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NATIONAL FOOD SECURITY MISSION

NATIONAL LEVEL MONITORING(NLMT) REPORT




STATE-MADHYA PRADESH NLMT-KHARIF : 2017

सत्यमेव जयते

GOVERNMENT OF INDIA

MINISTRY OF AGRICULTURE & FARMERS WELFARE

(DEPARTMENT OF AGRICULTURE, COOPERATION& FARMERS WELFARE)

DIRECTORATE OF PULSES DEVELOPMENT

BHOPAL (M.P.)

(Email: dpd.mp@nic.in,Web: dpd.gov.in)

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ANNEXURES

ABBREVIATIONS

1. AICRP-All India Coordinated Research Project
2. CDDs- Crop Development Directorates
3. CHCs-Custom Hiring Centre
4. CIAE-Central Institute of Agricultural Engineering
5. CIPHET- Central Institute of Post-Harvest Engineering and Technology
6. CSBD-Cropping System Based Demonstration
7. CSS- Central Sponsored Schemes
8. DES- Directorate of Economics and Statistics
9. DFSMEC-District Food Security Mission Executive Committee
10. DSR-Direct Seeded Rice
11. FLD-Front Line Demonstration
12. GPS-Global Positioning System
13. HYV-High Yielding Varieties
14. ICAR-Indian Council of Agricultural Research
15. IGKVV- Indira Gandhi KrishiVishvaVidyalaya
16. IPM-Integrated Pest Management
17. KVK- KrishiVigyan Kendra
18. MIDH-Mission for Integrated Development of Horticulture
19. MIS- Micro Irrigation System
20. MSP- Minimum Support Price
21. NCIP-National Crop Insurance Programme
22. NDC-National Development Council
23. NGO- Non Governmental Organization
24. NFSM-National Food Security Mission
25. NFSMEC-National Food Security Mission Executive Committee
26. NLMT-National Level Monitoring Team
27. NMAET - National Mission on Agricultural Extension & Technology
28. NMOOP ï National Mission on Oilseeds &Oilpalm
29. NMSA- National Mission for Sustainable Agriculture
30. NRM- Natural Resource Management
31. PMKSY-Pradhan Mantri Krishi Sichai Yojna
32. RCT-Resource Conservation Technology
33. RVSKVV- RajmataVijayarajeScindiaKrishiVishwavidyalaya
34. SAUs-State Agriculture University
35. SDA- State Department of Agriculture
36. SFSMEC-State Food Security Mission Executive Committee
37. SRI- System of Rice Intensification
38. TA ï Technical Assistant

PREFACE

The Government of India, Department of Agriculture, Co-operation and Farmers Welfare, Ministry of Agriculture & Farmers Welfare is implementing various agricultural/development schemes/programmes like NFSM, NMOOP, BGREI, NMSA, RKVY, PKVY, PMKSY, NMAET (SMAM, SMSP & Extension Reforms/ATMA), NHM, PMFBY, SHC, e-NAM etc. During 2017-18 the major interventions are through NFSM, NMOOP and RKVY. To effectively monitor implementation at the field level, the Ministry has constituted a National Level Monitoring Team (NLMT) under the National Food Security Mission *(NFSM-Rice, Wheat, Pulses, Coarse Cereals and Commercial Crops)*. The NLMT comprises of the Director, Crops Development Directorates (Directorate of Pulses Development) 02 Principal/Sr. Scientists/Subject Matter Specialist ICAR/SAUs, and the State Mission Director (NFSM) as Nodal Officer.

The Terms of Reference of Central Team suggests mandatory monitoringonce in each crop season; to conduct in-depth inspection of the executed activities in consonance to Missionôs mandate and approved action plan, Local Initiatives; quantitative and qualitative achievements and impact of the Transfer of Technology (ToT) delivery mechanism in totality taking all CSS/CS/State plan schemes in a district into consideration and providing observations and suggestions/recommendations for further necessary corrections (ATR) at the level of State Govt./State Stake-holders for better implementation of the Mission and desired mandated outcome.

The Team visited the State between October, 9th-14th2017. It visited 04 districts in 02 sample division of the M.P. Interacted with peoples representative MP/MLAs/ Janpad Panchayat Adhyaksh, progressing farmers, KVKs. The Team interacted with the farmers individually in the field and also by organizing/participating in *Kisan Gosthies*. *The report has tried to capture the impact of NFSM implementation, during XIIth five year plan over to XIth plan programme implementation.*

I am thankful to the Principal Secretary, Agriculture and Director, (Agri.), Govt. of Madhya Pradesh for facilitating the monitoring/visit and the respective Vice Chancellors of RVSKVV, Gwalior &JNKVV, Jabalpur for nominating experts/SMSs to represent the Team. I acknowledge the contribution of my technical officers, Dr. A.K. Shivhare, Assistant Director; Smt. Ashwini Bhoware, Technical Assistant and Dr. (Miss) Divya Sahare, Senior Technical Assistant, Bhopal in bringing out the report publication.

Bhopal (M.P.)
09th November, 2017

(A.K.Tiwari)
Director

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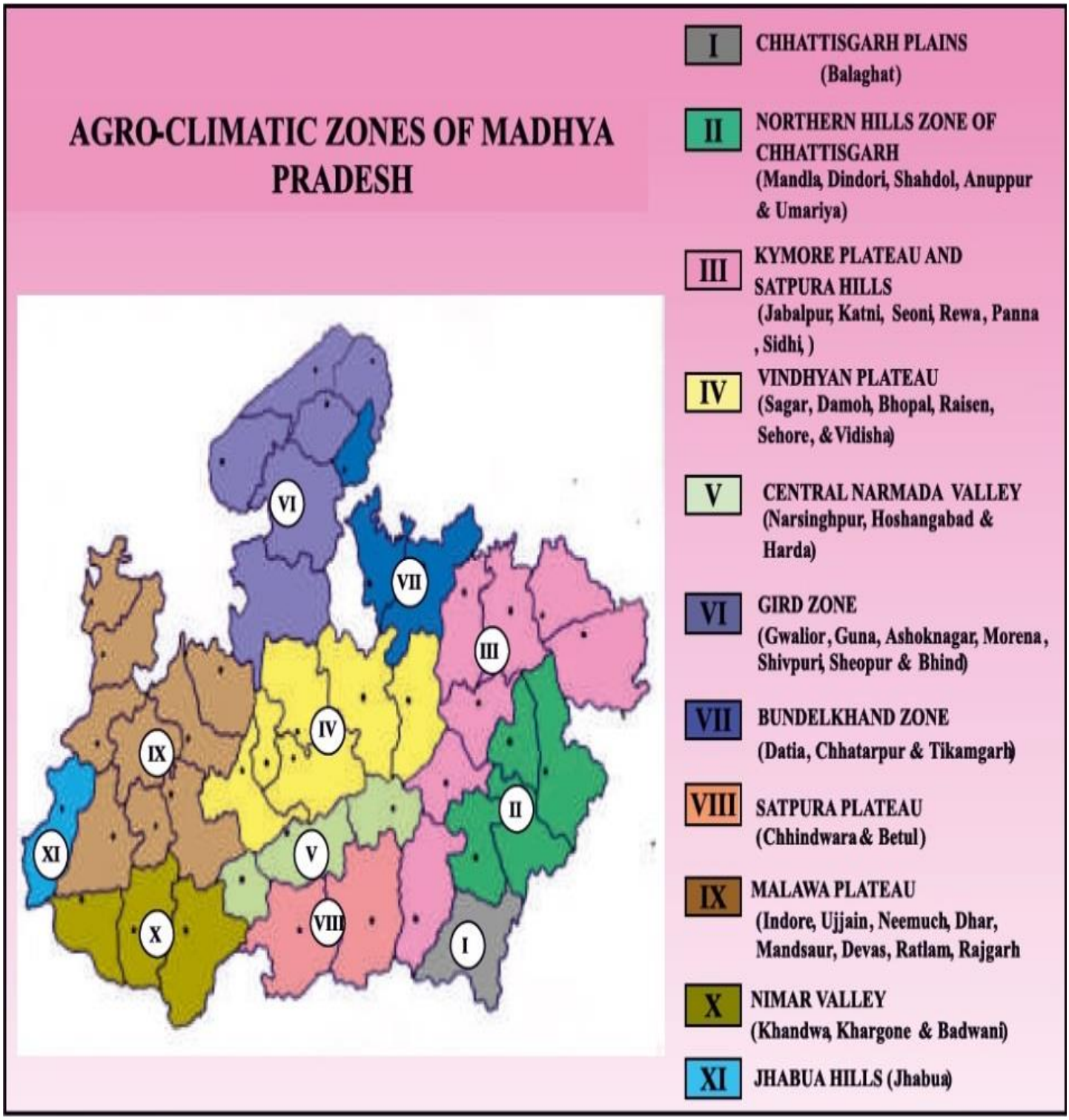
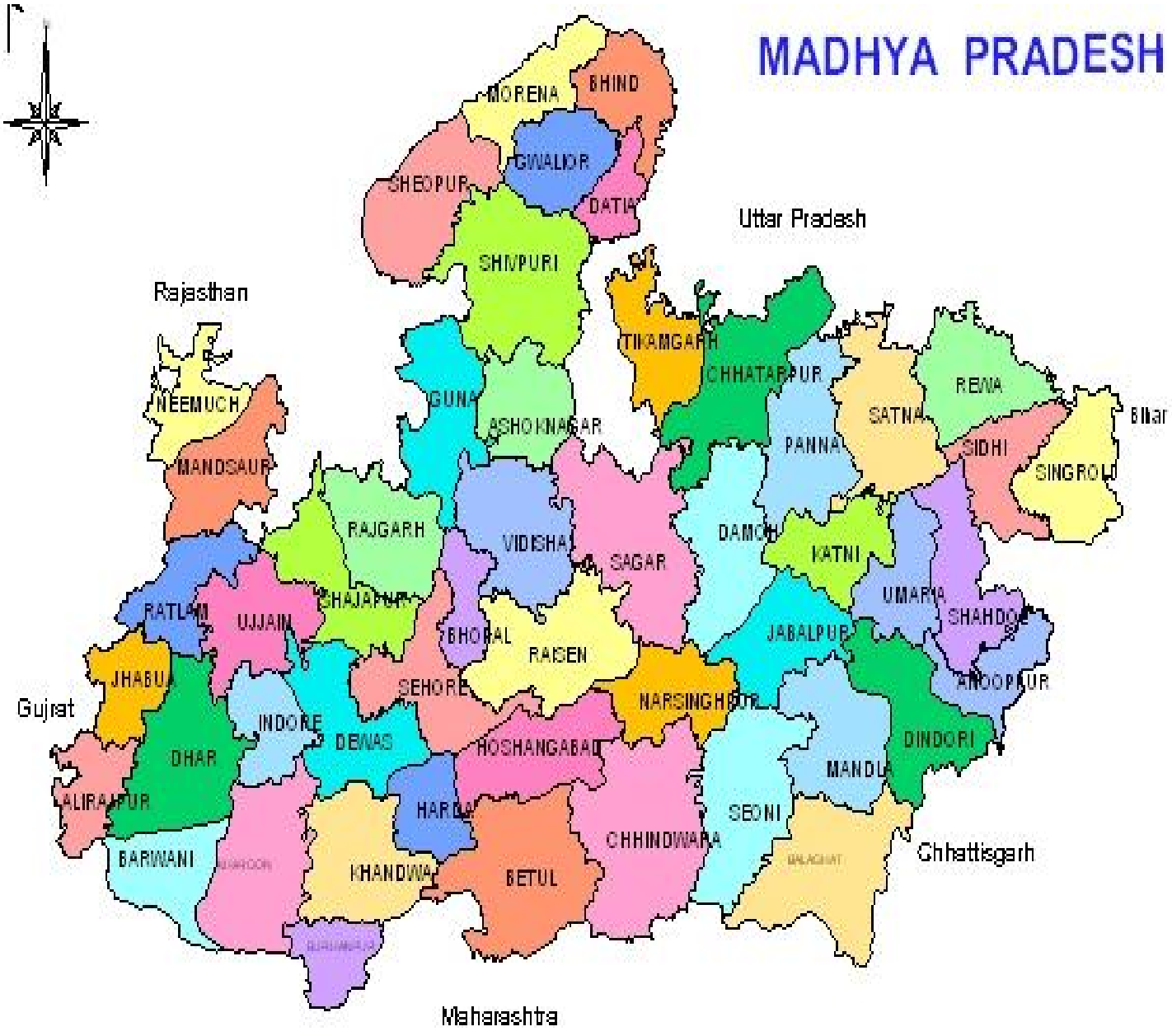
AGRO-CLIMATIC ZONE OF MADHYA PRADESH



DISTRICT MAP OF MADHYA PRADESH



NATIONAL LEVEL MONITORING TEAM (NLMT) REPORT ON THE IMPLEMENTATION OF NATIONAL FOOD SECURITY MISSION KHARIF 2017 (RICE, PULSES, COARSE CEREALS AND COMMERCIAL CROPS) IN THE STATE OF MADHYA PRADESH.

1. NFSM: BACKGROUND

1.1 The National Food Security Mission, a Centrally Sponsored Scheme (CSS) on Crop/commodity development programmes for Rice, Wheat and Pulses was launched during the 11th five year plan (2007-08 to 2011-12) consequent upon the recommendation of 53rd Meeting of National Development Council dated May 29th, 2007.The Mission envisaged to achieve additional food-grain production of 20 million tonnes from the base year 2006-07 consisting of Rice, Wheat & Pulses by 10, 8 and 2 million tonnes respectively by the end of Eleventh Plan (2011-12). During 2011-12, the all India food grains production was 259.29 million tonnes, a hike of 42 MT additional production from the base year 2006-07. An Additional increase of 11, 19 and 2.89 million tonnes under rice, wheat and pulses respectively was recorded. Increase in per hectare yield of pulses was 87 kg (612 kg to 699 kg/ha) while increase in wheat and rice was 469 kg (3177 kg/ha) and 272 kg/ha (2393 kg).

1.2 During 12th Plan, the NFSM with the other four Missions, viz. NMAET, NMSA, NMOOP & MIDH is continued. The pattern of Central assistance under NFSM has been 100 per cent up-till 2014-15.

1.2.1 The Twelfth Plan NFSM (2012-13 to 2016-17), revamped from 2014-15 and is under implementation with five components *viz.* i) NFSM- Rice, ii) NFSM-Wheat, iii) NFSM-Pulses, iv) NFSM-Coarse Cereals (millets) and v) NFSM-Commercial Crops (Jute, Cotton, Sugarcane).

1.2.2 A target of an additional production of 25 million tonnes of food grains i.e. from 259.29 MT to 284.29 over the base year of XIth Plan (*i.e.* 2011-12) comprising Rice-10 million tonnes, Wheat - 08 million tonnes, Pulses - 04 million tonnes & Coarse Cereals-03 million tonnes, is targeted to be achieved at the end of 12th Plan (2016-17). The IVth advanced estimate records a total food grain production of 275.68 MT comprising Rice (110.15 MT), Wheat (98.38 MT), Pulses (22.95 MT) and Coarse Cereals (44.19 MT). An Additional increase of 4.85, 3.50, 5.86 and 2.18 Million Tonnes under Rice, Wheat, Pulses and Coarse Cereals respectively was recorded.

1.2.3 The existing Centrally Sponsored Scheme have also been rationalized and 03 schemes viz. (i) Krishi Unnati Yojana (ii) National Crop Insurance Programme (NCIP) and (iii) Pradhan Mantri Krishi Sinchai Yojana (PMKSY) are operational since 2015-16. NFSM-2015-16 is a part of Krishi Unnati Yojana (State Plan). From 2017-18, the revamped NFSM under State Plan Scheme ï Krishi Unnati Yojana (State Plan) with interim sharing pattern of 60:40 and 90:10 for NE & hilly states between Centre and State is under implementation in 29 states.

1.2.4 A total share of Rs. 2553.83 Crore (including commercial crops) with a central share 1615.13 and State share-938.70 Crore has been approved during 2017-18. For pulses Rs. 1623.92 Crore (Central- 1006.67 + State-616.29); for Rice Rs. 464.28 Crore (Central-306.19 + State-158.09); for Wheat Rs. 195.55 Crore (Central- 123.04 + State- 72.51); for NFSM Coarse Cereals Rs. 234.46 Crore (Central- 155.58 + State-78.88) and NFSM Commercial Crops a total of 36.57 Crore (Central- 23.64 + State-12.93) comprises with Sugarcane 11.55 Crore (Central-7.00 + State-4.56); for Cotton 12.50 Crore (Central-7.74+ State-4.76); for Jute 12.52 Crore (Central-8.90+ State-3.62).

1.2.5 The total NFSM allocation during 2017-18 was for Madhya Pradesh is 455.81 Crore with a Central Share of Rs. 273.48 and Stateôs share of Rs. 182.32 Crore. For NFSM Pulses the total share is Rs. 386.66 Crore (Central ï Rs. 232.00 + State ï Rs. 154.67 crore); for NFSM Rice Rs. 17.93 Crore (Central- Rs. 10.76 + State ï Rs. 7.17 crores); for Wheat Rs. 35.66 Crore (Central- Rs. 21.39 + State ï Rs. 14.26 crores); for Coarse cereals Rs.14.22 Crore (Central- Rs. 8.53 + State ï Rs. 5.69 crores); For Sugarcane Rs. 0.33 Crore (Central- Rs. 0.20 + State-Rs. 0.13 Crore); for Cotton Rs. 1.00 (Central- Rs. 0.60 + State Rs. 0.40 Crore).

1.3 The basic strategy of the Mission is to focus on low productivity high potential districts, promote and extend improved technology package, implementation of cropping system centric interventions on technological package, agro-climatic zone wise planning and cluster approach demonstrations, Further 30% of total demonstrations would be Cropping System Based Demonstration (CSBD) with technical backstopping of ICAR/State Agricultural Universities (SAUs)/ on Rice, Wheat, Pulses; distribution of certified HYV seeds/Hybrid seeds, Resource Conservation Technology (RCT) tools, irrigation machineries/MIS, trainings and undertaking Local Initiatives to the tune of 9% of total budgetary allocation to improve productivity.

1.3.1 Special emphasis has also to be given by targeting reclamation of problematic soils, water logging areas and mitigation of adverse effects of climate change for high productivity areas, value chain integration (FPOs) and assistance to Custom Hiring Centre (CHCs). 30% of budgetary allocation has to be earmarked for women beneficiaries. To ensure equity, of the total budgetary allocation to a district proportionate expenditure under Special Component Plan (SCP) for SCs, Tribal Sub Plan (TSP) ï SMF and Women farmers at 16%, 8%, 33% and 30% respectively is mandatory.

1.3.2 Strengthening of infrastructure at ICAR/SAUs/ATARI/KVKs by *Breeder Seed Production Programme, Seed hubs, Cluster Front Line Demonstration.*

2. AREA OF OPERATION (2017-18)

Sl. No.	Commodities	All India		Madhya Pradesh Districts (No.)
		States (No.)	Districts (No.)	
i.	NFSM-Wheat (Area >50000 ha; Yield<state Avg.)	11	126	16
ii.	NFSM-Pulse	29	638	51
iii.	NFSM-Rice (all districts of NE states with 5000 ha area)	25	206	8
iv.	NFSM- Coarse cereals (Maize, Small Millet, Pearl Millet etc.) (districts covering 70% of state area)	28	265	16
v.	NFSM-Commercial Crops i) Cotton, ii) Sugarcane iii) Jute	 15 13 09		 10 13 -

3. MONITORING MECHANISM/MISSION STRUCTURE

Monitoring	Body	Composition	Review Meeting / Visit
National Level	i) General Council (GC)	Minister of Agriculture - Chairman Mission Director - Member Secretary (NFSM)	Twice a year
	ii) NFSM-Executive Committee (NFSMEC)	Secretary (A & C)- Chairman Secretary (DARE)&DG (ICAR) Secretary (MoWR) / (Deptt. of Fertilizer) / (MoPR)/(MoTA)/(Deptt. of Social Justice & / Empowerment) / (MoW&CD) Adviser (Agriculture), NITI AYOG Agriculture Commissioner Five Experts - Member Mission Director - Member Secretary	Quarterly
	iii) National Level Monitoring Team	Director CDDs- Co-ordinator Scientist SAUs/JDA ï Member	Twice a year (Kharif + Rabi)
State Level	State Food Security Mission Executive Committee (SFSMEC) Monitoring Committee	Chief Secretary ï Chairman State Mission Director - Member Secretary State Mission Director ï Chairman SAU ï Member DPD/CDD Govt. of India ï Member SSC ï Member State Certification ï Member Lead Bank/ NABARD ï Member IISS/CIAE/NISR/DWR ï Member	Twice a year (Kharif + Rabi)
District Level	District Food Security Mission Executive Committee	District Collector/CEO-Chairman Jila Parishad DDA/DAO -Member Secretary	Quarterly

4. NLMT OF MP : COMPOSITION

S. No.	Organization	Names and Designation
i.	Government of India Directorate of Pulses Development Ministry of Agriculture and Farmers Welfare (DAC&FW), Vindhyachal Bhavan, Bhopal.	Dr. A.K. Tiwari Director -Convenor/Team leader
ii.	Department of Entomology, College of Agriculture, JNKVV, Jabalpur (M.P.) Email-gk_koutu@yahoo.co.in	Dr. G.K. Koutu Principal Scientist (Rice) - Member (Mob.No.-9424676726)
iii	Department of Entomology, College of Agriculture, RVSKVV,Gwalior (M.P) Email-sharma.sandeep1410@gmail.com	Dr. Sandeep Sharma , Principal Scientist (Plant Protection) - Member (Mob.No.-9303133157)
iv	Government of Madhya Pradesh Deptt. of Farmers Welfare and Agriculture Development (Jabalpur/Hoshangabad Division)	Joint Director (NFSM) - Member

5. STATE PROFILE: MADHYA PRADESH

Particulars	Status
Population (Crore)	7.27 (Male- 3.77, Female-3.51)
Population Growth (%)	20.35 - 2011
Revenue Districts (Nos.)	51
Block/Janpad Panchayat (Nos.)	313 (89 Tribal Blocks)
Village Panchayat (Nos.)	23006
Tehsil (Nos.)	364
Total Village (Nos.)	54903
Krishi Upaj Mandi (Nos.)	520
Annual Rainfall (Ave.)	1200 mm

Land Use Pattern (Area : lakh ha)		Agricultural land use (Area -lakh ha)	
Geographical Area	**307.56**	Net sown area	154.55
Cultivable area	158.72 (51.60%)	Double Cropped Area	83.62
Forest area	85.88 (27.92%)	Gross cropped area	238.17
Land under non-agricultural use	19.92 (6.48%)	Kharif Area	152.52
Permanent pastures	13.48 (4.38%)	Rabi Area	85.65
Cultivable wasteland	8.67 (2.82%)	Cropping Intensity	156 %
Barren and uncultivable land	14.06 (4.57%)		
Current fallows	7.69 (2.50%)		

Particulars		Status		
Operational Land Holding (Area : Lakh ha, Number-Lakh)				
Average Size of Social Groups		**Average Size (ha)**	**Numbers (%)**	**Area (%)**
Marginal	(< 1 ha)	0.49	38.91 (43.85)	19.15 (12.09)
Small	(1 to 02 ha)	1.42	24.49 (27.60)	34.66 (21.89)
Semi Medium	(02 to 04 ha)	2.73	16.55 (18.65)	45.10 (28.48)
Medium	(04 to 10 ha)	5.76	7.89 (8.90)	45.45 (28.70)
Large	(10 ha & Above)	15.73	0.89 (1.00)	14.00 (8.84)
Total		**1.78**	**88.73**	**158.36**
Irrigation (lakh ha)			**Sources of Irrigation (Area : lakh ha)**	
Net irrigated area		85.50 (64%)	Canals	10.91 (17 %)
Gross irrigated area		89.65	Tanks	1.49 (2.34 %)
Rainfed area		60%	Open wells	24.03 (37.75%)
			Bore wells/Tube Wells	17.93 (28.17%)
			Other Sources	14.25 %
			Total Irrigated Area	**63.65**
Major Soils (Area - lakh ha)				
1. Alluvial Soil		33.5	2.Deep Medium black soils	162.1
3. Shallow & Medium Black Soil		30.6	4. Mixed Red & Black Soil	81.1
Major Crops				
% Share to TKA*	Soybean (42%), Paddy (16%), Urd (9%), Maize (9%), Tur (6%),			
% Share to TRA*	Wheat (55%),Gram (28%),Mustard(7%),Lentil (5%),Pea (2%),Linseed (1%).			
Ranking & % Share to TPI*	1st - Pulses (27%), Oilseeds (27%), Soybean (50%), Gram (39%), Niger (35%) 2nd - Lentil (33%), Pea (27%), Mustard (11%); 3rd - Arhar (17%), Wheat (18%)			
Development Programme under implementation				
NFSM	NFSM-Paddy (8) ; Wheat (16) ; Pulses (51); Coarse Cereals (16); Cotton (10); Sugarcane (8) PMT District-51			
NMOOP	Mini Mission I- (Oilseeds) Mimni Mission III- (TBOs)			

Source- ENVIS, Centre of M.P. State. TKA-Total Kharif Area; TRA* - Total Rabi Area; TPI*- Total Production in India

6. SAMPLE DISTRICTS PROFILE

Particulars	Narsinghpur	Seoni	Chhindwara	Betul
Population (2011 Census) (Crore)	0.10 (0.05-M;0.05F)	0.13 (0.07 M;0.06 F)	0.20 (0.10 M;0.10 F)	0.15 (0.08 M; 0.07 F)
Block/Janpad Panchayat	06	08	11	10
Village Panchyat	455	645	804	556
Tehsil	05	08	12	08
Total Villages	1075	1593	1996	1409
Krishi Upaj Mandi	05	06	05	03
Annual Rainfall (mm)	1243.1	1317.6	1010.0	1081.3
Land Use Pattern (000 Ha)				
Geographical Area	513.6	875.4	1184.9	1007.8
Cultivable area	312.9 (60.9%)	426.7 (48.7%)	555.5 (46.9%)	404.0 (40.1%)
Forest area	136.5 (26.6%)	328.2 (37.5%)	479.5 (40.5%)	396.7 (39.4%)
Land under non-agricultural use	24.7 (4.8%)	48.2 (5.5%)	53.6 (4.5%)	46.8 (4.6%)
Permanent pastures	23.7 (4.6%)	20.1 (2.3%)	52.0 (4.4%)	27.3 (2.7%)
Cultivable wasteland	14.6 (2.8%)	40.20 (4.6%)	17.6 (1.5%)	40.9 (4.1%)
Barren and uncultivable land	1.0 (0.2%)	12.0 (1.4%)	26.7 (2.3%)	26 (2.6%)
Current fallows	3.9 (0.8%)	27.50 (3.1%)	40.7 (3.4%)	30.6 (3.0%)
Other Fallows	5.3 (1.0%)	27.5 (3.1%)	30.4 (2.6%)	34.9 (3.5%)
Agricultural Land Use (000 ha)				
Net sown area	303.7 (78.2%)	371.7 (75.3%)	484.4 (78.1%)	404.6 (72.1%)
Double Cropped Area	84.7 (21.8%)	122.0 (24.7%)	135.5 (21.9%)	156.5 (27.9%)
Gross cropped area	388.4	493.7	619.9	561.1
Cropping Intensity (%)	128%	133%	128%	139%
Irrigation (000 Ha)				
Net irrigated area	177.8	113.7	126.8	156.5
Gross irrigated area	178.5	113.7	150.4	162.4
Rainfed area(To Cultivable Area)	125.9	258.0	357.6	147.5
Source of Irrigation (000 Ha)				
Canals (Nos.)	1.1	56.8	10.8	18.9
Tanks (Nos.)		8.9	4.2	0.2
Open wells (Nos.)	92.7	31.8	92.8	71.6
Bore wells/ Tube Wells (Nos.)	77.3	3.3	36.7	12.6
Other Sources (Nos.)	7.40	13.2	5.90	12.6
Total Irrigated Area				
Major Crops				
Kharif	Soybean, Tur, Urd, Rice, Jowar	Rice, Soybean, Kodo, Maize, Tur	Soybean, Maize, Cotton, Sorghum, Rice	Soybean, Jowar, Maize, Rice, Tur , Niger
Rabi	Gram, Wheat, Lentil, Sugarcane, Pea	Wheat, Gram, Lentil, Linseed, Field Pea	Wheat, Gram, Sugarcane, Pea	Wheat, Gram, Sugarcane, Pea, Lentil

7.0 PRODUCTION SCENARIO: PLAN ANALYSIS (XITH- XIITH PLAN)

7.1 KHARIF PULSES

(A-Lakh ha, P-Lakh tonnes, Y-kg/ha)

S. N.	Crops	State/ AI	XI Plan			XII Plan			% Share in XII Plan			Increase/decrease over XI Plan		
			A	P	Y	A	P	Y	A	P	YI	A	P	Y
A	**Cereals**													
1	Paddy	MP	15.90	16.56	1041	20.50	33.90	1654	4.71	3.19	68	28.90	104.67	59
		AI	**436.53**	**972.49**	**2228**	**434.84**	**1061.85**	**2442**				**-0.39**	**9.19**	**10**
2	Jowar	MP	4.57	5.93	1297	2.37	4.38	1848	4.03	8.66	215	-48.18	-26.17	42
		AI	**73.42**	**69.71**	**949**	**58.75**	**50.49**	**859**				**-19.98**	**-27.56**	**-9**
3	Bajra	MP	1.72	2.79	1616	2.30	4.84	2103	3.11	5.37	173	33.60	73.86	30
		AI	**91.24**	**92.03**	**1009**	**74.05**	**90.20**	**1218**				**-18.84**	**-1.99**	**21**
4	Maize	MP	8.49	11.32	1333	10.41	21.75	2088	11.45	9.11	80	22.60	92.04	57
		AI	**85.46**	**203.65**	**2383**	**90.97**	**238.79**	**2625**				**6.45**	**17.26**	**10**
5	Small millet	MP	2.80	0.84	300	1.80	0.87	481	27.53	20.81	76	-35.79	2.93	60
		AI	**8.80**	**4.57**	**519**	**6.53**	**4.16**	**637**				**-25.83**	**-8.97**	**23**
6	*Kha. Coarse Cereals	MP	17.59	20.88	1187	16.93	31.85	1882	7.00	7.94	113	-3.76	52.59	59
		AI	**272.20**	**390.73**	**1435**	**241.74**	**401.38**	**1660**				**-11.19**	**2.73**	**16**
7	Total Cereals	MP	33.49	37.44	1118	37.43	65.76	1757	5.53	4.49	81	11.75	75.63	57
		AI	**708.73**	**1363.22**	**1923**	**676.58**	**1463.23**	**2163**				**-4.54**	**7.34**	**12**
Kharif Coarse Cereals incl. (Jawar, Bajra, Maize, Ragi, Small Millets)														
B	**Pulses**													
1	Arhar	MP	4.06	2.57	632	5.57	5.20	934	13.26	16.09	121	37.13	102.74	48
		AI	**37.90**	**26.66**	**703**	**42.00**	**32.33**	**770**				**10.84**	**21.28**	**9**
2	Urd	MP	5.15	1.83	354	8.38	4.64	553	31.03	31.57	102	62.59	153.85	56
		AI	**23.24**	**11.09**	**477**	**27.01**	**14.69**	**544**				**16.20**	**32.45**	**14**
3	Moong	MP	0.83	0.27	328	1.49	0.67	448	5.99	6.50	109	79.94	145.48	36
		AI	**26.41**	**10.50**	**397**	**24.90**	**10.27**	**413**				**-5.71**	**-2.12**	**4**
4	Kulthi	MP	0.23	0.07	301	0.17	0.06	385	6.97	5.82	84	-28.26	-8.24	28
		AI	**3.29**	**1.43**	**433**	**2.39**	**1.10**	**461**				**-27.54**	**-22.87**	**6**
5	*Other Pulses	MP	0.05	0.01	310	0.05	0.03	553	0.33	0.46	139	12.80	100.87	78
		AI	**20.69**	**7.70**	**372**	**15.58**	**6.19**	**397**				**-24.69**	**-19.69**	**7**
6	Total Pulses	MP	10.32	4.75	460	15.66	10.60	677	14.00	16.41	117	51.71	123.21	47
		AI	**111.53**	**57.37**	**514**	**111.88**	**64.57**	**577**				**0.31**	**12.56**	**12**
Other Pulses incl.(Mothbean, Other & Other Pulses)														
C.	**Oilseeds**													
1	Soybean	MP	53.45	61.37	1148	58.45	62.70	1073	51.74	52.69	102	9.35	2.16	-7
		AI	**95.70**	**111.60**	**1166**	**112.96**	**119.00**	**1053**				**18.03**	**6.63**	**-10**
2	G.Nut	MP	2.00	2.56	1277	2.27	3.58	1577	4.72	5.14	109	13.38	40.01	23
		AI	**58.15**	**74.06**	**1274**	**48.13**	**69.69**	**1448**				**-17.23**	**-5.90**	**14**
3	Sesamum/ Til	MP	2.46	1.12	456	3.37	1.80	534	19.17	23.08	120	37.13	60.77	17
		AI	**19.07**	**7.38**	**387**	**17.58**	**7.80**	**444**				**-7.81**	**5.72**	**15**
4	Niger/ Ramtil	MP	1.15	0.24	212	0.72	0.25	352	26.64	29.07	109	-37.44	4.21	67
		AI	**3.87**	**1.08**	**280**	**2.69**	**0.87**	**323**				**-30.47**	**-19.69**	**16**
5	Total Oilseeds	MP	59.06	65.29	1106	64.81	68.33	1054	35.73	31.28	88	9.73	4.66	-5
		AI	**176.79**	**194.13**	**1098**	**181.36**	**218.44**	**1204**				**2.58**	**12.52**	**10**
D	Cotton*	MP	6.44	13.15	347	5.99	25.19	715	5.55	7.73	139	-7.05	91.52	106
		AI	**105.05**	**283.82**	**459**	**108.00**	**325.76**	**513**				**2.81**	**14.78**	**12**
*** Thousand bales of 170 kgs each.**														

Source: DES, M/A, GoI (XIIth Plan* : Average of 2012-13 to 2016-17)

Kharif Impact Analysis: The comparative analysis of crop performance during the XIth Plan period and XIIth Plan period reveal that the NFSM interventions since 11th Plan has paid dividends in the production and yield of Paddy which is 104% and 59% higher during XIIth Plan over its previous five year Plan and also seen under Bajra (33%, 73% and 30%) and Maize (22%, 92% and 57%) with an

increase in area, production and yield respectively. The other pulses & oilseeds crops also replaced through diversification by Arhar, Urd Mung, Groundnut and Til in kharif season are Jowar (> 48%), Small Millets (> 35%), Kulthi (> 28%), Niger (> 37%) and Cotton (> 7%) of concerned here. The production trend for kharif crops has shown an increasing trend in Paddy, Bajra, Maize, Arhar, Urd, Mung, G.Nut and Til. As regards the per hectare yield, quantum jump has been recorded under Cotton, Niger, Paddy, Maize, Urd and Arhar at > 104, 67, 59, 57, 56 and 48 % respectively.

7.2 RABI PULSES

(A-Lakh ha, P-Lakh tonnes, Y-kg/ha)

S. No.	Crops	State/ AI	XI Plan			XII Plan*			% Share in XII Plan			Increase/decrease over XI Plan		
			A	P	Y	A	P	Y	A	P	YI	A	P	Y
A.	**Cereals**													
1	Wheat	MP	42.07	80.26	1908	57.07	157.28	2756	18.64	16.89	91	35.65	95.97	44
		AI	**286.38**	**843.65**	**2946**	**306.13**	**931.21**	**3042**				**6.90**	**10.38**	**3**
2	Barley	MP	0.75	1.02	1363	0.94	1.67	1775	14.04	9.94	71	26.30	64.42	30
		AI	**6.58**	**15.06**	**2289**	**6.72**	**16.84**	**2508**				**2.13**	**11.86**	**10**
3	Total Cereals	MP	42.81	81.28	1898	58.01	158.96	2740	18.54	16.77	90	35.49	95.57	44
		AI	**292.95**	**858.71**	**2931**	**312.85**	**948.06**	**3030**				**6.79**	**10.41**	**3**
B.	**Pulses**													
1	Urd	MP	0.07	0.02	348	0.10	0.05	500	1.23	0.79	65	46.20	110.08	44
		AI	**7.63**	**3.99**	**523**	**8.15**	**6.31**	**775**				**6.79**	**58.22**	**48**
2	Moong	MP	0.03	0.01	239	1.01	0.49	487	10.57	8.76	83	3174	6582	104
		AI	**7.54**	**3.34**	**443**	**9.60**	**5.64**	**588**				**27.40**	**68.85**	**33**
3	Kulthi	MP	0.00	0.00	296	0.002	0.001	333	0.07	0.04	65	-62.65	-57.91	13
		AI	**2.11**	**1.08**	**512**	**2.25**	**1.15**	**513**				**6.54**	**6.66**	**0**
4	Gram	MP	29.04	27.61	951	30.76	34.67	1127	34.46	41.06	119	5.92	25.59	19
		AI	**82.18**	**72.42**	**881**	**89.28**	**84.43**	**946**				**8.63**	**16.58**	**7**
5	Lentil	MP	5.50	2.33	424	5.65	3.70	655	41.03	35.56	87	2.68	58.59	54
		AI	**14.64**	**9.60**	**655**	**13.77**	**10.41**	**756**				**-5.94**	**8.42**	**15**
6	Lathyrus	MP	0.47	0.31	654	0.43	0.36	827	9.26	9.54	103	-7.64	16.79	26
		AI	**5.16**	**3.42**	**662**	**4.69**	**3.76**	**803**				**-9.19**	**10.14**	**21**
7	Peas	MP	2.34	0.96	412	3.48	2.80	804	38.65	33.00	85	49.07	191.15	95
		AI	**7.16**	**6.22**	**869**	**9.01**	**8.49**	**942**				**25.95**	**36.48**	**8**
8	*Total Pulses	MP	37.49	31.25	834	41.37	41.42	1001	29.44	33.83	115	10.35	32.55	20
		AI	**133.57**	**104.52**	**783**	**140.55**	**122.42**	**871**				**5.23**	**17.13**	**11**
Total Pulses incl. (Other Pulses)														
C.	**Oilseeds**													
2	Rapeseed /Mustard	MP	7.22	7.69	1065	7.17	8.11	1131	11.64	10.96	94	-0.76	5.41	6
		AI	**61.01**	**68.85**	**1128**	**61.59**	**73.97**	**1201**				**0.95**	**7.44**	**6**
3	Linseed	MP	1.19	0.46	390	1.14	0.57	504	38.78	39.50	102	-4.17	23.82	29
		AI	**3.80**	**1.57**	**413**	**2.93**	**1.45**	**495**				**-22.94**	**-7.71**	**20**
4	Total Oilseeds*	MP	8.43	8.16	968	8.45	8.70	1030	10.88	9.27	85	0.21	6.54	6
		AI	**90.95**	**95.36**	**1048**	**77.65**	**93.86**	**1209**				**-14.63**	**-1.57**	**15**
D	Sugarcane	MP	0.68	28.07	41023	0.88	41.23	46999	1.79	1.21	67	28.21	46.88	15
		AI	**47.14**	**3258.3**	**69119**	**48.98**	**3420.3**	**69834**				**3.90**	**4.97**	**1**
**** Total Oilseeds include: Safflower, Sunflower & Castor),*** **** Thousand Bales of 180 kgs each.**														

Source: DES, M/A, GoI (XIIth Plan* : Average of 2012-13 to 2016-17)

Rabi Impact Analysis: The comparative analysis of crop performance during the XIth Plan period and XIIth plan reveal that the NFSM interventions since 11th Plan has paid dividends in the production and yield of Wheat which is 95% and 44% higher during XIIth plan over its previous five year Plan and also seen under Sugarcane, Urd, Mung, Gram, Lentil and Peas crop with an increase in area at >28%, 73%, 3174%, 5%, 2%, and 49% whereas, increasing trend in production at 46%, 110%, 6582%, 25%, 58% and 191% respectively. The crops replaced through this diversification in rabi season are Kulthi (> 62%) Lathyrus (> 7%) and Linseed (> 4%) of concern here. The production trend for kharif crops has shown an increasing trend in Mung, Peas, Urd, Wheat, Barley, Lentil, Sugarcane and Lentil etc. As regards the per hectare yield, quantum jump has been recorded under Mung, Peas, Lentil, Wheat, Urd and Barley at > 106%, 95%, 54%, 44%, 35% and 30% respectively.

KHARIF CROP SCENARIO: XIth & XII th PLAN – MADHYA PRADESH

AREA (Lakh ha)

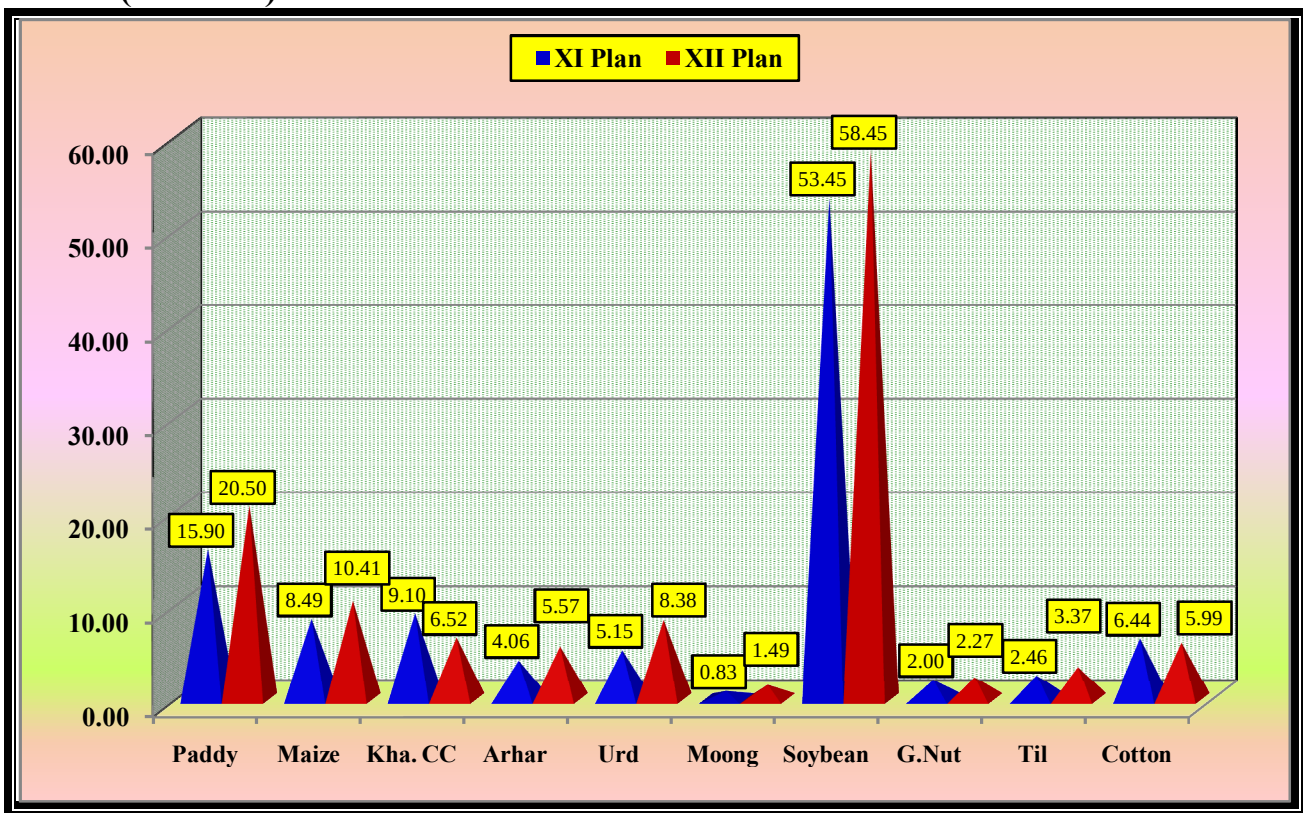


Fig. 01: Crop Coverage: Pre-NFSM (XIth Plan) and Post-NFSM (XIIth Plan)

PRODUCTION (Lakh Tones)

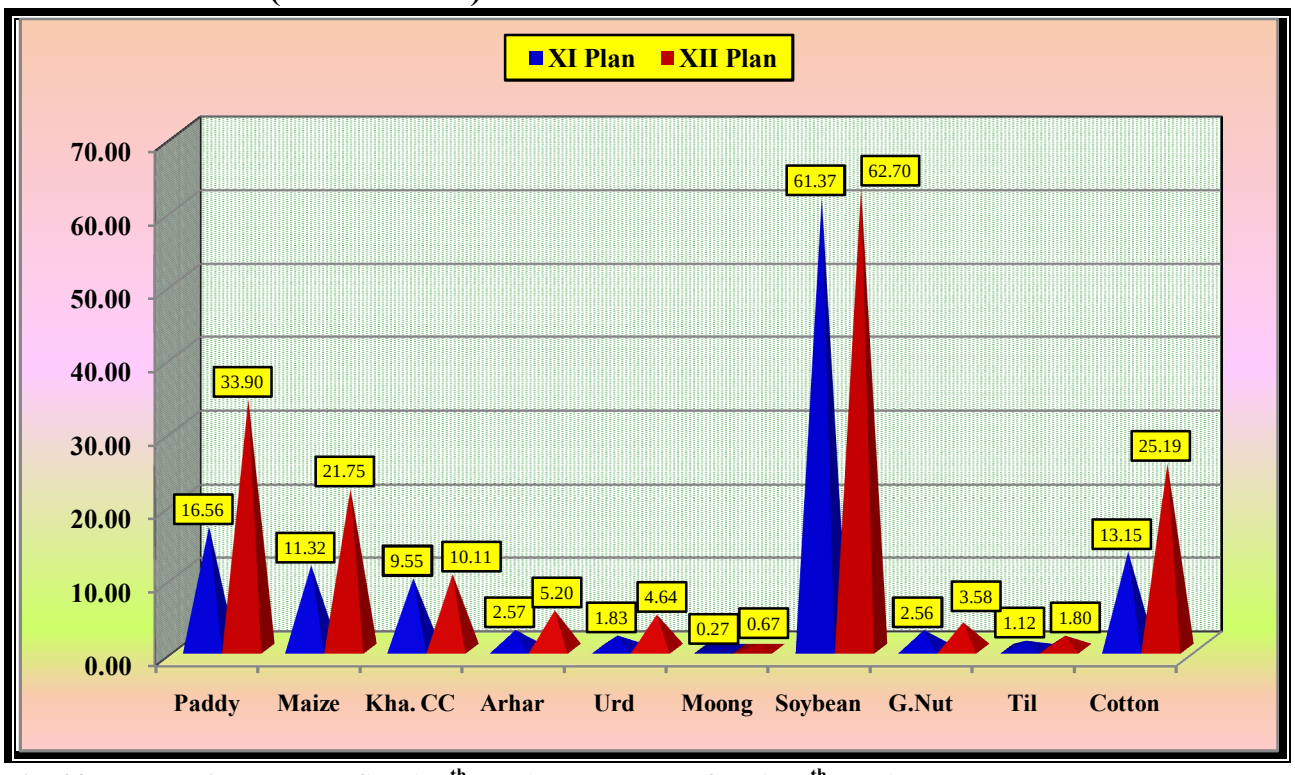


Fig. 02: Production: Pre-NFSM (XIth Plan) and Post-NFSM (XIIth Plan)

YIELD (kg/ha)

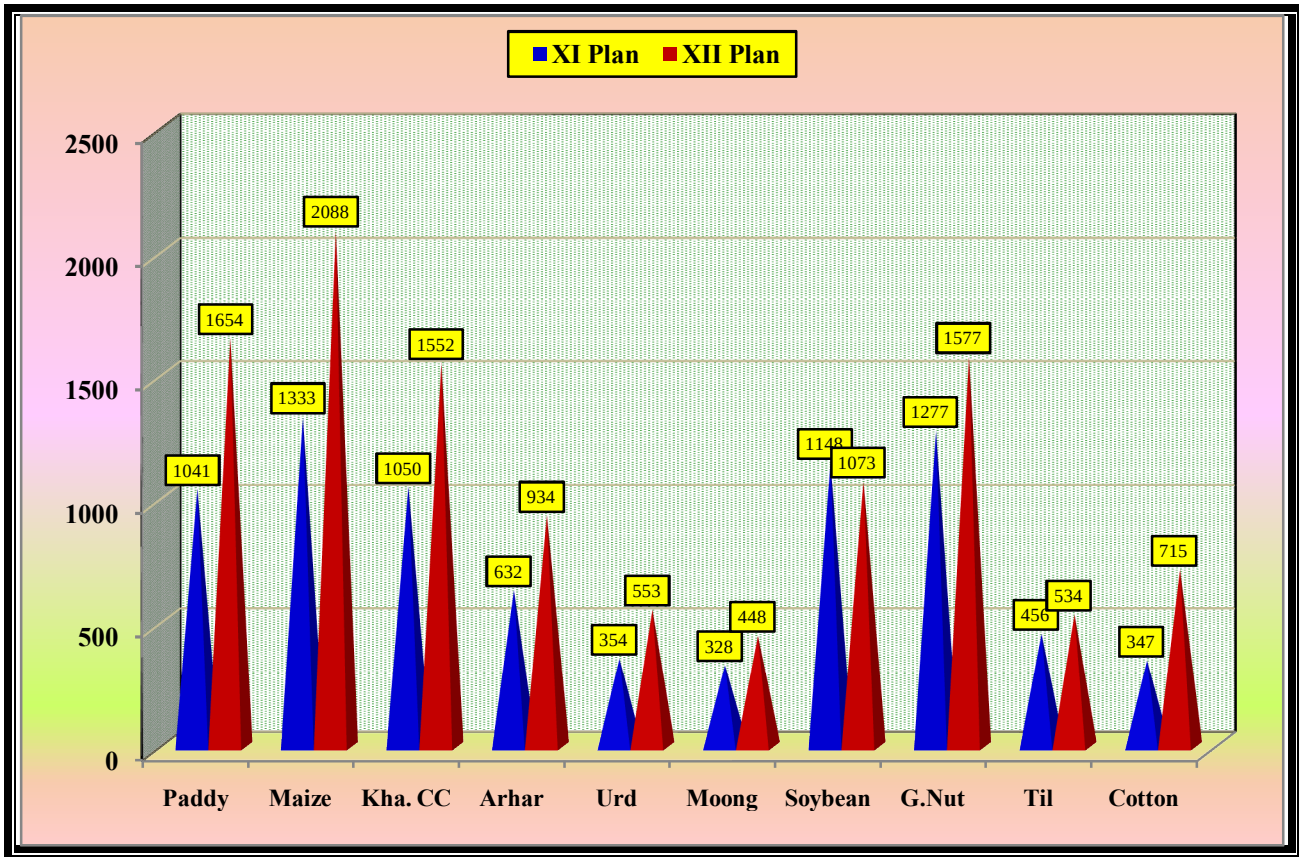


Fig. 03 : Yield: Pre-NFSM (XIth Plan) and Post-NFSM (XIIth Plan)

RABI CROP SCENARIO: XIth & XII th PLAN – MADHYA PRADESH AREA (Lakh ha)

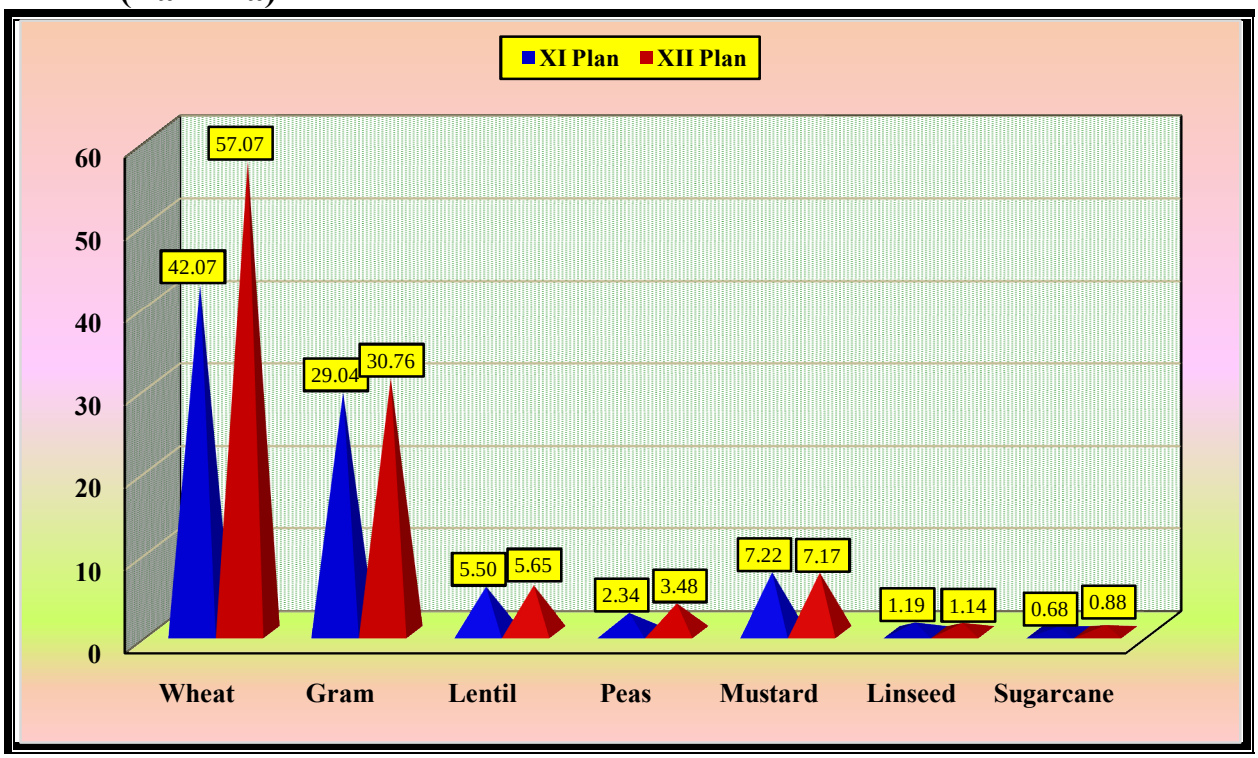


Fig. 04 : Crop Coverage: Pre-NFSM (XIth Plan) and Post-NFSM (XIIth Plan)

PRODUCTION (Lakh Tones)

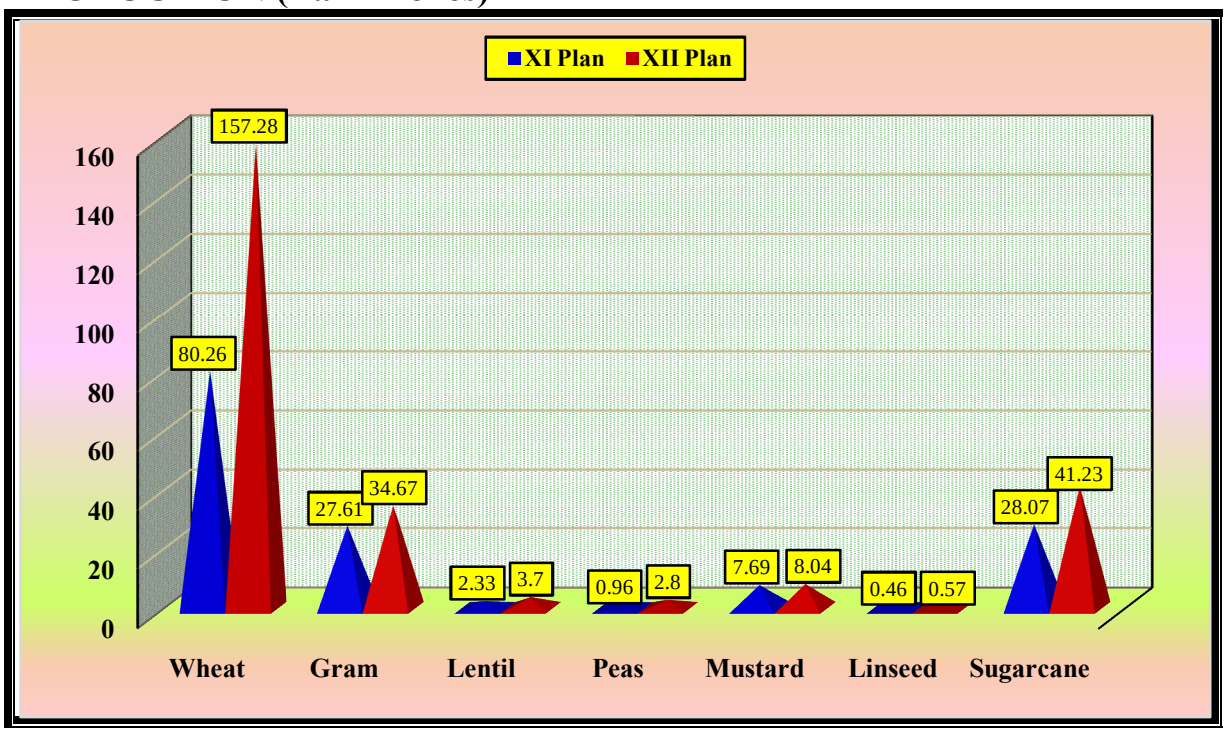


Fig. 05 : Production: Pre-NFSM (XIth Plan) and Post-NFSM (XIIth Plan)

YIELD (kg/ha)

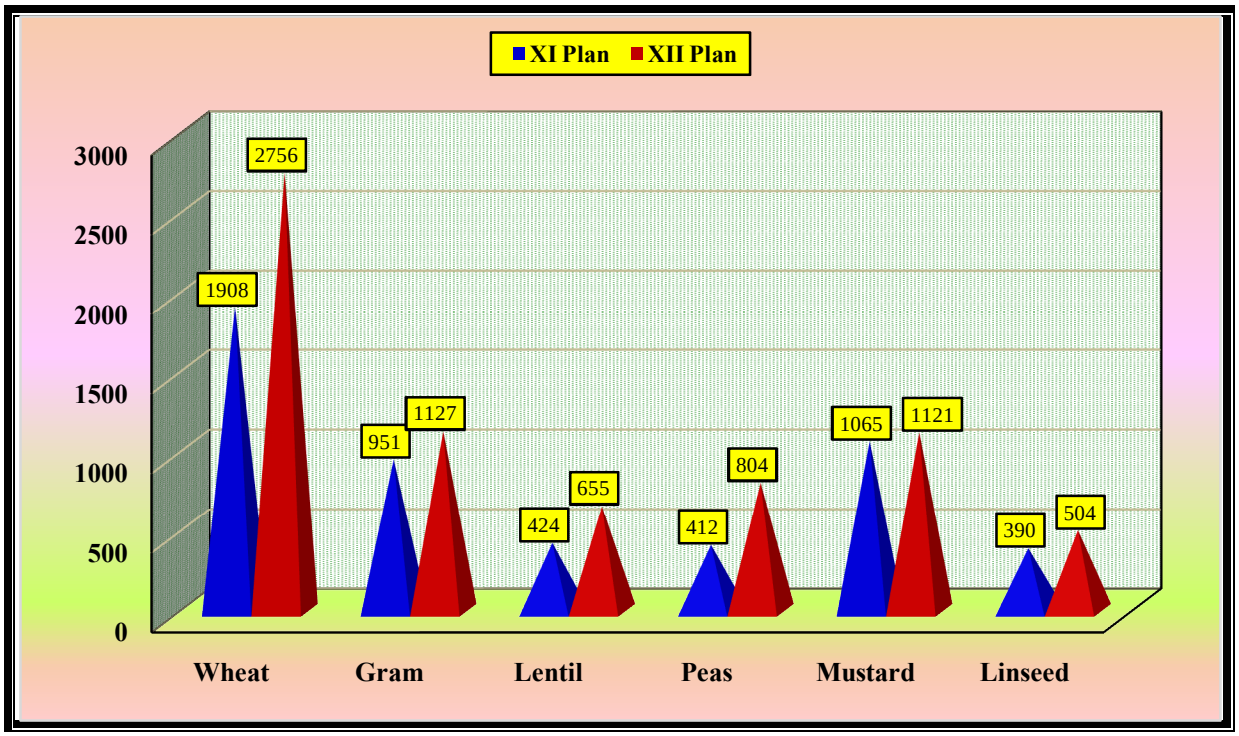


Fig. 06: Yield: Pre-NFSM (XIth Plan) and Post-NFSM (XIIth Plan)

8.0 DISTRICT-WISE FIELD VISIT OBSERVATIONS

District/Block	Village	Events organized/activity exhibited to NLMT	Observations/remarks
Narsinghpur	Chirchita	Cluster Demonstration of *soybean intercropped with Arhar under ridge and furrow method* and *intercropping of Sugarcane with Ginger*	• The demonstration has been found scattered and the cluster of 50 to 100 ha could not be followed. The control plot depicting the farmers practice was not included in most of the demonstrations. • The cluster demonstration of soybean variety JS 20-29 affected badly due to erratic rains followed by severe incidence of stem fly. The productivity of soybean is going down for the last 3-4 years. The Farmers are now willing to divert the soybean through maize. However, wild boar/wild animals is a major menace and need attention at local level. • The team observed intercropping of Sugarcane + Turmeric/Ginger. This technology found very remunerative (Rs. 70000-80000/acre). • Kharif Urd LBG-20 yielded 7.5 qtls/ha in the field of farmer- Shri. Krishna Pal Singh Lodhi, (M-9407839641).
Narsinghpur	Karakbel	Farmers participatory seed production of soybean following Ridge and Furrow method of planting. Demonstration on intercropping of soybean with arhar.	• The demonstration of soybean *var.* JS 20-29 planted under Ridge and Furrow technique (14ôdistance) with intercrop of arhar (Udisha- 1913, a selection of TJT-501 which matures in 150 days). Last year the same pigeonpea variety, in intercrop, yielded 24 qtls/ha. • The crop physiological stage is flowering, farmers also practiced nipping at 1ò height. • The farmer will harvest this pigeonpea during January and will take wheat (HD 2851, JW 3336, MP 1202, 1203) under late sown. • In another plot, soybean *cv.* RVS 2001-4 + pigeonpea *cv.* TJT-501. (2 rows of soybean+ 1 row of pigeonpea at 4.5 feet). This year the soybean crop suffered due to erratic rains followed by incidence of stem fly, however, the production under this plot was 13 qtls/ha. • The representative farmer of Sasya Manglam Seed Society Karakbel raised the problem of non lifting of produced seed. In arhar farmers did nipping twice at the age of 65 and 85 days gave profuse branching with more number of pods/plants. This practice needs to be demonstrated in other arhar growing districts of MP.

District/Block	Village	Events organized/activity exhibited to NLMT	Observations/remarks
Narsinghpur	Narsingh pur	KVK Seed Hub	• The team also monitored the Seed Hub Programme organized through KVKs. Overall the progress of Nasinghpur was not found satisfactory. The problem of lifting of produced seed was raised by the centre. This should be ensured by signing a MOU with District Agriculture Authority.
Narsinghpur/ Gotegaon	Bauchar /Aamgaon Bada/ Newari	Interactions/visit of seed society, Cluster demonstration of soybean with inter crop of arhar. Cluster FLD	• Shri Chandra Mohan Gupta (9425468540), President Balram Beej Utpadak Sahkari Samithi, engaged in seed production of tur (TJT-501), soybean (2001-4), gram (JG-16, JG-63). • The seed societies have requested for individual subsidy on *gravity separators* (approx. cost Rs. 2.00 lakh) and financial assistance/ soft loan for 1 year to facilitate purchase of seed from the members/seed growers. • Non-availability of graders at societies/ village level has also hampered the procurement of pulses on MSP due to non-FAQ. • The society also requested to exempt the 10 years binding on seed production for the varieties of oilseeds and pulses, the prominent and popular ones. Thus, the best/old varieties may therefore be re-notified. • The retention criteria *i.e.* retaining 70% of total seed quantity with the societies, also requested to be relaxed. • Pigeonpea variety TJT-501 has been taken, was sown during July, 1st week. • Row to row 2.5ôx7-8ò Crop condition is very good. • The field will vacate by 15th December. Late sown wheat variety JW 3336 has been advised to be taken in this field. • Electricity supply is hampered *i.e.* day supply 6 hrs, night supply 4 hrs. the farmers have requested at least 18 hrs supply of electricity. • Farmers gave the feedback of Lentil *cv.* PL-9 and PL-6 (yellow coloured), as poor yielder (PL-9 and PL-6 with yellow colour grain having no market preference. • Cluster demonstration with arhar variety TJT 501 with spacing of 75x 30 cm showed very good results.

District/Block	Village	Events organized/activity exhibited to NLMT	Observations/remarks
Narsinghpur/ Gotegaon	Bauchar /Aamgaon Bada/ Newari	Interactions with the farmers Custom Hiring Centre	• Shri Chandra Mohan Gupta (9425468540), proprietor of Gupta Custom Hiring Centre is providing implements to the farmers. • The Custom Hiring Centre has been opened under RKVY-2015 at a subsidy of Rs. 18,60,000. • The centre is running in profit. • The available machineries/implements are straw reaper (charges- @ Rs. *1200/ trolly* i.e. *6.5 qtls straw);* Raised Bed Planter *(charges-@Rs. 800/ acre);* Rotavator *(charges-@ Rs. 750/ha);* Reversible plough *(charges-@ Rs. 650/ha)*
Narsinghpur/ Kareli	Kartaj	Cultivation of organic Sugarcane with inter cropping (Ginger/Turmeric/ Vegetable Pea) Commercial propagation of sugarcane nursery (bud nursery) Cultivation of sugarcane with drip	• The team observed intercropping of Sugarcane with Turmeric/Ginger/Vegetable Pea with drip irrigation. • This technology saves 50-60 per cent water and found very remunerative (1.50 lakh/acre). • The team interacted with the farmer Shri Rakesh Dubey who conducted the demonstration. He informed the team that he is also involved in sugarcane seedling production of variety Co 81032 on commercial scale and supply the same out of the state. This needs to be popularize, especially the area where sugarcane is being grown using flood irrigation. This will help to reduce the water requirement of the crop. • Farmer- Shri Rakesh Dubey, (M.-9425448313) is commercially propagating sugarcane bud Nursery (var. CO-VSI 86032 Selection). Two way Power bud cutter is being used. 28-30 days Nursery (grown in coco-peat) has been planted. • 2.5 qtls/acre seed rate was used against 30 qtls/ acre in traditional planting under this technique. Cost of cultivation is reduced both, in terms of seed rate *i.e.* per acre *setts* and transportation and handling charges towards voluminuous quantity of setts *i.e.* (30 qtls/acre). • Bavaria basiana and pseudomonas was sprayed before planting • 5000-5200 buds/acre has been planted. The distance from row to row is 90-120 cms, based on the variety. • Pea variety PSM-5 has been intercropped by the farmer including ginger, turmeric etc. • The team has observed 62 tillers per hill under this drip supported cane cultivation.

District/Block	Village	Events organized/activity exhibited to NLMT	Observations/remarks
Narsinghpur/ Kareli	Kartaj	Cultivation of sugarcane with drip	• Under the bud nursery process, the mother shoot of 70-75 days old plant (including 30 days age during nursery) is being nipped/de-topped for taking the buds/preparation of nursery. • The farmer is running its own enterprise in the name of Kushal Mangal Jaivik Krishi, Kartaj, and is Manufacturer of Jaggery, handmade Brower sugar and vinegar. The plot of 36 acres is certified by MPSOCA, for organic production. The farmer is also trying to get accreditation through PGS India a participatory organic Guarantee programme under National project on organic farming (DAC&FW). • During the crop duration of sugarcane between 10-12 months, Rs. 2.22 lakh/acre total profit during last year was reported by the farmer. • Cane bund Nursery variety CO-86032, 265, 238 @ Rs. 2.75 per plant is being sold to Pilibhit through Sugarcane Growers of India Whatsapp Group. • Butter milk 5 litre + 500 gm Amla (in bottle for 8 days) is being used @ 500 ml/16 litre of pump (10-12 pumps/acre) is also being sprayed for providing micronutrient supplement to the crop. The crop condition was excellent.
Narsinghpur/ Kareli	Dhandia	Jaivik Krishi with ventury fertigation of Khadras	• Shri Sashi Kant Raghuvanshi (8959939908), Shri Chandra Prakash Lodhi (9407305784) explained the process of Khadras (an indigenously prepared bio-formulation)- *i.e.* Buttermilk 5 litre + 500 gm Amla in bottle for 8 days. @ 2 litre khadras is used with ventury fertigation that at every alternate 20 minutes. • The farmers have taken accreditation through MP State Organic Certification Agency (MPSOCA). The team has advised that unlike Seoni they have to accredit their jaivik cluster with PGS-India (a Participatory Organic Gurantee Programme under National project on Organic farming, Department of Agriculture Cooperation and Farmers Welfare, Govt. of India).

District/Block	Village	Events organized/activity exhibited to NLMT	Observations/remarks
Narsinghpur/ Kareli	Dhandia	Crop diversification/local initiatives	• This is a best example of per drop more crop where 910 qtls./ acre sugarcane yield was obtained by the farmer last year. • Shri Dubey Vimlesh, Drum stick 10 feet row to row, plant to plant 6ô@ 40-45000/Acre sold during summer. Now pruning has been done, flowering has started.
Seoni/ Lakhnadone	Dharma	Meeting with Field Officers	• Seoni and Guna districts have feeded online DBT in GOI portal under NFSM.
		Non- beneficiary farmers practice of pea cultivation	• Shri. Ashok Dubey (M-9424757124) has sown Kashi Nandini (KN-5) Pea variety in 2 acre area, sown on Sept, 25th. • Seed rate 100 qtls/ha. Trichoderma viride was sprayed followed by rotavator + 20 kg K_2O + 3 kg Zn + 5 kg Sulphur used as Basal. Sowing was done with seed drill + DAP 35 kg was mixed. • 20 kg urea will be top dressed. Irrigation is done by sprinkler. • The crop condition is very good, sprinkler method of irrigation is in practice. The 1st picking will start on 15th Nov (45-50 days of crop). Last year, the production under 3 pickings was i.)14 qtls/acre, ii.) 12 qtls/acre, iii.) 8 qtls/acre. The rates were @ Rs. 8000/qtls. • The NLMT recommends to popularize this variety for the reason due to its characteristics to survive during higher temperature, beginning full winters. The MIS supported cultivation need to be promoted to increase/double the farmerôs income.
		Minikit Demonstration	• Minikit Demonstration- Pigeonpea Variety TJT-501. Shri Ashok/Vansh Gopal. 0-20 ha Demonstration. • Sown on 16th June, the Crop condition is good. However, the line sowing was not observed and advised by the NLMT to be advocated under such demonstrations.

District/Block	Village	Events organized/activity exhibited to NLMT	Observations/remarks
Chhapra	Junapani Raiyat	Cluster Demonstration of intercropping Soybean with Arhar	• The demonstrations have been found scattered. No display board. Team suggested for improvement.
Seoni/ Lakhnadone	Mohgaon	Rotavator and Pipeline beneficiaries Cluster FLD: 155 ha target. Achivement NIL Rotavator 2015-16 cost Rs. 97000 (Subsidy 35000/-). Pipeline beneficiaries 2016-17 Kisan 75 mm- 40 pipes @ 20 per pipe, Rs 30600/- Rs 13500/- subsidy, farmer share 17100/-.	• Interacted with Shri. Shiv Kumar Patel (9424904292). • Cluster FLD: 150 ha target in the RAEO circle was not achieved, owing to DBT mode. • Rotavator- 2015-*16 (cost Rs. 97000, Subsidy 35000/-)*. • Pipeline -2016-17 (Kisan co.75 mm- 40 pipes @ 20 feet per pipe, *(Rs 30,600/-, subsidy-Rs 13,500/- farmer share- 17,100/-).* • The farmer has given the feedback that- • The pipe of Kisan Co., registered with the department, is with higher cost, quality is inferior as compared to the product in the open market. • The NLMT suggests that the details of registered dealers and the rates of all machineries/tools should be displayed at DDA level/SADO level and panchayat levels to maintain more transparency and scope of selection/rate negotiation at the level of the farmers. • The (*e-krishi yantra anudaan portal*), operational with the Directorate of Engineering for all agricultural and irrigation machineries/tools, should have a provision for sharing the ID No. ad password at DDA and SADO level for physical verification. • The team also recommends that for equity of transferring of benefits to resource poor and remote areas under SCP, TSP and Women, every RAEO circle should be given a target. • It is observed that the existing system is benefitting only to resourceful farmers who are in direct link with the dealers or vice-versa. • Seed supply of mustard is much delayed. Farmers are waiting for seed. Pea and Mustard should be stored with PACS by 15th Sep, positively. • Due to GST, farmers could not purchase the inputs on TIN bills which is another reputed reason to hamper the cluster FLD.

District/Block	Village	Events organized/activity exhibited to NLMT	Observations/remarks
Seoni/Chhapra	Raiyatpani/ Junapani	Cluster Demonstration/ Sprinkle set	• Intercropping Demo 2017-18 Soybean (45 kg JS 9752) + Arhar (8 kg TJT-501) in 5:1 (Soybean +Arhar) visited by NLMT. • Soybean has been damaged. Tur is in good condition, physiological stage is pre-flowering/ budding, farmer received DBT mode subsidy on his A/c. • Crop cafeteria is incomplete *i.e.* for Rs. 5700/- instead of (Rs 7500/- 1800 light lamp amount not being used by Districts). • Under Haldhar Yojna (deep ploughing) subsidy of Rs. 2000/- has not yet been released to Siya Ram S/o Bhojlal (9424681056) of village Junapani. Dte. of Engg. may be advised to expedite the release of subsidy to the beneficiaries. • Sprinkler Set- Mahadev S/o Mohanlal Jamunpani 30 pipes (Premium Co. 63 mm) + 5 nozzles (Cost Rs 26292/- subsidy provided is Rs. 12000/-.
		Meeting with Hon'ble member of Parliament Shri. P.S. Bhagat, MP, Lok Sabha, Seoni, 701, Kaveri New MS Flat MD, (Mo-9425138935). Meeting with Districts level Stakeholders/KVK	• Hon'ble MP raised the issue of Maize Productivity which has been shown lower than the last year by the Revenue Deptt. He has advised to rectify the same so that the Bhavantar benefit is received to farmers appropriately. • PKVY programme is having 20 cluster (8 blocks) for which test report of Residue Analysis for different commodities has been done by Pesticide Residue Testing Laboratory, Govt of Maharashtra. A total of 88 pesticides have been tested for all residues. • PGS under PKVY is doing excellent work in Seoni District. • Under RKVY, hybrid maize distribution and community nursery programme for paddy has been under taken. • Balram Talab (@ Rs 2 lakh each) is one of activity under PMKSY. • The SHC targets have been achieved and also uploaded on websites. • Regarding CFLDs, Head KVK has suggested to allow procurement of inputs for conduct of CFLD more effectively and timely.

District/Block	Village	Events organized/activity exhibited to NLMT	Observations/remarks
Seoni/Chhapra	Raiyatpani/ Junapani	Meeting with Districts level Stakeholders/KVK	• The KVKs have also requested to relax them for purchase of surplus breeder seed (at higher cost) of newer varieties for conduct of CFLDs. • As discussed with KVK, the Rabi CFLDs targets have been received on 09.10.2017. The KVK has suggested to allocate the targets in one month advance to make preparations. • The seed minikits for Rabi (NAFED-JAKI 9218, NSC- JG-16) has been received. The NLMT + KVK inspected the quality of seed. It is very good. Rhizobium packet and Thirum is kept in the pack. However, it does not have the pamphlet. • The district has been allocated 2000 minikits of Linseed (NSC).
		Meeting with Seed Society	• Om Shiv Beej Utpadak, Samiti, Sadiwada.
Seoni	Dighori	Farmer Practice Maize cultivation	• Maize crop is being harvested. The crop condition is good.
	Piperdehi	Cluster Demonstration, Arhar	• A sole demo of Tur var.- TJT-501 was seen. The crop condition is good. Trichoderma viridae was used by farmers.
Chhindwada/ Chaurai	Samaswada	RKVY composite nursery.	• Var.- DRH 775 Shri Ramakant (Dhanya Seed) (9516453858). Only 100-110 days hybrid should have been recommended.
Chaurai	Sitapur	Cluster Demonstration-Tur	• Visited JKMH-189 (130 days) Cluster 2.5 acre. NMSA- 2 clusters in two villages have been selected. However, no expenditure has been done. AHD is not participating with asccountability. • Shailandra Singh Raghuvanshi, vice president, zila panachayat, Chhindwara, MP (9893108624). • Cost of cultivation in maize is high as compared with the soybean. No of minikits should be received. • Seed availability/ production is another issue.
	Rajalwadi	Meeting with MLA, Chaurai, Shri. Ramesh Dubey (Ph.- 07166-222630)	• The MLA has desired more effective procurement. • Minikits have been received. • In Bichua and Chaurai block, ridge furrow method & planting has been done in 60% area.

District/Block	Village	Events organized/activity exhibited to NLMT	Observations/remarks
Amarwada	Bilhera	Seed Production -Soybean	• RVS 2001-4 did perform well while other soybean varieties failed. Sh. Dharmendra Singh Thakur (Mo- 9630466544). • Om Satya Sai Beej Utpadak Sehkari Sansthan, Amarwada- president Shyam Tiwari (9424325946) organised seed production with varieties RVS-2001-4, certified seed production @ 5 qtls/ acre yield. • Ridge furrow planted JKM-189 pigeonpea is at preflowering/ bunding stage.
	Neemdhana	NFSM Coarse Cereals-Maize Demonstration on SRI with organic input	• NMH-803 maize hybrid demonstration organized under NFSM-CC, is in good condition. • Very good demonstration organized at the village following SRI method of rice cultivation with organic input. This needs to be popularize through large scale demonstration in the district like Betul, Dindori, Mandla, Umaria and Sahdol. • BTM Kirti Upadhyay and ATM explained SRI Technologies through community Nursery under RKVY. ATMA is doing good work under SRI, PKVY, construction of vermi- pit and training on diversified agriculture.
		Ganga Keshri women group	• Mahesh Parteti (7999867547), a farmer has grown traditional var. Bhusawania Jowar, which could be popularized under local germplasm conservation. • PGS groupï Parampragat krishi 50 farmers are members; every month meeting is being organised. The group is doing good work.
Chhindwada/ Tamia	Patalkot/ Karegaon	Meeting with tribal farmers	• The district has requested to include Chhindwara under NFSM. Against a cultivable area of 5.55 Lha, 1.65 Lha is covered under wheat. The productivity of wheat is 3850 kg/ha in the district as against the stateôs productivity of 3114 kg/ha.

District/Block	Village	Events organized/activity exhibited to NLMT	Observations/remarks
Chhindwada/ Tamia	Patalkot/ Karegaon	Visit of KVK and ZARS, Chhindwara Meeting with Stakeholders	• The team visited KVK Chhindwara.. Very good work being initiated at the centre. The team also met stakeholder namely Seed Corporation, State Seed Certification Agencies and Seed Growers. Seed Growers raised the issue of availability of breeder seed of newly released varieties. Dr Koutu gave the information on varieties of rabi crops and its availability. • Urd PDM 88-39 and Mung TM 99-37 has also been demonstrated by KVK. • Shri. Jagdish Pawar (Mo- 9425360970), a farmer has raised the issue of non-availability of quality seeds of improved varieties and the local recommended technologies.
Betul/ Multai	kherwani	Intercropping of soybean + Arhar Balram Talab Block level Krishi Sangoshthi Meeting with MLA/Janpad Panchayat president	• 8 rows soybean + 2 rows pigeonpea. Soybean (8 rows) + pigeonpea *cv.* TJT-501(2 rows) was demonstrated in the field. The soybean was harvested and the pigeonpea was in pre-flowering stage. • The field extension workers were not aware of the variety of soybean. • Constructed under PMKSY, 2017-18 in the field of Shri Rajesh S/o Shyam Rao, {cost Rs 2 lakhs, (40% subsidy)} shall be transferred to the account of the beneficiary. • Participated in block level Krishak Sangoshthi, under the chairmanship of Shri. Chandrashekhar Deshmukh, MLA, Multai (Mo- 9424461333). • The MLA/Janpad president requested for provision for Happy seeder+ Zero till seed drill+ pneumatic planter to be provided with higher subsidy rates to the farmers, especially the tribal and marginal farmers. • In general the harvested/likely to be harvested soybean grain/seed quality has been affected due to untimely rainfall. • Shri. Sadashiv Badekar, (Mo- 9329680491), Janpad Panchayat, president and the MLA has advised to target the Multai block under Jaivik Kheti programme owing to large no. of Dairies. • The farmers have requested for large number of minikits of linseed and pulses.

District/Block	Village	Events organized/activity exhibited to NLMT	Observations/remarks
Betul/ Multai	kherwani	Monitoring of CFLDs on Oilseeds	• CFLD of Niger *cv.* UN-150 (OUAT) was demonstrated under line sowing. Last time the same variety yielded 4 qtls/ acre in the demonstration plot. • The NLMT has advised to use Pseudomonas and vitavax and the gram varieties JG-11,14,63,130 have sufficient resistance to wilt. • It was reported that DRR (Dry Root Rot) and fusarium wilt is a major issue in Betul district. Therefore, use of Pseudomonas and vitavax is highly recommended.
		Seed hub	• The team monitored the Seed Hub Programme organized through KVKs. The KVK Betul made good efforts especially in certified seed production at farmerôs field. Overall the progress is satisfactory. They informed that they are facing the problem in finalizing the rate to buyback the seed produced from the farmers field. • There is no uniform policy for fixation of seed rate at the university level, which hampers the seed production programme under seed hub. • Poor expenditure under seed component has been observed under NFSM. • To streamline the efficiency of seed hub component the KVKs have requested to allow testing of the graded seed for Seed GOT in the seed testing labs of the SAUs. • The procedure of conducting GOT by the State Seed Certification at the final stage, after the grading is over is another bottleneck to smoothly run seed hub programme. • Usually, the farmers loose the patience till the final certification procedure and sell their produce/seed in the open market.

District/Block	Village	Events organized/activity exhibited to NLMT	Observations/remarks
Ghodadongri	Peesajodi	KVK CFLD, Niger	• The kharif-2017 CFLD in the field of Shri. Radheshyam Awasthi was seen. The KVK has organized 75 demonstrations under oilseeds. • Niger *cv.* UN-150 (Utkal Niger), bold seeded was at pre-flowering stage. Traditionally Broadcasting Method. The Sowing of niger is done between the last week of August to Nov. 1st week. Method of planting is traditionally broadcasting. • It was reported that Cuscuta weed (*Doddar*) is a major issue in Niger. This has reduced the area in traditional Niger district of Mandla. Earlier, Linseed+Niger+Sesamum was a general practice. The NLMT recommends to adopt line sowing of Niger under intercropping with linseed and sesamum. • Another Niger CFLD in the field of Shri Dhimu (Mo- 8120495830)/ Bhagwat Rao was line sown *cv.*UN-150 sown on 22nd August with row to row at 25 cm distance, was at flowering stage. The demonstration was very good. • The farmer had used 10 kg DAP mixed with seed. Sown with *Tifan.* Expected yield is 3-3.5 Qtls/Acre expected yield.

9.0 SUMMARY OBSERVATIONS

The National Level Monitoring Team (NLMT) comprises of Dr. A.K. Tiwari, Director (Pulses), Dr. G.K. Koutu, Principal Scientist, JNKVV, Jabalpur, Dr. Sandeep Sharma, Principal Scientist, CoA, Sehore, RVSKVV, (Member) and Shri. K.S. Netam, Joint Director (JBP Division) and representative of Director/ State Mission Director (NFSM), Govt. of MP.

9.1 Monitoring/review of the NFSM, a centrally sponsored scheme (CSS) on crops development was done in consonance with the other CSSs *viz.* National Mission on Oilseed and oilpalm (NMOOP), National Mission on Sustainable Agriculture (NMSA), National Mission on Agriculture Extension and Technology (NMAET) *subsuming the schemes of Sub- mission on Agricultural Mechanization (SMAM), Sub-mission on Seed and Planting Material (SMSP), Sub Mission on Agricultural Extension (SMAE)/ATMA, Sub Mission on Plant Protection and Plant Quarantine (SMPP)*, Rashtriya Krishi Vikas yojana (RKVY), Pradhan Mantri Krishi Sinchai Yojana (PMKSY), Paramparagat Krishi Vikas Yojana (PKVY), Soil Health Card (SHC), Pradhan Mantri Fasal Bima Yojana (PMFBY), National e-Governance Plan ï Agriculture (Ne-GPA) and also the **State-Plan agricultural development programmes** such as Surajdhara, Annapurna, Balram tal yojana, National Biogas, Nalkoop Khanan yojana (Minor Irrigation), MP Women in Agriculture (MAPWA), Soil testing and Soil health, IT based agricultural extension, Mukhya Mantri Khet teerth yojana, Quality Control and Testing labs (Fertilizers, seeds and pesticides), Pilot Project on Agricultural Climate Change, Kisan Mitra Prashikshan Yojana and State Micro-irrigation Mission etc in the districts.

9.2 The Narmadapuram (Betul) and Jabalpur (Narsinghpur, Seoni and Chhindwara) divisions were visited and considered as sample representatives of the state of MP to monitor the status of implementation of the centrally sponsored crops development programmes, the NFSM in particular.

9.3 The observations and inferences on status of implementation of NFSM interventions in the state have been drawn, keeping in view the sustained concurrent monitoring/field visits by the Directorate of Pulses Development (DPD) in other districts in the past, available development funds or capital/schemes/ interventions/ autonomy/flexibility /infrastructure and extension administration, including the existing manpower to support the extension activities etc.

9.4 The report, inter alia, incorporates the observations on the NFSM funded projects/programmes to Indian Council of Agricultural Research (ICAR-IIPR), Agriculture Technology Application Research Institute (ICAR-ATARI), Krishi Vigyan Kendra (KVKs), State Agricultural Universities (SAUs) such as *Seed Hubs, Additional Breeder Seed Production (ABSP)*, Cluster Frontline Demonstrations (CFLDs) etc.

9.5 The observations have also been drawn on the existing status of *extension administration* at the field level, level of awareness amongst the extension functionaries, their perception about the programme, needed policy initiatives, equity criteria, adherence to the input cafeteria norms, innovative components, documentation of records/events and quality of demonstrations/follow up etc.

A. CROP SPECIFIC STATUS /SCENARIO

9.6 DEMONSTRATIONS AND CLUSTER DEMONSTRATIONS/EXTENSION ADMN.

i) The soybean crop having highest kharif acreage in the state are badly affected due to erratic rains followed by severe incidence of *Charcoal rot* in Seoni district, incidence of Rhizoctonia Ariel Blight (RAB) and Stem Fly at Narsinghpur, RAB and Charcoal rot at Chhindwara and Betul districts. The soybean variety JS 97-52 was severely affected followed by JS 20-29 and JS 93-05. *The early maturing varieties namely JS 20-34 and JS 95-60 were the ones least affected. During the field visit, mite infestation in soybean has also been observed and reported occurring as a new problem.*

ii) The other crops namely Rice, Arhar, Maize, Niger, Sugarcane, Kodo and Kutki were found to be satisfactory. The crops of Soybean, Mungbean, Urdbean, which were at the harvesting/threshing stage, were seen affected due to SW monsoon withdrawal rainfall in certain parts of the state, including the visited districts.

iii) The demonstrations on cereals and pulses have been found scattered/non-contiguous area and the cluster of 50 to 100 ha, in adherence to the norms or guidelines, were not followed in the state. The control plots, depicting the farmerôs practice, are not generally identified across the state in most of the demonstrations. Documentation on cluster demonstrations, which is 30% of total budgetary allocation, was not done.

iv) Non-display of flex board at the demonstration sites, containing details of variety, date of planting, soil health status, inputs applied, type of demonstration (Sole/CSBD) etc, in district like Narsinghpur, defeats the purpose of technology transfer through high quality full package demonstration.

v) Dharwad system of Arhar growing is being adopted by the farmers of Narsinghpur, Seoni and Betul districts. In this system, farmers grow arhar in poly bags then after 25-30 days transfer in main field and did nipping twice at the 25-30 intervals. Farmers are getting additional yield advantage of 3-4 qtls/ha over conventional method. This may be popularized through large scale cluster demonstration under intercropping in arhar growing areas of Bundelkhand and other parts where open cattle grazing is a tradition, especially targeting the SMF.

vi) In Narsinghpur districts Cultivation of organic Sugarcane with inter- cropping of spices (ginger/ turmeric/veg-pea) along with commercial propagation of sugarcane nursery (bud nursery) using drip method of irrigation is being picked up in the NLMT visited a progressive farmer- Shri Rakesh Dubey, (Mo-9425448313), engaged in commercial propagation of *sugarcane bud Nursery (cv.* CO-VSI 86032 Selection) using *two- way power bud cutter* (grown in coco-peat). 28-30 days nursery is used for planting of sugarcane. *Bavaria basiana and Pseudomonas* was sprayed before planting.

vii) Under bud nursery technique, 2.5 qtls/acre seed rate is used as against 30 qtls/ acre in traditional planting. This reduces the Cost of cultivation both, in terms of seed rate *i.e.* per acre *sets* and transportation/handling charges towards voluminous quantity of sets *i.e.* (30 qtls/acre). As explained, this farmer has planted 5000-5200 buds/ acre. The distance from row to row is 90-120 cms, based on the variety.

viii) The farmers are doing many innovative activities in crop cultivation. Intercropping of pulses with Sugarcane, Spices and Vegetables. Moringa cultivation with spices ginger/turmeric, use of drip and sprinkler system, mechanized planting, organic jaggery production, new technique of raising sugarcane nurseries etc., are few example. However, the documentation of various central programme implementations was found lacking follow-up of strategic monitoring parameters and team building/preparedness for rabi programme etc., was found improper.

ix) In case of Arhar demonstrations, proper row to row and plant to plant spacing (45X10 cm- Early Maturing var. & 60X15 cm - medium/late maturing var.) was not maintained at most of the sites. Similarly, method of planting and line sowing etc., was not advocated.

x) Agriculturally important Narsinghpur district having the fertile kalametahar soils have vast potential of crop diversification. The farming community is doing many innovative activities for sugarcane cultivation.

xi) Weeds like *Dinebra retroflexa, Biophytum indicum, Commelina dufua, Euphorbia geniculata, Digitaria sanguinalis* etc., are prominent and rampant and creating resistant to persuit (Imzethapyr)/weedicide, now even increased dose could not smothering to weeds effectively. That is why farmers want a mechanical measures with new innovation into existing or *Jugad* by local artisans.

xii) In general, the approach to organize Field Day for a cluster demonstrations site is lukewarm which is an integrated part to disseminate/convey messages of technology/new varieties etc., demonstrated. No such documents or compilation could be seen by the Team.

xiii) As per report of monitoring team from KVK ï Narsinghpur, Soybean variety JS 97-52 was severely affected with stem fly, white fly, and RAB whereas, RVS 2001-4 affected with Yellow Mosaic and Stem fly. The variety JS 20-29 affected with RAB, Stem fly and Dry Root Rot. Overall 60-70% of soybean crop was reported as affected in the district.

xiv) In block level Krishak Sangosthi at Betul, the NLMT members gave detailed information on varieties suitable under present situation of climate change and its availability. Various Centrally Sponsored Schemes were also explained to farmers.

9.7 CLUSTER FRONT LINE DEMONSTRATIONS (CFLDs)

i) The CFLD by KVK, Betul on Niger cv. UN-150 (Utkal Niger), bold seeded was at pre-flowering stage. Traditional broadcasting Method of planting was used. The sowing of Niger is done in a large sowing window between the last week of August to 1st week Nov. It was reported that Cuscuta weed (*Doddar*) is a major issue in reduction of the area in traditional Niger cultivated district of Mandla. Earlier, Linseed+ Niger+ Sesamum intercropping was a general practice, the extension functionaries are required to re-introduce the same for better profit.

- Cluster FLD ï Status under Oilseeds & Pulses during 2017-18 in the state of CFLDs/MP is given under (*Table 1 & 2*).

(TABLE – 1) CFLDs KHARIF-2017 : ACHIEVEMENTS

Crop.	Target Area (ha)	Achievement Area (ha)	Financial (Rs. in Lakh)		KVKs Covered	KVK Visited
			Target	Achiv.		
Pulses						
Pigeonpea	620 (1550)	576 (1394)	46.50	26.50	22	Indore, Ujjain , Dewas, Harda, Betul, Narsinghpur, Jabalpur
Greengram	120 (300)	71 (202)	9.00	1.94	03	
Blackgram	320 (800)	300 (688)	24.00	14.57	13	
Kha.Total	**1060 (2650)**	**946 (2284) – {89% (86%)**	**79.50**	**43.01**		
Oilseeds						
Soybean	1070 (2675)	1000 (2441)	64.20	Not Released	33	Indore, Ujjain , Dewas, Harda, Betul, Narsinghpur, Jabalpur, Chhindwara
Groundnut	60 (150)	30 (75)	5.10		02	
Sesame	140 (350)	114 (263)	7.00		05	
Niger	140 (350)	138 (315)	7.00		04	
Kha.Total	**1410 (3525)**	**1282 (3094) {93% (88%)}**	**83.30**			

****Fig. in the Parentheses are the no. of demos. FLD Area: @ 10 ha / Cluster & limited to 0.8 ha per farmer Variety: { Pigeonpea - Rajiv Lochan, TJT-501; Blackgram- Azad-3 ;* **Soybean – JS 97-52, JS 95-60, NRC-7, JS 20-29}**

(TABLE- 2) CFLDS RABI -2017-18 : TARGETS

Crop	Physical		Financial (Rs in Lakh)		KVKs Covered
	Area (ha)	No. of Demo.	Target	Expenditure	
Pulses					
Chickpea	890	2225	60.08	Not Released	***35***
Fieldpea	70	175	4.73		***03***
Lentil	220	550	14.85		***10***
Total	**1180**	**2950**	**79.66**		
Oilseeds					
Mustard	550	1375	33.00	Not Released	***20***
Sesame	30	75	1.50		***01***
Linseed	360	900	18.00		***12***
Groundnut	30	75	2.55		***01***
Rabi Total	**970**	**2425**	**55.05**		

FLD Area: @ 10 ha / Cluster & limited to 0.8 ha per farmer

9.8 CROP SCENARIO

9.8.1 KHARIF

i) In Madhya Pradesh, the SW monsoon was activated on 22nd June, 2017 against the normal arrival of *i.e.* June, 14th. The total seasonal rainfall received (22.06.2017 to 30.09.2017) was 755.7 mm which was 19 per cent less than the stateôs normal rainfall of 937.1 mm. The IMD data reveals 22 districts in normal and 29 under deficit rainfall category.

ii) The normal area under Kharif crops is 121.54 lakh hectares. Target of 132.46 lakh hectares was proposed for Kharif 2017, about 9 % more than normal. Total sowing have been reported in 130.82 Lha. This year the Kharif crops have been reported as adversely affected due to two dry spells of 15 days or more beginning from June 28th to July 12th 2017 and second week of July to first week of August. The *deficit* in rainfall is > 25% in 18 districts out of 51 districts of M.P. 29 districts have received *less rainfall* (>20 % deficit in rainfall). The State has also declared 13 districts under drought category namely- Ashoknagar, Bhind, Chhattarpur, Damoh, Gwalior, Indore, Panna, Sagar, Satna, Shivpuri, Sidhi, Tikamgarh and Vidisha. Further 12 Tehsils of another districts, under deficit rainfall category, also considered drought hit.

iii) Due to erratic less rainfall, early recession of monsoon, sudden spurt in temperature, during Sept., last week/Oct., 1st week and withdraw with monsoon during September IVth to IInd week of October in some parts of M.P. There has been slight loss to Kharif crops viz., Soybean, Urd, Mung which were at harvesting/threshing stage.

iv) The first stateôs forecast of Kharif-2017-18 is 251.18 lakh tons comprising 135.90 lakh tons Cereals with productivity level of 3344 kg/ha; 29.13 lakh; tons Pulses with productivity level of 1087 kg/ha; 165.0 lakh tons Food grains with productivity level of 2447 kg/ha; 75 lakh tons of oilseeds with productivity level of 1311 kg/ha and 11.03 lakh tons Cotton with productivity level of 1830 kg/ha.

v) The total area under Cotton has been reported at 6.03 lakh ha with production estimates of 11.03 lakh tonnes. The area under BT cotton is about 98 % of total cotton area in the state, thereby covering only 2% area. Only about 2 % area under Desi cotton (*var.* DCH-32), which is mainly concentrated to district of Jhabua & Alirajpur. The major kharif oilseeds i.e. Soybean which is 50.10 lakh ha, the production forecast is 69.39 lakh tons at the productivity level of 1385 kg/ha. Paddy, next to Soybean, grown in 20.23 lakh ha with estimated production of 69.89 lakh tons at productivity level of is 3455 kg/ha. Urd is third important kharif crop which is grown in 17.89 lakh ha, expected production is 17.71 lakh tons with productivity level of 990 kg/ha. *The productivity of current kharif pulses is at par with the normal and previous year average yield.*

vi) The kharif crop performance during 2016-17 and targets and achievement *vis-à-vis* percentage increase/ decrease over targets during 2017-18 are given under (*Table-3 and Table 4).*

(TABLE – 3) KHARIF-2016 : TARGET/ACHIEVEMENT

(A-lakh ha, P-lakh tons, Y-kg/ha)

S.No	CROPS	Target			Achievement			% Increase/Decrease over Target		
		Area	Prod.	Yield	Area	Prod.	Yield	Area	Prod.	Yield
1	Rice	21.23	63.50	2991	22.60	80.70	3571	6	27	19
2	Sorghum	2.73	5.38	1971	2.20	3.61	1641	-19	-33	-17
3	Bajra	2.32	4.92	2121	2.80	7.78	2779	21	58	31
4	Maize	11.95	29.74	2489	12.63	43.01	3405	6	45	37
5	Others (SM & Ragi)	2.08	1.10	529	1.85	1.30	703	-11	18	33
6	Arhar	7.96	8.48	1065	6.90	6.90	1000	-13	-19	-6
7	Urdbean	11.04	6.05	548	11.68	10.58	906	6	75	65
8	Mungbean	2.55	1.30	510	2.25	1.37	609	-12	5	19
9	Other Pulses	0.22	0.20	909	0.34	0.17	500	55	-15	-45
10	Soybean	55.32	65.90	1191	54.01	70.75	1310	-2	7	10
11	Groundnut	2.40	4.08	1700	2.55	3.84	1506	6	-6	-11
12	Sesame	4.90	1.60	327	3.80	2.58	679	-22	61	108
13	Other Oilseeds	0.80	0.35	438	0.88	0.32	364	10	-9	-17
14	Cotton	5.72	11.92	2084	5.99	9.46	1579	5	-21	-24
15	Jute & Mesta	-	-	-	0.08	0.07	875	-	-	-
	Total Cereals	**40.31**	**104.64**	**2596**	**42.08**	**136.40**	**3241**	**4**	**30**	**25**
	Total Pulses	**21.77**	**16.03**	**736**	**21.17**	**19.02**	**898**	**-3**	**19**	**22**
	Total Foodgrain	**62.08**	**120.67**	**1944**	**63.25**	**155.42**	**2457**	**2**	**29**	**26**
	Total Oilseeds	**63.42**	**71.93**	**1134**	**61.24**	**77.49**	**1265**	**-3**	**8**	**12**
	Total All Crops	**131.22**	**204.52**	**1559**	**130.56**	**242.44**	**1857**	**-0.5**	**19**	**19**

Source- State Department of Agriculture

(TABLE- 4) KHARIF – 2017: TARGET/ACHIEVEMENT

(A-lakh ha, P-lakh tons, Y-kg/ha)

S.No	CROPS	Target			Achievement			% Increase/Decrease over Target		
		Area	Prod.	Yield	Area	Prod.	Yield	Area	Prod.	Yield
1	Rice	21.42	68.41	3194	20.23	69.89	3455	-6	2	8
2	Sorghum	2.42	5.40	2231	2.70	7.06	2615	12	31	17
3	Bajra	2.42	5.41	2236	3.10	9.02	2910	28	67	30
4	Maize	12.21	33.48	2742	13.17	49.10	3728	8	47	36
5	Arhar	8.22	9.44	1148	6.47	9.74	1505	-21	3	31
6	Urdbean	11.28	6.75	598	17.89	17.71	990	59	162	65
7	Mungbean	2.79	1.59	570	2.28	1.63	715	-18	3	25
8	Soybean	55.49	69.00	1243	50.10	69.39	1385	-10	1	11
9	Groundnut	2.55	4.59	1800	2.18	3.46	1587	-15	-25	-12
10	Cotton	5.79	12.81	2212	6.03	11.03	1829	4	-14	-17
11	Others	7.87	4.61	586	6.61	3.15	477	-16	-32	-19
	Total Cereals	**38.47**	**112.70**	**2930**	**39.20**	**135.07**	**3446**	**2**	**20**	**18**
	Total Pulses	**22.29**	**17.78**	**798**	**26.64**	**29.08**	**1092**	**20**	**64**	**37**
	Total Foodgrain	**68.63**	**135.09**	**1968**	**72.45**	**167.30**	**2309**	**6**	**24**	**17**
	Total Oilseeds	**58.04**	**73.59**	**1268**	**52.28**	**72.85**	**1393**	**-10**	**-1**	**10**
	Total All Crops	**132.46**	**221.49**	**1672**	**130.76**	**251.18**	**1921**	**-1**	**13**	**15**

Source- State Department of Agriculture

9.8.2 RABI

i) During 2016-17, the area under rabi crop was 118.53 lakh ha. The crop-wise target and per cent achievement vis-à-vis percentage deviation over target is given in *(Table-5)*.

(TABLE-5) RABI-2016-17 : TARGET/ACHIEVEMENT

(A-lakh ha, P-lakh tons, Y-kg/ha)

S.No	CROPS	Target			Achievement			% Increase/Decrease over Target		
		Area	Prod.	Yield	Area	Prod.	Yield	Area	Prod.	Yield
1	Wheat	64.21	206.96	3223	64.22	224.9	3502	0	9	9
2	Barley	0.7	1.26	1800	1.20	1.62	1350	71	29	-25
3	Gram	31.65	35.51	1122	32.22	44.62	1385	2	26	23
4	Lentil	6.1	4.95	811	5.74	5.27	918	-6	6	13
5	Peas	5.2	5.51	1060	5.05	6.28	1244	-3	14	17
6	R&M	6.2	6.97	1124	7.08	9.2	1299	14	32	16
7	Linseed	1.37	0.84	613	1.21	0.61	504	-12	-27	-18
8	Sugarcane	1.12	6.22	5554	0.92	4.95	5380	-18	-20	-3
	Total Cereals	**64.91**	**208.22**	**3208**	**65.62**	**226.52**	**3463**	**1**	**9**	**8**
	Total Pulses	**42.95**	**45.97**	**1070**	**43.38**	**56.17**	**1306**	**0**	**22**	**22**
	Total Foodgrain	**107.86**	**254.19**	**2357**	**109**	**282.69**	**2607**	**1**	**11**	**11**
	Total Oilseeds	**7.57**	**7.81**	**1032**	**8.61**	**9.81**	**1183**	**10**	**26**	**15**
	#Total Crops	**116.55**	**268.22**	**2301**	**118.53**	**297.45**	**2528**	**1**	**11**	**10**
# Total Crops Achieved Area #- incl. Other cereals, Pulses & Oilseeds i.e. 0.89 Lha.										

Source- State Department of Agriculture

ii) The Rabi targets during 2017-18 has been kept at 118.31 lakh ha, at par with the previous year and 12 lakh ha higher than the stateôs normal area of 106.30 lakh ha *(Table- 6)*.

(TABLE 6) RABI: CROP-WISE AREA AND TARGETS

Area (lakh ha)

S.No	Crops	Normal		2016-17	Target 2017-18
		AI	MP		
1	Wheat	304.43	54.96	64.22	55.96
2	Others	100.93	0.88	1.4	1.62
3	Gram	86.81	30.41	32.22	36.02
4	Lentil	14.16	5.76	5.74	7.56
5	Peas	9.93	3.32	5.05	6.09
6	Other Pulses	28.62	1.6	0.37	0.24
7	Rapeseed/Mustard	63.2	7.32	7.08	8.35
8	Linseed	3.11	1.22	1.21	1.52
9	Others	15.15	0	0.32	0
10	Sugarcane	49.96	0.83	0.92	0.95
A	**Total Cereals**	**405.36**	**55.84**	**65.62**	**57.58**
B	**Total Pulses**	**139.52**	**41.09**	**43.38**	**49.91**
C	**Total Foodgrain**	**544.88**	**96.93**	**109**	**107.49**
D	**Total Oilseeds**	**81.46**	**8.54**	**8.61**	**9.87**
E	**Total Crops***	**676.3**	**106.3**	**118.53**	**118.31**

(N- DES Ave. 2011-12 to 2015-16)

iii) During the year under report (2017-18), the targeted APY for all crops together (Kharif +Rabi) and their contribution at National level is analyzed under *(Table -7)*.

(TABLE-7) TOTAL CROPS - 2017-18 : TARGETS & % CONTRI. AT NATIONAL LEVEL

(A-lakh ha, P-lakh tons, Y-kg/ha)

Sr. No.	State/ All India / Crop	Target - 2017-18						% Contribution of MP	
		MP			All India				
		A	P	Y	NA*	P	Y	A	P
1	Paddy	21.42	68.41	3194	395.94	945.00	2387	5	7
2	Rabi/Summer Paddy	-	-	-	41.07	140.00	3409	0	0
3	Wheat	55.96	208.45	3725	304.43	975.00	3203	18	21
4	Barley	1.62	1.42	877	6.62	16.50	2492	24	9
5	Jowar	2.42	5.40	2231	60.98	57.50	943	4	9
6	Bajra	2.42	5.41	2236	76.66	95.00	1239	3	6
7	Maize	12.21	33.48	2742	73.30	260.00	3547	17	13
8	Tur	8.22	9.44	1148	39.24	42.50	1083	21	22
9	Mung	2.79	1.59	570	32.67	23.00	704	9	7
10	Urd	11.28	6.75	598	32.64	26.10	800	35	26
11	Gram	36.02	55.16	1531	86.80	97.50	1123	41	57
12	Peas	6.09	6.55	1076	9.93	8.90	897	61	74
13	Lentil	7.56	8.11	1073	14.14	10.44	738	53	78
14	Soybean	55.49	69.00	1243	112.68	146.99	1304	49	47
15	Groundnut	2.55	4.59	1800	48.98	90.00	1838	5	5
16	R&M	8.35	11.33	1357	61.38	81.00	1320	14	14
17	Linseed	1.51	0.61	404	2.84	2.00	703	53	31
18	Sugarcane	0.75	3.82	5093	49.97	3550.00	71049	2	0
19	Cotton	5.79	12.81	2212	122.45	355.00	2899	5	4
20	Other Kharif Crops	7.87	4.61	586	-	-	-	-	-
21	Other Rabi Crops	0.45	0.41	911	-	-	-	-	-
	Total Cereals	**96.05**	**322.57**	**3358**	**959.01**	**2489.00**	**2595**	**10**	**13**
	Total Pulses	**71.96**	**87.60**	**1217**	**215.42**	**208.44**	**968**	**33**	**42**
	Total Foodgrains	**176.33**	**415.19**	**2355**	**1174.42**	**2697.44**	**2297**	**15**	**15**
	Total Oilseeds	**67.90**	**85.53**	**1260**	**225.89**	**319.99**	**1417**	**30**	**27**
	Total Crops	**250.77**	**517.35**	**2063**	**1572.73**	**6922.43**	**4402**	**16**	**7**

Source- MP - State Department of Agriculture; All India – DES, GoI, Min. of Agri. ND

9.9 NFSM: FINANCIAL PROGRESS

i) During 2016-17, the Financial Achievement under NFSM and Other Centrally Sponsored Schemes along with percentage utilization, is given under (Table-8).

(TABLE- 8) NFSM/ OTHER CSS – 2016-17: ALLOCATION/ EXPENDITURE

(Rs. in Crore)

Name of Scheme	Allocation			Release Central	Total avail. of funds	Expenditure			% of utilization against (CS)	
	Central	State	Total			Central Share	State Share	Total	Allo.	Avail
NFSM										
Pulses	227.70	151.80	379.50	117.58	148.14	62.23	41.49	103.72	46	70
Additional	60.60	40.40	101.00	101.00	101.00	12.62	8.41	21.03	35	21
Sub-Total	**288.30**	**192.20**	**480.50**	**218.58**	**249.14**	**74.85**	**49.90**	**124.75**	**43**	**50**
Paddy	14.63	9.76	24.39	15.82	15.82	4.15	2.76	6.91	47	44
Wheat	23.28	15.52	38.80	15.48	15.48	8.53	5.69	14.22	61	92
Coarse Cereals	10.46	6.97	17.43	13.07	13.07	2.39	1.59	3.98	38	30
Cotton	0.71	0.48	1.19	1.32	1.32	0.00	0.00	0.00	0	0
Sugarcane	0.20	0.13	0.33	0.16	0.16	0.05	0.03	0.08	42	51
NFSM Total	**49.28**	**32.86**	**82.14**	**45.85**	**45.85**	**15.12**	**10.08**	**25.20**	**51**	**55**
NMOOP	98.05	65.37	163.42	48.29	48.29	24.69	16.46	41.15	42	85
RKVY	433.75	289.17	722.91	471.03	471.03	212.37	141.58	353.95	82	75
NMSA (RAD)	11.24	7.49	18.73	18.70	18.70	6.43	4.29	10.72	95	57
SAME-ATMA	73.09	48.73	121.82	66.91	66.91	35.63	23.75	59.38	81	89
SMSP-NMAET	0.00	0.00	0.00	37.38	37.38	8.82	5.88	14.71		39
Total Above	**953.71**	**635.81**	**1589.52**	**906.76**	**937.31**	**377.91**	**251.94**	**629.85**	**66**	**67**

{Total Available NFSM-Pulses fund of Rs. 14813.63* include revalidate amount of Rs. 3055.38}

ii) During the year under report (2017-18) Allocation under NFSM and Other Centrally Sponsored Schemes in the state of MP, incl. the Expenditure along with percentage utilization uptill Oct., 2017 is given under (Table-9).

(TABLE-9) NFSM/OTHER CSS – 2017-18: ALLOCATION/ EXPENDITURE

As on Oct.. 30th 2017

(Rs. In Crore)

Scheme	Allocation		Total	Release (CS)	Revali	Total Avail. Funds	Expenditure			% Utili. (CS)	
	Central	State					Central	State	Total	Allo	Aval.
NFSM											
Pulses	232.00	154.67	386.66		152.99	152.99	17.32	11.55	28.86	12	19
Additional	103.80	69.20	173.00	103.80		103.80	0.00	0.00	0.00	0	0
Sub Total	**335.80**	**223.87**	**559.66**	**103.80**	**152.99**	**256.79**	**17.32**	**11.55**	**28.86**	**9**	**11**
Paddy	10.76	7.17	17.93		6.60	6.60	0.88	0.59	1.46	14	22
Wheat	21.39	14.26	35.66		8.83	8.83	0.17	0.12	0.29	1	3
Coarse Cereals	8.53	5.69	14.22		4.19	4.19	1.24	0.83	2.07	24	49
Cotton	0.60	0.40	1.00				0.01	0.01	0.02	3	
Sugarcane	0.20	0.13	0.33				0.03	0.02	0.05	24	
NFSM Total	**377.28**	**251.52**	**628.81**	**103.80**	**172.60**	**276.40**	**19.65**	**13.10**	**32.75**	**9**	**12**
NMOOP											
(MM-I)	60.03	40.02	100.05	8.28	23.60	31.88	6.48	4.32	10.81	18	34
(MM-IIII)	0.22	0.15	0.37	0.06	0.01	0.06	0.00	0.00	0.00	0	0
Scheme	**Allocation**		**Total**	**Release (CS)**	**Revali**	**Total Avail. Funds**	**Expenditure**			**% Utili. (CS)**	
	Central	**State**					**Central**	**State**	**Total**	**Allo**	**Aval.**
RKVY	226.46	150.97	377.43	188.50	121.15	309.65	65.94	43.96	109.90	49	35

NMSA(RAD)	4.00	2.67	6.67	0.00	6.69	6.69	0.50	0.33	0.83	21	12
SAME-ATMA	48.62	32.41	81.03	40.52	4.90	45.42	9.20	6.14	15.34	32	34
SMSP-NMAET	12.00	8.00	20.00	7.57	22.67	30.25	0.30	0.20	0.49	4	2
Total Above	**728.61**	**485.74**	**1214.36**	**348.72**	**351.63**	**700.35**	**102.07**	**68.05**	**170.12**	**23**	**24**

Source :NFSM Allocation and Release CA-V; Outlay 2017-18 Rs. 628.81 Cr. (CS- Rs. 377.28 + and SS- Rs. 251.52) . Release (Oct. 30th 2017) Rs. 103.80 Cr. CS towards Additional Area Coverage; Rs. 172.60 Crore, unspent balance of April 01st 2017 revalidated. Thus the Total Available Fund 2017-18 Rs. 276.40 Crore. (As on 07.11.2017).

9.10 PHYSICAL PROGRESS

i) NFSM-2016- 17

The Physical achievements during 2016-17 under NFSM (Pulses, Rice, Wheat and Coarse Cereals) towards critical interventions is indicated below (Table-10).

(TABLE -10) NFSM PHYSICAL PROGRESS – 2016-17

March, 2016-17

Component	Pulses (51)			Rice (08)			Wheat (16)			C. Cereals (16)		
	T	A	%	T	A	%	T	A	%	T	A	%
Demo. (ha)	137694	91208	66	11240	10569	94	17600	17701	101	24402	20391	84
Prod. & dist. of Seeds (Qtls)	455700	22291	5	28800	6578	23	77640	23717	31	13958	2790	20
INM (ha)	644306	407568	63	29000	13945	48	57504	37694	66	-	-	-
IPM (ha)	400000	313906	78	34000	20759	61	54400	31209	57	-	-	-
Resource Conservation tools (Nos.)	132449	8461	6	3828	2275	59	1079	715	66	-	-	-
CSBT (Nos)	2712	2010	74	174	128	74	277	135	49	-	-	-
Local Initiatives (Nos)	-	-		146	36	25	1030	512	50	-	-	-

T: Target, A: Achievement ; Figures in parenthesis are nos. of districts ; Cotton- 10, Sugarcane- 13 districts

ii) NFSM- 2017-18

The Physical achievements during 2017-18 under NFSM (Pulses, Rice, Wheat and Coarse Cereals) towards critical interventions is indicated below (Table-11).

(TABLE-11) NFSM PHYSICAL PROGRESS – 2017-18

As on September, 2017

Component	Pulses (51)			Rice (08)			Wheat (16)			C. Cereals (16)		
	T	A	%	T	A	%	T	A	%	T	A	%
Demo. (ha)	123000	18797	15	8300	6900	83	15500	00	00	20000	11500	58
Prod. & dist. of Seeds (Qtls)	334000	219	0.07	7980	00	00	62605	529	1	9040	1476	16
INM (ha)	414444	5200	1.25	19500	00	00	59180	00	00	-	-	-
IPM (ha)	430164	499	0.12	19191	00	00	31000	00	00	-	-	-
CSBD (Nos)	2050	312	15	125	48	38	225	63	28	-	-	-
Local Initiative (Nos)	-	-	-	00	00		-	-		-	-	-

T: Target, A: Achievement; Figures in parenthesis are nus. of districts ; Cotton- 10, Sugarcane- 13 districts.
Note: {Expenditure under Local Initiatives, 9% of Total Budgetary Allocation, reported as Nil.}

B. NFSM PULSES : SEED HUB AND ABSP (2016-17 TO 2018-19)

i) The Seed-hub and ABSP Programme was also reviewed. Out of 150 Seed-hubs, 149 are functional across 24 States and the project will be over by March 2018. Each Seed-hub has a target of 1000 qtls. of seed production.

ii) The centres may higher skilled workers during the season using the revolving fund of Rs. 100 Lakh.

iii) The NLMT monitored the Seed Hub Programme in Narsinghpur and Betul districts organized through KVKs. The KVK Narsinghpur has produced 280.18 qtls seed (Gram- JG 63 + Mungbean- PDM-139) during 2016-17. During 2017-18 (Pigeonpea 250 qtls + Gram 350 qtls) is being taken.

iv) In Betul the achievement was 448 qtls against the target of 850 qtls, Gram ï JG 14 (305 Qtls) + Mungbean-PDM 139 (143 qtls.). During 2017-18 the target are 1400 qtls Pigeonpea ï TJT 501, Gram- JG-14, JG-63 & Summer Mungbean- PDM 139.

v) The Seed + Fungicides for seed treatment was provided as input. After GOT, Narsinghpur will purchase Gram @ Rs. 6000/qtls at par with the rates fixed by MPSSC; the seed has been stored at the Central Warehousing Corporation, Narsinghpur; Rs. 55 Lakhs (Revolving Fund- Rs. 40 Lakh & Seed Processing Unit Rs. 15 Lakh) have been released. Tender processed and work order placed by Executive Engineering JNKVV, Jabalpur. .

vi) Betul made good efforts especially in certified seed production at farmerôs field. Overall the progress is satisfactory. The NLMT was informed that the KVKs are facing the problems relating to non-fixation of the rates to buyback the seeds. No uniform policy for fixation of seed rate exist at the university level nor the same is being finalized at IIPR level.

vii) Another bottleneck to smoothly run Seed hub Programme relates with the certification process where, the GOT Test by the State Seed Certification (SSC) is conducted at the final stage, after the grading is over. Usually, the farmers loose the patience till the final certification procedure and sale their produce/seed in the open market.

viii) Varieties considered under seed-hub **pigeonpea**-Rajeev lochan, TJT-501(< 6 Y) , **Urd**-Azad urd-3(> 10 Y), PU-31. (< 7 Y).

ix) Varieties grown under ABSP: **Pigeonpea:**Asha, ICPL-151, TJT-501, **Urd**: TU-98-14, PU-35, PU-19, T-94-2 & T-9, **Mung:**TMB-37.

x) **ABSP: pigeonpea:** Asha, ICPL-151, **Urd:** PU-35, PU-19, T-94-2 & T-9.

xi) The Additional Breeder Seed Programme is not given to the KVKs/visited districts. However, being a major NFSM plan intervention, the progress of ABSP in the state of MP is given under Table-11).

xii) The source of seed generation and class of seed (Breeder, Foundation TL, etc) not indicated. (Tag or certificate with the Seed).

xiii) Organizing centres have not been provided with the clear guidelines on the category of seeds to be produced.

(TABLE-12) STATUS OF SEED-HUB -2017-18

(Qty- qtls)

Crop	AICRP (06)	KVK (09)	ICAR (01)	Total
Pigeonpea	1250	600	250	650
Urd	600	600	100	200
Mung	650	600	100	500
Chickpea	1650	2050	200	1700
Fieldpea	500	1050		1750
Lentil	650	1550	200	1350
Lathyrus	-	-	-	250
Grand Total	**5300**	**6450**	**850**	**6400**

(TABLE-13) ADDITIONAL BREEDAR SEED PROGRAMME

(Qty- qtls)

Crop	JNKVV-JBP	RVSKVV-GWL	IIPR-BPL	Total	Achievement
Pigeonpea	20	20	22	62	• Crop condition is normal • Expected to achieve the kharif targeted production
Urd	15	20	28	63	
Mung	20	15	23	58	
Kharif Total	55	55	73	183	
Chickpea	30	15	20	65	
Fieldpea	15	-	-	15	
Lentil	20	25	28	73	
Rabi Total	65	40	48	153	
Grand Total	**120**	**95**	**121**	**336**	

C. PROGRAMME IMPLEMENTATION/CONSTRAINTS

i) The block level officers (SADOs/ADOs/RAEOs), at many a places, are partially acquainted/unacquainted with the guidelines of the ongoing CS schemes. Therefore, the programme implementation lacks many technical follow-ups which is mandatory and very important for technology transfer.

ii) The necessary documentation on *cluster demonstrations* such as details of inputs used/method, of planting, method of seed treatment, dates of distribution/application, fertility status of soil, method of planting, method of seed treatment, number of irrigations, IPM, cropping system/previous crop taken, cost of cultivation and production etc. was lacking in almost all the visited districts.

iii) It is observed that farmers are using the pesticides abruptly as per the advice of pesticide dealers not as per the recommendations of the extension personnel. This results use of hazardous molecules in a non-scientific way, with no or poor performance resultantly built up of pest immunity and pesticide residues in the grain/fodder along with increase in cost of cultivation.

iv) Good work on organic production and certification under PKVY in 60 villages in district Seoni. ATMA functionaries BTM/ATM are doing very good work. The Agriculture extension personnelôs provides all the technical support for registration, production and marketing of organic produce. This needs to be popularize in other tribal districts like Mandla, Dindori, Shahdol and Umaria districts of MP.

v) Poor utilization of funds/achievement under seed components *i.e. production of foundation/certified seeds and distribution of seeds* during kharif may be attributed to non-involvement of Cooperative Seed Societies under Beej Maha Sangh. The issue was discussed with the Principal Secretary/Director. Consequently the Govt. of MP has issued the clarification for *kharif 2017* vide letter No. B-15 /01/2016/14-2 of MP Shasan, FW and AD, dated 30th Oct, 2016.

vi) Similarly, the Seeds of varieties within 15 years of release period were also not available in sufficient quantities. During the field visit in the districts it was reported that the needed varieties for current Rabi *viz.* wheat-(JW 3288, JW 3211, JW 3336, JW- 3382, MP-1203), gram- (JG-16, JG-130, JG-74), linseed- (JLS-66, JLS-73, PKDL-41, JLS-67, JL-527), lentil- (JL-3, JL-53), pea- (JM-6, JP-885, PSM-3 and P-4), are not available/stored in sufficient quantities in the visited districts.

vii) Poor progress under *cluster demonstrations* (30% of total budget) have been reported primarily due to implementation of the DBT scheme for inputs, non-availability of seeds / varieties within 10 years, large number of vacancies (especially at grass root level), involvement of the extension functionaries in the assignments of the duties of other departments, delayed fixation of rates of inputs by MARKFED/MP-Agro including non-billing (TIN-bills) by the dealers owing to pending TIN numbers etc.

viii) Demonstration/inclusion of 3-4 varieties, scientific method of planting, and appropriate/recommended sowing time, soil test based INM and IPM etc., is not generally followed in most of the the cluster demonstrations of NFSM, either under Sole Demonstration or for Cropping System Based Demonstration (CSBD).

ix) The team observed that *Field Days* during cropping season and *CSBD trainings* are not being organized in many districts, including the sample districts. No such documentation was available/ shown to the visiting team.

x) The ATRs on earlier NLMT recommendations on conducting an Impact Analysis of NFSM/NMOOP/CSSs, in respect of critical interventions like farm mechanization, technology adoption, introduction of new cropping system, documentation of demonstrations/CSBD Trainings etc, were not observed.

xi) The mandatory principles of conducting improved cluster demonstrations have been rated as average. These includes: viz., ***Selection of site (representing soil type/soil fertility status of the area), Soil Analysis, Input Package (based on soil fertility status of the AES), an Orientation Training before laying out demonstration including 'control plot' and a display board*** (containing minimum 11 parameters ï i) no. of farmers ii) name of village iii) name of variety/hybrid iv) type of demonstration v) fertilizers applied vi) bio-fertilizer applied vii) micronutrient applied viii) date of sowing/transplanting ix) seed rate and spacing x) any other critical input used xi) mobile no. of DC /TA etc.).

xii) The demonstrations are not based on soil health card status. Also use of Sulphur and need based micronutrients like Zn, molybdenum, boron etc, as part of input cafeteria, not ensured in demonstrations owing to DBT.

xiii) It has been observed that although the targets under NFSM, NMSA, RKVY, NMOOP have been given to the blocks but generally the programmes/components have not been implemented satisfactorily.

xiv) As per the DBT Mission/directives vide letter no. Z-11018/34/2016-IT, DAC&FW dated July 28th, 2016, the Direct Benefit Transfer Scheme which was under partial implementation w.e.f Kharif 2016 for ***03 CSSs of NFSM, NMOOP & ATMA is being ensured for cent per cent compliance in NFSM.*** The inputs of crop cafeteria, except seed, have been directed to be purchased by beneficiaries themselves to be reimbursed through Aadhar Seeded DBT account. The state has issued directives to all the districts to ensure 100 % DBT under NFSM.

xv) Cropping System Based Demonstrations (CSBD), are not being religiously conducted/demonstrated. None of the sample districts were having such documentation. It is relevant to record that this Directorate could not come across to such a detailed/document during the normal course of field monitoring in many districts as well. *The NFSM Guideline says that the CSBD should have been conducted in consonance with the recommendations of Cropping System Research/Integrated Farming System (IFS) research of the ICAR/SAUs*

D. POLICY ISSUES/CONSTRAINTS

i) The Stake Holders (Seed Corporation, State Seed Certification Agency and Seed Growers, MPHDC, MARKFED) meeting in KVK Chhindwara has revealed that the KVK is doing very good work in Integrated Farming. The Seed Growers/Societies have raised the issue of non-availability of breeder seeds of newly released varieties and requested to consider them on priority basis.

ii) Action plan/document depicting total category-wise beneficiaries details on mandatory implementation of NFSM under Special Component Plan (SCP) for Scheduled Castes (16%), Tribal Sub-Plan (TSP) for Scheduled Tribes (8%); SMF 33% and 30% of total allocation of funds to Women beneficiaries etc., was lacking/not provided to the NLMT.

Thus the equity criteria for identification of areas and beneficiaries in programme implementation could not be adjudged holistically, in general. ***However, the State HQ has directed the districts to achieve enhanced targets of 20%, 15% and 33% under SCP, TSP and women beneficiaries respectively.***

iii) Throughout the course of monitoring of NFSM/NMOOP programme for last 08-09 years, it is observed that several *Growth promoters and Plant tonics* are being used abruptly as a part of input cafeteria and applied in combination with pesticides, need appropriate check/directives at HQ level.

iv) The paucity of grass root extension workers, (ADO/RAEOs) in the districts visited, hampering the proper implementation of centrally sponsored crop developmental schemes. Moreover, a few RAEOs are attached in the office to assist district administration resulting in more number of villages per RAEO circle. For example in Seoni district only 78 RAEOs are working against the sanctioned posts of 164. On an average more than 40 villages are to be looked after by only one RAEO.

v) Details of circulars / policy directives, relating to implementation of CSS/CS, issued by Mantralaya Govt. of M.P.

Name of CSS	Programme	Month in which the targets (Phy and Fin) issued		Endorsement
		State HQ to Districts	Districts to Block	Nil
NMAET-SMAM	Seed village (Kharif)	No./E-1-B/SMSP/SV/2017-18/768 June, 15th, 2017 No./E-1-B/SMSP/DBT/ 2017-18 / 605 April, 20th , 2017	N.A.	Commissioner, Cooperative and Registrar, MD, MPSS and FDC, MP- State Seed Certification MD, MP Sahkari Beej Utpaadak evam Vipnan Sangh Maryadit
	Seed village (Rabi)	No./E-1-B / SMSP / SV / 2017-18 / 1516 October, 4th , 2017	N.A.	Joint Secretary, GoI, DAC& FW, PS, FW& AD, MP, Deputy Commissioner (Seed), GoI, DAC& FW, JD, FW& AD, MP, Principal, Agri. Ext. and Training Centre.
NFSM	Pulses (Kharif+rabi)	No./NFSM/Programme/ 1/2017-18/545 June, 3rd, 2017	No./T 10/ NFSM/ 2017-18/3683 June, 7th , 2017	-
	Add. Pulses, Paddy and Wheat	No./NFSM/program/1/2017-18/1079 Oct, 12th, 2017	N.A.	PA to Minister, APC and PS
	Seed Minikit (Pulses-Chickpea) Nos-34375/ qtls-5500 (JAKI-9218, JG-6, JG-14, RVG-203)	No. /NFSM/Minikit/8/2017-18/854 August, 10th , 2017	N.A.	Addl Comm., (Crops) Principal Secy., MP, Director, DPD, NAFED/NSC, DDs
	Seed Minikit (Pulses-Arhar, Urd) Nos- 25000	No./NFSM/Minikit/8/2017-18/184 April, 22nd ,2017	N.A.	Addl Comm., (Crops) Principal Secy., MP, Director, DPD, NAFED/NSC, DDs
RKVY	SRI- Development of Composite Nursery	No.B-1-1/2017/14-2/ Mantralaya May, 5th, 2017	N.A.	Director, FW& AD, PS to Minister, Zonal Commissioner, Dir. Agri. Engg.,
	Annapurna	No. C.P.-9/A. Su./2016-17/163 May, 27th , 2017	N.A.	Joint Director, FW& AD, DD (Agri.) RKVY, FW& AD
	Green Fodder Demonstration	No./RKVY Cell/03/2017-18/341 June, 13th , 2017	N.A.	Principal Secy., FW& AD, MP, Joint Directors, FW& AD
	Project for the adoption on various farming systems (Holistic Agriculture Farmers)	No./A.C./NMSA/Holistic appro 2017-18/543 June, 15th, 2017	N.A.	District Collectors, MP Joint Directors, FW& AD, MP,
	Conserve the Traditional Crops like kodo, Kutki, Til and Ramtil for year 2017-18)	No./B-1-1/2017/14-2 May, 23rd , 2017	N.A.	PS to Minister, Staff Officer, APC, Comm, Coop, MD, MP, Comm., Div., Director, Agri. Engg, JD, FW& AD, MP, District Collectors, MP, CEO, Zila Panchayat, DD (RKVY), DD, FW& AD, MP

Name of CSS	Programme	Month in which the targets (Phy and Fin) issued		Endorsement
		State HQ to Districts	Districts to Block	Nil
RKVY	SMAM, NFSM , RKVY, NMOOP etc.	No./D-17-05/2015/14-3 June, 23rd, 2017 (e-krishi yantra anudaan portal)	N.A.	PS to Minister and APC
Direction for Implementation of DBT	Crop Demonstration, Seed Distribution Grant, Seed production Grant, INM, IPM	No./NFSM/DBT/2017-18/502 May, 05th, 2017	N.A.	PS to Minister and APC Director Agriculture, Agri. Engg., MD, MP State Seed Farm Vikas Nigam, Director, MP-Agro, MARKFED Regional Manager, NSC, Director, Research Services, JNKVV, Joint Director, FW& AD, MP

E. AGRICULTURAL MECHANIZATION

i) The RCT/tools component for all agricultural and irrigation machineries is being implemented through the Directorate of Engineering, the nodal agency. The beneficiaries apply online over *e-krishi yantra anudaan portal*. It was observed/reported that the benefits of this component under the existing system is availed only by resourceful/big farmers having direct links with the dealers or vice-versa. Barring SMF and illiterate resource poor/SC/ST farmers having no access/links with the dealers.

ii) The expenditure under this component is also very poor, pending physical verification owing to non-sharing of *ID No. and password* of the portal (*e-krishi yantra anudaan portal*) by the nodal agency with the district/block level agricultural development authorities (DDA/SADO).

iii) The feedback on higher per unit cost of the RCT in the subsidized tool as compared to non-subsidized open market rate was reported by many farmers and also by RAEOs/ADOs. This relates to cost as well as quality also.

iv) ***The team visited an irrigation pipe beneficiary. It was reported that the pipe (Kisan Co.), registered with the department, fetches higher cost, and the quality is inferior as compared to the product of other companies in the open market.***

v) The NLMT members participated in block level Krishak Sanghosthi organized at Amla Block of Betul District. The Team interacted with Shri. Chandrashekhar Deshmukh, MLA, Multai (Mo- 9424461333), Janpad president and farmers. The peopleôs representatives/ farmers, gave a feedback of non-equitable benefits of the NFSM to the SC/ST and SMF Categories on higher cost machineries like Happy seeder + Zero till seed drill+ Pneumatic planter etc. The team leader explained the existing subsidy rates and suggested to provide top-up by way of convergence with the other schemes under SCP/TSP component.

vi) The team observed that through the machinery interventions (RCT components of the NFSM/CSS) viz., Happy Seeder, Multi crop thresher, Rotavator, MB Plough, Drip and Sprinkler Irrigation Devices etc., the farmers of the state have benefitted a lot. However, with this mechanization the demonstrations on cropping systems, have not received due attention.

vii) Extremely poor expenditure towards RCT component (machineries & implements) and efficient water application tools (drip/pump/sprinkler/mobile rain gun) is reported due to initiation of online portal (e-Krishi yantra anudan portal) by the Directorate of Engineering, who is nodal agency for RCT. The district/block level officers (DDAs/SADOs) are not involved in the physical verification process, thereby hampering the implementation of the programme.

viii) Flow of targets/policy directives from state HQ to districts/blocks and communication of *Physical and Financial Targets 2017-18 under NFSM* and other CSSs from State HQ to districts/blocks are given in the following table:

ix) In the endorsement column it is evident that the Directorate of Pulses Development, inadvertently left as one of the recipient of such circular. Flow of information is always good in public interest to increase synergy.

10. SUGGESTIONS/RECOMMENDATION

A. CROP SPECIFIC ISSUES

➢ **DEMONSTRATIONS : CLUSTER DEMONSTRATIONS**

i) The input cafeteria under cluster demonstrations is being implemented @ Rs. 5,700/ ha instead of Rs. 7,500/ha (Sole Demo.) the prescribed norms. During 2015-16, the Light trap (@ Rs. 1800 per unit) was one of the components of input under crop cafeteria. These trap were distributed across the state. This was not proved as fruitful due to connectivity of electric maintenance. After 2016-17 these are not being distributed now. However, the amount of Rs. 1800 is still kept reserved by almost all the districts as no such guidelines have been issued by the State HQ. The districts need a clear directives to utilize Rs. 1800/-, reserved for the trap, towards the other input.

ii) To ensure quality demonstrations, district/block specific complete input cafeteria, finalized in consultation with KVK/SAUs/ZARS should be used as per the SHC recommendations. The variety should also be compulsorily new (within 10 years of release) and in a cluster of 50-100 ha, atleast 4-5 varieties/planting techniques should be followed.

iii) The cluster demonstrations, monitored by the team, needs improvement and suggests-

- **Site Selection/Display Boards**

- Selection of site representing soil type, fertility status of the area ii) soil analysis iii) use of complete input package (@ Rs 7500/- per ha) iv) display board containing 11 parameters viz., name of farmer, village, variety/hybrid, date of sowing, type of demonstration, fertilizers/bio-fertilizers applied, method of seed treatment/seed rate, method of planting, IPM practiced any other critical input applied, contact no. of SADO/RAEO etc.

- Cultivation of sugarcane using bus nursery intercropping of spices-ginger/turmeric/pulses with drip irrigation in Narsinghpur giving a profit of Rs.70000-80000/acre may be popularized in water scarce areas, especially in Datia, Betul where sugarcane is gaining popularity but flood

irrigation and setts are used for planting. The success story of village-Kartaj, Narsinghpur will saving 50-60% water, cost of cultivation.

- The seed societies request for individual subsidy on gravity separators (approx. cost Rs. 2.00 lakh) and financial assistance/soft loan for 1 year to facilitate purchase of seed from the members/seed growers, may fund place in some of the CSS/State run programme.
- Availability of graders at societies/village level shall help farmers in grading their produce at par with the FAQ to facilitate sale of their produce on MSP/Model rates.
- The available machineries/implements are straw reaper (charges-@ Rs. 1200/trolly i.e. 6.5 qtls straw);Raised Bed Planter (charges-@Rs. 800/acre);Rotavator (charges-@ Rs. 750/ha);Reversible plough (charges-@ Rs. 650/ha).
- A progressive farmer- Shri Rakesh Dubey, (M-9425448313), engaged in commercial propagation of sugarcane bud Nursery (cv. CO-VSI 86032 Selection) using two- way power bud cutter (grown in coco-peat). 28-30 days nursery is used for planting of sugarcane. Bavaria basiana and pseudomonas was sprayed before planting. 2.5 qtls/acre seed rate was used against 30 qtls/acre in traditional planting under this technique. Cost of cultivation is reduced both, in terms of seed rate i.e. per acre setts and transportation and handling charges towards voluminous quantity of setts i.e. (30 qtls/acre). This farmer uses drip method of irrigation and practice intercropping of spices turmeric/ginger/pulses.
- The NLMT recommends to popularize this practice of cane cultivation in sugarcane growing districts of MP to help farmers in doubling their income by 2022.

iv) To streamline promotion of organic farming, the state government, in consultation with SAUs, should notify popular crop varieties/local germplasm suitable for organic farming in the district/state. This would be a very important step towards recognizing the fact that organic cultivation does not have a differential varietal requirement against the popular myth that varieties suitable for conventional farming can be used for organic farming too. For eg. Mahesh Parteti (7999867547), a farmer of Seoni district is growing traditional var. Bhusawania Jowar, (protected against birds) could be popularized under twine objectives of organic farming. Baigani Arhar in Mandla/Dindori, Sagar Masra (Lentil) in Sagar etc., are the local germplasm conservation.

OTHER RECOMMENDS FOR ORGANIC FARMING

v) The ATMA scheme can be used extensively for organic farmers of the state to get extension support to the organic farmers training of agriculture extension staff especially those working with organic production and value chain development zone; Digitization of the organic farms, as per the APEDA system for tracking progress; Subsidized rate for farm machinery, inputs, water saving devises especially those working with organic production (back ended subsidy

after certification; Setting trade facilitation centre to enabling processors/retailers to procure organic produce; Creating consumer connect through branding.

vi) In view of the prevalence of Dry Root Rot (DRR) and fusarium wilt a major issue in Betul district, use of Pseudomonas and Vitavax and the gram varieties JG-11, JG-14, JG-63, JG-130 having sufficient resistance to wilt are highly recommended.

vii) In view of high potential of Niger crop in MP, the NLMT, recommends to promote/adopt/line sowing under intercropping with linseed and sesamum. The state may target bee-keeping as one of the additional activity with Niger. The NFSM/NMOOP has provision of beekeeping.

- **Seed/Sector**

viii) The team also interacted with the members or Farmers Seed Societies in Narsinghpur, Seoni, Chindwara and Betul districts. The problem of non-lifting of produced by the societies may be ensured at the DDA level with advance indenting MoU for the varieties / quantities decided by DDA.

ix) The seed of latest varieties, after the NSP indent for breeder seed also need to allocated registered seed societies under Beej Maha Sangh, MP, Bhopal to strengthen the seed sector, this will increase the availability of seed as well.

x) For better utilization of funds under seed component (30% total NFSM allocation), implementation of Seed Component (purchase of breeder seed, production of foundation/certified seed and distribution), the role of DDAs should shift from settlement of reimbursement/claims to their accountability in identification of crop variety for Breeder Seed, and also for production of foundation & certified seeds. The DDAs should give their indent/choice as they are the district implementing authority for NFSM & NMOOP. The ATR on district-wise, list of suitable and best performing recently released old varieties vis-a-vis local cultivar (non-descript) of different pulses/oilseeds/cereals/sugarcane/cotton and other dominating crops for realistic seed assessment still await. This will also help in formulation of district plan/contingent plan.

xi) Self sustaining seed chain system for seed production is required to ensure availability of seed at village level, as seed has also been observed as a major bottleneck. The district-wise 05 years seed rolling plan is also recommended.

xii) To control aphid on Maize, Emidachlorprid @10 ml/spray pump, against sucking pest in cotton Ecetamaprid @45 ml/spray pump and against Helicoverpa or Tobacco Caterpillar in soybean, Prophenofos + Cypermethrin @ 45 ml/spray pump has been advised to be used. Farmers are mostly using Corazen/Trizophos to control caterpillar in soybean.

xiii) Effective weed management in soybean, tur, and paddy under agronomic demonstration may be propagated under NFSM-Cluster demonstrations, few cluster demonstrations on weed management may be allocated/organized in major districts in coordination with the ICAR-Directorate of Weed Science Research (DWSR), Jabalpur, Madhya Pradesh.

xiv) Promotion of early maturing rice varieties and hybrids developed by JNKVV Jabalpur for establishing chickpea/lentil/linseed as second crops in rice fallow area of MP through demonstrations has been suggested.

LIST OF VARIETIES RECOMMENDED FOR MP

Crop	Varieties	Remark
Rice	**Varieties**:MTU 1010, MTU 1001, IR 64, IR 36, Kranti, PS 3, PS 5, JR 201, JR 503, Danteshwari	Varieties namely JR 201, Danteshwari comes under early maturity (95-105 days) others comes under medium maturity group (115-135 days)
	Hybrids: JRH 4, JRH 5, JRH 8 and JRH 19	Early maturing high yielding hybrids suitable for double cropping under rainfed situation. Also recommended in rice fallow area to take second crop as chickpea/lentil/mustered/linseed
Niger	JNC 1, JNC 6 and JNC 9	These varieties are in seed production chain
Linseed	JLS 27, JLS 66, JLS 67, JLS 73, JLS 76 and JLS 73	Most of the varieties are newly released except JLS 27. These varieties are suitable for rainfed situation
Chickpea	JG 11, JG 14, JG 12, JG 63, JG 322, JG 130, JAKI 92-18	The variety JG 14, JG 12 and JAKI 92-18 arewith in ten years of release. The variety JG 14 recommended for late sowing.
Wheat	**Varieties for 1-2 Irrigation:** JW 3211, JW 3288, JW 3173, JW 3020, Sujata and C 306 **Varieties for late sowing:** JW 3336, MP 1202 and MP 1203 **Varieties for timely irrigated:** GW 322, GW 366, GW 273, JW 3382, MP 1201, JW 1142, JW 1215 (D), MP 1106 (D), HI 1544	The varieties within ten years include JW 3288, JW 3211, JW 3382, JW 3336. MP 1202 and MP 1203
Mastered	PusaTarak, Pusa Jaikisan and Pusa Agrani	All the varieties are within ten years of its release
Pea	**Field Pea:** IPF 99-25 (Adarsh), JM 6, JP 885 **Vegetable pea:** Kashi Nandni, Arkel and PSM 3	The variety Kashi Nandni is within ten years of its release

➢ CLUSTER FRONT LINE DEDMONSTRATION

i) Based on the discussion with the KVKs following suggestions are offered for CFLd programme. A comparative analysis of the yield between *Improved Practices*, *Farmer practices and District average yield should be* mandatory calculation for progress performance in the FLDs AICRPs/KVKs.

ii) The district average yield should also be compared with the improved practices and farmerôs practices.

iii) Under the existing per ha CFLD cost norms (@ Rs. 7500/- Rice, Wheat & Pulses; @ Rs. 5000/- Coarse cereals, the whole expenditure is basically towards the seed cost, thereby limiting the scope of validation for other needed technologies. The NLMT, recommends that

to create the scope of research/validation of the total FLDs, 50% of the demonstrations may be earmarked for other interventions to be decided by the AICRPs/KVKs Scientist. The other interventions may include the thematic areas as well as to validate/study efficacy of a particular input by AICRPs/KVKs scientist.

iv) Under full package demonstration, less than 10 year old varieties + Use of Micronutrient (Soil Testing Based) + Bio-fertilizers should be mandatory. Otherwise it has no difference between CFLDs/FLDs or Cluster demonstration by SDAs.

v) To test the efficacy of weedicides/herbicides/pesticides, the different available molecules should also be demonstrated by KVKs/AICRPs to bring out recommendations.

vi) In view of the stringent monitoring, the varieties demonstrated should be within 10 years of release and the source of seed should strictly be the KVKs/SAUs/AICRP. Seed from NSC or SSC should not be taken especially for the FLD.

vii) Other than the state specific varieties, the central released varieties should also be demonstrated.

viii) The social aspects/equitable distribution of FLD should also be ensured by the centers as per SCP/TSP/Women empowerment.

➢ **SEED HUB**

i) To streamline the efficiency of seed hub component the suggestion of KVKs to allow testing of the graded seed for Seed GOT in the seed testing labs of the SAUs, not the state certification. This will help the KVKs in real time settlement of payment to seed hub growers.

ii) The Seed Hub programme KVKs may be provided with 01 Technical staff + 01 Field staff along with separate fund allotment towards the manpower, to implement the production programme under Seed Hub. This provision is already with the project, but not implemented.

iii) Lifting of produced seed for assured the DDAs and KVKs/AICRP centres may enter into MOU in advance.

iv) Seed hub implementation agencies may be advised to compulsorily produce the varieties within 10 years of release, preferably recommended for that district/zone. Also the pulse crop of the district and season should be given the preference.

v) Higher grade seed (BS/FS) from National Seed Plan (NSP) should also be allotted to KVKs to take seed production under seed hub programme.

vi) For better marketing of seeds produced under Seed-hub and Seed Village Schemes, in addition to MoU with the State Agriculture Department KVKs may contact the Minikit supplying agencies viz., NAFED, HIL, KRIBHCO, IFFDC, NSC.

vii) **Production Policy:** The individual grower or the registered grower society under seed hub should be financially assisted towards purchase of Breeder/foundation seed. The nodal agency

the KVK/AICRPs, should act as facilitator in whole process of registration/processing/procurement etc.

viii) **Procurement policy:** The seed procurement prices should be fixed in advance may be decided by SAUs, to motivate the farmers with assured remunerative prices or the previous year per quintal rates fixed as per ñseed rate fixation criteria adopted by NSC/SSCò.

B. PROGRAMME IMPLEMENTATION/CONSTRAINTS

i) Agricultural extension officers are intermediaries between research and farmers. They operate as facilitators and communicators, helping farmers in their decision-making and ensuring that appropriate knowledge is implemented to obtain the best results with regard to sustainable production and livelihood. The grass root extension workers are the key elements of public sector extension system. Their role has increased manifolds with the multiplicity of extension agencies. They are expected to have a wide knowledge of agriculture, or they may choose to operate from a more central locality and provide, as subject matter specialists, more specialized services within specific farming enterprises.

ii) A large no. of vacancies at the grass root level eg. in Seoni district 78 RAEOs against the sanctioned strength of 164 (i.e. @ > 40 villages/RAEO) and their deployment to assist the district administration in the tasks not related to the programme implementation, is another major factor to disappointing physical and financial achievement. It was noticed that the District Consultant and the Technical Assistants (1+2 in each districts) under PMT-NFSM since 2008 onwards, are qualified and experienced and they should be deployed to the block levels for implementation of the programme in place of vacant post of RAEOs. This will ensure to achieve the physical progress in qualitative terms and the financial targets as well. Alternatively one day may be fixed once in a week at Panchyat level, where the farmers can meet and approach him for consultation.

iii) The team emphasized the need of special attention to be paid towards precautions while handling the hazardous chemical pesticides/molecules in the fields. Farmers like growing Kashinandini (KN 5) variety of vegetable pea. The early picking fetches premium price in the market. This may be popularized in Betul and other districts.

iv) Looking to existing NRM issues/need of farmers, the NLMT suggests preparation of district-wise alternate contingent plan for both the seasons (rabi and kharif) involving AHD/Horti/Agro-forestry/fisheries as per changing scenario of climate change and to identify alternate crops/varieties to sustain adverse conditions.

v) It was observed that the local initiative (LI) component is not getting due attention and 09 per cent of total budgetary allocation under NFSM in a district is not being utilized. The DFSMEC, is therefore, suggested to conceive specific project under this component. The shelves of the project under LI may be conservation of local germplasm, proven local practice,

specific intercropping, mini dal mills, mini oil mills, branding of some product of their district. Power operated and bullock drawn weeder, to manage weed problem, keeping their soil-eco-friendly behaviours on one hand and to help minimize the cost of cultivation on the other, can also be covered/executed under local initiative.

vi) The size of cluster demonstrations, as suggested by almost all field functionaries, may be reduced to a maximum of 5 -10 ha. The field extension staff has appraised that such a big cluster is not practical for crops like mung, urd, lentil and tur except the major crops of region like soybeanï gram, paddy. Also small clusters in a large representative area are being demanded by farmers.

vii) Feasibility of conduction of Cropping System Based Demonstrations (CSBDs) should be re-assessed for its continuation in the program. This should have direct linking with the recommendation of IFS/CSR of the State agriculture Universities and may be conducted in association with extension department of the SAUs/KVKs.

viii) Demonstration based on cropping system (CSBD) which easily can tune with adoptability of farmers are most essential and should be taken seriously rather than introducing new interventions over existing.

ix) Documentary evidence in favour of conduction of demonstrations should be made mandatory like GPS based photos of each trial with boards, proof of training programme conduction with photos and paper news-cuttings, wherever possible.

x) The budget allocated for local initiatives under NFSM (9% of total budget) has not been utilized as no such activity was identified/approved by DFSMEC. This should be done on priority to ensure maximum utilization. The local initiatives may include godowns for safe storage of critical inputs, post-harvest/processing facilities like grader, gravity separator, pre-cleaner and seed treater. Promotion of popular local land races of rice (Chinnor, Jeera Shanker, and Kalimooch), arhar (grown especially in Gotegaon and Gadarwara), lentil (Masra grown in Sagar, Narsinghpur and Jabalpur districts) could also be done through provision under local initiatives.

C. POLICY ISSUES/CONSTRAINTS

i) During the course of monitoring/field visit by the NLMT (Oct. 9th to 14th, 2017) in the sample districts of Narsinghpur, Seoni, Chhindwara and Betul, followings may be attributed to poor utilization of Crop Development funds under NFSM /NMOOP etc. ***As on Sept. 30th, 2017, a tentative expenditure under NFSM is approx. 20 per cent.***

ii) Expenditure towards cluster demo. has been extremely poor owing to DBT mode of subsidy benefit. The input cafeteria could be made available/delivered to the location of the cluster through the MPAIDC/DDA with the help of registered dealers/societies, only once at the time of sowing.

iii) The expenditure on Seed Production subsidy is hampered due to indirect involvement of the DDAs in the implementation of this component. Their role is basically to facilitate the reimbursement. Current kharif, this component could not be implemented by majority of the districts. The reputed registered seed societies (M.P State Beej Utpadak Evam Vipnan Sangh) may be considered subject to the production of seeds of varieties < 10 Years and DBT with direct accountability to DDAs.

iv) The team also recommends that for equity of transferring benefits to resource poor and remote areas under SCP, TSP and Women, every RAEO circle should be given separate targets under tools and machineries (RCT component).

v) For effective implementation of seed components, also the cluster demonstrations, it is suggested that the seeds of oilseeds, pulses and cereals of the varieties within 10 years/15 years should be made available in the districts through the advanced seed planning and the quantities be stored with PACS by 15th Sep, positively for Rabi and by 15th March for kharif.

vi) Although all the CSS shall have to utilize PFMS Portal of Controller General of Accounts/Ministry of Finance for entering Aadhar-seeded beneficiary data would be based on Aadhar linked data bases of beneficiaries. However, it is felt that for crop technology demonstration the critical input like seed treating material + PSB + Rhizobium, necessary for a technological demonstration, could be exempted from DBT with the accountability of its quality and assured utilization at the level of SADO/ADO. This is important for accurate demonstration of technology.

vii) Farmers are mostly using NPK grade fertilizers in Soybean. Hence use of Sulphur and need based micronutrients application like Zn, Mo etc. required to be promoted by extension agencies through training and awareness program. Possibilities for Fortification of available NPK fertilizers with Sulpuhr, Zn and Molydenum particularly for Soybean-Chickpea system in M.P. needs to be explored.

viii) Inputs like bio-fertilizers (liquid/carrier based) and micronutrients products supplied by various agencies/company needs to be tested for their quality to ensure supply of good quality material for yielding good crops and developing faith and confidence of farmers for use of these materials as per recommendations. Bio fertilizers of Co-operatives like KRIBHCO /IFFCO/NFL/MPAGRO/NAFED etc. and other standard institution/company should only be promoted after ensuring their quality testing. Bio fertilizers (liquid/carrier based) and bio-pesticides prescribed under input cafeteria of the cluster demonstration should preferably be procured with the State Agriculture Universities. This will help the farmers getting quality product as well as will support the SAUs in sustaining the production of bio fertilizer unit.

ix) Similarly micronutrients material should be sampled and got tested separately in 2-3 standard labs to ensure quality and content of elements (%).

x) Growth promoters and Tonics are being used abruptly and applied in combination with pesticides and these need to be checked.

D. AGRICULTURAL MECHANIZATION

i) The (*e-Krishi yantra anudaan portal*), operational with the Directorate of Engineering for all agricultural and irrigation machineries/tools, should have a provision for sharing the ID No. and password at DDA and SADO level for physical verification accountability and after sale compliance. The online registration process for Sprinkler sets, Water carrying pipes and Power drawn implements need to be relaxed for Tribal districts, requiring continuation for whole year and on the principals of ***"First Come First Serve"*** basis.

ii) For effective implementation of RCT component, the details of registered dealers and the rates of all machineries /tools should be displayed at DDA level/ SADO level and panchayat levels to maintain more transparency and scope of selection/rate negotiation at the level of the farmers. Under RCT component the farm equipments which demonstrated their utility like Zero-till-Multi crop Planter, Happy Seed Drill, Power Weeder, Reaper, etc. should be given priority.

iii) The team also suggests that in machine harvested areas, specific seeding machine viz., Happy Seeder and Zero Till Seed Drill can help a lot for direct seeding of rabi crops as well as kharif crops.

iv) The monitoring team suggests that there should be subsidy provisions for establishing custom hiring centers exclusively for seed processing (seed pre-cleaner, seed grader, gravity separator, indent cylinder etc) and farm equipments etc. This needs, to be established at block level the seed growers/seed societies request to finance them on this count may be considered. This will also help the farmers in grading/processing of their grains for MSP sale with PSS/PSF.

v) The tools distributed under RCT component with subsidy amount of > Rs. 10,000/- (Multi-crop Planter, Power Tiller, Seed Drill, Power Weeder, Zero-till-Multi crop Planter, Rotavator, Reaper etc.) should have a provision of User Group involving 10-15 fellow farmers. A list of such beneficiaries (with contact numbers) may be displayed at village panchayat/PACS/block office to help other farmers to avail the services on custom hiring basis.

OTHER RECOMMENDATION

i) Under weather aberration strategies in rainfed system of farming, contingent crop planning is must for early, mid and late onset or break in monsoon by soil manipulation and incorporation of water holding materials.

ii) Less than the normal area coverage during kharif 2017, in soybean may be attributed to poor yield performance since 2013 to 2016 and diversion towards urd and maize owing to good MSP/market prices.

iii) In addition to self pollination, majority of crop plants are pollinated in whole or partially by honey bees. Promotion of Beekeeping under NFSM-Pulses (pigeonpea) and NMOOP (rapseed-musturd, sunflower and niger), may be ensured/implemented in the potential districts. Rate of assistance of cluster demonstration with beekeeping is Rs.2000/- ha higher over the existing per ha demonstration norms for oilseeds while Rs.3000/-ha, as a part of input cafeteria, for hiring of bee colonies is provided for pigeonpa. This will increase the yield levels as well as provide an additional income to the farmers.

iv)

v) Based on the experience of NLMT / routine visits for the last three years, the Govt of M.P. may be requested to endorse the copy of the important circulars/letters on various policy issues, directives/decisions (Ref: Para v- D policy issues/constraints) to the DDAs and other state stakeholders to the Director, Directorate of Pulses Development, Bhopal, being nodal office of the Govt. of India for the CSS/CS.

DISTRICT-NARSINGHPUR

Sugarcane propagation through bud nursery, Vill. - Kartaj, Farmers Practice

Bud nursery/Single bud sprouted under coco-peat, Vill. - Kartaj
Farmers Practice

Intercropping by Ridge Furrow method (Tur + Soybean), Vill.- Chirchita Block- Narsinghpur

Cluster Demonstration of Arhar (*cv.* TJT-501) , Vill. Newari, DOS- July 1st week

AGRICULTURE MECHANIZATION

Balram Beej Utpadak Sahakari Samiti
Village-Newari, Block-Gotegaon

Custom Hiring Centre – Newari
(RKVY-2015)

CHC- Raised Bed Planter

Multi Crop Planter

DISTRICT- SEONI

Inspection of minikit seed quality at District Agri. Office

Harvested Maize , Vill. –Dharma, Block-Lakhnadone

Crop - Vegetable Pea (cv.- Kashi Nandini 5), cultivation with Sprinkler Irrigation,Farmers Practice, Village –Dharma, Block-Lakhnadone

Seed Minikit Demo. (Cv. – TJT 501), Village- Dharma

NFSM- Gram Seed Minikit distribution during NLMT visit, Village- Pipardahi

DISTRICT-CHHINDWARA

Interaction with Womens SHGs on Organic farming/PKVY

Interacted with Local MLA (Shri. Ramesh Dubey) , Block- Chaurai

Stakeholders meeting in KVK at District-Chhindwara

Demonstration on Jaivik Pest Control formulation "Jeevamrit" prepared by Ganaga Keshari Women Group in Neemdhana, Block-Amarwada

Demonstration on Drip Fertigation with plastic mulching

Discussion on Production Practice of Azolla at KVK

Organic farming under PKVY growing Local Jowar germplasm (*Bhuswania*)
Village-Nimdhana, Block-Amarwada (Contact-7999867547)

Discussion on Production Practice of NADEP

DISTRICT- BETUL

NLMT visiting CFLD on Niger (Cv. UN-150) with KVK/DDA

Cluster Demonstration of Soybean

Oilseed Demonstration (Niger) –Var.- UN 150, MOP- Line Sowing

Block level Krishak Sangosthi at Multai

Annexure-I

PHYSICAL AND FINANCIAL PROGRESS DURING 2017-18

State: MADHYA PRADESH

1. NFSM-RICE

Month- Till September 2017 **(Rs. In lakh)**

S. No.	Intervention	Approved Rate /Unit	Target		Achiev.		% Achieved	
			Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
1	**(a)Direct seeded Rice/Line Transplanting/SRI (Target 1.5% of area of District)**							
	(i) Direct seeded rice	Rs.7500/ha.	600	45.00	600	12.31	100	27
	(ii) Line transplanting		1900	142.50	1800	25.52	95	18
	(iii) SRI		1800	135.00	1800	30.44	100	23
	(b) Cluster Demonstrations on Hybrid Rice (One cluster of 100 ha)	Rs.7500/ha	2000	150.00	1500	25.77	75	17
	(c) Demonstration on Stress tolerant varieties of 100 ha.each	Rs.7500/ha	300	22.50	300	5.65	100	25
	(d) Cropping System based demonstrations							
	(i) (Rice-Pulses (Urad, Moong, Moth, Cowpea & Tur)	Rs.12500/ha	1100	137.50	1050	20.17	95	15
	(ii) Rice-Wheat		600	75.00	560	10.30	93	14
	Sub total 1 (a to d)		**8300**	**707.50**	**7610**	**130.16**	**92**	**18**
2	**Seed Distribution**							
	(a) Hybrid Rice Seed	Rs.5000/qtl	6730	336.50	700	0.00	10	0
	(b) HYVs Seeds	Rs.1000/qtl	1250	12.50	150	0.00	12	0
	Sub total 2 (a to b)		**7980**	**349.00**	**850**	**0.00**	**11**	**0**
3	**Soil Management**							
	(a) Micronutrients	Rs.500/ha	25000	125.00	0	0.02	0	0
	(b) Liming in Acidic Soils	Rs.1000/qtl	1000	10.00	0	0.00	0	0
	Sub Total 3 (a+b)		**26000**	**135.00**	**0**	**0.02**	**0**	**0**
4	**Plant Protection Management**							
	(i) Plant Protection Chemicals and bio-agents	Rs.500/ha	20588	102.94	0	0.00	0	0
	(ii)Weedicides	Rs.500/ha	5000	25.00	0	0.00	0	0
	Sub total 4 (a+b)		**25588**	**127.94**	**0**	**0.00**	**0**	**0**
5	**Water Application Tools**							
	(a) Pumpsets	Rs.10000/Unit	850	85.00	14	2.86	2	3
	(a) Water carrying pipes	Rs.50/M for HDPE pipes, Rs.35/-M for PVC pipes and Rs.20/-M for HDPE laminated woven lay flat tubes	232500	116.25	4	0.39	0	0
	Sub total 5 (a+b)		**233350**	**201.25**	**18**	**3.25**	**0**	**2**
6	Cropping System based trainings (Four Sessions i.e. one before Kharif and rabi seasons, One each during Kharif and Rabi crops and one after rabi harvest)	Rs.3500/Session Rs.14000/Training	125	17.50	93	12.88	74	74
7	**Other Initiatives**							
	(a) Demonstration by NGOs /KVKs	Rs.7500/ha.						
	Grand Total(1 to 7)		**301343**	**1538.19**	**8571**	**146.31**	**3**	**10**

2. NFSM-Pulses

Month- Till September 2017 **(Rs. In lakh)**

S.No.	Interventions	Approved Rate /Unit	Target		Achievement		% Achieved	
			Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
	***Demonstrations on Improved Technologies:**							
1	(a) Cluster Demonstrations (of 100 ha each) Moong, Urd. Pigeonpea							
	Arhar	Rs.7500/ha	11800	885.00	9413	159.69	80	18
	Gram		46000	3450.00	2820	19.45	6	1
	Urd		15100	1132.50	11693	362.89	77	32
	Moong		14400	1080.00	5648	155.97	39	14
	Lentil		14800	1110.00	740	9.79	5	1
	(c) Cropping System Based Demonstrations							
I	Gram-Maize	Rs.12500/ha	1200	150.00	650	11.95	54	8
	Pea-Maize		200	25.00	130	4.39	65	18
	Lentil-Maize		300	37.50	17	0.82	6	2
II	Mung-Wheat		5000	625.00	2749	45.21	55	7
	Urd-Wheat		9000	1125.00	8786	74.88	98	7
	Tur-Wheat		2800	350.00	1541	21.40	55	6
2	**Demonstration on intercropping**	Rs. 7500/ha	32400	2430.00	12375	204.09	38	8
	Sub total 1 (a to c)		**153000**	**12400.00**	**56562.00**	**1070.53**	**37**	**9**
3	**Production and Distribution of HYVs Seeds**							
a)	**Production of Seeds**							
	Arhar	Rs.2500/qtl or 50% whichever is less	20000	500.00	2174	58.92	11	12
	Gram		132000	3300.00	2529	55.68	2	2
	Urd		15000	375.00	580	14.51	4	4
	Moong		60000	1500.00	1438	34.11	2	2
	Lentil		20000	500.00	453	0.05	2	0
	Total 2 (a)		**247000**	**6175.00**	**7174**	**163.27**	**3**	**3**
b)	**Distribution of Seeds**							
	Arhar	Rs.2500/qtl or 50% whichever is less	20000	500.00	630	18.06	3	4
	Gram		130000	3250.00	2143	10.15	2	0
	Urd		15000	375.00	448	2.90	3	1
	Moong		60000	1500.00	470	0.33	1	0
	Lentil		20000	500.00	450	0.00	2	0
	Sub total 2 (a to b)		**245000**	**6125.00**	**4141**	**31.44**	**2**	**1**
4	**Integrate Nutrient Management:**							
(a)	Micro-nutrients	Rs.500/ha	332800	1664.00	8834.3	6.01	3	0
(b)	Gypsum/80% WG Sulphur	Rs.750/ha	100000	750.00	4673	2.51	5	0
(c)	Lime	Rs.1000/ha	10000	100.00	460	1.21	5	1
(d)	Bio-fertilizers	Rs.300/ha	100000	300.00	5993	2.03	6	1
	Sub total 3 (a to d)		**542800**	**2814.00**	**19960.3**	**11.76**	**4**	**0**

S.No.	Interventions	Approved Rate /Unit	Target		Achievement		% Achieved	
			Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
5	**Integrated Pest Management (IPM)**							
(a)	Distri. of PP chemicals	Rs.500/ha	595164	2975.82	26794	22.12	5	1
(b)	Weedicides	Rs.500/ha	80000	400.00	6109.6	6.55	8	2
	Sub total 4 (a to b)		**675164**	**3375.82**	**32903.6**	**28.67**	**5**	**1**
6	**Efficient Water Application Tools:**							
(a)	Sprinkler Sets	Rs.10000/ha	24500	2450.00	632	63.21	3	3
(b)	Pump Sets	Rs.10000/Unit	9000	900.00	221	17.67	2	2
(c)	Pipe for carrying water from source to the field	Rs.50/M for HDPE pipes, Rs.35/-M for PVC pipes and Rs.20/-M for HDPE laminated woven lay flat tubes	3690000	1845.00	256	39.09	0	2
(d)	Mobile Rain gun	Rs. 15000/Unit	18	2.70	1	0.05	6	2
	Sub total (a to d)		**3723518**	**5197.70**	**1110**	**120.02**	**0**	**2**
7	**Cropping System based trainings** (4 Sessions i.e. 1 before Kharif and rabi seasons, 1 each during Kharif and Rabi Crops)	Rs.3500/ Session Rs.14000/ Training	2050	287.00	970	115.70	47	40
8	**Miscellaneous Expenses** PMT Miscellaneous Expenses at District level			602.00	4	133.11		22
	Other Miscellaneous Expenses at State level			45.00	0	32.27		72
9	Demonstration by NGO/KVKs	Rs. 7500/ha						
	Sub total 7 to 9		**2050**	**934.00**	**974**	**281.08**	**48**	**30**
	Grand Total		**5588532**	**37021.52**	**122824.9**	**1706.77**	**2**	**5**

3.NFSM-COARSE CEREALS

Month- Till September 2017 **(Rs. In lakh)**

SI. No	Interventions	Apporved Rate /Unit	Target		Achievement		% Achieved	
			Phy.	Fin.	Phy.	Fin.	Phy.	Fin
1	**(a)Demonstration of Improved package**							
	(i) Maize	Rs. 5000/ha	16200	810.00	12013	186.14	74	23
	(ii) Jowar (Sorghum)	Rs. 5000/ha	600	30.00	200	0.94	33	3
	(iii)Bajra (Pear Millet)	Rs. 5000/ha	3200	160.00	600	5.43	19	3
	(iv) Any Other (kodo-Kutki)	Rs. 5000/ha	500	25.00	0.00	0.00	0	0
	(b) Demonstration on intercroping	Rs. 5000/ha	500	25.00	400	3.71	80	15
	Sub-total 1 (a to b)		**21000**	**1050.00**	**13213**	**196.22**	**63**	**19**
2	**Distribution of Certified Seed**							
	(a) HVY seeds	Rs.1500/Qtls	3000	45.00	600	0.00	20	0
	(b) Hybrid Seeds	Rs.5000/Qtls	6540	327.00	882.15	10.84	13	3
	Sub-total 2 (a to b)		**30540**	**1422.00**	**14695**	**207.06**	**48**	**15**
	Grand Total 1 to 2		**51540**	**2472.00**	**27908**	**403.28**	**54**	**16**

4. NFSM-COTTON

Month- Till September 2017 **(Rs. In lakh)**

S.No.	Intervention	Apporved Rate /Unit	Target		Achievement		% Achieved	
			Phy.	Fin.	Phy.	Fin.	Phy.	Fin
1	Front Line Demonstration (FLD) on Integrated Crop Management (ICM)	Rs.7000/ha.(Rs.6000-input & Rs.1000-conti.)	400	28.00	70	0.60	18	2
2	FLD on Deshi and ELS Cotton /ELS Cotton Seed Production.	Rs.8000/ha.(Rs.7000-input & Rs.1000 contin.)	150	12.00	10	0.00	7	0
3	FLD on Intercropping	Rs.7000/ha.(Rs.6000-input & Rs.1000-conti.)	600	42.00	60	1.23	10	3
4	Trials on High Density Planting System HDPS	Rs.9000/ha.(Rs.8000 - input &Rs.1000-contin)	200	18.00	20	0.00	10	0
	Grand Total		**1350**	**100.00**	**160**	**1.83**	**12**	**2**

5. NFSM-SUGARCANE

Month- Till September 2017 **(Rs. In lakh)**

S. No	Interventions	Apporved Rate of Assistance	Target		Achievement		% Achieved	
			Phy.	Fin.	Phy.	Fin.	Phy.	Fin
1	Demonstration on intercropping and single bud chip technology with sugarcane	Rs. 8000 per ha. (Rs.7000 - inputs & Rs.1000-Contingency)	392	31.36	20	4.65	5	15
2	State level training by sugarcane research institutes, SAUs, KVK etc.	Rs. 40000/Training	4	1.6	0	0	0	0
	Total			**32.96**		**4.65**		14

6. NFSM-WHEAT

Month- Till September 2017 **(Rs. In lakh)**

S. No.	Interventions	Approved Rate of Assistance	Target		Achiev.		% Achieved	
			Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
1	***Demonstrations on Improved Technologies:**							
	a. Cluster Demo. (100 ha each)	Rs.7500/ha	16100	1207.50	700	0.78	4	0
	b. Cropping system based demonstrations(Rice-Wheat, Pulse-Wheat)							
	(i) Wheat-Mung	Rs.12500/ha	1685	210.63	100	0.31	6	0
	(ii) Wheat-Urd		700	87.50	0.00	0.00	0	0
2	**Seed Distribution: HYVs seeds**	Rs.1000/qtl	17105	751.05	823.70	9.08	5	1
3	**Need Based Plant/Soil Management**							
	Soil Management:							
	(a) Micronutrients	Rs.500/ha	59180	295.90	0	0.65	0	0
	(b) Gypsum	Rs.750/ha	12550	94.13	0	0.07	0	0
	Plant Protection Management:							
	(c) Plant Protection Chemicals & bio-agents	Rs.500/ha	32802	164	0	2.06	0	1
	(d) Weedicides	Rs.500/ha	1800	9	60	0.13	3	1
4	**Efficient Water Application Tools:**							
	(a) Water carrying pipes	Rs.50/M for HDPE pipes, Rs.35/-M for PVC pipes and Rs.20/-M for HDPE laminated woven lay flat tubes	300000	150	7	1.43	0	1
	(b) Pumpsets	Rs.10000/Unit	1281	128	17	1.70	1	1
	(c) Sprinkler sets	Rs.10000/ha	1290	129	51	4.89	4	4
	(d) Mobile Rain Gun	Rs. 15000/Unit	47	7.05	0	0	0	0
5	Cropping system based trainings (Four Sessions i.e. one before Kharif and rabi seasons. One each during Kharif and Rabi crops)	Rs.3500/ session Rs.14000/Training	225	31.50	63	1.40	28	4
	Grand Total (1 to 5)		**444765**	**3265.26**	**1822**	**22.50**	**0.41**	**1**

Annexure-II

APPROVED COST NORMS & INPUT CAFETERIA :2017-18

1. CLUSTER DEMONSTRATION : COARSE CEREALS - SOLE CROP

A. PULSES

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1	**Popularization of improved varieties**		
1.1	Urd Moong, Moth, Cowpea, Pigeon pea	20 kg/ha	3000.00
1.2	Chick Pea/field pea	80 kg/ha	
1.3	Lentil/Horse gram	40 kg/ha	
2	Seed treatment fungicides/Molybdenum		100.00
3	Promotion of use of Micro Nutrients and bio-fertilizers		
3.1	Zinc/Boron/Molybdenum (Based on soil testing value)		500.00
3.2	Rhizobium and PSB, PMB and ZSB		300.00
4	Plant Protection		1000.00
5	Demonstration on IPM	Use of Light Trap	1800.00
6	Publicity material /Visit of Scientists/Field Day		800.00
	Total		**7500.00**

B. MAIZE

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1.	Hybrid Maize Seed	20 kg/ha	1150.00
2.	Seed treatment fungicides/Molybdenum		100.00
3.	Zinc (Based on soil testing value)	25 kg/ha	500.00
4.	Weedicides		350.00
5.	Bio-fertilizers (Azotobacter and Azosprillum, PSB & PMB, ZSB)	2-3 kg/Inoculant	300.00
6.	Demonstration on IPM	Use of Light Trap	1800.00
7.	Publicity material /Visit of Scientists/Field Day		800.00
	Total		**5000.00**

C. MILLETS

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1.	Seed (Incl. Seed Treatment)	5-10 kg/ha	500.00
2.	Promotion of line sowing		500.00
3.	Micro-nutrient-Zinc/Boron (Based on soil testing value)	25kg/ha/10kg/ha	400.00
4.	Weedicides		300.00
5.	Insecticides		400.00
6.	Bio-fertilizers (Azotobacter and PSB & PMB, ZSB)	3 kg/Inoculant	300.00
7.	Demonstration on IPM	Use of Light Trap	1800.00
8.	Publicity material /Visit of Scientists/Field Day		800.00
	Total		**5000.00**

D. INTERCROPPING DEMONSTRATION : MAIZE

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1	Soybean (Main Crop)+ Maize/Jowar/Bajra/ Kodokutki		2500.00
2	Seed treatment fungicides		200.00
3.	Zinc Sulphate	25 kg/ha	500.00
4.	Weedicides		900.00
5	Azotobacter, PSB and PMB	5 g each ino. /kg seed	100.00
6.	Publicitymaterial/Visit of Scientists/Field Day		800.00
	Total		**5000.00**

E. WHEAT

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1	**Popularization of improved varieties**		
	HYVs	100 kg/ha	2800.00
2.	Promotion of use of Micro Nutrients and bio-fertilizers		
2.1	Zinc Sulphate (Soil test based)	25 kg/ha	900.00
2.2	Boron	10 kg/ha	800.00
3.	Promotion of line sowing using seed drills with the Custom Hiring		700.00
4.	Weedicides		1500.00
5.	Publicity material/Visit of Scientists/Field Day		800.00
	Total		**7500.00**

F. RICE HIGH YIELDING (DIRECT SEEDED RICE)

(Amount in Rs.)

S. No.	Name of Interventions	Recommended by Agri. Scientist	
		Recommendation	Total Cost /ha
1.	**Demonstration of High Yielding Varieties**		
1.1	Direct Seeded Rice	60 kg/ha	2000.00
1.2	Transplanted Rice	25 kg/ha	
2.	Seed treatment fungicides/Molybdenum		250.00
3.	**Promotion of use of micro-nutrient and bio-fertilizer**		
3.1	Zinc/ Boron (Based on soil testing value)	25 kg/ha / 10kg/ha	900.00
3.2	Blue Green Algae		300.00
4.	Weedicides		400.00
5.	Insecticide		1050.00
6.	Demonstration on IPM	Use of Light Trap	1800.00
7.	Publicity material /Visit of Scientists/Field Day		800.00
	Total		**7500.00**

G. RICE HYBRID (SYSTEM OF RICE INTENSIFICATION)

(Amount in Rs.)

S. No.	Name of Interventions	Recommended by Agri. Scientist	
		Recommendation	Total Cost /ha
1.	**Demonstration of Hybrid Varieties of rice**		
1.1	Systematic Rice Intensification	05 kg/ha	2000.00
2.	Seed treatment fungicides/Molybdenum		250.00
3.	**Promotion of use of micro-nutrient and bio-fertilizer**		
3.1	Zinc/ Boron (Based on soil testing value)	25 kg/ha / 10kg/ha	900.00
3.2	Blue Green Algae		300.00
4.	Weedicides		400.00
5.	Insecticide		1050.00
6.	Demonstration on IPM	Use of Light Trap	1800.00
7.	Publicity material /Visit of Scientists/Field Day		800.00
	Total		**7500.00**

H. RICE HIGH YIELDING VARIETIES (STRESS TOLERANT VARIETY)

(Amount in Rs.)

S. No.	Name of Interventions	Recommended by Agri. Scientist	
		Recommendation	Total Cost /ha
1.	**Demonstration of High Yielding Varieties of rice**		
1.1	Systematic Rice Intensification		2000.00
2.	Seed treatment fungicides/Molybdenum		250.00
3.	**Promotion of use of micro-nutrient and bio-fertilizer**		
3.1	Zinc/ Boron (Based on soil testing value)	25 kg/ha /10kg/ha	900.00
3.2	Blue Green Algae		300.00
4.	Weedicides		400.00
5.	Insecticide		1050.00
6.	Demonstration on IPM	Use of Light Trap	1800.00
7.	Publicity material /Visit of Scientists/Field Day		800.00
	Total		**7500.00**

I. RICE HIGH YIELDING VARIETIES (LINE TRANSPLANTING)

(Amount in Rs.)

S. No.	Name of Interventions	Recommended by Agri. Scientist	
		Recommendation	Total Cost /ha
1.	**Demonstration of High Yielding Varieties of rice**		
1.1	Systematic Rice Intensification		2000.00
2.	Seed treatment fungicides/Molybdenum		250.00
3.	**Promotion of use of micro-nutrient and bio-fertilizer**		
3.1	Zinc/ Boron (Based on soil testing value)	25 kg/ha /10kg/ha	900.00
3.2	Blue Green Algae		300.00
4.	Weedicides		400.00
5.	Insecticide		1050.00
6.	Demonstration on IPM	Use of Light Trap	1800.00
7.	Publicity material /Visit of Scientists/Field Day		800.00
	Total		**7500.00**

2. CLUSTER DEMONSTRATION: CROPPING SYSTEM BASED DEMONSTRATION (CSBD)

I. PULSE-WHEAT

A. CSBD: PULSE

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1	Popularization of improved varieties		
1.1	Urd, Moong, Moth, Cowpea, Pigeon pea	20 kg/ha	3000.00
1.2	Chick Pea/field pea	80 kg/ha	
1.3	Lentil/Horse gram	40 kg/ha	
2	Seed treatment fungicides/Molybdenum		100.00
3	Promotion of use of Micro Nutrients and bio-fertilizers		
3.1	Zinc/Boron/Molybdenum (Based on soil testing value)		800.00
3.2	Rhizobium and PSB, PMB and ZSB		300.00
4	Plant Protection		700.00
5	Demonstration on IPM	Use of Light Trap	1800.00
6	Publicity material /Visit of Scientists/Field Day		800.00
	Total		**7500.00**

B. CSBD: WHEAT

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1	Demonstration on HYVs	100 kg/ha	1600.00
2.	Promotion of use of micro-nutrient and bio-fertilizer		
2.1	Zinc Sulphate (Based on soil testing value)	25 kg/ha	800.00
2.2	Boron	10 kg/ha	600.00
3	Weedicides		1200.00
4	Publicity material /Visit of Scientists/Field Day		800.00
	Total		**5000.00**

II. RICE-PULSE

A. CSBD: RICE

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1.	**Demonstration of High Yielding Varieties of rice *(Transplanted & DSR)***		
1.1	Systematic Rice Intensification	60 kg/ha (DSR) 25 kg/ha (Trans.)	2000.00
2.	Seed treatment fungicides/Molybdenum		100.00
3.	**Promotion of use of micro-nutrient and bio-fertilizer**		
3.1	Zinc Sulphate (Based on soil testing value)	25 kg/ha	400.00
3.2	Boron	10 kg/ha	700.00
3.3	Blue Green Algae		300.00
4.	Weedicides		350.00
5.	Insecticide		1050.00
6.	Demonstration on IPM	Use of Light Trap	1800.00
7.	Publicity material		250.00
8.	Visit of Scientists		300.00
9.	Field Day		250.00
	Total		**7500.00**

B. CSBD: PULSE

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1	Popularization of improved varieties ***(Including Seed Treatment).***		
1.1	Urd, Moong, Moth, Cowpea, Pigeon pea	20 kg/ha	1800.00
1.2	Chick Pea/field pea	80 kg/ha	
1.3	Lentil/Horse gram	40 kg/ha	
2.	Promotion of use of Micro Nutrients and bio-fertilizers		
2.1	Rhizobium and PSB, PMB and ZSB		250.00
2.2	Demo. on use of Sulphur as a nutrient	20kg S /ha	600.00
3.	Demonstration on IPM	Use of Light Trap	1800.00
4.	Visit of Scientists		300.00
5.	Field Day		250.00
	Total		**5000.00**

III. RICE-WHEAT

A. CSBD: WHEAT

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1	**Popularization of improved varieties**		
	HYVs	100 kg/ha	1600.00
2.	Promotion of use of Micro Nutrients and bio-fertilizers		
2.1	Zinc Sulphate (Soil test based)	25 kg/ha	800.00
2.2	Boron	10 kg/ha	600.00
4.	Weedicides		1200.00
5.	Publicity material/Visit of Scientists/Field Day		800.00
	Total		**5000.00**

B. CSBD: RICE

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1.	**Demonstration of High Yielding Varieties of rice *(Transplanted & DSR)***		
1.1	Direct Seeded Rice	60 kg/ha	2000.00
1.2	Transplanted Rice	40 kg/ha	
2.	Seed treatment fungicides/Molybdenum		100.00
3.	**Promotion of use of micro-nutrient and bio-fertilizer**		
3.1	Zinc Sulphate (Based on soil testing value)	25 kg/ha	400.00
3.2	Boron	10 kg/ha	700.00
3.3	Blue Green Algae		300.00
4.	Weedicides		350.00
5.	Insecticide		1050.00
6.	Demonstration on IPM	Use of Light Trap	1800.00
7.	Publicity material		250.00
8.	Visit of Scientists		300.00
9.	Field Day		250.00
	Total		**7500.00**

I. INTERCROPPING DEMONSTRATION FOR PULSES

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1	Wheat. Jowar, Soybean, Mustard (Main Crop) +Urd/Mung/Moth/Cowpea/Tur/Gram/Pea/ Lentil/Gram (Intercrop)		2800.00
2.	Seed treatment fungicides		100.00
3.	Promotion of use of micro-nutrient and bio-fertilizer		
3.1	Zinc/Boron/Molybdenum	25 kg/ha	800.00
	Rhizobium & PSB		100.00
4.	Plant Protection		1100.00
5	Demo. on IPM	Use of Light Trap	1800.00
6.	Publicity material /Visit of Scientists/Field Day		800.00
	Total		**7500.00**

II. Intercropping Demonstration for Sugarcane (Commercial Crops)

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1	Seed (Incl. Seed Treatment)	Wheat- 40 kg/ha & Gram-35 kg/ha	1400.00
2.	Soil treatment fungicides		200.00
3.	Promotion of use of micro-nutrient and bio-fertilizer		
3.1	Zinc/Boron/Molybdenum	25 kg/ha	500.00
3.2	Boron	10 kg/ha	600.00
4.	Plant Protection		2500.00
5	Demo. on IPM	Use of Light Trap	1800.00
6.	Publicity material /Visit of Scientists/Field Day		1000.00
	Total		**8000.00**

ANNEXURE-III

CAFETERIA OF INTERVENTIONS FOR CLUSTER DEMONSTRATIONS IN MADHYA PRADESH FOR 2017-18

A. CLUSTER DEMONSTRATION: PULSES

(Amount in Rs.)

S. No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Popularization of improved varieties		
1.1	Urd Moong, Moth, Cowpea, Pigeon pea	Seed rate 20 kg/ha	3000.00
1.2	Chick Pea/field pea	Seed rate 80 kg/ha	
1.3	Lentil/Horse gram	Seed rate 40 kg/ha	
2	Seed treatment fungicides/Molybdenum	For disease control	100.00
		Seed treatment with Trichoderma viride 5 g/kg seed or Carbendazim + Thiram (1:2) @ 3 g/kg seed.	
		Pigeonpea- Seed treatment with Metalaxyl @ 3 g/kg seed and foliar spray ofMetalaxyl @ 3 g/lit of water, at appearance of phytopthora blight	
		Chickpea ï Soil incorporation of Trichoderma viride @ 2.5 kg/ha along with FYM	
3	Promotion of use of Micro Nutrients and bio-fertilizers		
3.1	Zinc/Boron/Molybdenum (Based on soil testing value)	Zinc : Zinc sulphate @ 25 kg/ha is recommend -ed as basal application for every three cropping sequences. If deficiency of Zinc is appears on the standing crop, 0.5% foliar application of Zinc sulphate is recommended (Neutrilize with 0.25% lime) two to three spray at the interval of 10-15 days are required. Suppliment Molybdenum @ 1 g AmoniumMolibdate/kg seed with Rhizobium + PSB inoculation.	500.00
3.2	Rhizobium and PSB, Potash mobilizing bacteria and zinc solubilizing bacteria)	Specific Rhizobium, PSB and Trichoderma	300.00
		Rhizobium	
		- Every year each pulse crop should be inoculated with appropriate Rhizobial inoculants.	
		- Seed should be treated first with fungicide as per recommendations.	
		- Prepare a slurry of 1 kg of Rhizobium culture in one litre of jaggery solution (by dissolving 200 g Jaggary in one litre of hot water and cool it.)	
		- Spread inoculants slurry over 80-100 kg of seed	
		- It found difficult to treat such a vig quantity of seed then it should be divided in 3-4 parts and accordingly inoculants slurry should also be divided.	
		- Mix the inoculants slurry in shade with seed so that every seed should be coated well.	
		- Molybdenum Suppliment @ 1 g AmoniumMolybdate/kg seed(as seed inoculation with Rhizobium + PSB in Chickpea).	
		- Sow the inoculated seed as early as possible and do not keep the treated seeds overnight.	
		- NPV virus	
		PSB and Trichoderma	
		- 3 kg of each inoculants should be taken.	
		- It should be mixed with 150 kg well powered FYM/Compost/	
		- Broadcast the mixture over one hectare land.	
4	Plant Protection	Pigeonpea:Profenofos 50 EC @ 1.5 Lit/ha, Dimethoate 30 EC@1 Lit/ha, Chickpea : Profenofos 50 EC @ 1.5 Lit/ha, Letnil :Dimethoate 30 EC@1 Lit/ha, Field pea, Cowpea, Urd, Moong :Triazophos 40EC @ 1 Lit/ha	1000.00
5	Demonstration on IPM	Use of Light traps as developed/ recommended by ICAR/SAU and it should be need based.	1800.00
6	Publicity material/Visit of Scientists/Field Day		800.00
	Total	-	**7500.00**

B. CLUSTER DEMONSTRATION: MAIZE (COARSE CEREALS) **(Amount in Rs.)**

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost/ha
1	Demonstration of Hybrid Maize :- Introducing newly released hybrids and quality protein maize varieties with specific to region	Seed rate 20 kg/ha	1150
2	Seed treatment (appropriate & recommended)	Seed treatment with Trichoderma viride @ 5 g/ kg seed or carbendazem 3 g/kg seed	100
3	Zinc	**Zinc :** Zinc sulphate @ 25 kg/ha is recommended as basal application for every three cropping sequences. If deficiency of Zinc is appears on the standing crop, 0.5% foliar application of Zinc sulphate is recommended (Neutrilize with 0.25% lime) two to three spray at the interval of 10-15 days are required.	500
4	Weedicide (appropriate & recommended)	· Atrazine/Simazine 1.0 Kg a.i./ha as pre-emergence (2.0 Lt/ha commercial prod.)	350
		· 2,4-D (Ethyl ester) 0.5 Kg a.i. /ha as post emergence	
		(1.33 kg/ha commercial product)	
5	Bio-fertilizers (Azotobactor, PSB, Potash mobilizing	**Azotobacter, Azosprillum and PSB**	300
		- 2- 3 kg of each inoculant should be taken.	
		· It should be mixed with 150 kg well powered FYM/Compost/Vermicompost/soil and incubate in shade for 7 days before soil treatment (about 40% moisture should be maintained).	
		· Broadcast the mixture over one hectare land before sowing	
6	Demonstration on IPM	Light trap safer to beneficial and light trap for managing insect (Without ballast)	1800
7	Publicity material/Visit of Scientists/Field Day	-	800
	Total		**5000**

C. CLUSTER DEMONSTRATION :MILLETS (COARSE CEREALS)

(Amount in Rs.)

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Seed including seed treatment	Seed rate 5-10 kg/ha	500
		Seed treatment with Trichoderma virideorCarbendazim 3 g/ kg seed.	
		For Shoot fly : Chloropyriphos @2ml/kg of seed	
2	Promotion of line sowing	Same as recommended	500
3	Micro nutrients (zinc, boron)	25 kg Zinc Sulphate/ha &Borex 10 kg/ha at the time of sowing(as per deficiency)	400
4	Weedicide (appropriate & recommended)	• 2,4-D (Ethyl ester) 0.5g a.i. /hg as post emergence (1.33 Lit/ha commercial product)	300
		• Fenoxaprop-ethyl 100 g a.i./ha as post -emergence (1Lit/ha commercial prod., 20 to 25 day after sowing)	
5	Insecticides (appropriate & recommended)	For Stem borer: Carbaryl 85% WP @ 5.75 kg/ha	400
6	Bio-fertilizers (Azotobactor, PSB, Potash mobilizing bacteria and zinc solubilizing bacteria)	**Azotobacter, Azosprillum and PSB**	300
		• 3 kg of each inoculant should be taken.	
		• It should be mixed with 150 kg well powered FYM/Compost/Vermicompost soil and incubate in shade for 7 days before soil treatment (about 40% moisture should be maintained).	
		• Broadcast the mixture over one hectare land.	
7	Demonstration on IPM	Use of Light traps as developed/ recommended by ICAR/SAU and it should be need based.	1800
8	Publicity material/Visit of Scientists/Field Day	-	800
	Total		**5000**

Note : 1.If the seed is already treated, amount on seed treatment will not be used

2. Above intervention may be changed region wise according to the availability of inputs

D. CLUSTER DEMONSTRATION :WHEAT

Amount in Rs.

S.No.	Name of Intervention	Recommended by Agriculture Scientist	Total Cost/ha.
1	Demonstration on new HYV		
	Introducing newly released high yielding varieties with specific to region	Seed rate 100 kg/ha	2800.00
2	Promotion of use of Micro Nutrients and bio-fertilizers		
2.1	a) Zinc Sulphate (Soil test based)	**Zinc :** Zinc sulphate @ 25 kg/ha is recommended as basal application for every three cropping sequences. If deficiency of Zinc is appears on the standing crop, 0.5% foliar application of Zinc sulphate is recommended (Neutrilize with 0.25% lime) two to three spray at the interval of 10-15 days are required.	900.00
2.2	Boron (Borax Deca hydrate, Borax penta hydrate (Soil test based)	**Boron:**10 kg Borex /ha is recommended in Boron deficient soils as basal application. If deficiency of Boron is appears on the standing crop, 0.2% foliar application of Borex is recommended. Two to three sprays at the interval of 10-15 days are required.	800.00
3	Promotion of line sowing using seed drills with the Custom Hiring	Same as recommended	700.00
4	Demonstration on use of chemical weedicides (appropiate&recommonded)	· Metsulfuran ï 4.0 g a.i/ha as post emergence (20 g/ha commercial prod.) · Fenoxoprop-P-ethyl 100g. a.i./ha as post emergence (1000 g/ha commercial product) · 2,4-D (Ethyl ester) 0.5 kg a.i. /ha as post emergence (1.33 kg/ha commercial product)	1500.00
5	Publicity material/ Visit of Scientists / Field Day		800.00
	Total		**7500.00**

E. CLUSTER DEMONSTRATION: RICE HIGH YIELDING (DIRECT SEEDED RICE)

(Amount in Rs.)

S. No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Demonstration of potential of high yielding varieties of rice. (Transplanted and directed seeded)	Seed rate 60 kg/ha (directed seeded rice) 25 kg/ha (transplanted rice)	2000.00
2	Seed treatment (appropriate and recommended)	Seed treatment with Thiram @ 2 g/kg seed or carbendazim 1.5 g. + Streptocycline 2.5 g per 10 kg seed.	250.00
3	**Promotion of use of micro nutrients and biofertilzers**		
3.1	Zinc/Boron (Based on soil testing value)	**Zinc :** Zinc sulphate @ 25 kg/ha is recommended as basal application for every three cropping sequences. If deficiency of Zinc is appears on the standing crop, 0.5% foliar application of Zinc sulphate is recommended (Neutrilize with 0.25% lime) two to three spray at the interval of 10-15 days are required. **Boron:** 10 kg Borex /ha is recommended in Boron deficient soils as basal application If deficiency of Boron is appears on the standing crop, 0.2% foliar application of Borex is recommended. Two to three sprays at the interval of 10-15 days are required.	900.00
3.2	Blue green alage	**BGA**	300.00
		· 3 kg of each inoculants should be taken.	
		For transplanted rice	
		· Inoculants slurry is to be prepared in 150 liter of water.	
		· Dip the roots of seedlings (required for 1 ha) in inoculants slurry for 10 min.	
		· Root dipping should be done in shade.	
		· Inoculants seedlings should be transplanted as early as possible.	
		Direct seeded rice	
		· It should be mixed with 150 kg well powered FYM/Compost/Vermicompost soil and incubate in shade for 7 days before soil treatment (about 40% moisture should be maintained).	
		· Broadcast the mixture over one hectare land before sowing.	
		Blue Green Algae	
		· Soil based BGA inoculums @ 10 kg/ha for both the conditions.	
4	Demonstration on effectiveness of weedicides (appropriate and recommended)	Herbicide for direct seeded rice (DSR)	400.00
		· Butachlor 1.5 kg a.i./ha (3.0 kg/ha commercial product)	
		· 2,4 D (Ethyl ester) 0.5 kg a.i./ha (1.33 kg/ha commercial product)	
		· Bispyribac ï Na 20 g a.i/ha (0.2 kg/ha commercial product)	
5	Insecticide	Fipronil G 10kg/ha, Chlorpyriphos 20 EC@1 Lit/ha	1050
6	Demonstration on IPM	Use of Light traps as developed/ recommended by ICAR/SAU and it should be need based.	1800
7	Publicity material/Visit of Scientists/Field Day	-	800.00
	Total	-	**7500.00**

F.CLUSTER DEMONSTRATION: RICE HYBRID (SYSTEM OF RICE INTESIFICATION)

Amount in Rs.

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Demonstration of potential of Hybrid varieties of rice. (Transplanted SRI system)	Seed rate 05 kg/ha	2000.00
2	Seed treatment (appropriate and recommended)	Seed treatment with Thiram @ 2 g/kg seed or carbendazim 1.5 g. + Streptocycline 2.5 g per 10 kg seed.	250.00
3	**Promotion of use of micro nutrients and biofertilzers**		
3.1	Zinc/Boron (Based on soil testing value)	**Zinc :** Zinc sulphate @ 25 kg/ha is recommended as basal application for every three cropping sequences. If deficiency of Zinc is appears on the standing crop, 0.5% foliar application of Zinc sulphate is recommended (Neutrilize with 0.25% lime) two to three spray at the interval of 10-15 days are required. **Boron:** 10 kg Borex /ha is recommended in Boron deficient soils as basal application If deficiency of Boron is appears on the standing crop, 0.2% foliar application of Borex is recommended. Two to three sprays at the interval of 10-15 days are required.	900.00
3.2	Blue green alage	**BGA**	300.00
		· 3 kg of each inoculant should be taken.	
		For transplanted rice	
		· Inoculant slurry is to be prepared in 150 liter of water.	
		· Dip the roots of seedlings (required for 1 ha) in inoculants slurry for 10 min.	
		· Root dipping should be done in shade.	
		· Inoculant seedlings should be transplanted as early as possible.	
		Direct seeded rice	
		· It should be mixed with 150 kg well powered FYM/Compost/Vermicompost soil and incubate in shade for 7 days before soil treatment (about 40% moisture should be maintained).	
		· Broadcast the mixture over one hectare land before sowing.	
		Blue Green Algae	
		· Soil based BGA inoculums @ 10 kg/ha for both the conditions.	
4	Demonstration on effectiveness of weedicides (appropriate and recommended)	Herbicide for direct seeded rice (DSR)	400.00
		· Butachlor 1.5 kg a.i./ha (3.0 kg/ha commercial product)	
		· 2,4 D (Ethyl ester) 0.5 kg a.i./ha (1.33 kg/ha commercial product)	
		· Bispyribac ï Na 20 g a.i/ha (0.2 kg/ha commercial product)	
5	Insecticide	Fipronil G 10kg/ha, Chlorpyriphos 20 EC@1 Lit/ha	1050
6	Demonstration on IPM	Use of Light traps as developed/ recommended by ICAR/SAU and it should be need based.	1800
7	Publicity material/Visit of Scientists/Field Day	-	800.00
	Total	-	**7500.00**

G. CLUSTER DEMONSTRATION : RICE HIGH YIELDING VARIETIES (STRESS TOLERANT VARIETY)

Amount in Rs.

S. No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Demonstration of potential of high yielding varieties of rice. (Stress Tolerant variety)		2000.00
2	Seed treatment (appropriate and recommended)	Seed treatment with Thiram @ 2 g/kg seed or carbendazim 1.5 g. + Streptocycline 2.5 g per 10 kg seed.	250.00
3	**Promotion of use of micro nutrients and biofertilzers**		
3.1	Zinc/Boron (Based on soil testing value)	Zinc : Zinc sulphate @ 25 kg/ha is recommended as basal application for every three cropping sequences. If deficiency of Zinc is appears on the standing crop, 0.5% foliar application of Zinc sulphate is recommended (Neutrilize with 0.25% lime) two to three spray at the interval of 10-15 days are required. **Boron:** 10 kg Borex /ha is recommended in Boron deficient soils as basal application If deficiency of Boron is appears on the standing crop, 0.2% foliar application of Borex is recommended. Two to three sprays at the interval of 10-15 days are required.	900.00
3.2	Blue green alage	BGA	300.00
		· 3 kg of each inoculant should be taken.	
		For transplanted rice	
		· Inoculants slurry is to be prepared in 150 liter of water.	
		· Dip the roots of seedlings (required for 1 ha) in inoculants slurry for 10 min.	
		· Root dipping should be done in shade.	
		· Inoculants seedlings should be transplanted as early as possible.	
		Direct seeded rice	
		· It should be mixed with 150 kg well powered FYM/Compost/Vermicompost soil and incubate in shade for 7 days before soil treatment (about 40% moisture should be maintained).	
		· Broadcast the mixture over one hectare land before sowing.	
		Blue Green Algae	
		· Soil based BGA inoculums @ 10 kg/ha for both the conditions.	
4	Demonstration on effectiveness of weedicides (appropriate and recommended)	Herbicide for Stress Tolerant variety (STV)	400.00
		· Butachlor 1.5 kg a.i./ha (3.0 kg/ha commercial product)	
		· 2,4 D (Ethyl ester) 0.5 kg a.i./ha (1.33 kg/ha commercial product)	
		· Bispyribac ï Na 20 g a.i/ha (0.2 kg/ha commercial product)	
5	Insecticide	Fipronil 0.3% G@ 15kg/ha, Chlorpyriphos 20 EC@1.25 Lit/ha	1050
6	IPM	Use of Light traps as developed/ recommended by ICAR / SAU and it should be need based.	1800
7	Publicity material/Visit of Scientists/Field Day	-	800.00
	Total	-	**7500.00**

H. CLUSTER DEMONSTRATION :RICE HIGH YIELDING VARIETIES (LINE TRANSPLANTING)

Amount in Rs.

S. No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Demonstration of potential of high yielding var. of rice.	Seed	2000.00
2	Seed treatment (appropriate and recommended)	Seed treatment with Thiram @ 2 g/kg seed or carbendazim 1.5 g. + Streptocycline 2.5 g per 10 kg seed.	250.00
3	**Promotion of use of micro nutrients and biofertilzer**		
3.1	Zinc/Boron (Based on soil testing value)	Zinc : Zinc sulphate @ 25 kg/ha is recommended as basal application for every three cropping sequences. If deficiency of Zinc is appears on the standing crop, 0.5% foliar application of Zinc sulphate is recommended (Neutrilize with 0.25% lime) two to three spray at the interval of 10-15 days are required. **Boron:** 10 kg Borex /ha is recommended in Boron deficient soils as basal application If deficiency of Boron is appears on the standing crop, 0.2% foliar application of Borex is recommended. Two to three sprays at the interval of 10-15 days are required.	900.00
3.2	Blue green alage	**BGA**	300.00
		· 3 kg of each inoculant should be taken.	
		For transplanted rice	
		· Inoculants slurry is to be prepared in 150 liter of water.	
		· Dip the roots of seedlings (required for 1 ha) in inoculants slurry for 10min.	
		· Root dipping should be done in shade.	
		· Inoculants seedlings should be transplanted as early as possible.	
		Direct seeded rice	
		· It should be mixed with 150 kg well powered FYM/Compost/Vermicompos soil and incubate in shade for 7 days before soil treatment (about 40% moistur should be maintained).	
		· Broadcast the mixture over one hectare land before sowing.	
		Blue Green Algae	
		· Soil based BGA inoculums @ 10 kg/ha for both the conditions.	
4	Demonstration on effectiveness of weedicides (appropriate and recommended)	Herbicide for Line Transplanted (LT)	400.00
		· Butachlor 1.5 kg a.i./ha (3.0 kg/ha commercial product)	
		· 2,4 D (Ethyl ester) 0.5 kg a.i./ha (1.33 kg/ha commercial product)	
		· Bispyribac ï Na 20 g a.i/ha (0.2 kg/ha commercial product)	
5	Insecticide	Fipronil 0.3% G@ 15kg/ha, Chlorpyriphos 20 EC@1.25 Lit/ha	1050
6	IPM	Use of Light traps as developed/ recommended by ICAR/SAU/KVK.	1800
7	Publicity material/Visit of Scientists/Field Day	-	800.00
	Total	-	**7500.00**

I. CROPPING SYSTEM BASED DEMONSTRATION: PULSES – WHEAT

A. CSBD: PULSE

Amount in Rs.

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Popularization of improved varieties		
1.1	Urd Moong, Moth, Cowpea, Pigeon pea	Seed rate 20 kg/ha	3000.00
1.2	Chick Pea/field pea	Seed rate 80 kg/ha	
1.3	Lentil/Horse gram	Seed rate 40 kg/ha	
2	Seed treatment fungicides/Molybdenum	For disease control	100.00
		Seed treatment with Trichoderma viride + Carboxin (1:1) @ 5 g/kg seed or Carbendazim + Thiram (1:2) @ 3 g/kg seed.	
		Pigeonpea- Seed treatment with Metalaxyl @ 3 g/kg seed and foliar spray ofMetalaxyl @ 3 g/lit of water, at appearance of phytopthora blight	
		Chickpea ï Soil incorporation of Trichoderma viride @ 2.5 kg/ha along with FYM	
3	Promotion of use of Micro Nutrients and bio-fertilizers		
3.1	Zinc/Boron/Molybdenum (Based on soil testing value)	Zinc : Zinc sulphate @ 25 kg/ha is recommend -ed as basal application for every three cropping sequences. If deficiency of Zinc is appears on the standing crop, 0.5% foliar application of Zinc sulphate is recommended (Neutrilize with 0.25% lime) two to three spray at the interval of 10-15 days are required. Suppliment Molybdenum @ 1 g AmoniumMolibdate/kg seed with Rhizobium + PSB inoculation.	800.00
3.2	Rhizobium and PSB, Potash mobilizing bacteria and zinc solubilizing bacteria)	Specific Rhizobium, PSB and Trichoderma	300.00
		Rhizobium	
		· Every year each pulse crop should be inoculated with appropriate Rhizobial inoculants.	
		· Seed should be treated first with fungicide as per recommendations.	
		· Prepare a slurry of 1 kg of Rhizobium culture in one litre of jaggery solution	
		· Spread inoculants slurry over 80-100 kg of seed	
		· It found difficult to treat such a vig quantity of seed then it should be divided in 3-4 parts and accordingly inoculants slurry should also be divided.	
		· Mix the inoculants slurry in shade with seed so that every seed should be coated well.	
		· Molybdenum Suppliment 1 g AmoniumMolibdate/kg seed(as seed inoculation with Rhizobium + PSB in Chickpea.	
		· Sow the inoculated seed as early as possible and do not keep the treated seeds overnight.	
		PSB and Trichoderma	
		· 3 kg of each inoculants should be taken.	
		· It should be mixed with 150 kg well powered FYM/Compost/Vermicompost	
		· Broadcast the mixture over one hectare land.	
4	Plant Protection	Pigeonpea:Profenofos 50 EC @ 1.5 Lit/ha, Dimethoate 30 EC@1 Lit/ha, Chickpea : Profenofos 50 EC@1.5 Lit/ha, Lentil :Dimethoate 30 EC@1 Lit/ha, Field pea, Cowpea, Urd, Moong :Triazophos 40EC @ 1 Lit/ha	700.00
5	Demonstration on IPM	Use of Light traps as developed/ recommended by ICAR/SAU and it should be need based.	1800.00
6	Publicity material/Visit of Scientists/Field Day		800.00
	Total	**-**	**7500.00**

B. CSBD: WHEAT

(Amount in Rs.)

S.No.	Name of Intervention	Recommended by Agriculture Scientist	Total Cost/ha.
1	Demonstration on new HYV		
	Introducing newly released high yielding varieties with specific to region	Seed rate 100 kg/ha	1600.00
2	Promotion of use of Micro Nutrients and bio-fertilizers		
2.1	a) Zinc Sulphate (Soil test based)	**Zinc :** Zinc sulphate @ 25 kg/ha is recommended as basal application for every three cropping sequences. If deficiency of Zinc appears on the standing crop, 0.5% foliar application of Zinc sulphate is recommended (Neutrilize with 0.25% lime) two to three spray at the interval of 10-15 days are required.	800.00
2.2	Boron (Borax Deca hydrate, Borax penta hydrate (Soil test based)	**Boron:** 10 kg Borex /ha is recommended in Boron deficient soils as basal application. If deficiency of Boron appears on the standing crop, 0.2% foliar application of Borex recommended. Two to three sprays at the interval of 10-15 days are required.	600.00
3	Demonstration on use of chemical weedicides (appropiate&recommonded)	· Metsulfuran ï 4.0 g a.i/ha as post emergence (20 g/ha commercial prod.)	1200.00
		· Fenoxoprop-P-ethyl 100g. a.i./ha as post emergence (1000 g/ha commercial product)	
		· 2,4-D (Ethyl ester) 0.5 kg a.i. /ha as post emergence (1.33 kg/ha commercial product)	
4	Publicity material/ Visit of Scientists / Field Day		800.00
	Total		**5000.00**

II. CROPPING SYSTEM BASED DEMONSTRATION: RICE – PULSES

A. CSBD: RICE

(Amount in Rs.)

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Demonstration of potential of high yielding varieties of rice. (Transplanted and directed seeded).	Seed rate 60 kg/ha(directed seeded rice) 25 Kg/ha (transplanted rice)	2000.00
2	Seed treatment (appropriate and recommended)	Seed treatment with Thiram @ 2 g/kg seed or carbendazim 1.5 g. + Streptocycline 2.5 g per 10 kg seed.	100.00
3	**Promotion of use of micro nutrients and bio-fertilizers**		
3.1	Zinc sulphate	**Zinc :** Zinc sulphate @ 25 kg/ha is recommended as basal application for every three cropping sequences. If deficiency of Zinc is appears on the standing crop, 0.5% foliar application of Zinc sulphate is recommended (Neutrilize with 0.25% lime) two to three spray at the interval of 10-15 days are required.	400.00
3.2	Blue green algae	**BGA**	300.00
		· 3 kg of each inoculant should be taken.	
		For transplanted rice	
		· Inoculant slurry is to be prepared in 150 liter of water.	
		· Dip the roots of seedlings (required for 1 ha) in inoculants slurry for 10 min.	
		· Root dipping should be done in shade.	
		· Inoculant seedlings should be transplanted as early as possible.	
		Direct seeded rice	
		· It should be mixed with 150 kg well powered FYM/Compost/Vermicompost soil and incubate in shade for 7 days before soil treatment (about 40% moisture should be maintained).	
		· Broadcast the mixture over one hectare land before sowing.	
		Blue Green Algae	
		· Soil based BGA inoculums @ 10 kg/ha for both the conditions.	
3.3	Boron (BoroxDeca hydrate, Borox Penta hydrate	**Boron:** 10 kg Borex /ha is recommended in Boron deficient soils as basal application If deficiency of Boron is appears on the standing crop, 0.2% foliar application of Borex is recommended. Two to three sprays at the interval of 10-15 days are required.	700.00
4	Demonstration on effectiveness of weedicides (appropriate and recommended)	Herbicide for direct seeded rice (DSR)	350.00
		· Butachlor 1.5 kg a.i./ha (3.0 kg/ha commercial product)	
		· 2,4 D (Ethyl ester) 0.5 kg a.i./ha (1.33 kg/ha commercial product)	
		· Bispyribac ï Na 20 g a.i/ha (0.2 kg/ha commercial product)	
5	Insecticide	Fipronil G 10kg/ha, Chlorpyriphos 20 EC@1 Lit/ha	1050.00
6	Demonstration on IPM	Use of Light traps as developed/ recommended by ICAR / SAU and it should be need based	1800.00
7	Publicity material	-	250.00
8	Visits of Scientists	-	300.00
9	Field days	-	250.00
	Total	-	**7500.00**

B. CSBD: PULSES

(Amount in Rs.)

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Popularization of improved varieties		
1.1	Urd Moong, Moth, Cowpea, Pigeon pea inculding seed treatment	Seed rate 20 kg/ha	1800.00
1.2	Chick Pea/field pea inculding seed treatment	Seed rate 80 kg/ha	
1.3	Lentil/Horse gram inculding seed treatment	Seed rate 40 kg/ha	
2	Promotion of use of Micro Nutrients and bio-fertilizers		
2.3	Rhizobium and PSB, Potash mobilizing bacteria and zinc solubilizing bacteria)	Specific Rhizobium, PSB and Trichoderma	250.00
		Rhizobium	
		· Every year each pulse crop should be inoculated with appropriate Rhizobial inoculants.	
		· Seed should be treated first with fungicide as per recommendations.	
		· Prepare a slurry of 1 kg of Rhizobium culture in one litre of jaggery solution (by dissolving 200 g Jaggary in one litre of hot water and cool it.)	
		· Spread ioiculant slurry over 80-100 kg of seed	
		· It found difficult to treat such a vig quantity of seed then it should be divided in 3-4 parts and accordingly inoculants slurry should also be divided.	
		· Mix the inoculants slurry in shade with seed so that every seed should be coated well.	
		· Sow the inoculated seed as early as possible and do not keep the treated seeds overnight.	
		PSB and Trichoderma	
		· 3 kg of each inoculants should be taken.	
		· It should be mixed with 150 kg well powered FYM/Compost/Vermicompost (about 40% moisture should be maintained)	
		· Broadcast the mixture over one hectare land.	
3	Demonstration on use of sulphur as a nutrient	Sulphur: 20 kg S/ha.	600.00
4	Demonstration on IPM	Light trap safer to benificial insect and light trap for managing insect (Without Blast)	1800.00
5	Visit of Scientists	-	300.00
6	Field Day	-	250.00
	Total	**-**	**5000.00**

Note : 1. If the seed is already treated, amount on seed treatment will not be used

2. Above intervention may be changed region wise according to the availability of inputs

III. CROPPING SYSTEM BASED DEMONSTRATION :RICE – WHEAT

A. CSBD-RICE

(Amount in Rs.)

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Demonstration of potential of high yielding varieties of rice. (Transplanted and directed seeded)	Seed rate 60 kg/ha(directed seeded rice) 40 Kg/ha (transplanted rice)	2000.00
2	Seed treatment (appropriate and recommended)	Seed treatment with Thiram @ 2 g/kg seed or carbendazim 1.5 g. + Streptocycline 2.5 g per 10 kg seed.	100.00
3	Promotion of use of micro nutrients and biofertilzers		
3.1	Zinc sulphate	Zinc : Zinc sulphate @ 25 kg/ha is recommended as basal application for every three cropping sequences. If deficiency of Zinc is appears on the standing crop, 0.5% foliar application of Zinc sulphate is recommended (Neutrilize with 0.25% lime) two to three spray at the interval of 10-15 days are required.	400.00
3.2	Blue green alage	BGA	300.00
		· 3 kg of each inoculant should be taken.	
		For transplanted rice	
		· Inoculant slurry is to be prepared in 150 liter of water.	
		· Dip the roots of seedlings (required for 1 ha) in inoculants slurry for 10 min.	
		· Root dipping should be done in shade.	
		· Inoculant seedlings should be transplanted as early as possible.	
		Direct seeded rice	
		· It should be mixed with 150 kg well powered FYM/Compost/ Vermicompost soil and incubate in shade for 7 days before soil treatment (about 40% moisture should be maintained).	
		· Broadcast the mixture over one hectare land before sowing.	
		Blue Green Algae	
		· Soil based BGA inoculums @ 10 kg/ha for both the conditions.	
3.3	Boron (BoroxDeca hydrate, Borox Penta hydrate	Boron: 10 kg Borex /ha is recommended in Boron deficient soils as basal application If deficiency of Boron is appears on the standing crop, 0.2% foliar application of Borex is recommended. Two to three sprays at the interval of 10-15 days are required.	700.00
4	Demonstration on effectiveness of weedicides (appropriate and recommended)	Herbicide for direct seeded rice (DSR)	350.00
		· Butachlor 1.5 kg a.i./ha (3.0 kg/ha commercial product)	
		· 2,4 D (Ethyl ester) 0.5 kg a.i./ha (1.33 kg/ha ommercial product)	
		· Bispyribac ï Na 20 g a.i/ha (0.2 kg/ha commercial product)	
5	Insecticide	Fipronil G 10kg/ha, Chlorpyriphos 20 EC@1 Lit/ha	1050.00
6	Demonstration on IPM	Light trap safer to benificial insect and light trap for managing insect (Without Blast)	1800.00
7	Publicity material	-	250.00
8	Visits of Scientists	-	300.00
9	Field days	-	250.00

	Total	**-**	**7500.00**

B. CSBD: WHEAT

Amount in Rs

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Demonstration on new HYV Introducing newly released high yielding varieties with specific to region including seed treatment	Seed rate 100 kg/ha	1600.00
2	Promotion of use of Micro Nutrients and bio-fertilizers		
2.1	a)Zinc Sulphate	Zinc : Zinc sulphate @ 25 kg/ha is recommended as basal application for every three cropping sequences. If deficiency of Zinc is appears on the standing crop, 0.5% foliar application of Zinc sulphate is recommended (Neutrilize with 0.25% lime) two to three spray at the interval of 10-15 days are required.	800.00
2.2	Boron (Borax Deca hydrate, Borax penta hydrate	Boron: 10 kg Borex /ha is recommended in Boron deficient soils as basal application. If deficiency of Boron is appears on the standing crop, 0.2% foliar application of Borex is recommended. Two to three sprays at the interval of 10-15 days are required.	600.00
4	Demonstration on use of chemical weedicides (appropiate&recommonded)	· Metsulfuran ï 4.0 g a.i/ha as post emergence (20 g/ha commercial prod.) · Fenoxoprop-P-ethyl 100g. a.i./ha as post emergence (1000 g/ha commercial product) · 2,4-D (Ethyl ester) 0.5 kg a.i. /ha as post emergence (1.33 kg/ha commercial product)	1200.00
5	Publicity material/Visit of Scientists/Field Day		800.00
	Total		**5000.00**

Note : 1. If the seed is already treated, amount on seed treatment will not be used
2. Above intervention may be changed region wise according to the availability of inputs
3. For Hybrid rice Demonstrations B. wheat Part should be followed this same

IV. INTERCROPING DEMONSTRATION

A. PULSES

Amount in Rs.

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	**Popularization of improved varieties**		
	Wheat, Jowar, Soybean, Mustard (Main crop) + Urd /Moong/ Moth/Cowpea/ Pigeon pea/Chick Pea/field pea/Lentil/ Gram(Intercrop)	Seed	2800.00
2	Seed treatment	Trichoderma viride 5 g/kg seed or Carbendazim + Thiram (1:2) @ 3 g/kg seed.	100.00
3	**Promotion of use of Micro Nutrients and bio-fertilizers**		
3.1	Zinc/Boron/Molybdenum (Based on soil testing value)	**Zinc :** Zinc sulphate @ 25 kg/ha is recommend -ed as basal application for every three cropping sequences. Molybdenum Suppliment @ 1 g Ammonium Molybdate/kg seed(as seed inoculation with Rhizobium + PSB in Chickpea).	800.00
3.2	Rhizobium and PSB	Specific Rhizobium, PSB Culture	100.00
		Every year each pulse crop should be inoculated with appropriate Rhizobial inoculants.	
		Seed should be treated first with fungicide as per recommendations.	
		Prepare a slurry of 500 g each of Rhizobium and PSB culture in one litre of jaggery solution (by dissolving 50 g Jaggary in one litre of hot water and cool it.	
		Spread inoculants slurry over 80-100 kg of seed	
		If found difficult to treat such a big quantity of seed then it should be divided in 3-4 parts and accordingly inoculants slurry should also be divided.	
		Mix the inoculants slurry in shade with seed so that every seed should be coated well. Treat with Molybdenum.	
		Sow the inoculated seed as early as possible and do not keep the treated seeds overnight.	
4	Plant Protection	**Pigeonpea:**Profenofos 50 EC @ 2 Lit/ha, Dimethoate 30 EC@1 Lit/ha, **Chickpea :**Profenofos 50 EC @ 2 Lit/ha, **Letnil :**Dimethoate 30 EC@1 Lit/ha, **Field pea, Cowpea, Urd, Moong :**Triazophos 40EC @ 1 Lit/ha or need based application of NPV 250 LE /ha.	1100.00
5	IPM	Light trap as recommended by ICAR/SAU/KVK and it should be need based.	1800.00
6	Publicity material/Visit of Scientists/Field Day		800.00
	Total	**-**	**7500.00**

Note : 1.If the seed is already treated, amount on seed treatment will not be used .

2. Above intervention may be changed region wise according to the availability of inputs.

B. MAIZE (COARSE CEREALS)

Amount in Rs.

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Soybean(Main crop) + Maize/Jowar/Bajra/ kodokutki (Intercrop)	Seed	2500
2	Seed treatment (appropriate & recommended)	Seed treatment with Trichoderma viride @ 5 g/ kg seed or carbendazem 3 g/kg seed	200
3	Zinc	**Zinc :** Zinc sulphate @ 25 kg/ha is recommended as basal application for every three cropping sequences.	500
4	Weedicide (apppriate& recommended)	Pendimethalin 1.0 kg a.i./ ha (3.33 Lit/ha Commercial Product)	900
5	Bio-fertilizers (Azotobactor, PSB, Potash mobilizing	Rhizobium, Azotobacter, Azosprillum and PSB - 5 g each inoculant /kg seed with crop specific.	100
7	Publicity material/Visit of Scientists/Field Day	-	800
	Total		**5000**

V. FRONT LINE DEMONSTRATION ON INTERCROPING

A. – COTTON

Amount in Rs.

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Cotton Seed	12.5 kg	1875
2	Arhar/ Moong Seed	600 gm	375
3	Micro Nutrient /Zinc Sulphate	25 kg	3750
4	PSB Culture	5 kg	
5	Triazophos 40EC	1.25 lit.	
6	Neem Oil / NPV 500 LE	2 lit.	
7	Publicity material/Visit of Scientists/Field Day	-	1000
	Total Cost		**7000**

B. - DESI AND ELS COTTON /ELS COTTON SEED PRODUCTION (COTTON)

Amount in Rs.

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Desi Cotton Seed JK-5, Jawahar Tapti	12.5 kg	1875
2	PSB Culture	5 kg	
3	Neem Oil / NPV 500 LE	2 Liter	
4	Pendimethalin	5 Liter	5125
5	Triazophos 40EC	1.25 lit.	
6	Fenvalerate 20EC	500 ml	
7	Publicity material/Visit of Scientists/Field Day	-	1000
	Total		**8000**

C. INTEGRATED CROP MANAGEMENT (ICM) (COTTON)

Amount in Rs.

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Cotton Seed	10 kg	1500
2	Azotobacter	400 Gm	4500
3	PSB Culture	5 kg	
4	Neem Oil / NPV 500 LE	2 Liter	
5	Imidacloprid 17.8 SL	250 ml	
6	Pendimethalin	5 Liter	
7	Planofix / Plant Growth	150 ml	
8	Publicity material/Visit of Scientists/Field Day	-	1000
	Total		**7000**

D. TRAILS ON HIGH DENSITY PLANTING SYSTEM (COTTON)

Amount in Rs.

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Desi Cotton Seed	12.5 kg	1875
2	PSB Culture	5Kg	6125
3	Zinc Sulphate	25 Kg.	
4	Fenvalerate 20EC	500ml.	
5	Neem Oil /NPV 500 LE	2 lit.	
6	Triazophos 40 EC	1.25 lit.	
7	Pendimethalin	5lit.	
8	Publicity material/Visit of Scientists/Field Day	-	1000
	Total Cost		**9000**

E.INTERVENTIONS FOR INTERCROPPING DEMONSTRATION FOR SUGARCANE (COMMERCIAL CROP)

Amount in Rs.

S.No.	Name of Interventions	Recommended by Agriculture Scientist	Total cost /ha
1	Intercropping Demonstration of Sugarcane :- Certified seed. (Seed including seed treatment)	Seed Wheat 40Kg or Gram 35 kg / Hect.	1400.00
2	soil treatment (appropriate & recommended)	soil treatment with Trichoderma viride @ 5 g/ kg	200.00
3	Zinc Sulphate	Zinc : Zinc sulphate @ 25 kg/ha is recommended as basal application for every three cropping sequences. If deficiency of Zinc is appears on the standing crop, 0.5% foliar application of Zinc sulphate is recommended (Neutrilize with 0.25% lime) two to three spray at the interval of 10-15 days are required.	500.00
4	Boron	Borex 10 kg	600.00
5	Plant Protection	Neem oil 1500 ppm 3 liter	2500.00
		chlorpyrifos 20% EC 1.5 liter	
		Prophenophos 50% EC 2 liter	
6	IPM	Use of Light traps as developed/ recommended by ICAR/SAU/KVK and it should be need based.	1800.00
7	Publicity material/Visit of Scientists/Field Day	Crop cutting	1000.00
	Total		**8000.00**

Annexure-IV

NFSM- Rabi Minikit Allocation 2017-18
State: MP
Gram (var- JAKI-9218)NSC

S. No.	Districts	Minikit Size	GOI Allocation	
			No.ofMinikit	Qty. in Qtl.
1	JABALPUR	16 kg	350	56.00
2	KATNI	16 kg	300	48.00
3	BALAGHAT	16 kg	250	40.00
4	CHHINDWARA	16 kg	400	64.00
5	SEONI	16 kg	300	48.00
6	DINDORI	16 kg	150	24.00
7	MANDLA	16 kg	200	32.00
8	NARSINGHPUR	16 kg	500	80.00
9	SAGAR	16 kg	850	136.00
10	DAMOH	16 kg	800	128.00
11	PANNA	16 kg	450	72.00
12	TIKAMGARH	16 kg	150	24.00
13	CHATTARPUR	16 kg	300	48.00
14	REWA	16 kg	350	56.00
15	SIDHI	16 kg	200	32.00
16	SINGROLI	16 kg	200	32.00
17	SATNA	16 kg	550	88.00
18	SHAHDOL	16 kg	150	24.00
19	UMARIA	16 kg	150	24.00
20	ANUPPUR	16 kg	150	24.00
21	INDORE	16 kg	400	64.00
22	DHAR	16 kg	550	88.00
23	JHABUA	16 kg	150	24.00
24	ALIRAJPUR	16 kg	150	24.00
25	KHARGONE	16 kg	200	32.00
26	KHANDWA	16 kg	250	40.00
27	BARWANI	16 kg	150	24.00
28	BURHANPUR	16 kg	200	32.00
29	UJJAIN	16 kg	600	96.00
30	MANDSAUR	16 kg	350	56.00
31	NEEMUCH	16 kg	300	48.00
32	RATLAM	16 kg	450	72.00
33	DEWAS	16 kg	600	96.00
34	SHAJAPUR	16 kg	450	72.00
35	AAGAR	16 kg	300	48.00
36	MORENA	16 kg	200	32.00
37	SHEOPURKALA	16 kg	150	24.00
38	BHIND	16 kg	150	24.00
39	GWALIOR	16 kg	175	28.00
40	SHIVPURI	16 kg	400	64.00
41	GUNA	16 kg	400	64.00
42	ASHOKNAGAR	16 kg	400	64.00
43	DATIA	16 kg	300	48.00
44	BHOPAL	16 kg	300	48.00
45	SEHORE	16 kg	550	88.00
46	RAISEN	16 kg	650	104.00
47	VIDISHA	16 kg	800	128.00
48	RAJGARH	16 kg	600	96.00
49	HOSHANGABAD	16 kg	410	65.60
50	HARDA	16 kg	152	24.32
51	BETUL	16 kg	400	64.00
TOTAL			**17887**	**2861.92**

Gram (var- JAKI-9218) NAFED

S. No.	Districts	Minikit Size	Goi Allocation		Supply Made		Supply Destination	Season	Date Of Supply
			No. of Minikit	Qty. in Qtl.	No. of Minikit	Qty. in Qtl.			
1	JABALPUR	16 kg	200	32.00	200	32.00	DDA	Rabi-2017	06.08.17
2	KATNI	16 kg	150	24.00	150	24.00	DDA	Rabi-2017	08.09.17
3	BALAGHAT	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	08.09.17
4	CHHINDWARA	16 kg	200	32.00	200	32.00	DDA	Rabi-2017	06.09.17
5	SEONI	16 kg	150	24.00	150	24.00	DDA	Rabi-2017	08.09.17
6	DINDORI	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	13.09.17
7	MANDLA	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	07.09.17
8	NARSINGHPUR	16 kg	300	48.00	300	48.00	DDA	Rabi-2017	08.09.17
9	SAGAR	16 kg	500	80.00	500	80.00	DDA	Rabi-2017	28.08.17
10	DAMOH	16 kg	500	80.00	500	80.00	DDA	Rabi-2017	08.09.17
11	PANNA	16 kg	250	40.00	250	40.00	DDA	Rabi-2017	08.09.17
12	TIKAMGARH	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	26.08.17
13	CHATTARPUR	16 kg	150	24.00	150	24.00	DDA	Rabi-2017	08.09.17
14	REWA	16 kg	200	32.00	200	32.00	ADA	Rabi-2017	26.08.17
15	SIDHI	16 kg	100	16.00	100	16.00	SADO	Rabi-2017	08.09.17
16	SINGROLI	16 kg	100	16.00	100	16.00	SADO	Rabi-2017	09.09.17
17	SATNA	16 kg	350	56.00	350	56.00	DDA	Rabi-2017	05.09.17
18	SHAHDOL	16 kg	100	16.00	100	16.00	SADO	Rabi-2017	08.09.17
19	UMARIA	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	07.09.17
20	ANUPPUR	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	08.09.17
21	INDORE	16 kg	250	40.00	250	40.00	DDA	Rabi-2017	08.09.17
22	DHAR	16 kg	350	56.00	350	56.00	DDA	Rabi-2017	07.09.17
23	JHABUA	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	08.09.17
24	ALIRAJPUR	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	07.09.17
25	KHARGONE	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	07.09.17
26	KHANDWA	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	14.09.17
27	BARWANI	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	31.08.17
28	BURHANPUR	16 kg	100	16.00	100	16.00	SADO	Rabi-2017	08.09.17
29	UJJAIN	16 kg	350	56.00	350	56.00	DDA	Rabi-2017	06.09.17
30	MANDSAUR	16 kg	150	24.00	150	24.00	DDA	Rabi-2017	11.09.17
31	NEEMUCH	16 kg	100	16.00	100	16.00	SADO	Rabi-2017	06.09.17
32	RATLAM	16 kg	250	40.00	250	40.00	SADO	Rabi-2017	07.09.17
33	DEWAS	16 kg	350	56.00	350	56.00	DDA	Rabi-2017	06.09.17
34	SHAJAPUR	16 kg	250	40.00	250	40.00	DDA	Rabi-2017	07.09.17
35	AAGAR	16 kg	100	16.00	100	16.00	SADO	Rabi-2017	07.09.17
36	MORENA	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	07.09.17
37	SHEOPURKALA	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	06.09.17
38	BHIND	16 kg	100	16.00	99	15.84	SADO	Rabi-2017	05.09.17
39	GWALIOR	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	26.08.17
40	SHIVPURI	16 kg	250	40.00	250	40.00	DDA	Rabi-2017	05.09.17
41	GUNA	16 kg	200	32.00	200	32.00	DDA	Rabi-2017	06.09.17
42	ASHOKNAGAR	16 kg	200	32.00	200	32.00	DDA	Rabi-2017	06.09.17
43	DATIA	16 kg	150	24.00	150	24.00	DDA	Rabi-2017	05.09.17
44	BHOPAL	16 kg	200	32.00	200	32.00	SADO	Rabi-2017	06.09.17
45	SEHORE	16 kg	300	48.00	300	48.00	DDA	Rabi-2017	04.09.17
46	RAISEN	16 kg	350	56.00	350	56.00	DDA	Rabi-2017	28.08.17
47	VIDISHA	16 kg	500	80.00	500	80.00	DDA	Rabi-2017	05.09.17
48	RAJGARH	16 kg	350	56.00	350	56.00	DDA	Rabi-2017	05.09.17
49	HOSHANGABAD	16 kg	200	32.00	200	32.00	DDA	Rabi-2017	07.09.17
50	HARDA	16 kg	100	16.00	100	16.00	DDA	Rabi-2017	07.09.17
51	BETUL	16 kg	200	32.00	200	32.00	DDA	Rabi-2017	08.09.17
TOTAL			**10000**	**1600.00**	**9999**	**1599.84**			

Gram (var- JG-14) NAFED

S. No.	Districts	Minikit Size	Goi Allocation		Supply Made		Supply Destination	Season	Date Of Supply
			No. of Minikit	Qty. in Qtl.	No. of Minikit	Qty. in Qtl.			
1	JABALPUR	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	06.08.17
2	KATNI	16 kg.	100	16.00	99	15.84	DDA	Rabi-2017	08.09.17
3	BALAGHAT	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	14.09.17
4	CHHINDWARA	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	07.09.17
5	SEONI	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	14.09.17
6	DINDORI	16 kg.	50	8.00	50	8.00	DDA	Rabi-2017	13.09.17
7	MANDLA	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	03.09.17
8	NARSINGHPUR	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	07.09.17
9	SAGAR	16 kg.	200	32.00	200	32.00	DDA	Rabi-2017	28.08.17
10	DAMOH	16 kg.	200	32.00	200	32.00	DDA	Rabi-2017	07.09.17
11	PANNA	16 kg.	100	16.00	100	16.00	ADA	Rabi-2017	04.09.17
12	TIKAMGARH	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	05.09.17
13	CHATTARPUR	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	04.09.17
14	REWA	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	06.09.17
15	SIDHI	16 kg.	50	8.00	50	8.00	SADO	Rabi-2017	18.09.17
16	SINGROLI	16 kg.	50	8.00	50	8.00	SADO	Rabi-2017	07.09.17
17	SATNA	16 kg.	150	24.00	150	24.00	DDA	Rabi-2017	05.09.17
18	SHAHDOL	16 kg.	100	16.00	100	16.00	SADO	Rabi-2017	08.09.17
19	UMARIA	16 kg.	50	8.00	50	8.00	DDA	Rabi-2017	20.09.17
20	ANUPPUR	16 kg.	50	8.00	50	8.00	DDA	Rabi-2017	19.09.17
21	INDORE	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	12.09.17
22	DHAR	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	07.09.17
23	JHABUA	16 kg.	50	8.00	50	8.00	DDA	Rabi-2017	12.09.17
24	ALIRAJPUR	16 kg.	50	8.00	50	8.00	DDA	Rabi-2017	16.09.17
25	KHARGONE	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	15.09.17
26	KHANDWA	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	14.09.17
27	BARWANI	16 kg.	50	8.00	50	8.00	SADO	Rabi-2017	15.09.17
28	BURHANPUR	16 kg.	50	8.00	50	8.00	RAEO	Rabi-2017	14.09.17
29	UJJAIN	16 kg.	150	24.00	150	24.00	DDA	Rabi-2017	07.09.17
30	MANDSAUR	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	22.09.17
31	NEEMUCH	16 kg.	100	16.00	100	16.00	SADO	Rabi-2017	13.09.17
32	RATLAM	16 kg.	100	16.00	100	16.00	SADO	Rabi-2017	14.09.17
33	DEWAS	16 kg.	150	24.00	150	24.00	DDA	Rabi-2017	12.09.17
34	SHAJAPUR	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	11.09.17
35	AAGAR	16 kg.	50	8.00	50	8.00	SADO	Rabi-2017	14.09.17
36	MORENA	16 kg.	50	8.00	50	8.00	DDA	Rabi-2017	12.09.17
37	SHEOPURKALA	16 kg.	50	8.00	50	8.00	DDA	Rabi-2017	09.09.17
38	BHIND	16 kg.	50	8.00	50	8.00	SADO	Rabi-2017	19.09.17
39	GWALIOR	16 kg.	50	8.00	50	8.00	DDA	Rabi-2017	13.09.17
40	SHIVPURI	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	05.09.17
41	GUNA	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	10.09.17
42	ASHOKNAGAR	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	28.08.17
43	DATIA	16 kg.	100	16.00	100	16.00	SADO	Rabi-2017	05.09.17
44	BHOPAL	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	08.09.17
45	SEHORE	16 kg.	150	24.00	150	24.00	DDA	Rabi-2017	28.08.17
46	RAISEN	16 kg.	150	24.00	150	24.00	DDA	Rabi-2017	28.08.17
47	VIDISHA	16 kg.	200	32.00	200	32.00	DDA	Rabi-2017	07.09.17
48	RAJGARH	16 kg.	150	24.00	150	24.00	DDA	Rabi-2017	11.09.17
49	HOSHANGABAD	16 kg.	100	16.00	100	16.00	SADO	Rabi-2017	07.09.17
50	HARDA	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	11.09.17
51	BETUL	16 kg.	100	16.00	100	16.00	DDA	Rabi-2017	07.09.17
TOTAL			**5000.00**	**800.00**	**4999.00**	**799.84**			

Annexure-V

Progress of Soil Health Card Scheme for Soil Samples Collection & Testing upto 31/10/2017

State/UT	MP
Target for soil sample collection from April to Oct 2017	10,42,130
No. of soil samples collected from April to Oct 2017	6,05,390
% Samples collected against the targets of April to Oct 2017	58%
No. of STLôs with Micronutrients testing facilities	53
No. of shifts	1 and 2
Total no. of labs without micro nutrients	19
No. of Labs under ICAR/KVKs/SAU	28
No. of Labs under ICAR/KVKs/SAU without micronutrients	25
Total no. of labs with Micronutrients	53
No. of labs in schools and colleges	-
Total no. of labs without micro nutrients	-
No. of samples allotted to labs	-
Target no. of samples to be tested in 2016-17	17,50,000
Target no. of samples to be tested in 2017-18	11,57,922
Upto last month August	1,57,214
During the current month (Sept.)	69307
Total	**2,26,521**

Progress of soil health Card Scheme

S.No.	State /UT	Total targets for no. of SHCs printed and distributed in 2017-18	No. of SHCs Printed			No. of SHCs distributed		
			Upto last monts (Aug)	During Current month (Sept.)	Total	Upto last month (Aug)	During current month (Sept.)	Total
1	**MP**	**4436189**	**400500**	**245000**	**645500**	**399395**	**245512**	**644907**

Annexure-VI

Scheme-wise/ Division-Wise Allocation, Release & Expenditure (2012-13 to 2017-18)

(Rs: In Lakhs)

S. No	District	Year	NFSM Pulse						NFSM- Wheat					
			All.	Unspent Balance Last Year	Rel.	Total Fund Available	Exp.	Unspent Balance	All.	Unspent Balance Last Year	Rel.	Total Fund Available	Exp.	Unspent Balance
1	Seoni	2012-13	254.95		240.00	240.00	236.89	3.11	325.39		282.50	282.50	282.50	
		2013-14	497.07	8.02	479.20	487.22	444.95	42.27	349.30	4.07	270.47	274.54	273.89	0.65
		2014-15	523.96	1.64	481.59	483.23	389.45	93.78	361.61		257.67	257.67	214.35	43.32
		2015-16	797.89		687.55	687.55	445.23	242.32	271.84		303.80	303.80	90.01	213.79
		2016-17	515.68		365.99	365.99	141.88	224.11	191.74		127.57	127.57	77.55	50.02
		2017-18	390.86		161.64	161.64	22.93	138.71	142.63					
2	Narsinghpur	2012-13	689.05	4.20	531.27	535.47	530.20	5.27						
		2013-14	918.47	17.60	737.76	755.36	674.89	80.47						
		2014-15	581.08	0.00	507.08	507.08	283.33	223.75						
		2015-16	822.87	0.00	822.00	822.00	602.01	219.99						
		2016-17	1772.09	0.00	1772.09	1772.09	376.74	1395.35						
		2017-18	944.32	0.00	944.32	944.32	64.92	879.40						
3	Chhindwara	2012-13	552.93	22.79	441.88	464.67	459.28	5.39						
		2013-14	526.79	5.38	705.01	710.39	683.36	27.03						
		2014-15	394.14	27.03	395.25	422.28	174.24	Surrender						
		2015-16	621.85		621.85	621.85	346.07							
		2016-17	711.88		711.88	711.88	173.90	537.98						
		2017-18	633.78		233.97	233.97	45.90	188.07						
Jabalpur Division Total		**2012-13**	**1496.93**	**26.99**	**1213.15**	**1240.14**	**1226.37**	**13.77**	**325.39**		**282.50**	**282.50**	**282.50**	**0.00**
		2013-14	**1942.33**	**31.00**	**1921.97**	**1952.97**	**1803.20**	**149.77**	**349.30**	**4.07**	**270.47**	**274.54**	**273.89**	**0.65**
		2014-15	**1499.18**	**28.67**	**1383.92**	**1412.59**	**847.02**	**565.57**	**361.61**		**257.67**	**257.67**	**214.35**	**43.32**
		2015-16	**2242.61**		**2131.40**	**2131.40**	**1393.31**	**738.08**	**271.84**		**303.80**	**303.80**	**90.01**	**213.79**
		2016-17	**2999.65**		**2849.96**	**2849.96**	**692.52**	**2157.44**	**191.74**		**127.57**	**127.57**	**77.55**	**50.02**
		2017-18	**1968.96**		**1339.93**	**1339.93**	**133.75**	**1206.18**	**142.63**					
4	Betul	2012-13	174.40		152.60	152.60	152.60		169.09		141.56	141.56	141.56	0.00
		2013-14	146.61		146.61	146.61	144.29	2.32	151.54		151.54	151.54	146.43	5.11
		2014-15	283.12		283.12	283.12	137.34	145.78						
		2015-16	184.46		184.46	184.46	184.46	0.00						
		2016-17	214.50		214.50	214.50	88.10	126.40						
		2017-18	396.19		136.82	136.82	47.80	89.02						
5	(Add. Pulses)	2017-18	83.75		61.82	61.82	10.02	51.80						

Scheme-wise/ Division-Wise Allocation, Release & Expenditure (2012-13 to 2016-17)

(Rs: In Lakhs)

S. No.	District	Year	NFSM (CC)						NMOOP					
			All.	Unspent Balance Last Year	Rel.	Total Fund Available	Exp.	Unspent Balance	All.	Unspent Balance Last Year	Rel.	Total Fund Available	Exp.	Unspent Balance
1	Chhindwara	2014-15	281.02		281.02	281.02	124.50	Surrender						
		2015-16	201.00		201.00	201.00	8.42							
		2016-17	375.10		375.10	375.10	85.35							
		2017-18	251.00		209.85	209.85	41.96	167.89						
	Jabalpur Division Total	**2014-15**	**281.02**		**281.02**	**281.02**	**124.50**	**156.52**						
		2015-16	**201.00**		**201.00**	**201.00**	**8.42**	**192.58**						
		2016-17	**375.10**		**375.10**	**375.10**	**85.35**	**289.75**						
		2017-18	**251.00**		**209.85**	**209.85**	**41.96**	**167.89**						
2	Betul	2014-15	109.35		109.35	109.35	21.30	88.05						
		2015-16	126.25		126.25	126.25	0.00	126.25						
		2016-17	138.70		138.70	138.70	63.41	75.29						
		2017-18	144.00		74.03	74.03	41.71	32.32						

S. No.	District	Year	NFSM (Sugarcane)					
			Allocation	Unspent Balance Last Year	Release	Total Fund Available	Exp.	Unspent Balance
1	Narsinghpur	2014-15	4.80	0.00	4.80	4.80	3.00	1.80
		2016-17	3.00	0.00	3.00	3.00	0.72	2.28
2	Chhindwara	2016-17	3.20	0.00	3.20	3.20	0.78	Surrender

Targets & Achievement of CFLDs on Pulses/Oilseeds at sample district during 2016-17 & 2017-18

1. NARSINGHPUR

Crop	*Physical*				*Financial*		*Thematic Area of FLD*	*Yield*	*% Yield increased over FP*
	Target		*Conducted*		*Target*	*Achie./ Fund released to KVK*			
	Area	*Demo.*	*Area*	*Demo.*					
2016-17									
Pigeonpea	40	100	40	100	465000	301740	ICM	19	25
Soybean	40	100	40	98	162000	162000	-do-	9.19	11.46
Total Kharif	**80**	**200**	**80**	**198**	**627000**	**463740**	**-do-**		
Chickpea	20	50	20	50		133560	-do-	19.7	15.88
Lentil	20	50	20	50		97325	-do-	13.3	15.65
TotalRabi	**40**	**100**	**40**	**100**		**230885**	**-do-**	**33**	**31.53**
Mungbean	70	175	70	175	-	214205	-do-	10	25
Total Summer	70	175	70	175		214205	-do-	10	25
Total KVK	**190**	**475**	**190**	**473**	**627000**	**908830**	-do-		
2017-18									
Pigeonpea	30	75	30	75	202500	Nil	Crop Production		
Soybean	30	75	30	75			-do-		
Total Kharif	**60**	**150**	**60**	**150**	**202500**				
Chickpea	50	125			337500	Nil	-do-		
tal Rabi	**50**	**125**			**337500**				
Mungbean	30	75			202500	Nil			
Total Summer	**30**	**75**			**202500**	**Nil**			
Total KVK	**140**	**350**	**60**	**150**	**742500**	**Nil**			

CFLD Varieties- Pigeonpea-TJT-501; Chickpea-JG-63;Lentil-JLS-3;Mungbean-PDM-139,Soybean-JS 95-60

2. SEONI

Crop	*Physical*				*Financial*		*Thematic Area of FLD*	*Yield*	*% Yield increased over FP*
	Target		*Conducted*		*Target*	*Achie./ Fund released to KVK*			
	Area	*Demo.*	*Area*	*Demo.*					
2016-17									
Pigeonpea	30	75	30	75	202500	185080	ICM	15.2	20.25
Total Kharif	**30**	**75**	**30**	**75**	**202500**	**185080**	**-do-**		
Chickpea	30	75	30	75	267745	196850	-do	14.23	42.44
Linseed	10	25	10	25	27000	15400	-do	10.31	255
TotalRabi	**40**	**100**	**40**	**100**	**294745**	**212250**	**-do**		
Mungbean	60	150	60	150	459755	245039	-do	9.22	45.19
Total Summer	**60**	**150**	**60**	**150**	**459755**	**245039**	**-do**		
Total KVK	**130**	**325**	**130**	**325**	**957000**	**642369**	**-do**		
2017-18									
Pigeonpea	30	75	30	75		Nil	Crop variety Diversification		
Total Kharif	**30**	**75**	**30**	**75**			**-do-**		
Chickpea	30	75					-do-		
Linseed	30	75					-do-		
Mustard	10	25					-do-		
tal Rabi	***70***	***175***					***-do***		
Mungbean	30	75					-do-		
otal Summer	**30**	**75**							
Total KVK	**130**	**325**	**30**	**75**					

CFLD Varieties- Pigeonpea-TJT-501; Chickpea-JG-63;Linseed-;Mungbean-PDM-139; Soybean-JS 95-60

3. CHHINDWARA

Crop	Physical				Financial		Thematic Area of FLD	Yield	% Yield increased over FP
	Target		Conducted		Target	Achie./ Fund released to KVK			
	Area	Demo.	Area	Demo.					
2016-17									
Pigeonpea	90	225	90	225	667500	667275	Crop Production	14.5, 16.48	31.81, 38.48
Soybean	45	112	45	112	363750	363502	-do-	13.25	52.03
Niger	45	112	45	112				4.7	33.52
Total Kharif	**180**	**449**	**180**	**449**	**1031250**	**10307777**	**-do-**		
Total KVK	**180**	**449**	**180**	**449**	**1031250**	**10307777**			
2017-18									
Pigeonpea	40	100	40	100	270000	NA	-do-		
Soybean	40	100	40	100		NA	-do-		
Niger	40	100	40	100		NA	-do-		
Total Kharif	**120**	**300**	**120**	**300**	270000	**NA**	**-do-**		
Total KVK	**120**	**300**	**120**	**300**	**270000**				

CFLD Varieties- Pigeonpea-TJT-501; Niger- JNC-6; Soybean-JS 95-60

4. BETUL

Crop	Physical				Financial		Thematic Area of FLD	Yield	% Yield increased over FP
	Target		Conducted		Target	Achie./ Fund released to KVK			
	Area	Demo.	Area	Demo.					
2016-17									
Soybean	60	150	40	150	294000	293940	Improved Technology, R & F, BBF with IPM	1770	185
Niger	30	75	30	75	90000	90000	Improved variety with line sowing	460	76
Total Kharif	***90***	***225***	***70***	***225***	***384000***	***383940***			
Chickpea	40	100	40	100	330000	329658	Improved Technology, R & F, BBF with IPM	1610	40
TotalRabi	***40***	***100***	**40**	**100**	***330000***	**329658**			
Total KVK	**130**	**325**	**110**	**325**	**714000**	**713598**			
2017-18									
Soybean	50	125	50	125	294000	No	Improved Technology, R & F, BBF with IPM		
Niger	30	75	30	75	90000	No	Improved variety with line sowing		
Total Kharif	*80*	*200*	*80*	*200*	*384000*				
Chickpea	40	100			330000	No	Improved Technology, R & F, BBF with IPM		
Total Rabi	40	100			330000				
Total KVK	***120***	***300***	***80***	***200***	***714000***				***120***

CFLD Varieties- Chickpea-JG-14 and JG-11; Soybean-JS 97-52;Niger-UN-150

Annexure-VIII

District-wise/crop-wise Prevailing &Recommended PulsesVarieties in Madhya Pradesh

District	Crop	Prevailing varieties	Recommended Pulse Varieties		
			Within 10 Years (1999 to 2009)	(>10 Years to 15 years) (2010-2015)	Others
Jabalpur	Pigeonpea	Asha, JA-4, UPAS-120	TJT-501		Asha, No-148, JKM-7, JA- 4,ICPL-85063 (Laxmi),
	Urdbean	T-9, PDU-4, JU-2	KU- 96-3		LBG 684, PU 30, 35 & 19, JBG 623
	Moongbean	HUM 1,2, TJM-7, PDM 139	HUM 1		PDM 54, PDM-139, Pusa Vishal
	Chickpea	JG-16, JAKI-9218, Vishal	JAKI-9218 JGK-3, JGK-2 JG-322		Vishal JG 16
	Lentil	JL-1, L 4046,JL 3	IPL 81, JL 3		RVL 31, L 4076, JL 1
	Peas	Arkel, JM-3	KPMR 400, Prakash		Arkel, JP 885
	Total Pulses				
Katni	Pigeonpea	Asha, TJT-501, JA 4	JKM 189		JKM 7, Laxmi, Pragati, Jagriti
	Urdbean	LBG 20, PDU 1	KU 96-3		PU 30
	Moongbean	PDM 139, Pusa Vishal, K-851	HUM-1		JM 721, HUM 6, LGG 460
	Chickpea	JG 11, JG 130, JG 16	JG 130, JG 14, JG 322		JG 12, JG 11 JG-63
	Lentil	JL 3, JL 1	IPL 81, JL-3		JL -1, PL -8
	Peas	Arkel, Azad Pea 1	KPMR-400, Prakash		JM-1, JM-2, VL Matar-42
	Total Pulses				
Balaghat	Pigeonpea	ICPL 88039, TJT 501	JKM-189		Asha, ICPL 87119, ICPL 85063, ICPL 88039
	Urdbean	LBG 20, T-9	KU-96-3		LBG-20, PU 30, PU 19
	Moongbean	TMB-37, SL-668	HUM-1		JM-721, JKM-6
	Chickpea	JG 315, JG 16, JG 63	JG-14	RVG 202, RVG 203	
	Lentil	JL-3, Malika, Shekhar M 3	IPL 81 (Noori)		JL-3
	Peas	Arkel, Azad 1	KPMR-400, Prakash		Rachna, Azad-1, JM-3
	Total Pulses				

Contds....

District	Crop	Prevailing varieties	Recommended Pulse Varieties		
			Within 10 Years (1999 to 2009)	(>10 Years to 15 years) (2010-2015)	Others
Chhindwara	Pigeonpea	ICPL 87119, ICPL 85063	TJT-501		JA 4, Asha, ICPL 85063 (Laxmi)
	Urdbean	LBG 20, PDU 1	KU-96-3, RBU-38		MASH 338, PU 30
	Moongbean	PDM 139, Pusa Vishal, K-58	HUM-1, Pusa 9531		BM 4, Pusa 9531
	Chickpea	JG 315, JG 63, Dollar chana	JG 14, JG 322	RVG 202	Vishal
	Lentil	JL 3, JL 1	JL-3		PL-4, PL-8
	Peas	Arkel, Azad pea 1	Prakash		VL Matar -42, JP-885, Azad Pea 1 & 2
	Total Pulses				
Seoni	Pigeonpea	ICPL 87, JKM 7, TJT 501	TJT-501		ICPL 87119, JKM 7, JA 4
	Urdbean	PDU 1, PU 35, T-9	KU-96-3		PU 30, PDU 1
	Moongbean	HUM 1, Pusa Vishal	HUM-1		JM 721, TARM 1, HUM 6
	Chickpea	JG 11, JG 63, JG 130	JG 14, JG 130	RVG 203	
	Lentil	JL 1, JL 3, JL 2, Malika	JL-3		JL-1, JLS 1
	Peas	Arkel, Azad 1,2 & 3	KPMR-400		JP-885, Azad 1,2& 3
	Total Pulses				
Mandla	Pigeonpea	TJT 501, ICPH 2671	TJT-501		ICPL 87119 (Asha)
	Urdbean	PU 35, PDU 1	KU-96-3		PU 30
	Moongbean	PDM 139, Pusa Vishal	HUM-1		JM 721, TARM 1, HUM 6
	Chickpea	JG 315, JG 11, JG 322	JG-14, JG-322		JG 63
	Lentil	JLS 1 & 2	JL-3		JL-1, Lens 4076
	Peas	Batri	KPMR 400, Prakash (IPFD 1-10		Arkel
	Total Pulses				

Contds....

District	Crop	Prevailing varieties	Recommended Pulse Varieties		
			Within 10 Years (1999 to 2009)	(>10 Years to 15 years) (2010-2015)	Others
Dindori	Pigeonpea	TJT 501, Asha (ICPL 87119)	TJT-501		ICPL 87119 (Asha), BSMR-175
	Urdbean	LBG 20,Desi urd	KU-96-3		PU 30
	Moongbean	-	HUM-1		HUM 6
	Chickpea	JG 218, JG 315, JG 130	JG-63		JG 11
	Lentil	-	IPL-81		L-4076, HUL 57
	Peas	Local Batri	Ambika		Vikas (IPFD 99-13), Matar-42
	Total Pulses				
Narsinghpur	Pigeonpea	ICPL-87119, TJT-501, Laxmi	TJT-501		ICPL-85063, No.-148
	Urdbean	PDU 1, T-9	KU-96-3		PDU-1, T-9
	Moongbean	K 851, HUM-16, Samrat	HUM-1		PDM-139, K-851, HUM-16
	Chickpea	JG 315, JG 16			JG-315, JG 74, JG 16, JG 63
	Lentil	JL-3, L 4076, JL 1	IPL-81		JL-3, L 4076, K-75
	Peas	Arkel, Azad 1, Rachna	Ambika		JM-1, JM-2, JM-3, Arkel
	Total Pulses				

District	Crop	Prevailing varieties	Recommended Pulse Varieties		
			Within 10 Years (1999 to 2009)	(>10 Years to 15 years) (2010-2015)	Others
Hosangabad	Pigeonpea	TJT 501, ICPL 87119	TJT-501		ICPL 87119, ICPL 88039, JA 4
	Urdbean		KU-96-3		PU 30, MASH 338
	Moongbean	PDM 139, HUM 12	HUM 1		JM 721, TARM 1, HUM 6, LGG 460
	Chickpea	JG 11, JAKI 9218, JG 315	JG-130, JG-322	RVG 202, RVG 203	JG 63
	Lentil		JL-3		JL1, K-75, IPL 406, RVL 31
	Peas	Arkel. Rachna	KPMR-400		IM 9101 (Subhra), Rachna
	Total Pulses				
Harda	Pigeonpea		TJT-501		ICPL 87119, JA-4
	Urdbean	T-9, Uttra, IPU-94-1			JU-2, JU-3
	Moongbean	HUM-1, HUM-12	HUM-1		HUM-12, J-45
	Chickpea	JG 11, JG 16, JG 130, JAKI 9218	KAK-2, JAKI-9218 JG-322		
	Lentil	JL 3, Mallika, DPL 62, IPL 81	IPL-81, JL-3		L 4076
	Peas	Arkel, Azad-1	KMPR-400		Vikas
	Total Pulses				
Betul	Pigeonpea	TJT-501, KP-87119	TJT-501		Pusa -991, JKM-7
	Urdbean	TU-9, T-9, T-44			JU-1, JU-2
	Moongbean	HUM-12, HUM-2	J-45, TM-37		J-45, TM-37
	Chickpea	JG-11, JG-74, JAKI-9218	JG-130		JG-11
	Lentil	JL-1, JL-3	JL-1, JL-3		JL-1
	Peas	Arkel, Ambika			Vikas (IPFD-99-143)
	Total Pulses				

Annexure-IX

VARIETAL DESCRIPTION OF PULSES GROWN IN MADHYA PRADESH

State Total	Crop	Ruling /Prevalent varieties	Recommended by ICAR/SAUs Varieties
Madhya Pradesh	Pigeonpea	Asha, JA-4, UPAS-120, TJT-501, ICPL 88039, ICPL 87119, ICPL 85063, ICPL 87, JKM 7, ICPH 2671, Laxmi, ICPL 151, Pragati, Jagriti, Pusa 33, Prabhat	TJT-501Asha, No-148, JKM-7, JA- 4, ICPL-85063 (Laxmi), JKM 189 JKM 7, Laxmi, Pragati, Jagriti, ICPL 87119, ICPL 88039, No.-148, UPAS 120, ICPL 151, BSMR 175, BSMR 736, CORG-7, LRG-41, RVICPH 2671, RVA 28, Pusa -991
	Urdbean	T-9, Uttra, IPU-94-1, T-44, PDU-4, JU-2, LBG 20, PDU 1, PU 35, Desi urd, Pant U-35, Shekhar 2, Pant U-35, PDM-139, JU 3, Uttra	KU-96-3 PU 30, 35 & 19, MASH 338, LBG 684, LBG 623, JU-3, LAM 623, LBG 685, TPU 4, KU-91-2 (Azad Urd 1), TPU 2, PDU-1, JU-3, JU-86, LBG 23, RBU-38, TJM-3 PDM-139, JU 3, Uttra, JU-2, JU-88, VB 3, MASH 338,
	Moongbean	HUM 1,2, TJM-7, PDM 139, Pusa Vishal, K-851, TMB-37, SML-668, K-58, PU 35, PDU 1, Samrat, HUM-16, HUM 1, HUM-12, TARM 1, TJM-3, Pusa Vaisakhi, HUM 16, JM 721, PDM-11,	HUM 1PDM 54, PDM-139, Pusa Vishal, JM 721, HUM 6, LGG 460, JKM-6, Pusa 9531BM 4, TARM 1, HUM 6, K-851, JKM-189, HU- 1, Meha, Pusa-9531, Samrat, JU1, JU-2, Pant U-31, TJM 3, Pusa 105, Pant Mung-3, TM-99, TMB 37, JM-1, J-45
	Chickpea	JG-16, JAKI-9218, Vishal, JG 11, JG 130, JG 16, JG 315, JG 63, Dollar chana, JG 322, JG 218, JG 74, ICCV-37, JG 14, JG 226, KAK 2, JGK 3, Ujjain-21, JG-135	JAKI-9218 JGK-3, JGK-2 JG-322 Vishal JG 16, JG 130, JG 14, 322JG 12, JG 11, JG-63, JG-14 RVG 202, RVG 203, JG-74, ICCV 2, KAK-2 , JGK 1, JG-6, Vijay JG-11,
	Lentil	JL-1, L 4046,JL 3, Malika, Shekhar M 3, , JL 2, L 4076, Kala Masara, JLS-1,2, K-75, Desi variety, L-4076, IPL 81, PL 8, DPL 62,	IPL 81, JL 3RVL 31, L 4076, JL 1, JL-3JL -1, PL -8, JLS 1, Lens 4076, L-4076, HUL 57,PL-4, K-75, DPL-62, DPL-15, RVL-31, PL-639, JM-15, IPL 406, ML-337, J-45, JMS-1, Pusa-5, IVL-31,JLS-3,
	Peas	Arkel, JM-3, Azad 1,2 & 3, Batri, Local Batri, Rachna, JM-1, Vikas, KPMR-400, Ambika, Hema, MalviyaMatar- 15, Desi Batri, Adarsh, , Prakash, Adarsh,Pea-1, JM-6,	KPMR 400, Prakash Arkel, JP 885, M-1, JM-2, VL Matar-42, Rachna, Azad-1, JM-3, Azad Pea 1 & 2, Ambika (IM 9102), Vikas (IPFD 99-13), Matar-42, Adarsh (IPFD 25), KPMR 522, Pea-1, JawaharMatar 1, Indra (KPMR-400)

MP State:Ruling varieties

S. No.	Crops	Prevailing/Ruling Variety
1.	Soybean	JS-335, JS-9305, JS-9560, RVS 2001-04, NRC-7, NRC-36
2.	Moong	K-851, PDM-139, TJM-3, JM-721, HUM-1, Pusa-9531
3.	Urd	TPU-4, IPU-94-1 (Uttara) , OBG-17, Pant Urd-30
4.	Arhar	ICPL-87, JKM-189, Azad-3, Asha, Laxmi, TJT 501
5.	Gram	JAKI-9218, JG-130, JG-16, JG-11, Vishal, Vijay
6.	Maize	NMH-803, KMH-3426, BIO-9682, BiscoUjala, PusaUjala, NM 7725
7.	Wheat	Lok-1, GW-147, GW-366, GW-322, HI-1544
8.	Cotton	DCH-32, B.T. Cotton, Mahalaxmi
9.	Paddy	PusaSugandha 4 & 3, Hy. DRRH-2, DRH-775, MPU 1010