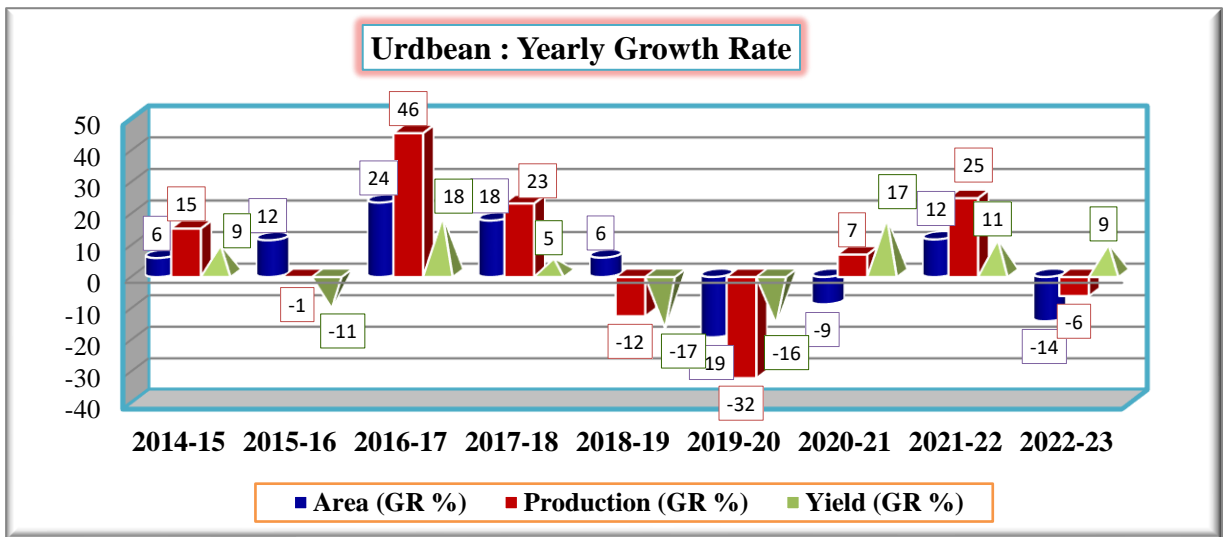


Fig.- 13.2 : Yearly Growth rate of Urdbean

#### 1.4.4 Yearly Growth Rate : Lentil and Fieldpea

**Lentil :** From 2013-14 to 2022-23, maximum growth rate is observed during 2022-23 in Area (16%), production (23%) and in productivity (6%) than previous year (Table- 14, Fig.- 14.1).

**Fieldpea :** Maximum growth for acentage reported during 2016-17 (17%) and production (36%) over previous year 2015-16 and also recorded ever highest in APY in last 07 years (Table- 14, Fig.- 14.2).



(Table-14) Yearly Growth rate of Lentil and Fieldpea

(Area- Million ha, P- Million tones, Y-kg/ha, Growth Rate (GR)- %)

Year	Lentil						Fieldpea					
	Area	YGR	Prod.	YGR	Yield	YGR	Area	YGR	Prod.	YGR	Yield	YGR
2013-14	1.34		1.02		759		0.96		0.92		960	
2014-15	1.47	10	1.04	2	705	-7	0.98	1	0.89	-4	912	-5
2015-16	1.28	-13	0.98	-6	765	9	0.90	-7	0.74	-17	821	-10
2016-17	1.46	15	1.22	25	838	10	1.06	17	1.01	36	955	16
2017-18	1.55	6	1.62	33	1047	25	0.83	-22	0.99	-2	1204	26
2018-19	1.36	-12	1.23	-24	901	-14	0.61	-26	0.81	-18	1338	11
2019-20	1.30	-4	1.10	-10	847	-6	0.60	-2	0.86	6	1440	8
2020-21	1.47	13	1.49	35	1017	20	0.64	7	0.88	2	1375	-5
2021-22	1.41	-4	1.27	-15	899	-12	0.75	18	1	16	1373	-2
2022-23	1.64	16	1.56	23	952	6	0.78	3	1	4	1382	1
<b>CAGR</b>	<b>3%</b>		<b>5%</b>		<b>3%</b>		<b>-3%</b>		<b>1%</b>		<b>5%</b>	

Note: YGR – Yearly Growth Rate over the Previous Year; CAGR- Compound Annual Growth Rate

Source: DES, Min. of Agri. & FW, GoI, (DA&FW).

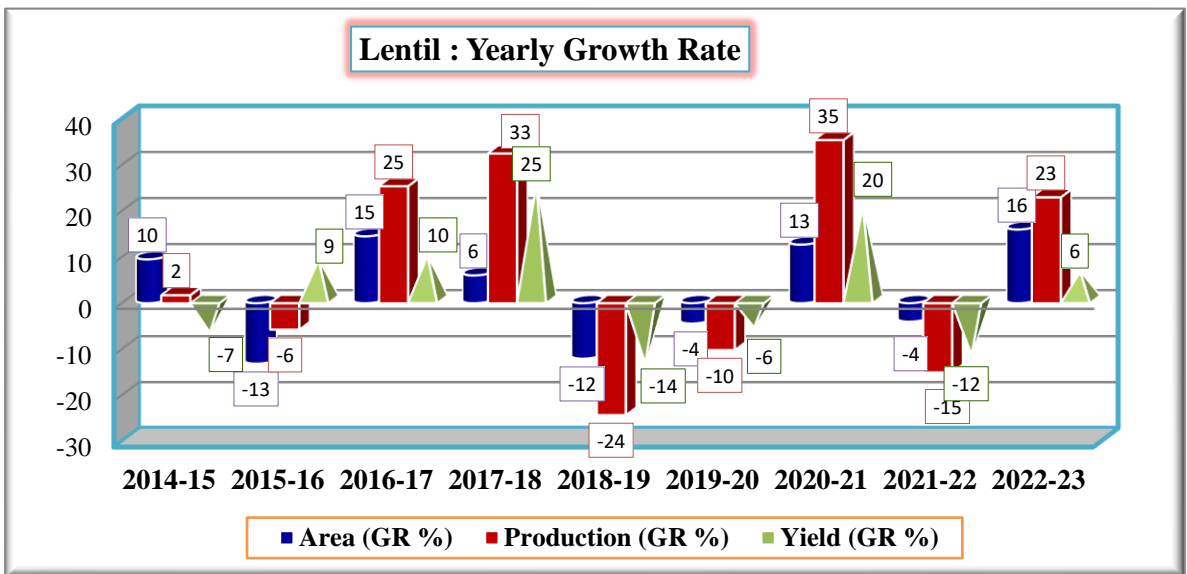


Fig. – 14.1 :Yearly Growth rate of Lentil

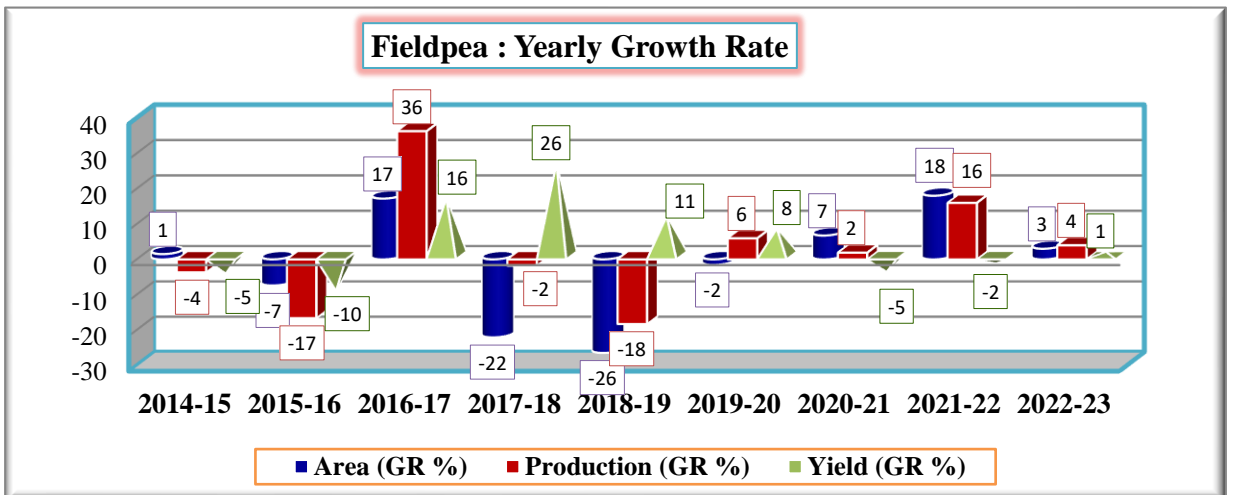


Fig. – 14.2:Yearly Growth rate of Fieldpea

## Unit – II

### National Pulses Availability and Global Trade Scenario

#### 2.1 Per capita availability of pulses in India

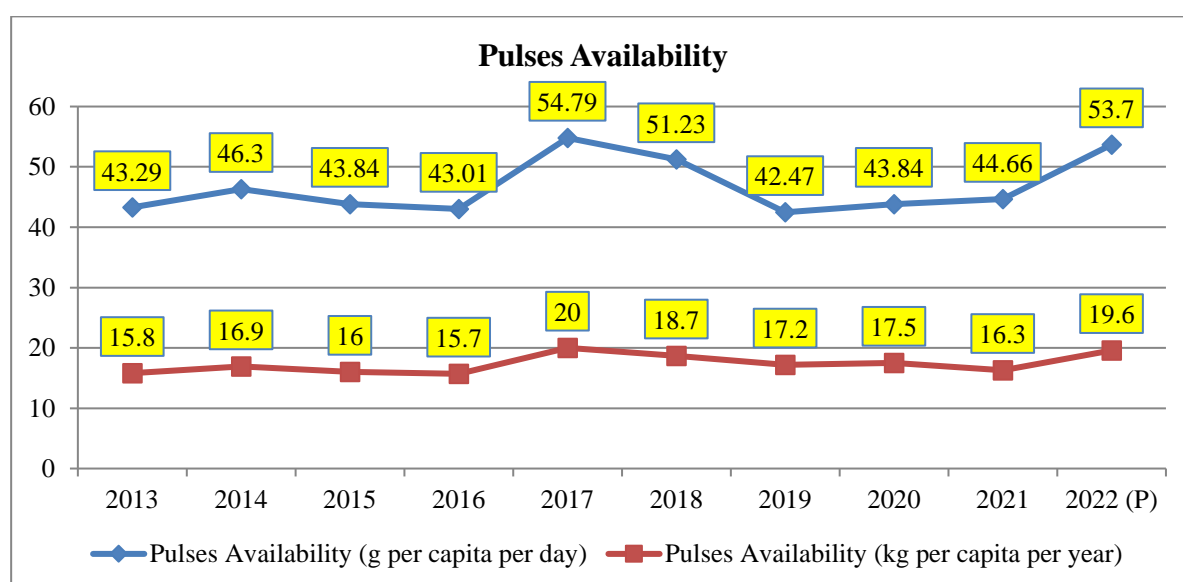
- As a result of self-sufficiency in pulses production and continuous increase in population, the per capita availability of pulses has almost slightly ( $\pm$ ) being showed. The *per capita* per day availability of pulses in 2013 was 43 g that increase to a provisional level of 54 gm in the year 2022. The *per capita* per year availability shows the same increasing trend from 15.8 kg in 2013 to 19.6 kg in 2022.

Per capita availability enhanced during 2017-18. In conformity to FSA- 2013 to ensure nutritional security to vegetarian population, the per capita per day availability of pulses is attend at the level of 55 g per head/day *i.e* 20 kg/annum/person (Table-15, Fig.-15).

**(Table- 15):** Per capita availability of pulses in India

Year	Pulses Availability	
	(g per capita per day)	(kg per capita per year)
2013	43.29	15.80
2014	46.30	16.90
2015	43.84	16.00
2016	43.01	15.70
2017	54.79	20.00
2018	51.23	18.70
2019	42.47	17.20
2020	43.84	17.50
2021	44.66	16.30
2022 (P)	53.70	19.60

**Source:** Directorate of Economics and Statistics, Min. of Agriculture & FW, GoI, (DA&FW).



**Fig.- 15:**Per capita availability of pulses in India

## 2.2 Pulses Import/Export and Availability

**Import:** From the year 2018-19 to 2022-23, the mixed trend of pulses import was observed. The pulses import range was 25.91 to 25.21 Lakh ton during last five year and highest import was reported in 2019-20 (29.45 Lakh ton). Overall, there has been a decline scenario/trend observed in pulses importing and saving foreign currency (Table 16).

(Unit-Lakh Tonnes)

Crop	2018-19	2019-20	2020-21	2021-22	2022-23
Peas /Matar	8.51	6.67	0.46	0.01	0.01
Gram/Chana	1.85	3.69	2.94	2.02	0.61
Mung	0.84	0.69	0.82	1.96	0.32
Urd	4.90	3.12	3.35	6.12	5.25
Lentil/Masur	2.49	8.54	11.16	6.67	8.58
Tur/Arhar	5.31	4.50	4.43	8.40	8.94
Other Pulses	2.01	2.23	1.65	2.43	1.49
<b>Total Pulses</b>	<b>25.91</b>	<b>29.45</b>	<b>24.81</b>	<b>27.60</b>	<b>25.21</b>

**Export:** From 2018-19 to 2022-23, there were slight changes observed in pulses exports. The lowest exports were made in the year 2019-20.

(Unit-Lakh Tonnes)

Crop	2018-19	2019-20	2020-21	2021-22	2022-23
Peas /Matar	0.02	0.03	0.09	0.57	1.59
Gram/Chana	1.73	0.79	1.24	0.96	2.90
Mung	0.11	0.13	0.13	0.28	0.15
Urd	0.07	0.09	0.15	0.55	0.28
Lentil/Masur	0.15	0.20	0.18	0.21	0.87
Tur/Arhar	0.09	0.11	0.19	0.36	0.28
Other Pulses	0.11	0.11	0.34	0.34	0.28
<b>Total Pulses</b>	<b>2.30</b>	<b>1.46</b>	<b>2.32</b>	<b>3.27</b>	<b>6.34</b>

{Chickpeas contributes the single largest share in India's export basket of *pulses registering 49% share in the total pulses export during 2018-19 to 2022-23 followed by Pea (15%), Lentil (10%), Urd 7 Tur (7% each) and Mung (5%) respectively*}.

**(Table- 16):** India's Imports and Exports of pulses

(Quantity – Lakh tonnes, Values -Crore)

Year	Import		Exports	
	Import Quantity	Import Value	Export Quantity	Export Value
2018-19	25.91	8269	2.30	1437
2019-20	29.45	10457	1.46	957
2020-21	24.81	12065	2.32	1681
2021-22	27.60	17045	3.27	2107
2022-23	25.21	15931	6.34	4130

Source: DGCI&S, Ministry of Commerce & Industry, Kolkata.

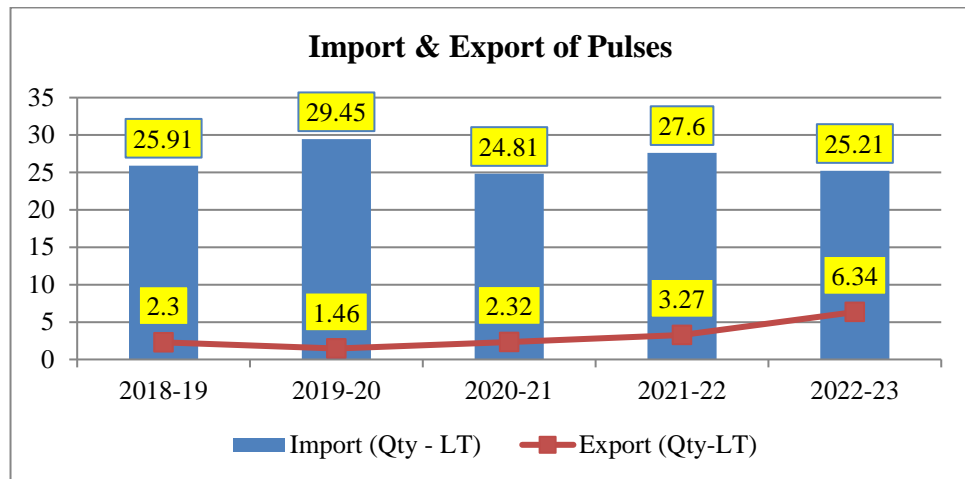


Fig.- 16 India's Import &amp; Export of Pulses

### 2.3 India's Import & Export Trade of Major Pulses (2022-23)

S.No.	Crop	Major countries(In terms of Quantity)	
		Major Import Sources	Major Export Destinations
1	Tur/ Pigeonpea	<b>(99% contribution)</b> Mozambique (51%); Myanmar (24%); Tanzania (11%); Malawi (7%) & Sudan (6%)	<b>(88% contribution)</b> USA (23%); UAE (22%); Nepal (17%); Canada (13%); Qatar & UK (4% each); Singapore (3%); Australia (2%).
2	Gram	<b>(98% contribution)</b> Tanzania (91%); UAE (4%); Myanmar (2%) & Australia (1%)	<b>(82% contribution)</b> Bangladesh (35%); UAE (22%); Iran (9%); Sri Lanka (4%); Turkey, Saudi Arab & China (3% each); Algeria (2%)
3	Mungbean	<b>(97% contribution) :</b> Tanzania (28%); Myanmar (23%); Brazil (21%); UAE & S. Africa (11% each) & Mozambique (3%).	<b>(85% contribution)</b> USA (26%); Canada (13%); UAE (10%);China & Nepal (9% each); UK (8%);Indonesia (7%);Netherland (3%).
4	Urdbean	<b>(100% contribution)</b> Myanmar (98%); Singapore (2%)	<b>(88% contribution)</b> USA (23%); Nepal (19%); UAE (14%); Canada (10%); Bangladesh (7%); UK (6%); Malasiya & Qatar (4% each)
5	Lentil	<b>(98% contribution)</b> Canada (57%) & Australia (41%)	<b>(97% contribution)</b> Bangladesh (71%); Nepal (15%); Sri Lanka (4%); UAE (3%); Bhutan (2%); USA, Qatar & Malasiya (1% each)
6	Pea	<b>(100% contribution)</b> Russia (63%) & UAE (37%).	<b>(95% contribution)</b> China (65%); UAE (24%); Bangladesh (5%);

Source: Deptt. of Commerce, Min. of Commerce & Industry, GoI. (%) figures in parenthesis indicates percentage share of global import/export.

## 2.4 Availability Status: Total Pulses & Crop-Wise (2015-16 to 2022-23)

Crop-wise availability of Pigeonpea, Chickpea, Lentil, Mungbean and Urdbean based on domestic production, import and export is summarized under *Table 18*. It is evident from table that the domestic availability of pulses has increased by 28% in Total pulses and 38% in Tur, 53% in Gram, more than twice in Mung & Urd by 66%, 5% in Lentil, (-) 70% in Peas and on par in other pulses, in 2022-23 over 2015-16.

(Table-17) : Import, Export and Availability

(Unit-Lakh Tonnes)

Crop	Year	Production	Import	Export	Availability	Total Availability for Domestic Consumption
Tur/ Arhar	2015-16	25.61	4.63	0.04	30.24	30.20
	2016-17	48.73	7.04	0.12	55.77	55.64
	2017-18	42.90	4.13	0.11	47.03	46.92
	2018-19	33.15	5.31	0.09	38.46	38.37
	2019-20	38.92	4.50	0.11	43.41	43.31
	2020-21	43.16	4.43	0.19	47.59	47.40
	2021-22	42.20	8.40	0.36	50.61	50.25
	2022-23	33.12	8.94	0.28	42.06	41.78
Gram	2015-16	70.57	10.31	2.17	80.89	78.72
	2016-17	93.77	10.81	0.88	104.58	103.71
	2017-18	113.79	9.81	1.28	123.60	122.32
	2018-19	99.38	1.85	1.73	101.23	99.50
	2019-20	110.78	3.69	0.79	114.48	113.69
	2020-21	119.11	2.94	1.24	122.05	120.81
	2021-22	135.44	2.02	0.96	137.45	136.49
	2022-23	122.67	0.61	2.90	123.28	120.38
Mung	2015-16	15.93				
	2016-17	21.65				
	2017-18	20.23				
	2018-19	24.55	0.84	0.11	25.39	25.28
	2019-20	25.09	0.69	0.13	25.78	25.65
	2020-21	30.85	0.82	0.13	31.67	31.54
	2021-22	31.66	1.96	0.28	33.61	33.34
	2022-23	36.76	0.32	0.15	37.08	36.93
Urad	2015-16	19.45				
	2016-17	28.32				
	2017-18	34.92				
	2018-19	30.60	4.90	0.07	35.50	35.43
	2019-20	20.81	3.12	0.09	23.93	23.85
	2020-21	22.30	3.35	0.15	25.64	25.49
	2021-22	27.76	6.12	0.55	33.88	33.32
	2022-23	26.31	5.25	0.28	31.56	31.28
Lentils/ Masur	2015-16	9.76	12.60	0.12	22.36	22.24
	2016-17	12.24	8.29	0.16	20.53	20.38

Crop	Year	Production	Import	Export	Availability	Total Availability for Domestic Consumption
	2017-18	16.22	7.97	0.12	24.18	24.07
	2018-19	12.28	2.49	0.15	14.77	14.62
	2019-20	11.03	8.54	0.20	19.57	19.38
	2020-21	14.94	11.16	0.18	26.10	25.92
	2021-22	12.69	6.67	0.21	19.36	19.15
	2022-23	15.59	8.58	0.87	24.17	23.30
Peas	2015-16	7.42	22.45	0.06	29.87	29.81
	2016-17	10.11	31.73	0.08	41.84	41.76
	2017-18	9.93	28.77	0.04	38.70	38.66
	2018-19	8.12	8.51	0.02	16.63	16.61
	2019-20	8.60	6.67	0.03	15.27	15.24
	2020-21	10.19	0.46	0.09	10.65	10.56
	2021-22	10.92	0.01	0.57	10.93	10.36
	2022-23 <sup>#</sup>	10.42	0.01	1.59	10.43	8.85
Other Pulses	2015-16	14.49	2.50	0.01	16.99	16.98
	2016-17	16.48	2.37	0.01	18.85	18.85
	2017-18	16.17	2.10	0.03	18.27	18.24
	2018-19	12.68	2.01	0.11	14.69	14.57
	2019-20	15.02	2.23	0.11	17.25	17.14
	2020-21	14.09	1.65	0.34	15.74	15.39
	2021-22	12.35	2.43	0.34	14.78	14.44
	2022-23	15.71	1.49	0.28	17.20	16.93
Total Pulses Crops	2015-16	163.23	58.31	2.47	221.55	219.07
	2016-17	231.31	65.98	1.34	297.29	295.95
	2017-18	254.16	56.25	1.75	310.41	308.67
	2018-19	220.76	25.91	2.30	246.67	244.37
	2019-20	230.25	29.45	1.46	259.70	258.24
	2020-21	254.63	24.81	2.32	279.44	277.12
	2021-22	273.02	27.60	3.27	300.62	297.35
	2022-23	260.58	25.21	6.34	285.79	279.45

**Source:** Production- DES, GoI, Import & Export- Ministry of Commerce & Industry.

<sup>#</sup> Calculated as per its share in Rabi Pulses, since the DES figures are not available for Peas during these years.

## 2.5 Global Scenario: Crop-Wise (2022-23)

The total world acreage under pulses as recorded during 2022 is about 959.68 Lha with production at **973.92** Lt. and productivity **1015** kg/ha (Table-19, Fig.-19).

In the world, pulses are grown by 172 countries. Beansdry was cultivated by 104 countries, which contributed about 38 % area to total world area, Gram by 47 contributed about 15%, Cowpea by 37 contributed 16%, Peasdry by 96 contributed 7%, Tur by 24 contributed 5% and Lentil by 43 contributed by 7%. The share to World production of Beans dry was 29% followed by Gram 19%, Peas 15%, Cowpeas 10%, Lentil 7% and Tur 5%.

(Table-18): Global Ranking: Crop-wise

Crop	Area	Production		Yield	Country's Rank
		% Contri.	% Contri.		
Chickpea/Gram	148.11	15	180.95	19	1 <sup>st</sup>
Pigeonpea	60.30	6	53.27	5	1 <sup>st</sup>
Lentils/Masur	55.04	6	66.56	7	2 <sup>nd</sup>
Peas/ Matar	71.60	7	141.66	15	4 <sup>th</sup>
Beans Dry	367.92	38	283.46	29	1 <sup>st</sup>
Cowpeas	151.91	16	97.75	10	-
Others	104.80	11	150.27	15	-
<b>Total Pulses</b>	<b>959.68</b>		<b>973.92</b>		<b>1<sup>st</sup></b>

Source: FAO Statistics 2022-23.

**Major Producing Countries (> 90%) :**

**Tur (05) :** India (79%), Malawi (8%), Myanmar (6%), Tanzania (3%), Kenya (2%).

**Gram (07) :** India (75%), Australia (6%), Turkey, Ethiopia & Russia Fed. (3% each), Myanmar & Pakistan (2% each).

**Lentil (09) :** Canada (35%), India (19%), Australia (15%), Turkey (7%), Russian Fed., USA & Nepal (4% each), Bangladesh & China (3% each).

**Peas (11) :** Russian Fed. (26%), Canada (24%), China (10%), India (7%), USA (5%), Ethiopia & France (3% each), Germany, Argentina, Australia & Ukraine (2% each).

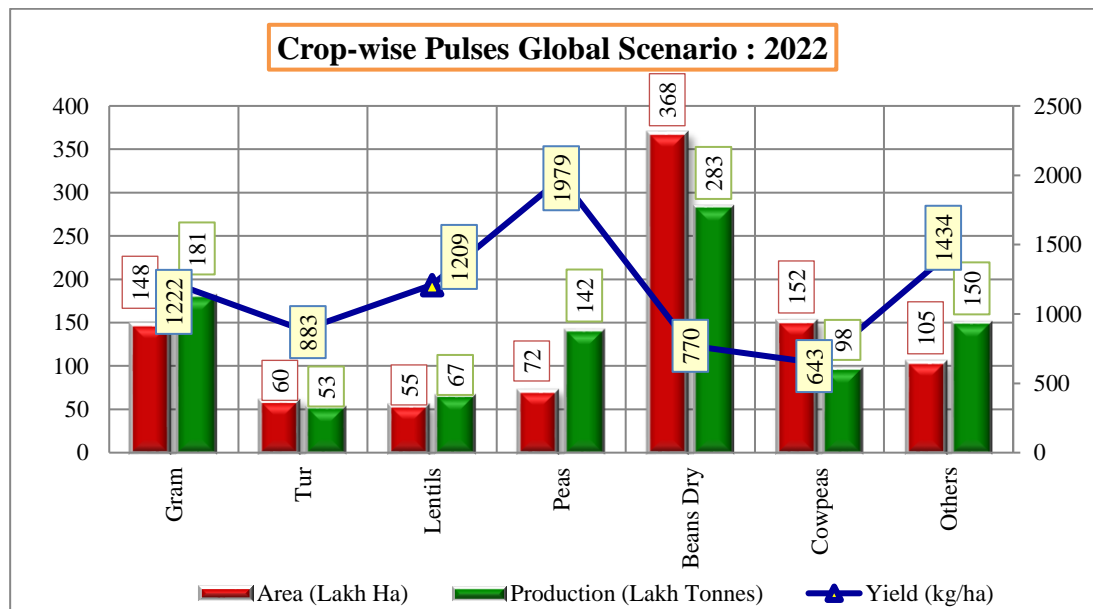


Fig.-17: Crop-wise Global Scenario

## Unit –III

### Major Interface /Coordination /Extension Activities

#### 3.1 Meetings/Workshop/Conference/ Trainings (01.04.2023 to 31.03.2024)

Purpose/Theme
<ul style="list-style-type: none"> <li>• Training Session of CGES CCE-reg 29.09.2023</li> <li>• Participation in the IITF 2023 to be held from 14-27 November, 2023 at Pragati Maidan, New Delhi -reg.</li> <li>• Observance of Vigilance Awareness Week this year from 30th October to 5th November, 2023 - Reg. 10.11.2023</li> <li>• Organizing 2 days Krishi Unnati Mela at Kharsawan, Jharkhand on 1st January, 2024 under the aegis of DA&amp;FW- Nomination of Participants- reg. 28.12.2023</li> <li>• Two days Training on Statistical Tools and Techniques (STT-05) at ISTM during 19-20 February, 2024-Nomination of participants-reg. 24.01.2024</li> <li>• List of States/Central Seed Agencies participating in the Meeting on Procurement of Tur during Kharif 2024 is scheduled to be held on 01.02.2024 at 3.00 PM-reg</li> <li>• Meeting to discuss action plan for promotion of maize cultivation around distilleries 16.02.2024-reg.</li> <li>• Meeting to discuss procurement of Tur (Arhar) during Kharif, 2024 on 28.02.2024 at 11:00 AM (Hybrid Mode)</li> </ul>

#### 3.2 Notes/Technical Reports

Technical Report	Report Submitted
Submission of All India weekly crop weather prospects reports in respect of Kharif/Rabi/Spring/Summer Pulses & all crops of Kharif/Rabi/Spring/Summer of Assigned States of Madhya Pradesh & Chhattisgarh.	Regular/Weekly
All India Crop-wise Harvesting status of Kharif/Rabi/Spring/Summer Pulses.	Regular/Weekly
Submission of Input material for uploading over social media platform.	Regular/Weekly
Issuance of crop specific advisories of Kh/Rabi/Spring/Summer to assigned states.	Regular/Monthly
<ul style="list-style-type: none"> <li>• Status of Crop affected, Rabi Crop situations &amp; Harvesting status in Assigned States during Rabi-2022-23. 02.04.2023</li> <li>• Crop Specific critical issues for discussion during Pre-Kharif DA&amp;FW-ICAR Interface Group Meeting 2023 -reg. 03.04.2023</li> <li>• Submission of Inspection and Yield Performance Report of Seed Minikits distributed under NFSM-OS-reg 05.04.2023</li> <li>• Cleaning Report As on 31.03.2023 submitted-reg. 05.04.2023</li> <li>• Report of yield performance of Rapeseed-Mustard as per Crop Cutting Experiments undertaken in various schemes viz Special Programmes on Rapeseed &amp; Mustard and FLDs during 2022-23-reg. 06.04.2023</li> <li>• Draft Tur and Urad production Strategies-reg 26.04.2023</li> <li>• State-wise Classification of Tur (yield &gt;15qtls) and Urad varieties (yield &gt;10qtls) released during last 10 years along with the seed availability for Kharif, 2023-reg 26.04.2023</li> </ul>	

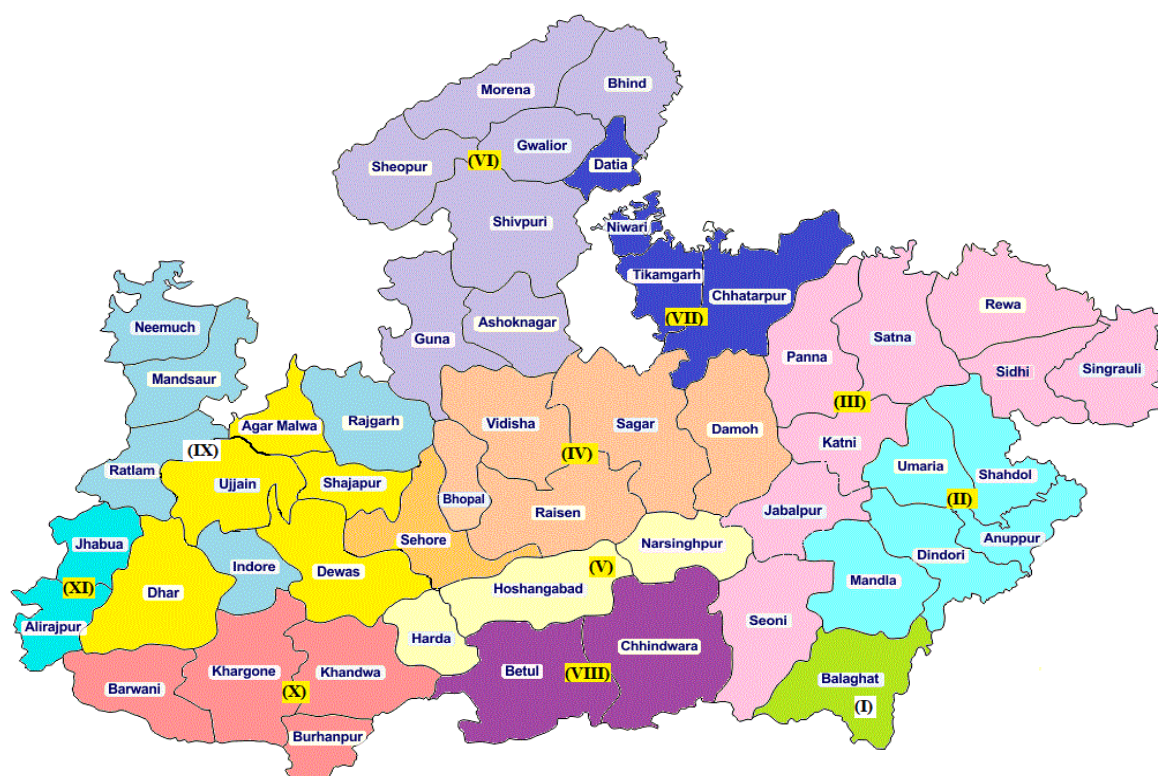


Technical Report	Report Submitted
<ul style="list-style-type: none"> <li>• Draft on Tur and Urad production during Kharif, 2023 27.04.2023</li> <li>• Draft workout on Curtailing the import of Tur and Urad by indigenous production in Kharif season during 2023-24 to 2025-26-reg 27.04.2023</li> <li>• Point-wise information in respect of Pulses projection as on 30.04.2023. 01.05.2023</li> <li>• Strategy for Increasing Pulse Production of Tur &amp; Urd by 2025-26 reg. 01.05.2023</li> <li>• Report of Special Campaign 2.0 Activity dated 04.05.2023-reg.</li> <li>• Meeting to Discuss the Kharif Strategy for Tur &amp; Urad under the Chairmanship of Secretary (A&amp;FW)-reg 09.05.2023</li> <li>• Tur &amp; Urad Production enhancement Strategies (03 Years)-reg. 10.05.2023</li> <li>• Pulses Seed-hubs in the Identified Districts of Targeted States for Tur &amp; Urad (K) Production during Kharif – 2023 12.05.2023</li> <li>• FPOs under NFSM Pulses &amp; Millets information 17.05.2023</li> <li>• Videos on different initiatives under NFSM and other schemes-reg 07.06.2023</li> <li>• Revised (English Version): Indicative questions to be asked from the farmers on implementation of FNS-Pulses, TRFA-Pulses &amp; Pulses Seed Minikits-reg 07.06.2023</li> <li>• Wider outreach and publicity of Scheme/Programmes &amp; activities of the department on social media platforms of DA&amp;FW-regarding. 29.06.2023</li> <li>• Submission of inspection and yield performance report of Groundnut supplied by NSC in the state of Madhya Pradesh during Summer-2022-23-reg 30.06.2023</li> <li>• Inputs on Tur, Urad and Moong including worst scenario as on 16.07.2023</li> <li>• Videos on different initiatives under NFSM schemes-reg. 20.07.2023</li> <li>• Draft Inputs on Nodal crop Pulses for Preparation of document on the basis of Note received from the PMO and the office of MoS-reg. 31.07.2023</li> <li>• Success Stories on Millets (Individual Farmer) of Assigned states of Chhattisgarh state-reg. 04.08.2023</li> <li>• Success stories on Pulse crops -reg. 11.08.2023</li> <li>• Meeting to review prospects of Kharif Production under the chairmanship of Secretary (DA&amp;FW) reg.25.08.2023</li> <li>• Brief note on kharif pulses reg. 25.08.2023</li> <li>• State-wise Rabi Pulses Varieties (&lt; 10 Years from 2011 onward)-reg 13.09.2023</li> <li>• The meeting with all 11 ATARIs on Krishi Mapper to be held on 15.09.2023 at 5.30 PM</li> <li>• Status and issues on implementation of NFSM Programmes 2023-24-reg.22.09.2023</li> <li>• VC Meeting to discuss specific issues related to implementation of NFSM programme during 2023-24-reg. 29.09.2023</li> <li>• Wider outreach and publicity of Scheme/Programmes &amp; activities of the department on social media platforms of DA&amp;FW-reg. 18.10.2023</li> <li>• Brief visit report of User Acceptance Test (UAT) of Krishi Mapper Mobile App on CFLDs-Pulses &amp; Oilseeds programmes undertaken by KVKS under NFSM during Kharif-2023 in assigned states of Madhya Pradesh and Chhattisgarh states-Reg. 06.12.2023</li> <li>• Wider outreach and publicity of Scheme/Programmes &amp; activities of the department on social media platforms of DA&amp;FW-reg. 25.10.2023</li> <li>• Meeting (Hybrid Mode) to discuss the assistance to seed-hubs for certified seed production under NFSM under the Chairpersonship of Joint Secretary (Crops)-reg. 27.10.2023</li> <li>• The meeting with the State Mission Director to Review the Scheme National Food Security Mission is scheduled to be held on 03.11.2023 at 3.00 PM</li> <li>• Brief Note on Rabi Pulses Area coverage/likely prospects during Rabi-2023-24. 14.11.2023.</li> <li>• Revised Brief Note on Gram &amp; prospects-08.12.2023</li> </ul>	

Technical Report	Report Submitted
<ul style="list-style-type: none"> <li>• Lentil crop information reg. 18.12.2023</li> <li>• CFLD &amp; FLD data capturing on Krishi Mapper and Field visit report of the Seed Minikit distributed under NFSM (OS). 18.12.2023</li> <li>• District -wise data for Inter-cropping of Tur - reg. 12.01.2024</li> <li>• Pulses varieties of last 10 years. (2012 onwards) 12.01.2024</li> <li>• A workshop on Increasing Maize Production is scheduled to be held on 24.01.2024 at 2:00 PM at Hall No.1 NASC Complex, PUSA, New Delhi under the Chairmanship of Prof. Ramesh Chand, Member (NITI Aayog)-Participation reg. 24.01.2024</li> <li>• Updated State Profile of Madhya Pradesh &amp; Chhattisgarh -reg. 04.03.2024</li> <li>• Meeting to review wheat production prospects under the Chairmanship of Additional Secretary (DA&amp;FW) - reg. 08.03.2024</li> <li>• Mapping of Pulses varieties in States. 06.03.2024</li> <li>• Meeting of Advisory Committee on Pulses - reg. 12.03.2024</li> <li>• Inputs/Suggestions for NFSM operational guidelines-reg 15.03.2024</li> <li>• Crop Specific critical issues for discussion during Pre Kharif- 2024 DA&amp;FW ICAR Interface Group meeting 2024- reg. 18.03.2024</li> </ul>	

## Unit – IV : Agriculture Profile –Assigned States

### 4.1 Madhya Pradesh State Profile



#### 4.1.1 Agro-Climatic Zones of Madhya Pradesh

I	Chhattisgarh Plains (1) – Balaghat
II	Northern Hills of Chhattisgarh (05) – Mandla, Dindori, Shahdol, Umaria, Anuppur
III	Kymore Plateau & Satpura Hills (08)–Jabalpur, Seoni, Katni, Panna, Satna, Rewa, Sidhi, Singrauli
IV	Vindhyan Plateau (06) – Bhopal, Sehore, Raisen, Sagar, Damoh, Vidisha
V	Central Narmada Valley (03) – Narsinghpur, Hoshangabad, Harda
VI	Grid Zone (07) – Gwalior, Guna, Ashoknagar, Shivpuri, Sheopur, Morena, Bhind
VII	Bundelkhand Zone (04) – Datia, Niwari, Tikamgarh, Chhatarpur
VIII	Satpura Plateau (02) – Chhindwara, Betul
IX	Malwa Plateau (10)–Indore, Ujjain, Dhar, Dewas, Shajapur, Agar-Malwa, Neemuch, Mandsaur, Ratlam, Rajgarh,
X	Nimar Valley (04) – Khandwa, Kargone, Barwani, Burhanpur
XI	Jhabua Hills (02) – Jhabua, Alirajpur

## 4.1.2 Land Use Classification &amp; Basic Details of MP State

Particulars		Status (2021)		
Population	(Crore)	8.45 (Male- 4.36, Female-4.09)		
Population Growth	(%)	16.37 – 2011-2021		
Revenue Districts /Tehsil	(Nos.)	55/428		
Block/Janpad Panchayat	(Nos.)	333 (89 Tribal Blocks)		
Village Panchayat/Tot. Village	(Nos.)	23006/54903 as per 2011 censure		
Krishi Upaj Mandi	(Nos.)	500-600		
Average Annual Rainfall	(mm)	1160		
Land Use Pattern (Area : lakh ha) (LUS- Avg. of 2018-19 to 2022-23)		Agricultural land use (Area : lakh ha) (LUS- Avg. of 2018-19 to 2022-23)		
Geographical Area	<b>307.56</b>	Net sown area	156.37	
Cultivable area	160.25 (52%)	Double Cropped Area	132.55	
Forest area	87.06 (28%)	Gross cropped area	288.92	
Land under non-agricultural use	21.42 (7%)	Kharif Area	184.90	
Permanent pastures	12.71 (4%)	Rabi Area	104.02	
Cultivable wasteland	8.92 (3%)	Cropping Intensity	185%	
Barren and uncultivable land	13.33 (4%)			
Fallow land other than Current fallows	3.86 (1%)			
Operational Land Holding (Area: Lakh ha, Number-Lakh) – (DES Pocket Book -2024)				
Average Size of Social Groups		Avg. Size (ha)	Numbers (%)	Area (%)
Marginal	(< 1 ha)	0.49	48.35 (48%)	23.72 (15%)
Small	(1 to 02 ha)	1.41	27.25 (27%)	38.36 (24%)
Semi Medium	(02 to 04 ha)	2.70	16.74 (17%)	45.22 (29%)
Medium	(04 to 10 ha)	5.67	7.07 (7%)	40.08 (26%)
Large	(10 ha & Above)	14.83	0.63 (1%)	9.33 (6%)
<b>Total</b>		<b>1.57</b>	<b>100.03</b>	<b>156.70</b>
Irrigation (Area- lakh ha)		Sources of Irrigation (Area -lakh ha)		
Net irrigated area	125.16	Canals	19.73 (16%)	
Gross irrigated area	154.98	Tanks	4.76 (4%)	
Net Un-irrigated area	31.21	Open wells	32.22 (26%)	
Gross Un-irrigated area	133.94	Bore wells/Tube Wells	48.35 (39%)	
Percentage of Gross Irrigated Area to Total Cropped Area	54%	Other Sources	20.10 (16%)	
		<b>Total Irrigated Area</b>	<b>125.16</b>	
Major Soils (Area - lakh ha)				
1. Alluvial Soil	33.5 (11%)	2. Deep Medium black	162.1 (53%)	
3. Shallow & Medium Black Soil	30.6 (10%)	4. Mixed Red & Black	81.1 (26%)	

\*Source- Census- 2021, LUS- Avg. of 2018-19 to 2022-23 & DES, Agri. Pocket Book-2024.

## 4.1.3 Crop Scenario (Normal – Season-wise)

Madhya Pradesh		Area in 000 ha, Production in 000 Tonnes & Yield in Kg/ha				
Crop Scenario		(2018-19 to 2022-2023)			Season-wise % Share	
Crop	Season	Area	Production	Yield	Area	Production
<b>Cereals</b>						
Rice	Kharif	34	85.27	2512	63.6	60.5
	Rabi	0.14	0.44	3108	0.1	0.1
	<b>Total</b>	<b>34.14</b>	<b>85.71</b>	<b>2511</b>	23.1	18
Wheat	Rabi	94.15	333	3536	99.6	99.7
Jowar	Kharif	1.03	1.96	1903	1.9	1.4
Bajra	Kharif	3.49	8.38	2400	6.5	5.9
Maize	Kharif	14.11	44.01	3119	26.4	31.2
	Rabi	0.09	0.48	5500	0.1	0.1
	<b>Total</b>	<b>14.20</b>	<b>44.49</b>	<b>3133</b>	9.6	9.4
Small millet	Kharif	0.79	0.70	880	1.5	0.5
Barley	Rabi	0.19	0.37	1927	0.2	0.1
<b>Total Cereals</b>	<b>kharif</b>	<b>53.43</b>	<b>141</b>	<b>2639</b>	<b>73.4</b>	<b>93.7</b>
	<b>Rabi</b>	<b>94.57</b>	<b>334</b>	<b>3534.1</b>	<b>73.7</b>	<b>87.5</b>
	<b>Total</b>	<b>148</b>	<b>475</b>	<b>3207</b>	<b>73.6</b>	<b>89.3</b>
<b>Pulses</b>						
Tur	Kharif	2.14	2.15	1005	11.1	22.7
Gram	Rabi	22.47	34.29	1526	66.6	71.9
Urd	Kharif	16.52	7.10	429	85.5	74.8
	Rabi	0.35	0.45	1268	1.0	0.9
	<b>Total</b>	<b>16.87</b>	<b>7.53</b>	<b>447</b>	<b>31.8</b>	<b>13.2</b>
Moong	Kharif	0.66	0.25	377	3.4	2.6
	Rabi	4.94	6.85	1385	14.6	14.4
	<b>Total</b>	<b>5.60</b>	<b>7.10</b>	<b>1266</b>	<b>10.5</b>	<b>12.4</b>
Lentil	Rabi	4.98	5.15	1034	14.8	10.8
Other Pulses	Kharif	0.04	0.02	407	0.2	0.2
	Rabi	1.52	1.41	929	4.5	3.0
	<b>Total</b>	<b>1.56</b>	<b>1.43</b>	<b>915</b>	<b>2.9</b>	<b>2.5</b>
<b>Total Pulses</b>	<b>Kharif</b>	<b>19.32</b>	<b>9.49</b>	<b>491</b>	<b>26.6</b>	<b>6.3</b>
	<b>Rabi</b>	<b>33.76</b>	<b>47.66</b>	<b>1412</b>	<b>26.3</b>	<b>12.5</b>
	<b>Total</b>	<b>53.10</b>	<b>57.15</b>	<b>1077</b>	<b>26.4</b>	<b>10.7</b>
<b>Oilseeds</b>						
Groundnut	Kharif	2.99	5.44	1820	4.6	9.7
Sesamum	Kharif	2.64	1.19	451	4.0	2.1
Niger seed	Rabi	0.11	0.04	319	1.1	0.3
Soyabean	Kharif	59.55	49.52	832	91.2	88.1
Rapeseed and Mustard	Rabi	9.26	14.08	1520	93.6	96.8
Linseed	Rabi	0.60	0.42	699	6.1	2.9
<b>Total Oilseed</b>	<b>Kharif</b>	<b>65.30</b>	<b>56.19</b>	<b>860</b>	<b>86.8</b>	<b>79.4</b>
	<b>Rabi</b>	<b>9.89</b>	<b>14.54</b>	<b>1470</b>	<b>13.2</b>	<b>20.6</b>
	<b>Total</b>	<b>75.19</b>	<b>70.73</b>	<b>941</b>		
<b>Commercial Crop</b>						
Sugarcane	Kharif	1.07	20.49	19230	15.8	55.6
Cotton	Kharif	5.70	16.37	2873	84.2	44.4
<b>Foodgrains</b>	<b>Kharif</b>	<b>72.75</b>	<b>150.49</b>	<b>2069</b>	<b>36.2</b>	<b>28.3</b>
	<b>Rabi</b>	<b>128.33</b>	<b>381.66</b>	<b>2974</b>	<b>63.8</b>	<b>71.7</b>
	<b>Total</b>	<b>201</b>	<b>532.15</b>	<b>2646</b>		

Source: – DES, GOI

#### 4.1.4 Central Sponsored Scheme/Central Sector Scheme

(a) Food & Nutrition Security (Erstwhile- NFSM) Programmes: Pulses; Rice; Wheat; Coarse Cereals; Nutri-Cereals; TRFA-Pulses Cotton; Sugarcane

S.No.	Commodities	District covered
i.	NFSM-Wheat	Ashok nagar, Chhatarpur, Guna, Katni, Khandwa, Panna, Raisen, Rajgarh, Rewa, Sagar, Satna, Seoni, Shivpuri, Sidhi, Tikamgarh, Vidisha (16)
ii.	NFSM-Pulse	All the districts (52)
iii.	NFSM-Rice	Anupur, Damoh, Dindori, Katni, Mandla, Panna, Rewa, Sidhi (08)
iv.	<b>NFSM- Coarse cereals (22)</b>	
	Maize	Chhindwara, Jhabau, Dhar, Betul, Rajgarh, Khargone, Ratlam, Alirajpur, Seoni, Mandsaur, Burhanpur, Neemuch, Barwani, Singrauli, Dindori (22)
	Barley	Singrauli, Chhatarpur, Tikamgarh, Satna, Rewa, Bhind, Siddhi, Panna (08)
v	<b>NFSM-Nutri-cereal (24)</b>	
	Jowar	Alirajpur, Barwani, Betul, Burhanpur, Chhindwara, Dhar, Khargone, Rewa, Sidhi (09)
	Bajra	Bhind, Morena, Sheopurkalan, Shivpuri (4)
	Other millets	Anuppur, Balaghat, Betul, Chhindwara, Damoh, Dindori, Jabalpur, Katni, Mandla, Rewa, Shadol, Seoni, Sidhi, Singrauli, Umaria (15)
vi.	<b>NFSM-Commercial Crops</b>	
	Cotton	Chhindwara, Dhar, Jabaua, alirajpur, Khargone, Barwani, Khandwa, Burhanpur, Ratlam, Dewas (10)
	Sugarcane	Chhindwara, Mandla, narshinghpur, Dhar, Barwani, Burhanpur, Gwalior, Shivpuri, Datia, Hosangabad, Betul, Jabalpur, Guna (13)
vii	<b>NFSM-Oilseeds</b>	All the districts (52)

#### (b) National Mission on Edible Oils (NMEO)-Oilseeds Districts (52)

Division	Districts covered	Division	Districts covered
Bhopal	Bhopal, Sehore, Raisen, Rajgarh, Vidisha.	Ujjain	Dewas, Ratlam, Shajapur, Mandsour Nimach, Ujjain, Agar-Malwa.
Jabalpur	Jabalpur, Katani, Narsinghpur, Chhindwara, Seoni, Mandala, Balaghat, Dindori.	Shahdol	Shahdol, Umariya, Anuppur.
Indore	Indore, Dhar, Jhabua, Alirajpur, Khargone, Barwani, Khandawa, Burhanpur,	Chambal	Shivpur, Morena, Bhind.
Gwalior	Gwalior, Shivpuri, Guna, Ashoknagar, Datia.	Reewa	Reewa, Singrauli, Sidhi, Satana.
Sagar	Sagar, Damoh, Panna, Chhattarpur, Tikamgarh, Niwari.	Narmadapuram/ Hoshangabad	Hoshangabad, Hard, Betul.

**(c) Seed-Hub & Enhancing Breeder Seed Production Programme (EBSP) of Pulses, Oilseeds, Millets in Madhya Pradesh.**

Schemes/programmes	(Nos.)	Centre in Madhya Pradesh
Seed hub-Pulses	16	AICRP (Pulses), RVSKVV, Gwalior; AICRP (Pulses), RAK CoA, Sehore; AICRP, Indore; AICRP, Khargone; KVK, Ujjain; KVK, Dewas; KVK, Datia; KVK, Morena; AICRP (Pulses); JNKVV, Jabalpur; AICRP (Pulses), ARS, Sagar; KVK, Betul; KVK, Narsinghpur; KVK, Damoh; KVK, Harda; KVK, Tikamgarh; ICAR-IIPR Regional Station, Phanda, Bhopal
Seed hub-Oilseeds	06	CoA-Khandwa; ZARS-Morena JNKVV- Jabalpur; RARS-Sagar; JNKVV-Jabalpur (ZARS, Chhindwara); ICAR-IISR Indore; KVK Bankhedhi (NGOs)
Seed hub-Millets	02	College of Agriculture, Rewa; AICRP, Dindori
EBSP-Pulses	03	JNKVV, Jabalpur; RVSKVV, Gwalior; ICAR-IIPR- Phanda Bhopal
EBSP-Millets	01	College of Agriculture, Rewa, JNKVV, Jabalpur

**(d) Cluster Front Line Demonstrations on Pulses in Madhya Pradesh.**

Crop	Area covered ha	District covered	Varieties undertaken
Blackgram (Kharif)	2516	Raisen, Sagar-II, Rajgarh, Shahdol, Govindnagar, Jhabua, Damoh, Panna, Sagar I, Chhatarpur, Narsinghpur, Ashoknagar, Mandsaur, Jabalpur, Shivpuri, Tikamgarh, Satna, Alirajpur, Guna, Sheopur, Rewa, IGNTU Anuppur	Pratap urd 1, Indira Urd 1, MU-02, IPU 13-1
Pigeonpea (Kharif)	866	Balaghat, Kharoge, Raisen, Seoni, Betul, Dindori, Shahdol, Govindnagar, Jhabua, Sidhi, Damoh, Chhindwara-1, Chhindwara-2 / Tamia Narsinghpur, Mandla, Singrauli, Satna, Rewa, IGNTU Anuppur, Umaria	Rajeshwari, BDN-711, RVSA 16-1, Bheema GRG-152, Panth Arahar 421/2020
Lentil	915	Sagar-II, Rajgarh, Raisen, Dindori, Shahdol, Govindnagar, Damoh, Katni, Panna, Sagar I, Chhindwara-1, Chhindwara-2 / Tamia Chhatarpur, Ashoknagar, Mandsaur, Narsinghpur, Jabalpur, Satna, Alirajpur, Guna, Agarmalwa, Lahar (Bhind), Rewa, Jabalpur, Shivpuri, Shajapur, Singrauli, IGNTU Anuppur, Tikamgarh, Ujjain, Ratlam, Ujjain	IPL 316, Kota Masoor 1, Kota Masoor 2, RVL 11-06 & L-4717
Blackgram (Summer)	148	Balaghat, Sagar-II, Dindori, Shahdol, Dhar 2, katni, Alirajpur, jhabua	Indira pratham, Kota 3, IPU 11-2, Pant urad 31, IPU 13-1, IPU 11-2

## 4.1.5 States Varieties of Major &amp; Potential Crops (Within 10 Years 2012 to 2023)

Crops	Release/ Notified Year	Varieties
<b>Cereals</b>		
Paddy	2016	JR 767, Swarna Shreya
	2018	DRR Dhan 50 (IET 25671), Improved Chinnor, Improved Jeera Shankar, JR-81, JRB-1 (IET 23422)
	2019	JR 206 (IET 26079)
Wheat	2016	MPO 1255 (MPO (JW)1255), Pusa Malwi (HD 4728)
	2017	HI 1605 (Pusa Ujala), HI 8759 (PUSA TEJAS), Pusa Wheat HI 8759 (TEJAS), Pusa Tejas (HI 8759)
Sorghum	2016	Raj Vijay Jowar -1862
Maize	2017	GK 3150, Shalimar Pop Corn-1 (KDPC-2)
	2018	LG 34.05 (BL 900)
	2019	Jawahar Maize 218
Little millet	2016	Jawahar Kutki 4 (JK 4)
<b>Pulses</b>		
Chickpea	2013	Raj Vijay Gram 203 (RVG 203) JSC 56
	2014	JG 12
	2015	RVG 202 (JSC 55)
	2016	JG 36 (Jawahar Gram 36), JGK 5
	2018	Phule Vikrant (Phule G 0405)
	2019	IPC 2006-77, Raj Vijay Gram 205 (RVG 205) (RVSSG 32), Raj Vijay Kabuli Gram 111 (RVG 111) (RVSSG 24), Raj Vijay Kabuli Gram 151 (RVG 151) (RVSSG 37), Raj Vijay Gram 204 (RVG 204) (RVSSG 8102)
	2020	Pusa Chickpea 10216 (BGM 10216), Pusa Parvati (BG3062), Phule Vikram, Jawahar Gram 24 (JG 24) (JG 2016-24)
	2021	RG 2015-08 (CG Lochan Chana), Raj Vijay Gram 204 (RVG 204) (RVSSG 8102), Pusa Chickpea 20211 (Pusa Chickpea Manav), PDKV Kanak (AKG-1303), Samriddhi (IPCMB19-3), Kota Kabuli Channa-3 (RKGK 13-414), Raj Vijay Gram 210 (RVG 210), Raj Vijay Kabuli Gram 121 (RVKG 121)
	2023	ADVIKA (NC 7)
Pigeon pea/Tur	2013	PKV, Tara (TAT-9629), ICPH 2671
	2020	Bheema GRG-152
	2023	PDKV Ashlesha (AKTM 1637), Phule Trupti (Phule Tur-10-1), Renuka (BDN 2013-2)
Green gram	2016	IPM 410-3 (Shikha), IPM 205-7 (Virat)
Urd	2019	PDU 1 (Basant Bahar), IPU 11-02
	2020	IPU 13-1, IPU 10-26
	2021	IPU 17-1
	2023	Dristi (IPU 17-2), TJU 339 (Trombay Jawahar Urd 339), TJU 130 (Trombay Jawahar Urd 130)
Lentil	2013	IPL 316
	2014	Raj Vijay Lentil 31 (JL 31)
	2017	RVL 11-6, L 4717 (Pusa Ageti Masur)



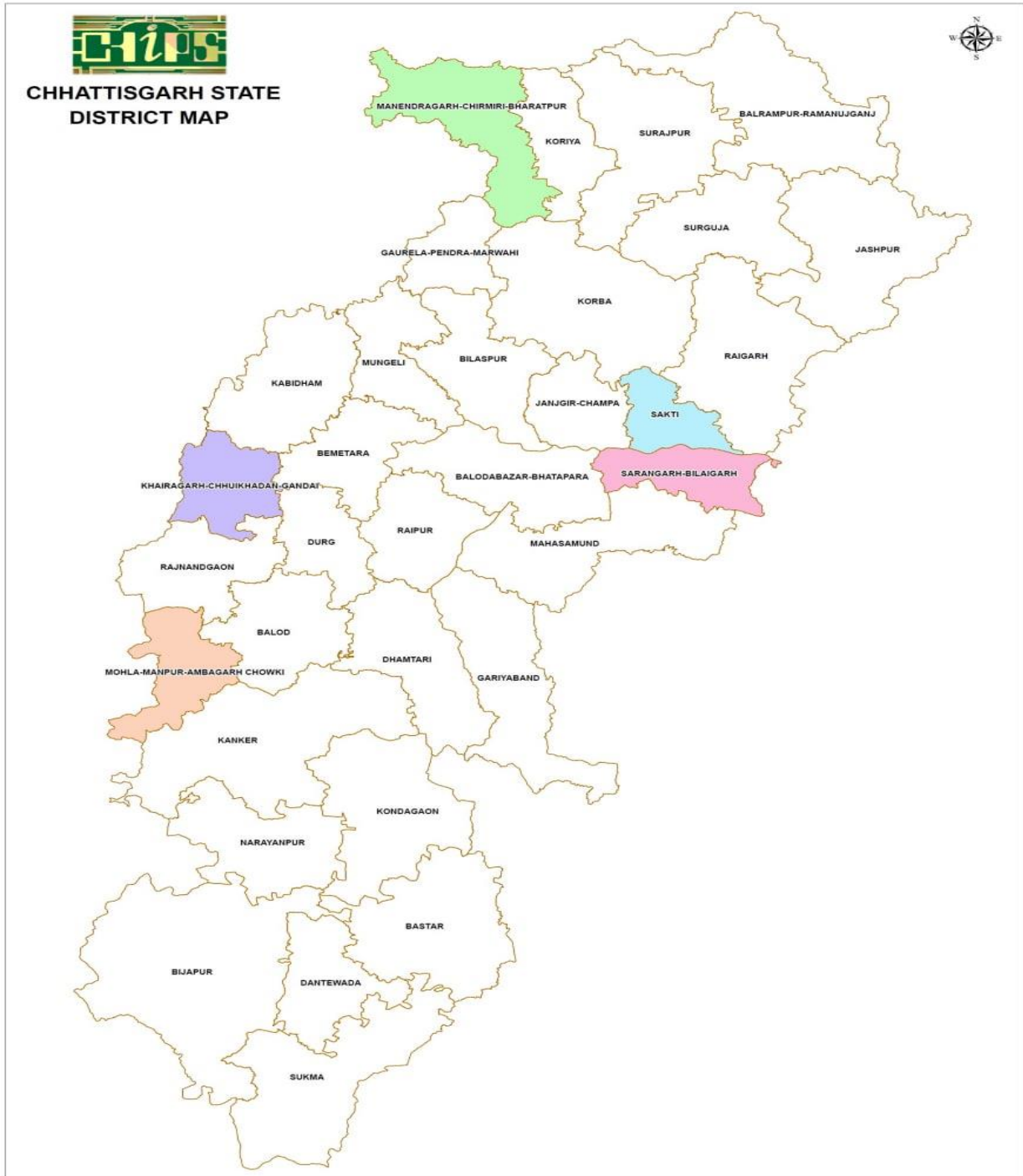
Crops	Release/ Notified Year	Varieties
	2018	Kota Masoor 2 (RKL 14-20), L 4727, Kota Masoor-1(RKL 607-1)
	2019	RVL 13-7 (Raj Vijay Lentil 13-7), RVL 13-5 (Raj Vijay Lentil 13-5)
	2020	L 4729, Kota Masoor 3 (RKL 605-03), IPL 53
	2021	RKL 58 F 3715 (Kota Masoor 4)
Pea	2014	IPFD 10-12
	2016	IPFD 11-5
	2017	IPFD 12-2
	2018	Pant Pea 243, IPFD 2014-2
<b>Oilseeds</b>		
Soybean	2015	NRC 86 (Ahilya 6)
	2017	Pant Soybean 23(PS 1523), PRAGYA (RVS-18), Raj Soya -18 (Pragya), RAJ Soya 24 (RVS 2002-04)
	2021	IS 138 (NRC 138)
Linseed	2016	JLS-79
	2018	Jawahar Linseed Sagar-95 (JLS-95) (SLS-95), JLS-66 (SLS 66), Utera Alsi (RLC-143) , Utera Alsi (RLC-143)
Niger	2016	JNS-30
	2017	GNNIG-3, Jawahar Niger Selection 28 (JNS 28)
Sunflower	2014	JS 20-34

#### 4.1.6 Commodity-wise Major/potential districts of Madhya Pradesh

Commodity/ Crop	Top 15 Distt. Contri.	Major/potential districts
<b>A. Pulses</b>		
Gram	60%	Raisen, Damoh, Vidisha, Dewas, Sagar, Chhatarpur, Narsinghpur, Khargone, Panna, Harda, Guna, Chhindwara, Ashoknagar, Khandwa, Sehore.
Urad	87 %	Chhatarpur, Sagar, Damoh, Vidisha, Jabalpur, Tikamgarh, Panna, Shivpuri, Ashoknagar, Datia, Narsinghpur, Sheopur, Rewa, Alirajpur, Guna.
Moong	95 %	Hoshangabad, Harda, Narsinghpur, Raisen, Sehore, Jabalpur, Dewas, Sagar, Damoh, Guna, Khandwa, Khargone, Katni, Betul, Vidisha.
Lentil	88 %	Sagar, Vidisha, Rajgarh, Damoh, Dindori, Raisen, Shajapur, Narsinghpur, Shivpuri, Ashoknagar, Mandla, Panna, Anuppur, Rewa, Seoni.
Tur	83 %	Narsinghpur, Singrauli, Chhindwara, Raisen, Sidhi, Rewa, Panna, Jabalpur, Shahdol, Betul, Umaria, Satna, Burhanpur, Sagar, Hoshangabad.
Pea	84 %	Chhatarpur, Datia, Jabalpur, Tikamgarh, Ujjain, Chhindwara, Dindori, Ratlam, Bhind, Singrauli, Mandla, Dhar, Gwalior, Panna, Niwari.
<b>B. Oilseeds</b>		
Groundnut	98 %	Shivpuri, Tikamgarh, Chhatarpur, Datia, Niwari, Alirajpur, Chhindwara, Neemuch, Barwani, Jhabua, Betul, Khargone, Ashoknagar, Sheopur, Dhar.
Soybean	81 %	Ujjain, Dhar, Dewas, Rajgarh, Indore, Vidisha, Sehore, Sagar, Ratlam, Ashoknagar, Shajapur, Mandsaur, Guna, Harda, Agar malwa.
Niger	100%	Dindori, Anuppur, Jabalpur, Mandla, Chhindwara, Umaria, Shahdol, Seoni, Hoshangabad, Betul, Balaghat, Singrauli, Harda, Shivpuri, Tikamgarh.
Sesamum	93 %	Chhatarpur, Panna, Datia, hind, Sheopur, Singrauli, Gwalior, Satna, Katni, Sidhi, Morena, Tikamgarh, Rewa, Shivpuri, Shahdol.
Rapeseed &	93%	Bhind, Morena, Sheopur, Shivpuri, Gwalior, Guna, Ashoknagar, Rajgarh, Chhatarpur,

Commodity/ Crop	Top 15 Distt. Contri.	Major/potential districts
Mustard		Mandsaur, Datia, Rewa, Neemuch, Singrauli, Panna.
Linseed	97%	Mandsaur, Ratlam, Neemuch, Anuppur, Singrauli, Balaghat, Rewa, Chhatarpur, Dindori, Seoni, Sidhi, Shahdol, Mandla, Umariya, Sagar.
<b>C. Cereals</b>		
Maize	89%	Chhindwara, Seoni, Betul, Barwani, Khargone, Dhar, Jhabua, Guna, Narsinghpur, Hoshangabad, Rajgarh, Khandwa, Ratlam, Burhanpur, Alirajpur.
Jowar	93%	Gwalior, Barwani, Bhind, Burhanpur, Vidisha, Chhindwara, Betul, Panna, Khargone, Chhatarpur, Alirajpur, Singrauli, Sidhi, Datia, Dhar.
Bajra	100%	Morena, Bhind, Sheopur, Gwalior, Shivpuri, Alirajpur, Barwani, Datia, Dhar, Mandsaur, Sagar, Vidisha, Burhanpur, Neemuch, Khargone.
Small Millet	99%	Mandla, Dindori, Anuppur, Chhindwara, Singrauli, Umariya, Jabalpur, Shahdol, Balaghat, Seoni, Sidhi, Rajgarh, Satna, Katni, Bhopal.
Wheat	49%	Dhar, Ujjain, Chhindwara, Hoshangabad, Sehore, Vidisha, Seoni, Rajgarh, Dewas, Khargone, Sagar, Raisen, Indore, Rewa, Ratlam.
Barley	98%	Chhatarpur, Singrauli, Satna, Tikamgarh, Neemuch, Sidhi, Shivpuri, Niwari, Panna, Rewa, Datia, Bhind, Mandsaur, Ashoknagar, Shahdol.
Paddy	79%	Rewa, Balaghat, Satna, Hoshangabad, Raisen, Katni, Seoni, Jabalpur, Mandla, Shahdol, Gwalior, Singrauli, Sidhi, Dindori, Anuppur.
<b>D. Commercial crops</b>		
Cotton	100%	Khargone, Dhar, Barwani, Chhindwara, Khandwa, Burhanpur, Alirajpur, Jhabua, Ratlam, Betul, Dewas, Sheopur, Seoni, Indore, Guna.
Sugarcane	99%	Narsinghpur, Betul, Datia, Barwani, Burhanpur, Chhindwara, Hoshangabad, Dhar, Khargone, Balaghat, Jabalpur, Raisen, Gwalior, Mandla, Shivpuri.

## 4.2 CHHATTISGARH STATE PROFILE



**4.2.1 Agro Climatic Zone- wise District in Chhattisgarh***(Area: - Lakh ha)*

Agro Climatic Zone	Districts Included	Total Geog. Area	Net sown area (%)	Soil Type (%)	Irrigation (%)	Cropping Intensity (%)	Rainfall (mm)
C.G. Plains (18 Districts)	Raipur, Balodabajar, Bhathpara, Gariyaband, Bilaspur, Gorela, Pendra Marwahi, Mungeli, JanjgirChampa, Sakti, Kabirdham, Rajnandgaon, Khairagarh, Manpur Mohala Chowki, Durg, Balod, Bemetara, Dhamtari and Mahasamund are districts included in this plain Zone.	68.49 (50%)	32.95	Entisol -36, Alfisol - 21, Inceptisol-22, Vertisol -8, Alluvial -3	43	139	1245
Bastar Plateau (7 Districts)	Kanker (North Bastar), Bastar, Kondagaon, Dantewada (South Bastar), Bijapur, Sukma and Narayanpur are districts included in this Zone.	39.06 (29%)	6.40	Entisol - 26, Alfisol - 25, Inceptisol-34, Vertisol -10, Alluvial - 5	5	122	1468
Northern Hills (9 Districts)	Koriya, Manendragarh – Bharatpur, Sarguja, Surajpur, Balrampur-Ramchandrapur, Jashpur Nagar, Raigarh, Sarangadh and Korba are districts situated in this Zone.	28.47 (21%)	8.35	Entisol - 3, Alfisol - 29, Inceptisol-28, Vertisol - 28, Alluvial-2	11	135	1510

\* *Entisol (Bhata), Alfisol (Matasi), Inceptisol (Dorsa), Vertisol (Kanhar) & Alluvial (Kachhar)*

### 4.2.2 Land Use Classification & Basic Details of CG State

Particulars		Status (2021)	
Population	(Crore)	2.95 (Male – 1.50, Female -1.45)	
Population Growth	(%)	15.23- 2011 to 2021	
Revenue Districts/Tehsil	(Nos.)	33/250	
Block/ Janpad Panchayat	(Nos.)	146	
Village Panchayat /Total Village	(Nos.)	11664/20619	
Krishi Upaj Mandi	(Nos.)	69	
Average Annual Rainfall	(mm)	1255	
Land Use Pattern ( Area : lakh ha)		Agricultural land use (Area -lakh ha)	
<b>Geographical Area</b>	<b>139.68</b>	Net sown area	46.32
Cultivable area	49.22 (35%)	Double Cropped Area	10.40
Forest area	64.86 (46%)	Gross cropped area	56.72
Land under non-agricultural use	7.48 (5%)	Kharif Area	48.21
Permanent pastures	8.93 (6%)	Rabi Area	8.51
Cultivable wasteland	3.72 (3%)	Cropping Intensity	122%
Barren and uncultivable land	2.89 (2%)		
Fallow land other than Current fallows	2.58 (2%)		
Operational Land Holding (Area: lakh ha, Number- lakh)			
Average Size of Social Groups	Avg. Size (ha)	Numbers (%)	Area (%)
Marginal (< 1 ha)	0.43	24.34 (61%)	10.40 (21%)
Small (1 to 02 ha)	1.41	8.79 (22%)	12.38 (25%)
Semi Medium (02 to 04 ha)	2.67	4.93 (12%)	13.16 (26%)
Medium (04 to 10 ha)	5.67	1.81 (5%)	10.26 (21%)
Large (10 ha & Above)	16.10	0.23 (1%)	3.72 (7%)
<b>Total</b>	<b>1.24</b>	<b>40.11</b>	<b>49.92</b>
Irrigation (Area- lakh ha)		Sources of Irrigation (Area- lakh ha)	
Net irrigated area	15.66	Canals	8.91 (57%)
Gross irrigated area	20.67	Tanks	0.28 (2%)
Net Un-irrigated area	30.66	Open wells	0.14 (1%)
Gross Un-irrigated area	36.05	Bore /Tube-Wells	5.80 (37%)
Percentage of Gross Irrigated Area to Total Cropped Area	36%	Other Sources	0.54 (3%)
		<b>Net Irrigated Area</b>	<b>15.66</b>
Major Soils (Area - lakh ha)			
Alluvial Soil (Kacchar)	1.38 (2.7%)	Inceptisols (Matasi)	13.54 (26.9%)
Entisols (Bhata)	10.02 (20%)	Vertisols (Kanhar)	11.43 (22.8%)
Alfisols (Dorsa)	13.82 (27%)	Land Classif. Total	50.19

\*Source- Census- 2021, LUS- Avg. of 2018-19 to 2022-23 & DES, Agri. Pocket Book-2024.

## 4.2.3 Crop Scenario (Normal – Season-wise)

(Area in 000 ha, Production in 000 Tonnes &amp; Yield in kg/ha)

Crop Scenario		(2018-19 to 2022-2023)			Season-wise % Share	
Crop	Season	Area	Production	Yield	Area	Production
Rice	Kharif	42.86	88.76	2071	97.01	95.41
Wheat	Rabi	1.34	1.95	1454	99.26	100
Maize	Kharif	1.32	4.28	3228	2.99	4.60
Small millet	Kharif	0.63	0.25	394	1.43	0.27
Ragi	Kharif	0.04	0.01	279	0.09	0.01
Jowar	Kharif	0.02	0.02	1083	0.05	0.02
Barley	Rabi	0.01	0.01	747	0.74	0.51
Total Cereal	Kharif	44.18	93.03	2106	96.72	99.31
	Rabi	1.35	1.95	1448	19.77	34.33
	Total	45.53	94.99	2086	86.71	95.59
Tur	Kharif	0.44	0.26	582	29.33	40.00
Gram	Rabi	3.40	2.49	730	62.04	66.76
Urd	Kharif	0.73	0.27	361	48.67	41.54
Lentil	Rabi	0.14	0.09	688	2.55	2.41
Moong	Kharif	0.04	0.02	465	2.67	3.08
	Rabi	0.03	0.01	372	0.55	0.27
Other Pulses	Kharif	0.04	0.01	263	2.67	1.54
	Rabi	0.02	0.00	112	0.36	0.00
	Total	0.06	0.01	375	0.86	0.23
Total Pulses	Kharif	1.50	0.65	433	3.28	0.69
	Rabi	5.48	3.73	680	80.23	85.16
	Total	6.98	4.38	627	13.29	4.41
Food grains	Kharif	45.68	93.68	2051	86.99	94.27
	Rabi	6.83	5.68	832	13.01	5.72
	Total	52.51	99.37	1892		
Soyabean	Kharif	0.57	0.47	828	44.19	48.96
Niger seed	Kharif	0.33	0.07	198	25.58	7.29
R&M	Rabi	0.34	0.17	504	73.91	80.95
Groundnut	Kharif	0.23	0.36	1528	17.83	37.50
Sesamum	Kharif	0.15	0.07	447	11.63	7.29
Linseed	Rabi	0.12	0.04	330	26.09	19.05
Oilseed	Kharif	1.29	0.96	744	73.71	82.05
	Rabi	0.46	0.21	459	26.29	17.95
	Total	1.75	1.17	671		
Sugarcane		0.37	3.52	9493	100	100

Source: – DES, GOI

#### 4.2.4 Central Sponsored Scheme/Central Sector Scheme

(a) Food & Nutrition Security (Erstwhile- NFSM) Programmes: Pulses; Rice; Coarse Cereals; Nutri-Cereals; TRFA-Pulses & TRFA-Oilseeds

S.No.	Commodities	Districts covered (Nos.)
i.	Paddy (14)	Raipur, Baloda Bazar, Rajnandgaon, Kabirdham, Bilaspur, Mungeli, Korba, Raigarh, Gaurela-Pendra-Marwahi (GPM), Korea, Jashpur, Dantewada, Sukma, Bijapur
ii.	Pulses (28)	Raipur, Janjgir-Champa, Gariyaband, Mungeli, Mahasamund, Raigarh, Dhamtari, Korba, Baloda Bazar, Bilaspur, Bemetara, Gaurela-Pendra- Marwahi (GPM), Balod, Rajnandgaon, Dantewada, Durg, Narayanpur, Kabirdham, Sukma, Kondagaon, Jashpur, Kanker, Korea, Bastar, Surajpur, Bijapur, Surguja, Balrmapur
iii.	Nutri-Cereals (10)	Rajnandgaon, Kabirdham, Balrmapur, Surguja, Korba, Kondagaon, Kanker, Sukma, Jagdalpur, Dantewada
iv.	Coarse Cereals (08)	Gariaband, Balrmapur, Surguja, Korba, Surajpur, Kanker, Jagdalpur, Kondagaon

#### (b) Seed Hub & EBSP Centres of Pulses, Oilseeds & Millets

Scheme/ Programme	No. of district covered	Name of District
Seed-Hub-Pulses	07	AICRP (Pulses), IGKV, Raipur; KVK, Bhatapara, Raipur; KVK, Ambikapur, Surguja; KVK, Ranandgaon; KVK, Kawardha; KVK, Kanker; KVK, Janjgir Champa
Seed-Hub-Oilseeds	01	KVK Bemetra (Soybean)
Seed-Hub-Millets	01	AICRP Small millets ZARS, IGKV, Jagdalpur
EBSP-Millets	01	AICRP Small millets ZARS, IGKV, Jagdalpur

#### (c) National Mission on Edible Oils (NMEO) Oilseeds Districts in CG (2023-24)

Division	Oilpalms (19)	TBOs (21)		Oilseeds (33)	TRFA Oilseeds (13)
		Mahua oil (16)	Olive (05)		
<b>Raipur</b>	Raipur, Gariyaband, Mahasamund,			Raipur, Baloda-Bajar, Dhamtari, Gariyaband, Mahasamund,	Baloda-Bajar, Gariyaband,
<b>Durg</b>	Durg, Kabirdham,			Balod, Bemetara, Durg, Kabirdham, Khairagarh-Chhuikhadan-Gandai, MohlaManpur,Rajnandgaon,	Rajnandgaon, Bemetara,
<b>Bilaspur</b>	Bilaspur, Gaurella-Pendra-Marwahi, Janjgir-Champa, Korba,	Bilaspur, Gaurella-Pendra-Marwahi, Raigarh, Janjgir-Champa	Bilaspur, Gaurella-Pendra-Marwahi	Bilaspur, Gaurella-Pendra-Marwahi Janjgir-Champa Koraba, Mungeli, Raigarh, Sakti, Sarangarh-Bilaigarh	Bilaspur, Gaurella-Pendra-Marwahi Mungeli, Raigarh,

Division	Oilpalms (19)	TBOs (21)		Oilseeds (33)	TRFA Oilseeds (13)
		Mahua oil (16)	Olive (05)		
	Raigarh, Sarangarh-Bilaigarh				
<b>Surgaja</b>	Jashpur, Sarguja,	Balrampur-Ramanujanj, Jashpur, Sarguja, Korla, Surajpur,	Balrampur-Ramanujanj, Jashpur, Sarguja,	Balrampur- Ramanujanj, Jashpur, Koriya, Manendragarh-Chirmiri-Bharatpur, Surajpur, Sarguja,	Balrampur-Ramanujanj, Sarguja,
<b>Bastar</b>	Bastar, Bijapur, Narayanpur, Dantewara, Kondagaon, Kanker,	Jagadlpur, Kondagaon, Kanker, Narayanpur, Bijapur, Dantewara, Sukma,		Bastar, Bijapur, Narayanpur, Sukma, Dantewara, Kondagaon, Kanker,	Jagadlpur, Kondagaon, Kanker,

## (d) Cluster Front Line Demonstrations on Pulses in Madhya Pradesh.

Crop	Area covered ha	District covered	Varieties undertaken
Blackgram (Kharif)	210	Bemtera, Bhatapara, Janjgir champa, Baster, Korea, Mahasamund, Kondagaon, Narayanpur, Jashpur, Mainpat, Kawardha, Kanker	Indira urd 1, KPU-405 and PU-1
Pigeonpea (Kharif)	130	Bilaspur, Bhatapara, Jashpur, Mainpat, Jora, Raipur, Surguja, Sukma	CG Arhar-1, Pujaripal and Dhobanpal
Lentil	80	Bemetera, Bhatapara, Janjgir champa, Korea, Mainpat Jora, Raipur, Surguja, Sukma	IPL-316
Blackgram (Summer)	30	Bemetara, Janjgir Champ, Sukma	Indira Urd-1

## 4.2.5 Assigned States Varieties of Major &amp; Potential Crops (Within 10 Years 2012 to 2023)

Crops	Release/ Notified Year	Varieties
<b>Paddy</b>	2016	Bhadshabhog Selection-1, Bidhan Rice bean-3 (KRB-9), Chhattisgarh Madhuraj Dhaan-55, Dubraj Selection -1, Kunaram Sannalu (KNM 118) (IET No.23748), Tarunbhog Selection-1, Vishnubhog Selection-1
	2017	28P09, BS129G (Arize 6129 Gold), Chhattisgarh Zink Rice-1
	2018	Bio-799, Chhattisgarh Ragi-2
	2019	Chhattisgarh Devbhog , PAC-801, Zinco Rice MS
	2020	PAC 8744 (ADV 1603- IET 25785)
<b>Wheat</b>	2018	Pusa Wheat -8777 (HI 8777)
	2021	Hansa Wheat (CG 1023), Kanishka (CG 1029)



Crops	Release/ Notified Year	Varieties
Maize	2015	LAXMI 3636 (LTH-22)
	2018	ADV-756 (ADV 0990296), CP.999
Ragi	2018	Chhattisgarh Ragi-2 (BR36), Chhattisgarh Ragi-3
Kutki	2016	Chhattisgarh Kutki-2
<b>Pulses</b>		
Chickpea	2015	RVG 202 (JSC 55)
	2019	IPC 2006-77
	2020	Jawahar Gram 24(JG 24) (JG 2016-24), CG Channa-2
	2021	RG 2015-08 (CG Lochan Chana), Raj Vijay Gram 204 (RVG 204) (RVSSG 8102)
	2023	Pusa JG 16 (BGM 10221 DTIL)
Pigeon pea/Tur	2013	Tara (TAT-9629)
	2020	Bheema GRG-152, Chhattisgarh Arhar-1 (RPS 2007-10)
	2023	PDKV Ashlesha (AKTM 1637), Phule Trupti (Phule Tur-10-1)
Green gram	2016	IPM 205-7 (Virat)
Urd	2015	Indira Urd Pratham (RU 03-14)
	2019	PDU 1 (Basant Bahar)
Lentil	2013	IPL 316
Lentil	2017	RVL 11-6, L 4717 (Pusa Ageti Masur)
	2018	Kota Masoor 2 (RKL 14-20), L 4727, Kota Masoor-1 (RKL 607-1)
	2019	RVL 13-7 (Raj Vijay Lentil 13-7) RVL 13-5 (Raj Vijay Lentil 13-5)
	2020	L 4729 Kota Masoor 3 (RKL 605-03), CG Masoor-1 (RL-3-5)
	2021	RKL 58 F 3715 (Kota Masoor 4)
Pea	2014	IPFD 10-12
	2016	Indira Matar 1 (RFP 2009-1)
	2017	IPFD 12-2
	2018	Pant Pea 243, IPFD 2014-2
<b>Oilseeds</b>		
Soybean	2017	RVS 2002-4, Chhattisgarh Soya-1 (CG SOYA-1)
Linseed	2016	Chhattisgarh Alsi-1 (RLC-133)
	2018	Varsha Alsi (RLC-148)
R&M	2016	Raj Vijay Mustard 1
Sunflower	2017	Kaveri Champ
	2018	DSH-185

Source: [www.seednet.gov.in](http://www.seednet.gov.in), AICRP, ICAR, IIPR, Kanpur, ICAR annual report 2022-23.

#### 4.2.6 Commodity-wise Major/potential districts of Chhattisgarh

Commodity /Crop	Top 15 Distt. Contri.	Major/potential districts
<b>A. Pulses</b>		
Tur	94%	Balrampur, Rajnandgaon, Kabirdham, Jashpur, Surajpur, Surguja, Korea, Bemetara, Raigarh, Durg, Mungeli, Korba, Manendragarh chirimiri bharatpur, Khairgarh hhuikhadan gandai, Gariyaband.
Urd	92%	Jashpur, Kondagaon, Raigarh, Surguja, Mahasamund, Surajpur, Kanker, Balrampur, Korea, Korba, Bastar, Rajnandgaon, Narayanpur, Gariyaband, Dhamtari.

Commodity /Crop	Top 15 Distt. Contri.	Major/potential districts
Mung	95%	Raigarh, Mahasamund, Rajnandgaon, Bijapur, Sukma, Gariyaband, Kanker, Janjgir-champa, Dantewada, Bastar, Balrampur, Dhamtari, Kondagaon, Baloda bazaar, Raipur.
Gram	99%	Rajnandgaon, Bemetara, Kabirdham, Mungeli, Durg, Khairgarh chhuikhadan gandai, Dhamtari, Balod, Baloda bazaar, Raipur, Bilaspur, Surguja, Balrampur, Jashpur, Surajpur.
Lentil	98%	Khairgarh chhuikhadan gandai, Bemetara, Rajnandgaon, Kabirdham, Surguja, Raipur, Durg, Surajpur, Balrampur, Baloda bazaar, Jashpur, Mungeli, Balod, Dhamtari, Raigarh.
<b>B. Oilseeds</b>		
Soybean	100%	Rajnandgaon, Kabirdham, Bemetara, Khairgarh chhuikhadan gandai, Durg, Mungeli, Baloda bazaar, Raipur, Balrampur, Bilaspur, Kanker, Balod, Bastar, Gaurella-pendra-marwahi, Jashpur.
Groundnut	98%	Jashpur, Raigarh, Surajpur, Mahasamund, Surguja, Kabirdham, Mungeli, Balrampur, Bemetara, Janjgir-champa, Gariyaband, Gaurella-pendra-marwahi, Bilaspur, Korea, Sarangarh bilaigarh.
Sesamum	92%	Balrampur, Raigarh, Surajpur, Sukma, Korba, Korea, Rajnandgaon, Surguja, Jashpur, Janjgir-champa, Raipur, Baloda bazaar, Mahasamund, Kondagaon, Bastar.
Niger	100%	Jashpur, Surguja, Balrampur, Bastar, Surajpur, Kondagaon, Korea, Raigarh, Dantewada, Kanker, Korba, Narayanpur, Kabirdham, Gaurella-pendra-marwahi, Sukma.
Linseed	97%	Surguja, Balrampur, Rajnandgaon, Surajpur, Jashpur, Korea, Balod, Mohla manpur mbagarh chouki, Raigarh, Gaurella-pendra-marwahi, Kanker, Kondagaon, Bilaspur, Korba, Bemetara.
Rapeseed & Mustard	94%	Balrampur, Surguja, Surajpur, Jashpur, Durg, Raipur, Korea, Dhamtari, Balod, Raigarh, Rajnandgaon, Bastar, Baloda bazaar, Korba, Kabirdham.
<b>C. Cereals</b>		
Paddy	75%	Janjgir-champa, Dhamtari, Rajnandgaon, Balod, Raipur, Baloda bazaar, Mahasamund, Bilaspur, Bemetara, Raigarh, Kanker, Durg, Gariyaband, Mungeli, Bastar.
Maize	95%	Balrampur, Kondagaon, Bastar, Surguja, Kanker, Surajpur, Jashpur, Gariyaband, Korea, Rajnandgaon, Korba, Sukma, Dantewada, Dhamtari, Gaurella-pendra-marwahi.
Wheat	93%	Bemetara, Rajnandgaon, Durg, Balrampur, Kabirdham, Surguja, Surajpur, Raigarh, Baloda bazaar, Raipur, Mungeli, Bilaspur, Korea, Balod, Janjgir-champa.
Barley	100%	Balrampur, Surajpur, Sukma, Surguja, Korea, Durg, Korba, Rajnandgaon, Bemetara, Manendragarh chirimiri bharatpur, Bijapur, Mahasamund, Gariyaband, Raipur, Balod.
Ragi	99%	Kondagaon, Bastar, Kanker, Balrampur, Narayanpur, Jashpur, Dantewada, Surajpur, Dhamtari, Sukma, Raigarh, Bijapur, Balod, Rajnandgaon, Raipur.
Small millets	95%	Bastar, Dantewada, Kabirdham, Kanker, Sukma, Balrampur, Rajnandgaon, Jashpur, Korea, Surajpur, Kondagaon, Bemetara, Surguja, Narayanpur, Gaurella-pendra-marwahi.
Jowar	95%	Sukma, Balrampur, Surajpur, Korea, Kabirdham, Bastar, Jashpur, Korba, Surguja, Durg, Kondagaon, Dantewada, Bijapur, Bilaspur, Kanker.
<b>C. Commercial crops</b>		
Sugarcane	100%	Kabirdham, Bemetara, Surguja, Surajpur, Balrampur, Balod, Mungeli, Bastar, Durg, Rajnandgaon, Jashpur, Raipur, Bilaspur, Kondagaon, Gariyaband.

**5. Directorate Budget Allocation & Expenditure during 2023-24***(Rs. in Lakh)*

Sl.No.	Object Head	Budget Allocation	Expenditure
1.	Salaries	105.00	74.20
2.	Wages	2.00	0.94
3.	Rewards	1.25	0.64
4.	Medical Treatment	4.00	0.83
5.	Allowances	51.75	47.80
6.	Leave Travel Concession	4.00	0.69
7.	Training Expenses	0.75	0.00
8.	Domestic Travel Expenses	8.00	6.50
9.	Office Expenses	16.00	3.52
10.	Printing and Publication	3.50	0.54
11.	Digital Equipment	2.71	1.02
12.	Fuels and Lubricants	1.10	0.55
13.	Advertising and Publicity	0.70	0.00
14.	Minor civil and electric Works	8.50	0.19
15.	Professional Services	0.60	0.16
16.	Repair and Maintenance	1.50	0.34
17.	Other Revenue Expenditure	0.80	0.49
18.	Machinery and Equipment's	1.25	1.25
19.	ICT Equipment, Computers, Laptop etc.	16.50	5.79
20.	Furniture and Fixtures	4.00	0.00
21.	Rent, Rates & Taxes	2.00	0.00
22.	Rent for others	0.50	0.00
23.	Swachhta Action Plan	1.00	0.57
<b>Total</b>		<b>237.41</b>	<b>146.02</b>

**5.1 Other Administrative Activities**

S. No.	Activities	Date/Duration
1	पोषण पखवाड़ा) दिनांक 31.03.2023) का कार्यवृत्त	06.04.2023
2	Celebration of International Yoga Day	21.06.2023
3	Hindi Diwas	14.09.2023
4	Hindi Pakhwada	14.09.2023 to 28.09.2023
5	Hindi Samanya Gyan Partiyogita	27.09.2023
6	Observance of Vigilance Awareness Week	30.10.2023 to 05.11.2023
7	Hindi Workshop (Quarterly)	16.06.2023, 29.09.2023, 20.12.2023, 15.03.2024
8	Hindi Meeting (Quarterly)	16.06.2023, 29.09.2023, 20.12.2023, 14.03.2024
9	Special Campaign 3.0	02.10.2023 to 31.10.2023

**5.2 Technical Assistants under FNS (Erstwhile-NFSM) and NMEO-OP during 2023-24***(Rs. in Lakh)*

Sl. No.	Object Head	Budget Allocation	Expenditure
1.	Honorarium Fee & CA (NFSM)	10.20	10.17
2.	TA/DA (NFSM)	0.89	0.85
3.	Honorarium Fee & CA (NMEO-OP)	5.28	5.04
<b>Total</b>		<b>16.37</b>	<b>16.06</b>

## 6. MONITORING, FIELD VISITS, EXTENSION, TRAINING & CAPACITY BUILDING

### Training on Implementation of Krishi Mapper Mobile App:

A training programmes 'for implementation of Krishi Mapper Mobile App' developed by DA&FW, Govt. of India on Cluster Frontline Demonstrations (CFLDs) on Oilseeds & Pulses for Kharif & Rabi season-2023-24 under Food & Nutritional Security (FNS) were conducted in different KVKs, AICRPs, SAUs in Madhya Pradesh & Chhatishgarh States from April, 2023 to March, 2024. The participants including KVKs Scientists & field assistants and others attended the training. The participants were given exposure on various aspects of Krishi Mapper Mobile App for on spot creation of New Demonstration, Beneficiary Registration, initial geo-plotting, initiate crop stages & initiate outcome. The training on Krishi Mapper App were provided by officers and officials of this Directorate during visits to concerned KVKs/AICRPS/SAUs. This training was aimed to create land-intervention database, Measure of effectiveness, impact assessment, near real-time tress of CFLDs conducted across the country.

The field visist were undertaken by officer of this Directoarte in 19 KVKs of Madhya Pradesh and 8 KVKs of Chhatishgarh for monitoring of Cluster FLDs on Oilseeds & Pulses alongwith implementation & training of User Acceptance Test of Krishi Mapper Mobile App. The interactions were held with beneficiary farmer's alongwith KVKs, Scientist & field workers. During field visits & trainings, the on Spot geo- plotting, creat new demonstration & Outcomes of CFLDs were done successfully with Nodal officers and other officials of KVKs. It was gathered that the Krishi Mapper App is user friendly &

working properly. KVKs were advised to ensure 100% geo-plotting of CFLDs plot.



The following officers were nominated for providing training in different places.

Name of officer	KVKs/AICRPs	Date
Dr. A. K. Shivhare, JD	Sukma & Kankare	10-12 <sup>th</sup> Oct, 2023
Sh. Vipin Kumar, JD	Baitul and Hosangabad	16-17 Oct., 2023
Sh. Sarju Pallewal, SI	Seoni and Chhindwara	19-20 Oct., 2023
	Bilaspur	05 March, 2024
Dr. Ram Narayan, STA	Guna & Sheopur	10 & 12 Oct., 2023
	Rewa & Sidhi	12 & 14 Dec., 2023
	Damoh and Chhatarpur	27 & 29 Feb., 2024
Dr. Sandip Silwat, STA	Anupur and Umariya	30-31 Oct., 2023
	Damoh & Panna	13-14 Dec., 2023
	Balaghat	18 Jan., 2024
	Bhind	27 Feb., 2024
Sh. Satish Dwivedi, TA	Mahasamind and Balaudabazaar	12-13 Oct., 2023
	Janjgir-champa	05 March, 2024
	Raisen	04 Oct., 2023
Sh. Somesh, STA and Sh. Satish Dwivedi, TA	Raipur & Bemetra	13-15 Dec., 2023
Sh. Somesh Vajpae, STA	Guna and Ashoknagar	27-29 Feb., 2023
	Khargone	11 March, 2024

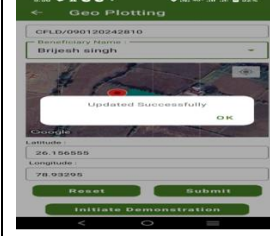
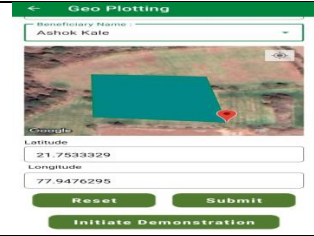


Krishi Mapper training at beneficiaries' field KVK-Kanker



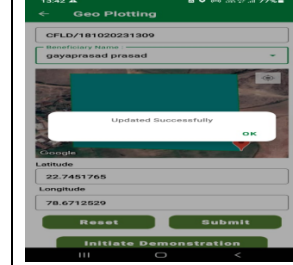
Krishi Mapper Demo. for CFLD beneficiaries' field, KVK-Sukma

CFLD plot of Mustard KVK, Morena, MP



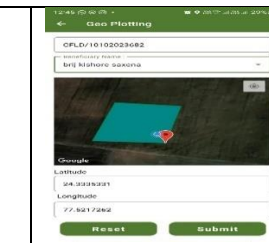
CFLDs on oilseed at Vill- Kolgaon, Block-Betul (Niger Variety JNS-30)

CFLD on Mustard in Block-Lahar Distric Bhind, MP



Beneficiary farmer of Sh. Gaya Prasad, Vill- Dhadaw Padaw, Block- Bankhedi (Arhar Variety Phule Rajeshwari)

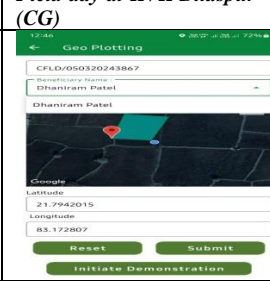
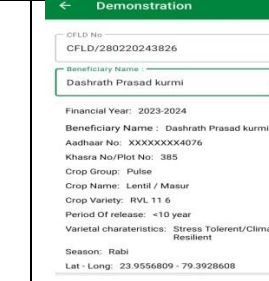
Beneficiary farmer of Ms. Geeta Bai Kade Vill-Chikhli, Kurai District-Seoni



Geo-plotting of CFLDs plot at KVK, Sheopur

CFLDs on Mustard

Field day at KVK Bilaspur (CG)



CFLDs on Lentil in Krishi Vigyan Kendra, Damoh, MP

CFLDs-Pulses conducted by KVK- Janjgir-champa



Intearction with beneficiary farmers at Tapariayan village, Chhatarpur

CFLDs on Urd at KVK, Dabhra









CFLDs on lentil at KVK, Damoh

**Monitoring & Field Visit of NFSM Programmes:**

Centrally Sponsored Scheme, Food & Nutritional Security (Erstwhile National Food Security Mission) was launched in October, 2007 with the objectives like i) Increasing production of Rice, Wheat and Pulses through area expansion and productivity enhancement in a sustainable manner in the identified districts of the country, ii) Restoring soil fertility and productivity at the individual farm level, iii) Creation of employment opportunities and iv) Enhancing farm level economy (i.e. farm profits) to restore confidence amongst the farmers. The NFSM-Pulses are being implemented in 28 states and 2 UTs covered 644 districts in across the country. The cost of these programmes is shared on 60:40 basis for General Category States, 90:10 basis for North East & Hilly states and 100% basis for UTs. The farmers are provided monetary and non-monetary benefits under NFSM. The main functions of Directorate of Pulses Development, Bhopal is to monitor the implementation of National Food Security Mission at National Level and implementation of Crop Development Schemes in the assigned states of Madhya Pradesh and Chhatishgarh. This office also monitors the nodal crops Pulses in addition to crops of assigned states.

Accordingly, the officer of this Directorate has been deputed for monitoring of NFSM programmes implemented in districts of Madhya Pradesh and Chhatishgarh states during 2023-24. The aim of monitoring & field visits is to measure the progress of scheme, interaction with beneficiary, verify delivery of outputs and achievement of results & identify possible bottlenecks. The following officer of this Directoarte visited the NFSM programmes & Seed minikit during the 2023-24.

Name of officer	District	date
Dr. Ram Narayan, STA	Rewa & Sidhi	13 & 15 Dec., 2023
	Damoh & Chhatarpur	28 Feb. & 1 Mar., 2024
	Kabirdham	13-14 Sept., 2023
Dr. Sandip Silwat, STA	Dhar & Alirajpur	29-31 May, 2023
	Damoh & Panna	13-14 Dec., 2023
	Balaghat	19 Jan., 2024
Sh. Somesh Bajpai, STA	Bhind	27 Feb., 2024
	Guna	28 Feb., 2024

	
<i>Demo. of Gram at Rewa</i>	<i>Demo.TL-hybrid seed of mustard variety Champion</i>
	
<i>Mustard plot of TL-hybrid in Lohara village, Sidhi</i>	<i>Gram plot of variety GJ-36, Sidhi</i>
	
<i>Gram plot of variety GJ-36, Damoh</i>	<i>Farmer plot of wheat in Mara village, Damoh</i>
	
<i>Cluster Demo. of NFSM (Pulses) Gram (var. JG 36) at village-Semra Bujurg, block- Pathria, Damoh</i>	<i>Cluster Demo. of NFSM (Pulses) Lentil (var. L 4717) at village-Sadguwa block-Pathria, Damoh</i>



**TL Hybrid Seed kit of Mustard demo plot (Var. Champion) at District Panna.**



**Seed Minikit lentil Plot at Guna Dist.**

**Seed Minikit Mustard Plot at Guna Dist.**



**Seed Minikit Demo. of Lentil at Block-Morar & Ghatigaon, Gwalior**



**NMEO-OS of Seed Minikit of Ground nut at block- Nisarpur, Dhar**



**NMEO-OS of Seed Minikit of Ground nut at village Kautho, block-Alirajpur**



**Seed Minikit Mustard Plot at Guna Dist.**



**Seed Minikit plot under NFSM (Pulses) Urd (var. IPU 13-01) at block-Nowgong, Chhatarpur**



**Cluster Demo. of NFSM (Pulses) Gram (var. RVG 202) at village-Jhaliwada, block-Waraseoni, Balaghat**

To achieve goal of these programmes, the strategies being followed, are i) Disseminating latest production and protection technologies at farmers' field through FLDs/ CFLDs/Demos like ICM, INM, IPM and improved Agronomic practices, etc., ii) Improvement in Seed Replacement Rate through increasing availability of certified seeds, iii) Promoting Mechanization through distribution of Improved Farm Implements, iv) Promoting Micro Irrigation to bring additional area under cultivation through distribution of water application tools, v) Capacity building of farmers and Extension personnel through organizing National /State Level Trainings and vi) Increasing area under NFSM: Pulses crops through intercropping.

**Crop Cutting Experiment of Mustard under NFSM-Oilseeds:**

During field visits, this Directorate involved in conduct of crop cutting Experiment of Supply of Oilseeds Minikits of latest HYVs of Rapeseed & Mustard during Rabi-2023-24 distribution by NSC under National Food Security Mission (NFSM)- Oilseeds and TL Hybrid Seed distribution of R&M available with MoU partners of private seed companies with National Seed Corporation during Rabi 2023-24 under NFSM in districts of Madhya Pradesh. The crop cutting experiments were conducted by following officers of this Directorate in different districts of M.P.

Name of officer	District	date
Dr. Ram Narayan, STA	Chhatarpur	29 Feb., 2024
Dr. Sandip Silawat, STA	Bhind & Gwalior	27-29 Feb., 2024
Sh. Somesh, STA	Ashoknagar and Guna	27-28 Feb., 2024
M. Uma Shankar, STA & Dr. Ashwani Tikle, TA	Agar-Malwa & Shajapur	15-16 Feb., 2021



*Crop cutting of Mustard at vill./Block-Badhiya/Susner, District-Agar-Malwa*



*Crop cutting of Mustard crop (var-Basanti) at village- mangwar Block & District-Guna*



*Crop cutting of Mustard variety RH-725 in Bamhari villages of block Rajnagar, District- Chhatarpur*



*Crop cutting of Mustard (var.RH 725) under NFSM-Oilseeds Seed Minikit Programme at village-Gorai, Block-Ron, District-Bhind*

*Crop cutting of Mustard at Vill./Block-Lasudliya/Shajapur*



**Seed-hubs on Pulses under NFSM:**

150 Seed Hubs on Pulses have been set up by Department of Agriculture & Farmer Welfare, GOI under NFSM since 2016-17 to augment the availability of quality seed of Pulses. The seed hubs are managed by SAUs/ Krishi Vigyan Kendras (KVKs)/ ICAR institutes. The seed hubs have primary seed processing along with seed storage facilities. These Seed Hub centres aimed to producing certified seeds of pulses. As far as Madhya Pradesh & Chhatisgarh is concerned, there are total 23 seed hubs on pulses. This Directorate has nodal office for monitoring of seed-hubs programmes implemented across the country and assigned states. During 2023-24, this Directorate monitored & reviewed the seed-hubs programmes running at KVKs/AICRPs in Madhya Pradesh & Chhatisgarh.

The visits were undertaken in different centres of seed-hubs in assigned states are given below.

Name of officer	KVKs/ AICRPs	date
Dr. Ram Narayan, STA	Damoh	28 Feb., 2024
Sh. M. Umashankar, STA	Morena	28 Feb., 2024
	Gwalior	12 March., 2024
Sh. Somesh, STA	Bemetra	15 Dec., 2023
	Khargone	11 March, 2024
	Indore	12 March, 2024
Sh. Satish Dwivedi	Jhangir Chapa	5 March, 2023
	Bemetra	15 Dec., 2023



Processing unit at KVK, Morena

Processing unit at AICRP, Gwalior



AICRP, Morena



AICRP, Khargone



AICRP, Indore



Godown at KVK, Bemetra



Seed hub centre at KVK, Bemetra



Processing unit & seed plot at KVK, Damoh



Seed processing unit of KVK, Janjgir-chmpa



## PARTICIPATED IN NATIONAL LEVEL WORKSHOP

This Directorate participated in National Level Workshop on Jute-Production, Marketing and Utilization Strategies organized by Directorate of Jute Development, Kolkata in collaboration with National Institute of Natural Fibre Engineering & Technology (NINFET), Kolkata on 14<sup>th</sup> March, 2024. In this workshop, the farmers were aware about the efforts made by DA &FW, Ministry of Agriculture & Farmers Welfare, Govt. of India for Jute-Production, Marketing and Utilization Strategies through the schemes/programmes under implementation. The farmers were suggested to adopt line sowing, intercropping & use of farm machinery in jute crop etc.



## Participated in training of Pilot Project of Crop diversification.

DA&FW, Ministry of Agriculture & Farmers Welfare, Govt. of India approved the Pilot Project of Crop diversification

implemented by ICAR-IIFSR, Modipuram, Meerut through AICRP-IFS centres & identified ICAR-Institutes. As per approved allotment of project 7 Districts have been selected in Madhya Pradesh, out of 7 district 6 (Chhindwara, Betul, Seoni, Dindori, Satna and Balaghat) Districts under jurisdiction of JNKVV, Jabalpur and 1 District (Sheopur) is under RVSKVV, Gwalior.

Presently 4 districts (Seoni, Dindori, Satna and Balaghat) jurisdiction of JNKVV, Jabalpur only implement the programme. In the two days training programme first day 42 farmers and second day 32 farmers have been participated. Introductory session had been held to know about existing crops grown and which crop will be suitable to diversification of the rice crop. The visit was undertaken in Balgahat district of MP by Dr. Sandip Silawat of this Directorate to monitored the project. The observation was made during visit are given below:

The pre-dominant cropping system is rice-rice in the district. Alternate crops identified for diversification (as per plan) are Maize and soybean. Alternate crops identified for diversification (as per farmers choice) are Fingermillet, Pigeonpea, Chickpea, Mustard, Linseed, Turmeric etc.,



## ONE DISTRICT- ONE PRODUCT (ODOP)

Pradhan Mantri Formalization of Micro Food Processing Enterprises Scheme (PMFME) utilizes One District One Product approach, to benefit in terms of input procurement, availing of common services, and product marketing. The Ministry of Agriculture is also concentrating on a cluster method to create particular Agri-products in districts with a comparative advantage. The four districts of Madhya Pradesh namely Balaghat, Bhind, Mandla & Dindori and one districts of Chhattishgarh namely Sukma were selected for millets crops under ODOP.

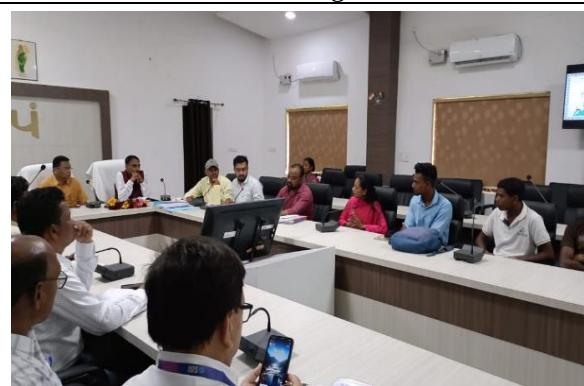
On 11.10.2023, Dr. A.K. Shivhare, Joint Director of DPD visited Sukma district, Chhattisgarh to assess the progress of the One District One Product (ODOP), under chairmanship of Shri Devnarayan Kashyap, Zilla Panchayat, CEO and other officials of district. Later, key notes of meeting were discussed with DM, Sukma as given under:

### OBSERVATIONS:

- Under the millet mission different programs and interventions has been planned to increase the area of cultivation and it is targeted to increase the area of millet cultivation to 6000 ha by the year 2026.
- Establishment of primary & secondary processing centres at RIPA Birsathpal, RIPA Kukanar, RIPA Gongla.
- SHG/FPO procures millets from farmers, transports to processing centres, then processed products procured by ICDS as supplements to Pregnant Ladies, SAM & MAM children.



*ODOP Review Meeting at State Level*



*ODOP Meeting at District Level*



*Meeting with DM, Sukma*

## International Year of Millets-2023

The IYM (International Year of Millets) 2023 aims to raise awareness about importance of millets & their health benefits. It also seeks to promote the production, consumption, and value-addition of millet products & theme is **“Healthy Millets, Healthy People”**. India is the largest producer of millets. It is also an opportunity to encourage farmers to take up millet cultivation to increase their incomes and improve their livelihoods.

On 09.10.2023, Dr. A.K. Shivhare, Joint Director of DPD (DA&FW) visited Sukma & Bastar districts, Chhattisgarh to know the progress of IYM, Millet Mission, challenges and key initiatives taken at state & district level. States made Efforts on area expansion, Production enhancement, Extension of millet procurement support for minor millets.



## MEDIA REPORTS OF VISITS



### प्रखर समाचार, जगदलपुर

## मिलेट्स फसलों को बढ़ावा देने एक दिवसीय दौरा कार्यक्रम का आयोजन

**सुकमा (प्रखर)।** सुकमा जिला में आज एक जिला एक उत्पाद के तहत भारत सरकार के प्रतिनिधि अधिकारी संयुक्त निदेशक निदेशालय दलहन विकास भारत सरकार भोपाल डॉ. एके शिवहरे ने बुधवार को विरसदवाल स्थित रीपा केंद्र का अवलोकन किया। उनके साथ परियोजना सलाहकार डॉ. आर कृष्णन, श्री मनीष कुमार दुबे मीजूद थे। उन्होंने समूह को महिलाओं से मिलेट्स फसलों की प्रसंस्करण विधि और इनसे तैयार उत्पादों की जानकारी ली। वहीं उन्होंने रीपा के तहत संचालित विभिन्न गतिविधियों की भी जानकारी संबंधित अधिकारियों से ली। उन्होंने प्रसंस्करण उपरत कोटो, कुटको, रागी के तैयार पैकेट का भी अवलोकन किया। साथ ही महिलाओं को लाभ पहुंचाने के लिए इन उत्पादों को बेहत मूल्य पर बाजार उपलब्ध करने कहा। उन्होंने मिलेट्स फसलों के फायदे भी जानकारी देकर इन फसलों का रकबा बढ़ाने के लिए कृषकों को प्रोत्साहित करने अधिकारियों से कहा। डॉ. शिवहरे ने एक विला एक उत्पाद के तहत प्रयास कार्यालय के सभाकक्ष में मिलेट्स फसलों को बढ़ावा देने के लिए विभागों से किए जा रहे कार्यों की समीक्षा भी की। इसके उपरत डॉ. शिवहरे ने कृषि विज्ञान केंद्र के माध्यम से खरीफ वर्ष 2023 में लावाये गए समूह अग्रिम पंक्ति फसल प्रदर्शन के तहत अरहर एवं तिल फसलों का मुआयना करने किसानों के खेतों में चोये गाँव तिल फसल, पुजारीपाल के किसान श्री लच्छू के खेत में चोये गाँव अरहर के फसलों का मुआयना किया एवं उन्होंने अधिकारियों को कृषि मेजर एच में जोड़ने के लिए अधिकारियों को प्रशिक्षण सह डेमो दिखाया। कृषि विज्ञान केंद्र के वरिष्ठ वैज्ञानिक एवं प्रमुख एच.एस. तोमर, पीछ रोग निदान के विषय वस्तु विशेषज्ञ राजेन्द्र प्रसाद कृष्ण, कृषि विभाग के सहायक भूमि संरक्षण अधिकारी कैलाश मरकाम एवं कलेक्ट्रेट में निरसर्व फेलो आठे कर्माई सहित कृषकगण उपस्थित थे।

**Exhibition Stalls at Krishi Mela**

Directorate of Pulses Development participated in Krishi Unnati Mela held at Kharsawsan, Jharkhand during 1-2<sup>nd</sup> January, 2024 and showcased new technologies in Pulses and awared about Centrally Sponsored Schemes implemented in the States. More than 500 people including farmers, delegates, visitors, dignitaries from Jharkhand and other states, Students, and entrepreneurs visited our stall.

people including farmers, visitors, Students, and entrepreneurs visited our stall.



Honorable Krishi Mantri Shri Arjun Munda visited the stall.



**Exhibition Stalls at IITF-2023**

This Directorate participated in India International Trade Fair (IITF-2023) at Pragati Maidan, New Delhi and showcased the efforts made by DA&FW in Pulses production. The stall visited by about 100 visitors per day during the period from 14<sup>th</sup> to 27<sup>th</sup> November 2023. More than 1000



View of Stall & media report of Melas

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