

NATIONAL FOOD SECURITY MISSION NATIONAL LEVEL MONITORING(NLMT) REPORT



STATE-MADHYA PRADESH

NLMT-KHARIF : 2016



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.dacnet.nic.in)

Content

S. NO.	PARTICULARS	PAGE NO.
	Preface	
1.	Background	1-2
2.	Area of Operation	2
3.	Monitoring Mechanism	3
4.	NLMT: Composition	4
5.	State Profile	4-5
6.	Major Crops Scenario	
6.1	Production Performance: Plan analysis: (XI th –XII th Plan)	6-10
6.2	Crop Scenario: Kharif - 2015	11
6.3	Production Target – Kharif – 2016	11-12
7.	Budgetary Status	
7.1	Allocation & Expenditure – 2015-16	12
7.2	Allocation & Expenditure – 2016-17	13
8.	Places of Visit/Activities	13-16
9.	Observations	17-24
10.	Recommendations/Suggestions	24-29
11.	Field Photographs	

ANNEXURES

Annex.	Particulars
I	First forecast estimates of kharif production.
II	Details of MP Staff Position & INM/IPM distributed for demonstration
III	Recommendation of SAUs on Integrated Farming System (IFS).
IV	Cost norms/input Cafeteria.
V	Intervention-wise crop demonstration
VI	Scheme-wise/Component-wise subsidy and variation.
VII	NFSM- Seed Minikit Allocation-2016-17 (Kharif/Rabi/Summer)
VIII	Detailed information of Soil Health Card Schemes/STLs.
IX	Varietal description of Pulses grown in Madhya Pradesh
X	Status of FLD-NFSM & NMOOP.
XI	Scheme-wise/ Division-Wise Allocation, Release & Expenditure (2012-13 to 2016-17)

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 –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 – 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, NAM etc. The major crop development interventions during 2016-17 are through NFSM, NMOOP and RKVY. To effectively monitor the implementation of these interventions at the field level, the DAC&FW has constituted 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) as Convener/Team Leader, 03 Principal/Sr. Scientists as Subject Matter Specialist (SMSs) representing ICAR/SAUs and State Mission Director, NFSM/Nodal Officer.

The Terms of Reference (TOR) of this Central Team suggest mandatory monitoring at least once in each crop season (*Kharif, Rabi & Spring/Summer*); to conduct in-depth inspection of the executed activities in consonance to Mission's mandate and Approved Action Plan and to study the "Local Initiatives"; to study quantitative, qualitative achievements and impact of the Transfer of Technology (ToT) delivery mechanism in totality taking all CSS/CS/State plan schemes in a district, and providing analytical report on observations and suggestions/recommendations for further necessary corrections at the level of state stake-holders for better implementation of the Mission and desired mandated outcome.

The Team visited the state of MP between 6th-10thSeptember, 2016. The composition of the Central Monitoring Team was broad based and included the experts from research organizations/SAUs. The Team interacted with the farmers individually in the field and also by organising *kisangosthies*. The Wrap-up meeting with district Collector, Chairman of the District Food Security Mission Executive Committee (DFSMEC). The report has tried to capture the impact of NFSM tetra- ending 2015-16 of XIIth five year plan in comparison to XIth plan.

I am thankful to the Principal Secretary, Agriculture & Director, (Agri.), Govt. of Madhya Pradesh for facilitating the monitoring/visit and The respective Vice Chancellors & DRS of RVSKVV, Gwalior & IGKVV, Raipur for nominating Experts/SMSs to represent the NLMT. I acknowledge the contribution of my Technical Officers Dr. A.K. Shivhare, AD; Shri. Vipin Kumar, AD; Shri. Sarju Pallewar, SI; Shri. Sandip Silawat, STA; Smt. Ashwini Bhoware, TA; Shri. Sateesh Dwivedi, TA of the Directorate of Pulses Development, Bhopal in bringing out the report publication.

I also acknowledge the sincere efforts of Smt. Ashwini Bhoware, TA in compilation of the report in it's present form.

Bhopal (M.P.)
13thOctober, 2016

(A.K.Tiwari)
Director

NATIONAL LEVEL MONITORING TEAM (NLMT) REPORT ON THE IMPLEMENTATION OF NATIONAL FOOD SECURITY MISSION KHARIF 2016 (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 foodgrains 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 XI 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).
- 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 2016-17, the revamped NFSM under State Plan Scheme – Krishi Unnati Yojana (State Plan) with interim sharing pattern of 60:40 between Centre and State is under implementation in 29 states. A Central Share of Rs. 1700 Crores has been approved during 2016-17.
- 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 5% 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 highproductivity areas, value chain integration (FPOs), 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) – 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 (2016-17)

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 (Area/Yield not	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 (NFSM) Secretary	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) /	Quarterly

		(MoW&CD) Adviser (Agriculture), NITI AYO Agriculture Commissioner Five Experts - Member Mission Director - Member Secretary	
	iii) National Level Monitoring Team (NLMT)	Director CDDs- Co-ordinator Scientist SAUs/JDA –Member	Twice a year (Kharif + Rabi)
State Level	State Food Security Mission Executive Committee (SFSMEC) Monitoring Committee	Chief Secretary – Chairman State Mission Director - Member Secretary State Mission Director – Chairman SAU – Member DPD/CDD Govt. of India – Member SSC – Member State Certification – Member Lead Bank – Member NABARD – Member IISS/CIAE/NISR/DWR - Member	Twice a year (Kharif + Rabi)
District Level	District Food Security Mission Executive Committee (DFSMEC)	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, IGKVV, Raipur	Dr. Sanjay Sharma , Principal Scientist (Rice -Entomology) - Member
iii	RAK College of Agriculture, RVSKVV, Sehore (M.P.)	Dr. S. C. Gupta Principal Scientist (Soil Science) - Member
iv.	SG College of Agriculture & Research Station, Jagdalpur, IGKVV, Raipur	Dr. Adikant Pradhan Scientist (Agronomy) - Member
v.	Government of Madhya Pradesh Deptt. of Farmers Welfare and Agriculture Development (Indore/Ujjain Division)	Joint Director (NFSM) - Member

5. State Profile: MP

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		
KrishiUpajMandi(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	77.78
Forest area	85.88 (27.92%)	Gross cropped area	232.33
Land under non-agricultural use	19.92 (6.48%)	Kharif Area	123.04
Permanent pastures	13.48 (4.38%)	Rabi Area	106.42
Cultivable wasteland	8.67 (2.82%)	Cropping Intensity	150 %
Barren and uncultivable land	14.06 (4.57%)		
Current fallows	7.69 (2.50%)		
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 (Area: lakh ha)		Source 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
Soil Type(Area - lakh ha)			
Alluvial Soil	33.5	Deep Medium black soils	162.1
Shallow & Medium Black Soil	30.6	Mixed Red & Black Soil	81.1
Major Agricultural crops			
Kharif	Soyabean, Paddy,Pigeonpea. Urdbean, Moongbean, Maize,Jowar, Cotton		
Rabi	Wheat, Gram, Lentil , Field Pea, Mustard, Linseed		
Development Programme CSS / CS			
NFSM	NFSM-Paddy (8) ; Wheat (16) ; Pulses (51); Coarse Cereals (16); Cotton (10); Sugarcane (13) PMT District-51		
NMOOP	Mini Mission I- (Oilseeds) ; Mini Mission III- (TBOs)		
(*Source- ENVIS, Centre of M.P. State.)			

6. MAJOR CROPS

6.1 Production Performance: Eleventh Plan- Twelfth Plan (T.E. 2015-16)

(Area: Lakh ha, Prod. Lakh tonnes, Yield kg/ha)

Crop	State	XI Plan (2007-08 to 2011-12)			XII Plan** (2012-13 to 2016-17)			Increase/decrease over XI plan (%)		
		A	P	Y	A	P	Y	A	P	Y
Kharif Seasons										
A. Cereals										
Paddy	MP	15.90	16.56	1041	19.97	31.63	1584	26	91	52
	All India	436.53	972.49	2228	461.39	1114.19	2415	6	15	8
Jowar	MP	4.57	5.93	1297	2.42	4.34	1797	-47	-27	39
	All India	73.42	69.71	949	58.00	51.75	892	-21	-26	-6
Bajra	MP	1.72	2.79	1616	2.18	4.21	1932	26	51	20
	All India	91.24	92.03	1009	73.16	86.56	1183	-20	-6	17
Maize	MP	8.49	11.32	1333	9.76	18.65	1911	15	65	43
	All India	85.46	203.65	2383	95.00	244.01	2568	11	20	8
S. Millet &Ragi	MP	2.80	0.84	300	1.95	0.98	502	-30	16	67
	All India	22.07	25.35	1149	18.95	23.98	1265	-14	-5	10
#KharifC .Cereals	MP	17.59	20.88	1187	16.30	28.19	1729	-7	35	46
	All India	272.20	390.73	1435	245.12	406.30	1658	-10	4	15
Total Cereals	MP	33.49	37.44	1118	36.28	59.82	1649	8	60	48
	All India	708.73	1363.22	1923	706.51	1520.49	2152	0	12	12
#Kharif Coarse Cereals incl. (Jowar, Bajra, Maize, Ragi & Small Millets)										
B. Pulses										
Arhar	MP	4.06	2.57	632	5.24	4.43	846	29	73	34
	All India	37.90	26.66	703	40.28	29.80	740	6	12	5
Urd	MP	5.15	1.83	354	7.55	3.61	477	47	97	35
	All India	23.24	11.09	477	25.28	12.92	511	9	17	7
Moong	MP	0.83	0.27	328	1.30	0.57	437	57	109	33
	All India	26.41	10.50	397	23.47	9.42	401	-11	-10	1
*Other Pulses	MP	0.28	0.08	303	0.38	0.15	391	35	75	29
	All India	23.98	9.13	381	24.05	9.69	403	0.3	6	6
Total Pulses	MP	10.32	4.75	460	14.47	8.75	605	40	84	31
	All India	111.53	57.37	514	113.07	61.83	547	1	8	6
*Other Pulses incl.(Mothbean, Kulthi, Other & Other Pulses)										
C. Total Oilseeds										
Soybean	MP	53.45	61.37	1148	59.56	60.76	1020	11	-1	-11
	All India	95.70	111.60	1166	115.54	117.26	1015	21	5	-13
Groundnut	MP	2.00	2.56	1277	2.20	3.39	1541	10	33	21
	All India	58.15	74.06	1274	49.26	70.98	1441	-15	-4	13
Sesamum/ Til	MP	2.46	1.12	456	3.26	1.70	521	33	52	14
	All India	19.07	7.38	387	18.11	7.85	433	-5	6	12
Niger/ Ramtil	MP	1.15	0.24	212	0.71	0.25	349	-38	2	65
	All India	3.87	1.08	280	2.72	0.88	321	-30	-19	15
Total Oilseeds	MP	59.06	65.29	1106	65.73	66.10	1006	11	1	-9
	All India	176.79	194.13	1098	185.64	196.95	1061	5	1	-3
Cotton	MP	6.44	13.15	2041	5.61	18.20	3246	-13	38	59
	All India	105.05	283.82	2702	135.66	370.30	2730	29	30	1

Crop	State	XI Plan (2007-08 to 2011-12)			XII Plan** (2012-13 to 2016-17)			Increase/decrease over XI plan (%)		
		A	P	Y	A	P	Y	A	P	Y
Rabi Seasons										
A. Cereals										
Wheat	MP	42.07	80.26	1908	55.38	139.74	2523	32	74	32
	All India	286.38	843.65	2946	304.02	931.88	3065	6	10	4
Barley	MP	0.75	1.02	1363	0.78	1.33	1712	4	31	26
	All India	6.58	15.06	2289	6.92	17.19	2483	5	14	8
Total Cereals	MP	42.81	81.28	1898	56.16	141.07	2512	31	74	32
	All India	292.95	858.71	2931	310.94	949.06	3052	6	11	4
B. Pulses										
Urd	MP	0.07	0.02	348	0.12	0.06	470	74	135	35
	All India	7.84	4.11	524	8.06	5.94	737	3	44	41
Moong	MP	0.03	0.01	239	0.98	0.46	471	3059	6130	97
	All India	7.54	3.34	443	9.91	5.96	602	31	78	36
Gram	MP	29.04	27.61	951	30.40	33.35	1097	5	21	15
	All India	82.18	72.42	881	88.43	82.92	938	8	14	6
Lentil	MP	5.50	2.33	424	5.50	3.36	610	0	44	44
	All India	14.64	9.60	655	13.90	10.93	786	-5	14	20
Peas	MP	2.34	0.96	412	2.94	2.45	833	26	155	102
	All India	7.16	6.22	869	11.50	10.36	901	61	67	4
*Total Pulses	MP	37.49	31.25	834	49.52	49.80	1006	32	59	21
	All India	133.57	104.52	783	166.16	151.79	914	24	45	17
*Total Pulses incl. (Kulthi, Lathyrus & Other Pulses)										
C. Total Oilseeds										
Rapeseed /Mustard	MP	7.22	7.69	1065	7.21	7.98	1106	-0.2	4	4
	All India	61.01	68.85	1128	62.64	73.73	1177	3	7	4
Linseed	MP	1.19	0.46	390	1.12	0.57	508	-6	23	30
	All India	3.80	1.57	413	2.93	1.48	507	-23	-6	23
*Total Oilseeds	MP	8.43	8.16	968	8.51	8.63	1015	1	6	5
	All India	90.95	95.36	1048	85.61	98.95	1156	-6	4	10
Sugarcane	MP	0.68	28.07	41023	0.87	38.53	44470	27	37	8
	All India	47.14	3258.30	69119	50.78	3529.68	69508	8	8	1
Jute & Mesta	MP	0.02	0.02	855	0.06	0.03	496	138	38	-42
	All India	9.09	110.86	12193	8.42	112.68	13376	-7	2	10
*Total Oilseeds include: Safflower, Sunflower & Castor)										

Source: DES, M/A, GoI ** 3rd Advance estimate (*Average of 2012-13 to 2015-16, Tetra ending 2015-16)

The comparative analysis of crop performance during the XI Plan period and Tetra ending 2015-16 of the twelfth plan reveal that the NFSM interventions since 11th Plan has paid dividends in the production and yield of Paddy which is 91% and 52% higher during Tetra ending 2015-16 over its previous five year Plan. Similarly, the production and productivity of wheat has also increased to 74% and 32% during Tetra ending 2015-16. A quantum jump has been recorded under pulses under all kharif pulses such as Arhar where productivity level of 846 kg/ha could be realized over the XIth Plan productivity of 632 kg/ha which is approx. 34% increase. Similarly increase in productivity approx. 35% in Urd & 33% in Mung over the XIth plan period during kharif as well as all pulses of rabi season also sown remarkable increase in productivity depicted in above table. Also observed noticeable productivity increase in Cotton which is approx. 59%, however, area declined during the period.

Kharif Crops Scenario: (XIth & XIIth Plan) - Madhya Pradesh

AREA

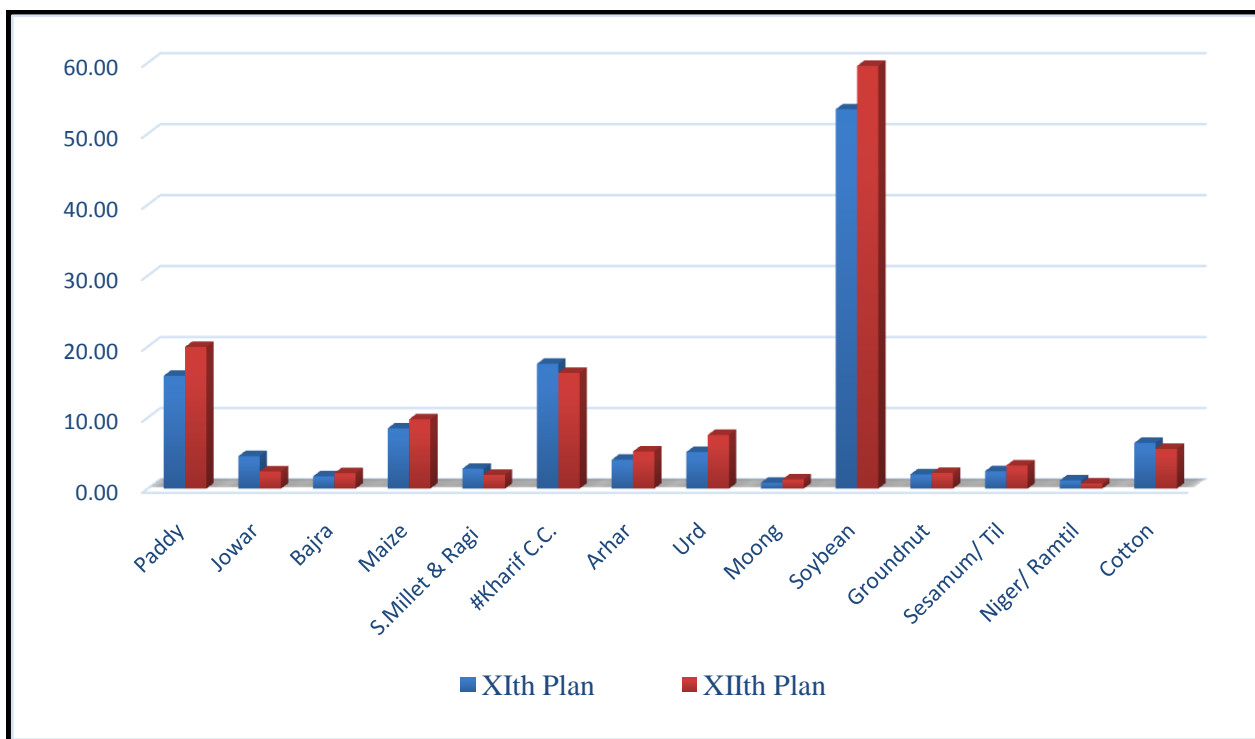


Fig 01: Area under crops (XI and XII plan) (Area: Lakh ha)

PRODUCTION

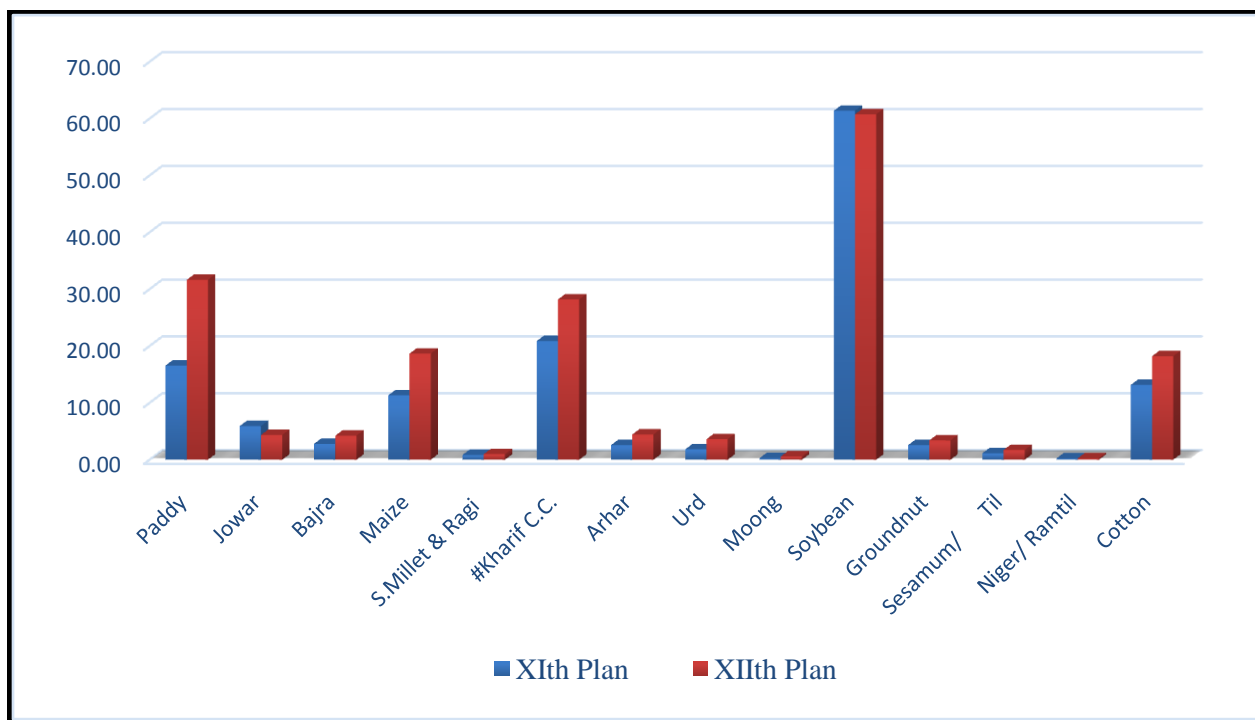


Fig 02: Production of crops during XI and XII plan (Production: Lakh tones)

YIELD

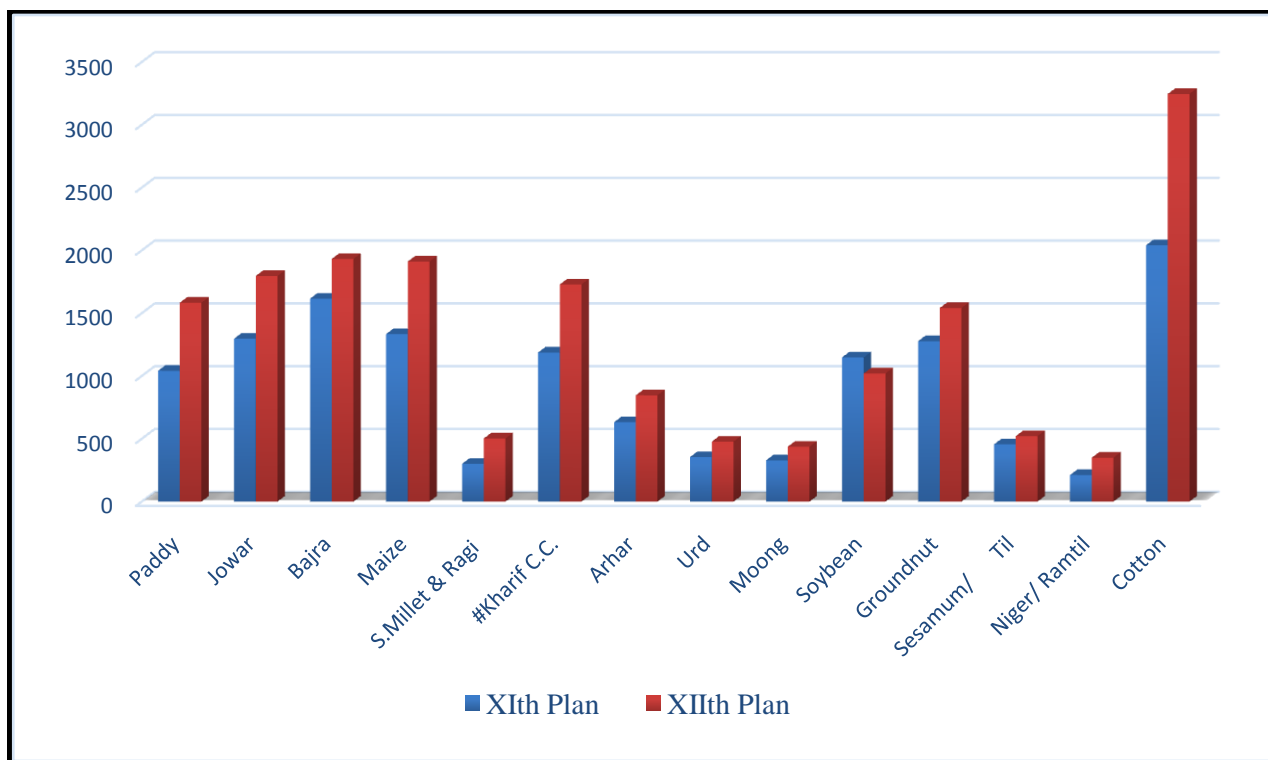


Fig 03: Yield of crops during XI and XII plan (Yield: kg/ha)

Rabi Crop Scenario: XIth & XIIth Plan – Madhya Pradesh

AREA

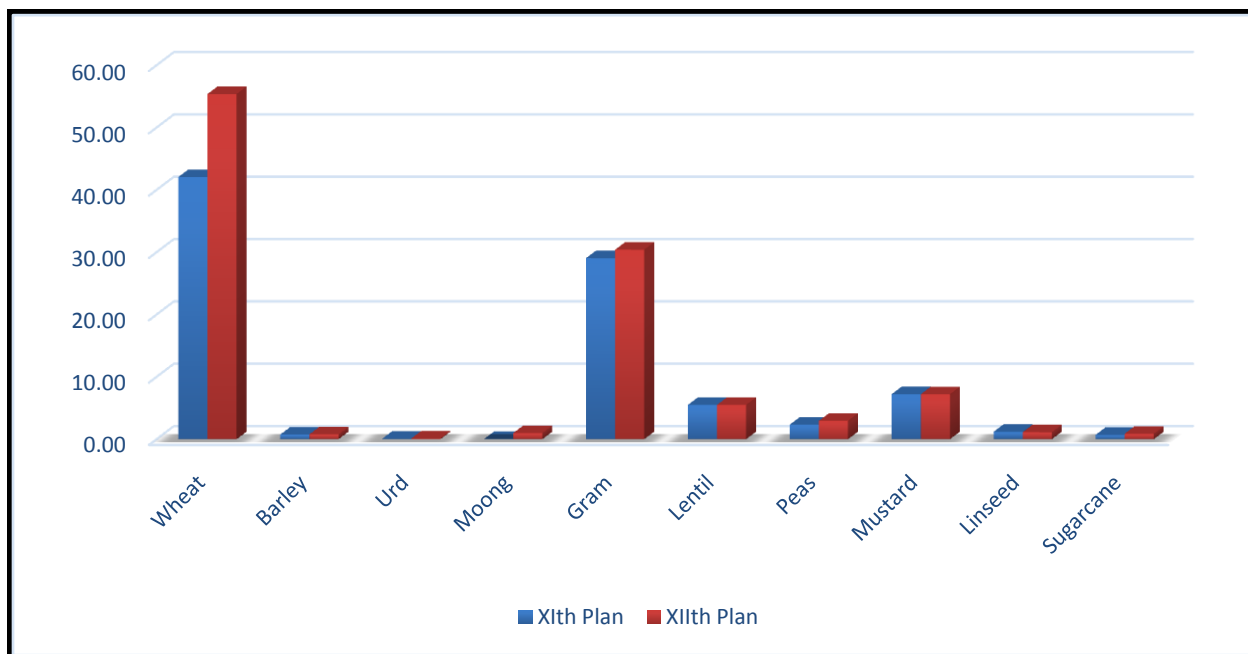


Fig 04: Area under crops during XI and XII plan (Area: Lakh ha)

PRODUCTION

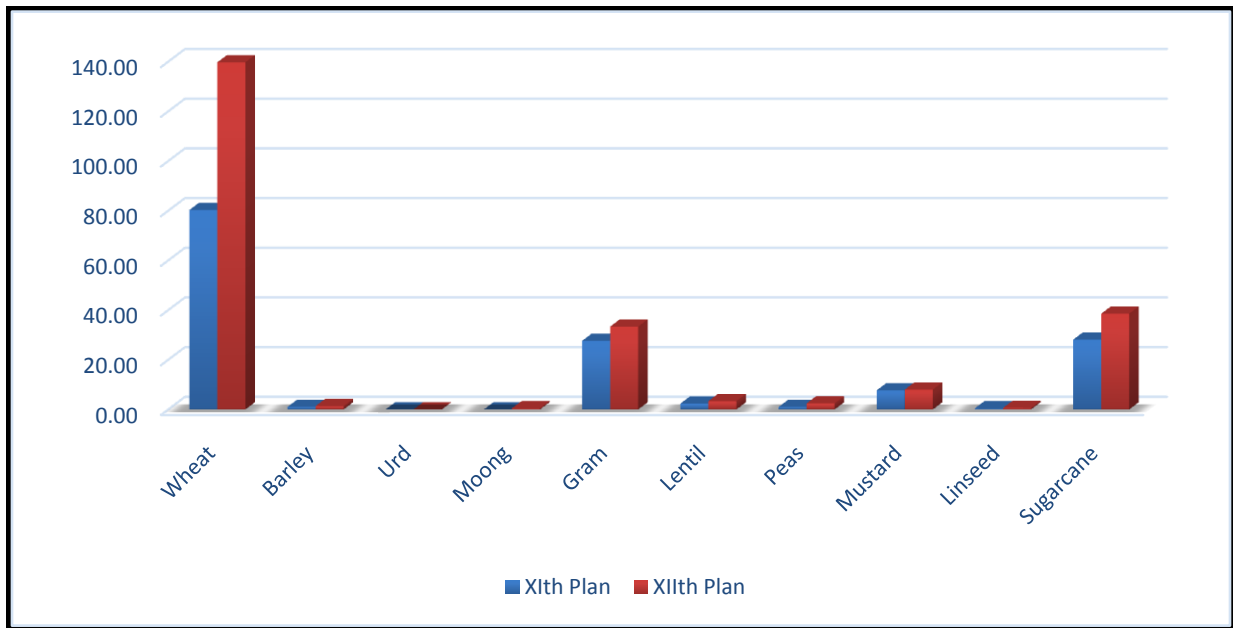


Fig 05: Production of crops during XI and XII plan (Production: Lakh tones)

YIELD

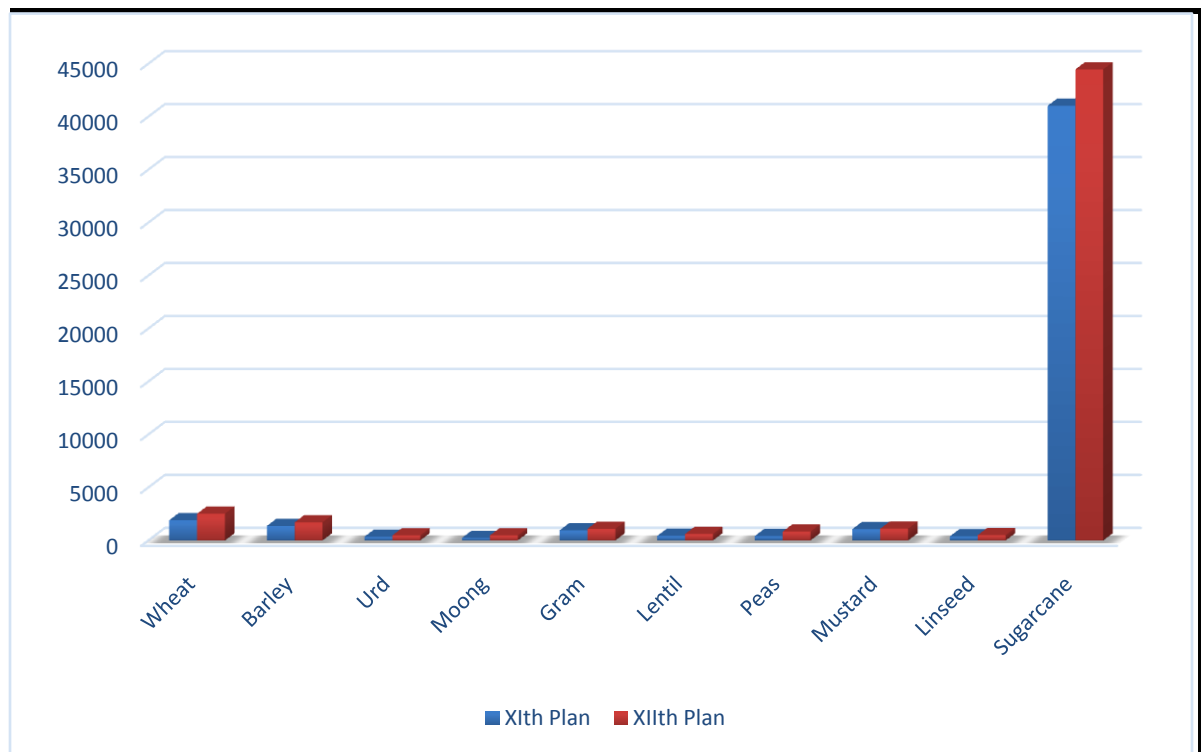


Fig 06: Yield of crops during XI and XII plan (Yield: kg/ha)

TARGET/ACHIEVEMENT

6.2. Crop Scenario: Kharif - 2015

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

Sr. No.	Crop	Area		Production		Yield	
		Target	Achi.	Target	Achi.	Target	Achi.
1	Paddy	21.12	20.24	62.30	52.31	2950	2584
2	Sorghum	2.20	2.05	4.86	4.1	2209	2000
3	Pearl Millet	2.16	2.67	5.40	6.33	2500	2371
4	Maize	11.43	10.98	36.12	31.06	3160	2829
5	Kodo-Kutki	2.12	1.30	1.59	1.05	750	808
6	Others (SM &Ragi)	0.00	0.50	0.00	0.32	0.00	640
7	Arhar	5.86	5.79	6.45	5.78	1101	998
8	Urd	8.90	9.32	5.12	3.37	575	362
9	Moong	1.60	1.93	0.96	0.41	600	212
10	Kulthi	0.15	0.14	0.07	0.04	467	286
11	Groundnut	3.28	2.36	4.58	3.12	1396	1322
12	Soybean	57.59	59.06	109.42	38.4	1900	650
13	Sesame	2.51	3.65	1.63	1.97	649	540
14	Niger	0.85	0.8	0.46	0.26	541	325
15	Cotton	6.15	5.47	16.88	12.53	2745	2291
16	Jute & Mesta	0.00	0.08	0.00	0.07	0.00	875
A	Total Kharif Cereals	39.03	37.74	110.27	95.17	2825	2522
B	Total Kharif Pulses	16.51	17.18	12.60	9.60	763	559
C	Total Kharif Foodgrains	55.54	54.92	122.87	104.77	2212	1908
D	Total Kharif Oilseeds	64.23	65.87	116.09	43.75	1807	664
E	*Total Kharif Crops	125.92	126.34	255.84	161.12	2032	1275
* Total Kharif Crop- Sum of A to D, Cotton , Jute & Mesta)							

Source-Target & Achievement –State Department of Agriculture

6.3 Production Target: (2016-17)

(Production-Lakh tones)

Sr. No.	State/Crop/ Season	MP			All India		
		Kharif	Rabi	Total	Kharif	Rabi	Total
1	Paddy	35.10		35.10	930.00	155.00	1085.00
2	Wheat		148.00	148.00		965.00	965.00
3	Jowar	5.00		5.00	30.00	30.00	60.00
4	Bajra	4.60		4.60	95.00		95.00
5	Maize	20.00		20.00	175.00	70.00	245.00
6	Small Millet	1.10		1.10	5.00		5.00
7	Ragi			0.00	20.00		20.00
8	Barley		1.70	1.70		18.50	18.50
9	Tur	5.80		5.80	36.20		36.20

Sr. No.	State/Crop/ Season	MP			All India		
		Kharif	Rabi	Total	Kharif	Rabi	Total
10	Mung	1.00	0.55	1.55	12.20	6.50	18.70
11	Urd	4.70	0.12	4.82	14.50	7.00	21.50
12	Gram		35.60	35.60		96.00	96.00
13	Other Pulses	0.20	7.80	8.00	9.60	25.50	35.10
14	Soybean	68.00		68.00	136.15		136.15
15	Groundnut	4.00		4.00	64.30	20.70	85.00
16	R&M		9.00	9.00		85.00	85.00
17	Sunflower			0.00	2.40	6.10	8.50
18	Safflower		0.30	0.30		1.60	1.60
19	Sesame	1.60		1.60	9.00		9.00
20	Castor	0.03		0.03	22.00		22.00
21	Linseed		0.60	0.60		1.60	1.60
22	Niger	0.35		0.35	1.15		1.15
23	Sugarcane		51.00	51.00		3550.00	3550.00
24	Cotton	20.00		20.00	110.00		110.00
25	Jute & Mesta		0.07	0.07		117.00	117.00
A	Total Kharif Cereals	65.80	149.70	215.50	1255.00	1238.50	2493.50
B	Total Kharif Pulses	11.70	44.07	55.77	72.50	135.00	207.50
C	Total Kharif Foodgrains	77.50	193.77	271.27	1327.50	1373.50	2701.00
D	Total Kharif Oilseeds	73.98	9.90	83.88	235.00	115.00	350.00
E	*Total Kharif Crops	171.48	254.74	426.22	1672.50	5155.50	6828.00

* Total Kharif Crop- Sum of A to D, Cotton, Jute & Mesta)

7. Budgetary Status

7.1. Allocation & Expenditure(2015-16)

(Rs. in Lakh)

S. No.	Name of Crop/ Scheme	Revalidation	Allocation	Total release	Available Amount	Expenditure	Unspent Balance as on 01.04.2015
1	Paddy	676.26	1415.885	798.75	1475.01	486.33	988.68
2	Wheat	1094.64	4010.67	2005.42	3100.06	1652.57	1447.49
3	Pulses	3087.31	18647.15	9323.5	12410.81	10682.62	1728.19
4	Additional Pulses	1808.44	9583.00	9583.33	11391.77	5736.54	5655.23
5	Coarse Cereals	602.29	1140.00	570.42	1172.71	365.24	807.47
6	Cotton	46.95	0.00	54.17	101.12	0.000	101.12
7	Sugarcane	4.56	31.52	15.00	19.56	13.25	6.31
	Total	7320.45	34828.22	22350.59	29671.04	18936.55	10734.49

7.2. Allocation & Expenditure (2016-17) As on Aug. 01.08.2016

(Rs. in Lakh)

S.No.	Name of Crop/ Scheme	Unspent Balance	Allocation	Release	Total Available	Expenditure
1	Paddy	669.18	2439.01	515.18	1184.36	6.61
2	Wheat	868.49	3879.767	320.85	1189.34	-
3	Pulses	1617.53	37949.94	19597.08	21214.61	237.195
4.	Additional Pulse	3393.14	-	-	3393.14	-
5.	Coarse Cereals	579.3	1743	303.43	882.73	-
6.	Cotton	101.1	119.03	-	101.1	-
7.	Sugarcane	6.31	32.96	10.15	16.46	-
	Total	7235.05	46163.707	20746.69	27981.74	243.805

8. Places of Visit/Activities

Division/ District	Place	Events organized / activities exhibited to NLMT	Remarks/observations
Indore	Indore	i) Briefing Meeting with JDA, DDA, SDO etc. was organized to brief about the preparation of documents for physical and financial status of NFSM programme executed in the respective districts to be produced during monitoring visit.	i) In the absence of State nodal of NFSM to represent/accompany the team, and lack of national level perspectives of the NFSM scheme with the newly engaged JDA/DDA etc, were not so aware about the NFSM activities in their jurisdiction.
	Village- Mirjapur (Block-Indore)	i) Farmers interactions / meeting, farm mechanization, visit of integrated farming and soybean, pigeonpea demonstration.	i) Best utilization of resources for getting maximum return. ii) Poor quality marigold seed distributed by Horticulture Deptt.
	Village- Binhadia	i) Soybean demonstration of variety JS-9560 under oilseed development programme (NMOOP).	i) Performance of crop was satisfactory. ii) 20-22 qtls/ha yield expected. iii) Would be harvested by Sept. end. iv) Gwar crop was used as trap crop to control Thrips in Chillies.
	ICAR – NRC, Indore	i) Meeting with scientist of NRC Soybean and farm visit.	i) The infestation of red hairy caterpillar (Kambal keet) a polyphagous insect has not been this year.
	NGO-KVK Kasturbagram , Indore	i) Meeting with the staff of Kasturba KVK situated at Indore and discussed about their ongoing activities, representative of MARKFED and MPAGRO also participated in the meeting.	i) The Soybean cluster demonstration conducted under NFSM The crop is in good condition. was nicely documented by KVK. ii) The fertilizer samples were not properly analyzed by MARKFED.
	Hatunea (Block- Sanwer)	i) Cluster demonstration of pigeonpea variety Pusa-992 under NFSM.	i) Plant population was high and mild attack of Phytophthora Blight was observed ,remedial measures were suggested to the farmer
Jhabua	Kardawath (Block- Petlawad)	i) Farm mechanization beneficiary (2015-16), cluster demonstration of soybean and farmers interaction. ii) Shri Sai Beej Utpadak Sahkari Sanstha(2010-11). (JS 2034, JS	i) 50% district is mechanized + 50% is bullock drawn. ii) The name of govt. scheme (NFSM) was written over the implements, seed production demonstration was registered under the seed production.

	Kardawath (Block-Petlawad)	<p>2029, RVS 2001-4).</p> <p>iii) Rotavator and ferti cum seed drill were provided, block had achieved 100% under line sowing.</p> <p>iv) Total 14 custom hiring centers are functioning in this district.</p> <p>v) Chemical weed control technique is losing farmers trust.</p> <p>vi) Some non-descriptive/indigenous attachments /tools for weeding and spraying operations being used.</p> <p>vii) Seeking for consideration of subsidy on these local tools under farm mechanization.</p>	<p>iii) Over all the programme implementation in this block is satisfactory. KVK scientist and seed certification officer had also joined in the meeting</p> <p>iv) Domestic wheat grader on small scale is needed.</p> <p>v) Foundation seed production was seen on this plot. The crop was good.</p> <p>vi) Breeder seed cost of soybean @</p> <p>vii) Rs. 10125/qtls.</p>
	Khawasa. (Village-Bamnea, Block Thandla)	<p>i) Under farm mechanization sprinkler pipe set (Taxmo make) was provided under NFSM 2015-16 (Total cost -Rs. 18805/ha, subsidy – Rs. 13753 (NFSM-9253 + Top-up 4500), Farmer Share-47541= 00.</p> <p>ii) Kisan Goshti- Farmers and group of vegetable growers interacted with the team.</p>	<p>i) Farmers of this area are involved in high tech vegetable cultivation (Chilies+ Tomato+ Capsicum).</p> <p>ii) Govt support under NHM not reaching Khawasa, their block head quarter is far away from their place.</p> <p>iii) Delhi, Ahmedabad & Ghaziabad is main marketing center.</p> <p>iv) Representatives of horticulture department could not be interacted to discuss the vegetable grower's issue.</p>
Jhabua	Sagwa (Block-Thandla)	<p>i) Demonstration of Pigeonpea (variety Rajeev lochan) cultivation through Dharwad method and intercropping with soybean (Green gold & JS-3544), transplanting and nipping was done in pigeonpea.</p> <p>ii) Arhar Plat to Plant- 2feet; Arhar + Soybean- Row to Row 4 feet.; Pigeonpea + Sweet Corn under RKVY.</p>	<p>i) Pigeonpea -Vegetative stage and soybean is at podding stage, crop condition was good. It is come to the knowledge that 15 NGO is working for the socioeconomic benefits of farmer.</p>
	Titariya (Block-Meghnagar)	<p>i) Demonstration of Moong crop under NFSM.</p> <p>ii) 20 kg seed (PDM-139).</p> <p>iii) Sown on 15.07.2016.</p> <p>iv) No other input used.</p>	<p>i) The demonstration crop was very poor in comparison to the farmer's crop due to poor management.</p>
	Naygaon-Jagier (Block-Meghnagar)	<p>i) Demonstration of SRI method of rice (variety DRH-775) cultivation under RKVY, 17 days seedlings were provided to the farmer as input from the community nursery.</p>	<p>i) Poor tillering in rice was observed due to non adoption of all necessary components of SRI like 12 days seedling 25x25 cm plant spacing, application of FYM, use of cono weeder and AWD</p>
Ratlam	Bhemakhedi (Block-Jaora)	<p>i) Cluster demonstration soybean variety JS 95-60.</p> <p>ii) Maize hybrid demonstration</p>	<p>i) 60 kg/ha seed provided; plant popula. 3.80 lakh/ha; cost of seed Rs.3540 {Rs.1770-50% subsidy}; crop sown</p>

			on 28.06.2016; crop condition is good, expected yield 12-14 qtls/ha; display board not found; mite infestation was observed in soybean
	KVK-Jaora	i) Crop cafeteria/demo. on TJT-501, ICPL 88039; JU 86, LBG-20, RBU-38, PU-31, PU-1. ii) Mung: JM-721, HUM-1, Pusa vishal, JS-335, JS-2034, JS-9305, JS-2029, NRC-7, NRC-86, NRC-37, RVS 2001-4	
	KVK-Jaora, Vill-Kalukheda (NGO-KVK)	i) Interacted with the staff/SMSs regarding their ongoing activities like demonstration, training, soil analysis activity and crop cafeteria. ii) "Shri Ganesh Beej Utpadak Sahakari Samiti". iii) Irrigation pipes beneficiary (Shri. Radhey Sharma).	i) Proactive in showing the ongoing activities and have also taken the programme of cluster demonstration of NFSM. ii) Destruction of maize and pigeonpea crop by Neelgai is one of the serious problem of this area. iii) Seed is major concern; rejection by certification agency due to ODV etc.
	Harsoola (Block-Sailana)	i) Cluster demonstration of maize (KMH-37 12) was intercropped with cotton (DCH-32). ii) NFSM-Coarse Cereals.	i) Wide spacing will reflect in the reduction of farmers income of per unit area. ii) Maize crop was heavily infested with stem borer due to non adoption of plant protection measures for stem borer control.
Ratlam	Vill-Kunda (Block-Sailana)	i) Mung Demo.SML-668 only seed is provided.	
	Bawde-Khedakala	i) Cluster demonstration of Moong var. SML-668, only seed was given to the farmer @ 8 kg/acre. ii) Local Urd farmers own practice (Shri. Bheru Lal S/o Kuber).	i) Crop was very poor insufficient plant population, heavy weed infestation, no plant protection measure was applied. ii) Line sown -20 kg/ha seed. iii) Urd crop grown by farmer was very good/excellent, expected yield 12 qtls/ha
	Bawde-Khedakala	i) Cluster demonstration of maize (hy-3712) under NFSM only 15 kg seed was provided as input casting Rs 1150/- to the farmer. ii) Kisan Goshti	i) In the same village farmers field of maize + cotton was visited which was very good and well managed.
Dewas	Dewas-KVK	i) KVK visit and interaction with the SMS and PC. ii) NAM Mandi (A-Grade) Dewas.	i) Crop cafeteria and soil testing activities were seen, the information of their demonstration beneficiaries were uploaded in the Kisan Portal.

	Kalma (Block –Tonkkhurd)	i) Tube well (RKVY-2015-16) ii) Total Exp. Rs. 85,000/- (Motor Rs. 15,000/- or 50 % of cost; Boring Rs. 25,000/- max. or 50%)) iii) Balram Talab Rs. 2 lakh cost – Rs. 80,000/- subsidy iv) Rotavator (2015-16) NFSM Rs. 10 lakh (Subsidy Rs. 35,000/-) v) Mould Board Plough vi) Soybean demonstration (JS 95-60)-85days crop SR 100 kg/ha exp. yield 20-22 qtls/ha.	Also given on rent @ Rs. 800/hr/1.5 Bigah.
Dewas	Village Tonkkalan (Block Tonkkhurd)	i) Soybean Demo. JS 95-60, 60 kg seed (Subsidy Rs. 1770 +Rs. 1770 farmer share). ii) No other input used. iii) Pigeonpea CD (Var. Laxmi)	No plant population maintained Also phytophthora blight seen
	Village Harnavada (Bl.-Tonkkhurd)	i) Water Reservoir 02 hect. ii) Harnavada beej Utpadask Samiti (Shri. Raghunath S.Tomar) iii) Soybean seed production –JS 9560, 2034, 2029.	Farmer's own effort on water harvesting / Rain water storage

9. Observations

The monitoring/review of the Centrally Sponsored Scheme NFSM was done in consonance with the other CSS (NMOOP, NMSA, NMAET, RKVY, PKVY, SHC, PMFBY) and the State-Plan Agricultural Development Programmes (Surajdhara, Annapurnna, Biogas, SC/ST Tubewell, MAPWA, Top-up Subsidy, IT and State Minor Irrigation) in the districts. The district visited were considered as sample representatives of the state of MP. The observations and inferences on status of implementation of NFSM in the state level been drawn, keeping in view the sustained concurrent monitoring by DPD, available capital/schemes/intervention/autonomy/flexibility/infrastructure and extension administration etc., The major observation are as under:

- Overall kharif crop position is excellent this year with low insect pest infestation both in the visited districts and the state as a whole. About 1 % (1.37 lakh ha) of the total kharif-2016 sown area has been reported as affected due to heavy rainfall across the state during whole S-W Monsoon period (Soybean -0.4 lakh ha, Black Gram-0.39 lakh ha & Arhar-0.37 lakh ha) owing to heavy rainfall /flood during August 2016 in the eastern part of Madhya Pradesh (*Annexure-I*). The first forecast of estimates of production for the state is at *Annexure-II*.
- As compared to last 03 kharif seasons (2013-2015), soybean is in good condition. Major kharif crops of the state i.e. Soybean is at nearing maturity stage & excellent this year. The last 03 seasons have been worst for the state. Crop expression in the demonstrations under

NMOOP as also in the fields of farmers' own practice was found good. Given to favourable weather conditions prevailing further for 10–15 days, it is expected that the yield levels may be > 14 quintals/ha. *During the field visit, mite infestation in soybean has been observed occurring as a new problem.*

3. Major kharif pulses like Blackgram and Arhar are generally satisfactory except phytophthora blight (below ETL) in some fields. Mungbean crop, however, not found in good condition in demonstration trials owing to water logging/heavy rains, insect pest and poor agronomic management etc.
4. The total area under Cotton has been reported 5.99 lakh ha. The area under BT Cotton is about 98 % of total Cotton area. Only about 2 % area under Non-BT Cotton, which is mainly concentrate to district Jhabua & Alirajpur.
5. In General, including district Dewas & Jhabua, the norms of laying out of cluster demonstrations i.e. contiguous block in a cluster of 100 ha or more, could not be followed in the state. The **control plot** depicting the farmers practice, were also not identified or documented.
6. Demonstrations on pulses and coarse cereals (Maize) have been found scattered in almost all the districts. Proper display boards / publicity etc., were lacking in many places. In case of Arhar demonstrations, proper row to row and plant to plant spacing (45X10 –Early Maturing var. & 60X15-medium/late maturing var.) not maintained at most of the sites.
7. 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.***

8. 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 – 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.).
9. It is observed that farmers are using the pesticides as per the advice of pesticide dealer not as per the recommendation of the extension department. The major

insecticides/weedicides which have been distributed as input under the demonstration are at ***Annexure-III***.

10. During the course of monitoring of NFSM/NMOOP for last 08-09 years, it is observed that several *Growth promoters and Tonics* are being used abruptly and applied in combination with pesticides and these need to be checked. The online registration process for distribution of Sprinkler Pump sets, Water Carrying Pipes and power drawn implements has been initiatives this year by the State Department of Agriculture.
11. Delayed communication of NFSM Kharif 2016-17 targets by State Head Quarter to the districts – {(Paddy & Pulses) May 28th, Commercial Crops (Cotton & Sugarcane), May 31st Coarse Cereals May 26st, 2016} and release of 1st instalment on August 12th, 2016 has resulted to delay preparation of plan at block level for input and other arrangement. The NFSM – PMT Staff (1 District Consultant + 02 Technical Assistants) also could not receive their honorarium continuously for 4 months (April - July 2016)
12. The Govt. of India administration approval for NFSM 2016-17 (***Rs. 46011.71 Lakh –Rs. 27607.02 Lakh: GoI Share + Rs. 18404.68 Lakh : State Share***) was issued on May 2nd, 2016 with 1st financial released (Viz., Sugarcane- July 6th, 2016; Rice, Wheat, Pulses, Coarse Cereals- August, 9th, 2016).
13. The Direct Benefit Transfer Scheme (DBT) is under partial implementation w.e.f Kharif 2016 for ***03 CSSSchemes of NFSM(Paddy, Pulses, Wheat, Maize, CC, Sugarcane, Cotton), NMOOP & ATMA*** vide the state's directives to districts dated ***June 10th 2016***. Only the seed component has excluded from DBT while other inputs were to be purchased by farmers themselves and to be submitted to RAEO/ADO for reimbursement through DBT.
14. The farmers were not aware of the input cafeteria at the first hand and also, these inputs were not easily accessible to the farmers within a very short sowing window during kharif. Thus it had badly hampered the quality and quantity of NFSM or other demonstrations; almost 90% of total demonstration organized in the state are based only on single input seed. How these Cluster Demonstration may be considered as Demonstration.
15. Under the Cluster Demonstrations, of the total input cafeteria, only the seed was directed to be provided to the beneficiary. The other input has to be purchased/procured by the farmers themselves through licence dealer and after verification by the RAEO/ADO/SADO/BTM-ATMA/ABTM-ATMA, the subsidy amount is to be paid through DBT to the farmers account.
16. In general the DBT scheme is under partial implementation. To achieve 100 % DBT implementation by March 2017, as per the DBT Mission & directives of the Ministry vide letter no. Z-11018/34/2016-IT, DAC&FW dated July 28th, 2016.

17. The gazette notification on Pradhan Mantri Fasal Bima Yojna, in pursuant to letter. no. 13015-03-2016-Credit II, dated 23rd Feb. 2016, has been issued by the state for crop year 2016-17 for Kharif & Rabi both. The crop acreage with 100 ha or more (Patwari circle-wise) has been notified for Soybean, Maize, Paddy (un-irrigated), Sesame, Cotton, Groundnut, Kodo millet (kodo) Kutki (little Millet), Sorghum, Greengram, Blackgram.

More affords are needed to extend PMFBY to cover non-loany farmers by involving the revenue department and the RRBs in the districts.

18. Farmers' response was positive on Fasal Beema Yojana, Soil Health Card, Kisan Credit Card, Organic Farming, Farm Mechanization and they are expecting much more Mechanized Farming and improvement in seed and plant protection techniques.
19. Use of Sulphur and need based micronutrients like Zn, molybdenum, boron etc. not ensured in demonstrations as these were to be purchased by farmers and receipt are to submitted under DBT.
20. Cropping System Based Demonstrations (CSBD) (mandatory 30% of total allocated demonstration in the state) were not religiously conducted/demonstrated. This has been concluded as none of the sample districts were having such documentation on CSBD. 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 other 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 (JNKVV, Jabalpur and RVSKVV, Gwalior).* Recommendation of SAUs on IFS is at **Annexure -IV**.

Major Rice Based Cropping Systems (*DSR-Wheat sequence; DSR-Chickpea in rainfed areas; Rice-Chickpea/Lentil/Mung/Urd sequence in Rice fallow system*) and *Wheat Based Cropping System (Wheat-Summer Mung; Wheat-Relay crop with cotton; Wheat-Kharif pulse; Wheat-Maize/Bajra)* were either not demonstrated or if organized, have not been documented and evaluated.

21. All the CSBDs has inbuilt provision of 4 Trainings per demonstration (@Rs. 14000/Training). It is noticed that some of the districts have not conducted CSBD but they have shown expenditure under CSBD Trainings (e.g. Jhabua & Dewas). It is a general observation that these Trainings have not seriously been organized in the State as no such documents/details came across to the visiting Team.
22. No. of varieties, method of planting and appropriate sowing time etc., is not being followed in the cluster demonstrations of NFSM, either under Sole Demonstration & for Cropping System Based Demonstration (CSBD).
23. Farmers are well aware of weed management. In Kharif crops, major weed management has been observed in Soybean & Paddy with large scale use of herbicides owing to labour

constraints. However, for keeping their soil eco-friendly/health, locally developed innovative mechanical devices (*e.g. motorcycle driven crop weeder in soybean, a local "JUGAD" device*). However, such of locally designed machines are not covered under subsidy plan.

24. Weeds like *Dinebra retroflexa*, *Biophytum indicum*, *Commelina dufua*, *Euphorbia geniculata*, *Digitaria sanguinalis* etc were prominent and rampant and creating resistant to persuit (Imzethapyr), 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.
25. 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. Although, the expenditure towards this component was shown as cent per cent. However, no such documents or compilation could come across to the knowledge of NLMT Members.
26. Seed Component such as, purchase of Breeder seed, Production of Foundation & Certified seed etc., having a subsidy component is not being implemented seriously. The DDAs have shown their ignorance on implementation of this component. Therefore, this component is directly handled by State Seed Corporation (SSC). The NLMT observes a major lacunae, both in addressing the Seed Replacement Rate (SRR) & Varietal Replacement Rate (VRR). Seed Distribution component lacks proper follow-up with the farmer/beneficiaries in terms of quality, germination & characteristics etc.
27. After discussion, visited farmer's field (Shri Bharat Anjana) who sowed soybean var: RVS 2001- 4 bearing 100-125 pods per plant which is registered for foundation seed production on ridge with 3 rows to drain excess moisture during early stage of growth, a better planting method for soybean production under weather aberrations.
28. Machinery interventions includes Seed drill, Multi-crop Thresher, Rotavator, M.B. plough and Laser Land leveller & Custom Hiring Centres (CHCs), initially opened under Rashtriya Krishi Vikas Yojna (RKVY) . *Areas of Nimar and Malwa covered 100% line sowing with almost 50% -50% tractor and bullock drawn implements as popular system of the region.*
29. These machineries have benefited the farmers both in terms of timely agricultural operations, risk management, reduction in cost of cultivation and earning of additional income by way of providing Custom Hiring Services thereby, providing employment & earring extra income.
30. The Team also visited the NGO KVK Jaora (Kalukheda), NGO KVK Kasturbagram and SAU KVK Dewas, interacted with the scientists on conduct of FLD etc and visited the

crop cafeteria maintained by them. The NGO sectors KVKs are doing very good work and they need to be strengthened for Seed Hub/Seed infrastructure. KVKs are maintaining proper demonstrations register and GPS based conduction information etc.

31. Soil testing labs at KVK Jaora and Dewas, and Mandi lab at Dewas were also visited wherein SHC preparation program is going on.
32. Comparative suitability of polythene bags and jute bags for seed supply needs to be judged in respect of impact on seed germination consequent upon its packing / storing in respective material bags. This has been pointed out by seed supplier/packer during visit.
33. NLMT-NFSM Kharif-2016 for MP was conducted without the benefit of State Nodal Officer during 6-10 September 2016. Apathy of State HQ on such monitoring also convey wrong messages to district functionaries and devoid the team of real feedback/coordination etc.
34. Even after very long initiation period of NFSM programme, the implementing authorities at field level are ignorant about the objectives of the Missions and could not depict the significance of this programme through documents, display board, proper site selection, field days, cropping system approach etc.
35. Input cafeteria decided at State level itself defeat the sole purpose of AES based input recommendation.
36. Large number of Light-trap apparatus costing Rs. 1800/- per light trap had been distributed to the farmers according to their statements but not a single light trap was seen during monitoring visit in Dewas & Jhabua was disappointing..
37. Gross Root level workers were not able to identify Soybean-Mite and Pigeonpea-Phytophthora blight which shows lack of proper training.
38. On talking with farmer it was found that they could not get the proper benefits of various schemes due to lack of coordination among the stake holders like MARKFED, MP AGRO, Seed certification etc.
39. In Jhabua & Dewas it was found during monitoring that the crop raised under demonstration was inferior to that of raised by the farmers themselves under similar situation of land and climate.
40. Agricultural welfare activities especially the technology demonstration may be oriented towards the wellbeing of all the farmers / farming community irrespective of their caste and categories; this would be helpful in target achievement.
41. In Sailana village, the team came across to cultivation of maize + cotton in different form and proportion involving *inter-crop*, *mixed crop*, *border* cropping as per land situation and land use pattern for existing agriculture. Most of the maize was sown along the row of cotton placing 3 metre apart in each direction as compensatory crop which was at cob forming stage, some of the crop was affected mostly with stem borer; stem became violet

due to phosphorus deficiency. Crop of cotton was chosen because of high commercial value of BT cotton variety DCH 32 having characteristic of highest staple length and bordering with groundnut as new introduction that was showing yellowing appearance over plants.

42. In village – Baundikala kheda, pulse crop moong (Variety: SML 668) was seen which was fully infested by weeds and powdery mildew, sown with broadcasting method and poor management *and low plant population under demonstration of NFSM programme*. Local Bhil tribal farmer sown local Mung varieties with country plough under line sowing was really fascinating with low weed and disease pressure on the moong crop.
43. Intercultural tools were needed for managing weed, first at early phase of crop growth, farmers have requested for making available improved hand operated weeding tools, suited to their region.
44. Jhabua having 6 blocks with different population dynamics and cultivation practices under undulating topography, Village-Petlawad is known for medium (Inceptisol and Alfisol) and heavy soil (Vertisol) which is suited for soybean and arhar and require implements modified with innovation (*Jugad*) / developed at personal workshop at village.
45. In rabi season, wheat and other rabi crops are not getting remunerative prices due to processing drudgery like half processed or semi cleaned seed, appropriate grading processing machine and technology are needed at domestic level. Wheat var. Lok -1 is suited due to dwarf height of plant.
46. Under RKVY in village- Naygaon Jagir, Block-Meghpur rice SRI was undertaken with variety-DRH775 in one acre where no proper principle of SRI was followed for this practice, because age of seedlings are key factor in first step of SRI production.
47. The NLMT had a short meeting with the Director/Scientist of ICAR-IISR, Indore, to have a feedback on major existing kharif crop (soybean) of the state vis-a-vis the prospects of rabi-2016-17. Some of the observations on soybean may be recorded as under.

Mite infestation in soybean is generally observed in the areas growing Okara (lady finger); variety JS 93 05, a late var., is highly susceptible to mite, could be controlled with the use of O-Mite/fast-mite; Proper spacing in var. JS 335, may escape the menace; Promotion of Granular Super Phosphate in the state, if applied under split application (i.e. 50% at the time of sowing and 50% at the time of flowering), is known to harvest good yield.

48. The FLDs on soybean var. JS 20 29 (Resist. to YMV), JS 20 34 have been organized by NRCS and these are in good condition; the centre has advised that all bold seeded varieties should to be shown on shallow depth. As regards “*Mera Gaon- Mera Desh*” Programme, 5 Teams @5 village/ team have been adopted. Weed is a major constraints,

the herbicide *Pursuit*, being used for the last 12-13 years, is now proving ineffective and need the attention of the department/SAUs.

49. ***Some of the Innovative Activities include:*** Cultivation of transplanted Arhar under Dharwad method (although small scale); Inter-cropping of *Arhar+Soybean, Maize+Arhar, Cotton+Maize+Arhar, Arhar+ Tomato*; Soybean under Raised Bed System; Plantation of Bamboo, Mahua & Neem under Agro-Forestry; Cultivation of Castor in Jhabua region; Cultivation of Sweet Corn, Sesame and Vegetables under crop diversification; Marigold with innovation irrigation channel; Introduction of Lentil & Linseed in Jhabua; Rabi Maize in Jhabua.

10. Suggestions

1. Implementation of Seed Component such as, *Purchase of Breeder seed, Production of Foundation & Certified seed etc., and Distribution of Certified Seed etc., need a serious attention of NFSM Head Quarter and JDAs/DDAs .It needs accountability of DDAs in identification of variety for Breeder Seed, and Production of Foundation & Certified Seeds both by SSC or by Seed Grower Societies.*
2. Each District DDAs should be directed to prepare a list of suitable and best performing recently released varieties/old varieties and also local cultivar (Non-descript) of different pulses/oilseeds/cereals and other dominating crops of their districts for realistic seed demand of only those HYV. This will also help in formulation of district plan.
3. There should be one online seed availability portal for released variety seed in which additional produced quantity of breeders/certified/foundation seeds available with any recognized agency should be uploaded so that anybody can access the site and collect/procure seed as per their need.
4. Cluster demonstrations area should be reduced to a maximum of 5 to 10 hectares from existing 100 hectares. The field extension staff has apprised that such a big cluster is not practical for crops of Mung, Urd, Lentil and Tur except the major crops of region like Soybean–Gram. Also Small Clusters in a large representative areas are being demanded by farmers.
5. There is a need to introduce inter-crop with transplanted pigeon pea to increase food production (cereals and pulses) including double crop area. It also provides the risk bearing capacity against the crop loss due to natural weather at one side and enhances the soil productivity on the other.
6. Feasibility of conduction of Cropping System Based Demonstrations (CSBDs) should be re assessed for continuing in 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 deptt. of SAUs/KVKs.

7. 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.
8. 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.
9. 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.***
10. All Central Sector Schemes of DAC&FW shall have to utilize PFMS Portal of Controller General of Accounts/Ministry of Finance for entering their Aadhar-seeded beneficiary data with immediate effect as all future releases for CSS / Post March 31st, 2017, would be based on Aadhar linked data bases of beneficiaries. ***However, the critical input like seed treating material + PSB + Rhizobium etc costing within Rs.500 to 1000/- per ha per 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.
11. 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 Sulphur, Zn and Molybdenum particularly for Soybean-Chickpea system in M.P. needs to be explored.***
12. There is need of comparative analysis of elements/parameters (P^H , ***Electrical Conductivity, Organic Carbon, N.P.K.S., Cu, Zn, Mg, Fe, B, Mn, Calcareousness, lime & Gypsum requirement***) especially micronutrients (through Mrida-Parikshak and with other lab equipments so that percent variation in results (if any) can be standardized for different soils. Similarly the cost of economics of per sample analysis by both the methods also need to be conducted, so that the analysis could be conducted without heavy expenses on recurring expenditure. The cost of instrument is Rs. 86,000/- ***(Including 1 Kit of reagent worth Rs. 17,000/- for 100 sample).***
13. 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/MP AGRO /NAFED etc. and other standard

institution/company should be promoted after ensuring their quality testing. Similarly micronutrients material should be sampled and got tested separately *in 2-3 standard labs to ensure quality and content of elements (%)*.

14. 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.
15. In oilseed crops, less than the normal area coverage in soybean may be attributed to last three year's (2013 – 2015) poor performance, heavy rains causing washing out of sesame seed and diversion towards urd and pigeonpea due to good MSP / market prices.
16. Dharwad system of Arhar growing is being widely adopted by farmers in Sangwa, the farmer Gopal Sukhram Patidar grew Arhar into polybags then dibbled in soybean row and did nipping at 30-35 day crop stage. Such technique may be popularised in open grazing areas.
17. Soybean + Arhar + Sweet corn was seen in innovation over Dharwad system of arhar growing in the village. This need to be popularised.
18. Dhaincha crop is being taken in village Mirzapur (Indore) to promote Green manuring and organic farming. However, the farmers need training on proper procedure of green manuring, age of crop and also method of seed production of this crop.
19. Til (sesame) was used as border crop of maize + cotton intercropping system of the region. Team has suggested to promote this technique to spread amongst 100 farmers at least per block in next year; *another problem of Nilgai or blue bull (Boselaphus tragocamelus)* in rabi season again Dr. Tiwari and his team have given to grow Kusum (Safflower) crop due to spiny and rough enough on surface for foraging and also works as guard crop. For economical strengthening maize was dibbled in the row of cotton to earn extra income through green cobs selling during September month.
20. Some training and skill development on secondary agriculture, processing etc is needed for involving youngsters in agribusiness sector / modules.
21. Team found that the KVK-Kasturba Gram has developed well arranged data base on demonstration giving location, farmers' detail based on Aadhaar Card, nutrient status with geo-referencing. This strategy may be taken for state demonstration, as well.
22. Under soybean, *selection of variety for high and low rain fall areas with management strategies*; Nutrient management – using sulphur 50% at sowing and 50% as side dressing, similarly, use of potassium; Raised bed and furrow techniques to avoid moisture loss and seed treatment with insecticide 20-30 days prior to sowing in soybean crop; Popularisation of soybean varieties which are drought tolerant (like NRC 121 and NRC 7, NRC 7) etc., need to be promoted. Problem of soybean mosaic is seriously

affecting the crop, for which NRC soybean has started the work for management, the state may constitute a committee involving NRCS + SAU + NCIPM + DPD, Bhopal to study problem and expedite the solution.

23. To control aphid on Maize, Emidachlorprid @10 ml/spray pump, against sucking pest in cotton Ecetamaprid @45ml/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.*
24. *Growth promoters and Tonics* are being used abruptly and applied in combination with pesticides and these need to be checked.
25. The District Agriculture Officers should be made accountable for implementation of seed component especially for identification of breeder seed variety, production of foundation seed and production of certified seeds in their district/ division.
26. Involvement of PD ATMA (BTM/ATM) & NGOs should be ensured in the conduct of technological demonstrations to insured the quality and accountability.
27. Heavy weed infestation has enhanced the virus and insects above ETL. Further heavy use of weedicides has enhanced the cost of cultivation. There is a need of recommendation on better agronomy, weed management and mechanization to reduce the cost of cultivation. Locally made innovative “Jugad” tools in districts may be popularised using Innovative Component / Local Initiative budget.
28. A list of all beneficiary who got machinery under any govt. subsidy scheme especially with > 10,000/- per unit subsidy should be displayed in board with their contact number at village panchayat/sahakari samitee office so that other farmers can hire the same when they needed the same implement for example –Rotavator,M/B ploughand Reaper-cum-binder etc.
29. Residual moisture utilization during rabi season for second crops through zero till techniques using relay cropping of pulses like chick pea, field pea, mustard and linseed need to be propagated through quality demonstrations.
30. Bullock based mechanical weeder is urgently needed and initiated as local initiative through innovation in tribal areas because continuous use of same herbicide on same field created resistant and profusely increasing the population of unwanted plant (weeds) ultimately uprooting by farmers is done. Some improvised technique of lifting and non lifting type adjustable mechanical weeder should be initiated as farmer willings.
31. 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.

32. The tools distribute under RCT component with subsidy amount of more than 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.
33. Impact evaluation after 2-5 years of this components should be done in respect of cast cutting, increasing mechanization and employment generation etc., in consultation with Agro Economic Research Centre (AERC) of the SAUs.
34. Under Local initiatives component of the CSS or through the state plan budget the repair/maintenance training on RCT should be the part of the Skill Development Programme.
35. In Kharif, weed management has been noticed a major issue especially, with the crops in Soybean, Paddy & Urd. Owing to labour constraints, large scale use of herbicides on the recommendations of pesticide dealers, many a times proves ineffective as also increases cost of cultivation due to lack of knowledge on judicious use/spurious chemical. However, for keeping their soil eco-friendly/health, locally developed innovative mechanical devices(*e.g. motorcycle driven crop weeder in soybean, a local "JUGAR" device*) should be covered under subsidy plan utilizing Local Initiative Component of the district.

Effective weed management under agronomic demonstration also need to be propagated under these cluster demonstrations for which atleast some cluster demonstrations could be organized in major districts in coordination with the ICAR-Directorate of Weed Science Research (DWSR), Jabalpur, Madhya Pradesh.

36. In order to ensure precise and quality soil testing (SHC) with sizeable targets of Soil sampling and issuance of SHC (@10000 soil samples per lab) provision of sufficient qualified and trained staff in all labs of the State Deptt. (KVK/SAUs/Mandi Board etc.), should be made as per guidelines given in "Methods Manual, Soil Testing in India" of DAC&FW, Ministry of Agriculture, GOI, New Delhi, 2011. Otherwise maintaining quality of soil analysis would be doubtful/questionable.
37. The Team recommends that sample tested with Mrida Parishak need to be verified with analysis of different standard instruments/equipment and procedure used in soil analysis. At least 2-5 per cent of these sample may be sent to referral lab of SAUs.
38. Field Days should be organized in each & every season with respect to crop condition.



JHABUA: MECHANIZATION (ROTAVATOR)



FARM IMPLEMENTS (SEED DRILL)
UNDER NFSM VILLAGE-KARDAWAD, BLOCK-PETLAWAD



FARMER'S GOSHTI



**FARMER'S GOSHTI
DISTRICT-JHABUA, VILLAGE-SAGWA, BLOCK-THANDLA**



DHARWAD SYSTEM OF ARHAR AT FARMER'S FIELD



**GROWING ARHAR AS DHARWAD SYSTEM IN SWEET CORN MAIZE
DISTRICT-JHABUA, BLOCK-PETLAWAD, VILL.-KARDAWAD**



**JHABUA: FOUNDATION SEED PRODUCTION OF SOYBEAN
(VARIETY: RVS 2001-04)**



JHABUA: COMPOSITE NURSERY OF PADDY

DISTRICT-RATLAM



RATLAM: CLUSTER DEMO. FIELD PLANT STATURE NFSM



**RATLAM: FARMER'S PRACTICE MOONG CROP
(VARIETY: SML- 668)**



NUTRI-FODDER FOR ANIMAL REARING AT BACKYARD



INTERACTION WITH STAFF/SMSS KVK-JAORA (NGO-KVK)

DISTRICT- INDORE



INDORE: FARMER'S INTERACTION AT MIRJAPUR



GROUNDNUT CROP AT FARMER'S FIELD

INTERACTION WITH SCIENTIST-NRCS





INDORE: MARIGOLD WITH INNOVATIONAL IRRIGATION CHANNEL



SESAME BORDERING CROP MAIZE



GROWING ARHAR AS DHARWAD SYSTEM IN SOYBEAN

DISTRICT-DEWAS



NIPPING ON ARHAR CROP UNDER DHARWAD SYSTEM



DEWAS: HEAVY FRUITING OF SOYBEAN CROP





SRI METHOD OF RICE CULTIVATION



VISIT OF SOIL TESTING LABORATORY

Area Production & Yield of Food grains, Oilseeds and Other Crops in Madhya Pradesh : 2016-17

Kharif 2016 1st Advance Estimate

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

Crops/Groups	Area	Production	Yield
Paddy	22.6	72.55	321
Jowar	2.2	4.63	210
Bajra	2.8	6.79	243
Maize	12.63	43.32	343
Kodo-Kutki	1.35	0.88	65
Others (Ragi & Small Millets)	0.5	0.42	84
Total Cereals	42.08	128.59	306
Tur	6.9	10.45	151
Urd	11.68	10.75	92
Moong	2.25	1.01	45
Kulthi	0.14	0.04	29
Others Pulses Kharif	0.2	0.13	65
Total Pulses	21.17	22.38	106
Groundnut	2.55	4.49	176
Soybean	54.01	70.48	130
Sesamum	3.8	2.58	68
Niger Seed	0.74	0.30	41
Sunflower	0.02	0.02	100
Total Oilseeds	61.12	77.87	127
Jute	0.06	0.05	83
Mesta	0.02	0.02	100
Cotton (T)	5.99	12.85	215
Cotton (B)		7.56	
Total Kharif Crops	130.44	249.32	191

Annexure-II

MP State: Staff Position

A. Project Management Team of National Food Security Mission (NFSM)

State/District	Designation	Proposed	Filled	Vacant
State Level	District Consultant	3	-	3
	Technical Assistant	6	3	3
	Total PMT	9	3	6
District Level	District Consultant	50	30	20
	Technical Assistant	100	76	24
	Total PMT	150	106	44
TOTAL PMT MP STATE		159	109	50

B. Sub-Mission on Agriculture Extension: Agriculture Technology Management Agency (ATMA)

S.No.	Designation	Proposed	Filled	Vacant
1	Project Director	51	32	19
2	Deputy Project Director	102	50	52
3	Accountant- cum-Clerk	51	32	19
4	Block Technology Manager	626	193	433
5	Assistant Block Technology Manager	939	318	621
6	Computer Programmer	51	42	9
TOTAL MP STATE		1820	667	1153

**Recommendation on Cropping System Research/ Integrated Farming System
by JNKVV, Jabalpur for Madhya Pradesh**

Jawaharlal Nehru Krishi Vishwa Vidyalaya (JNKVV), Jabalpur, Madhya Pradesh

1. Intensification and diversification of need based cropping systems research for different agro-climatic zones of Madhya Pradesh.

- The rice cv. Pusa sugandha 5-berseem (fodder + seed) produced the maximum REY (146.66 q/ha/year), NMR (Rs. 124667/ha/year) and B:C ratio (2.43) closely followed by rice cv. Danteshwai-marrigold cv. African giant-sorghum fodder (119.08 q/ha/year), NMR (Rs.91834 /ha/year) and B:C ratio (1.82) and rice cv. JRH-5-onion cv Pusa red-green gram cv pusa vishal (118.55 q/ha). NMR (Rs 91570/ha/year) and B:C ratio (1.78), respectively).
- 2. **Permanent plot experiments on Integrated Nutrient supply Management in rice-wheat cropping systems (Jabalpur).**
- *INM in rice-wheat crop sequence at Jabalpur. Revealed that productivity of individual crop components and cropping system as whole Wheat Equivalent Yield (WEY), were maximum (Rice 44.09 q/ha, wheat 30.80 q/ha and WEY 63.87 q/ha/year) with the application of 50% NPK through fertilizer+50% N through green manuring to rice and 100% NPK to wheat.*
- The same treatment also produced the maximum system productivity (23.92 kg/ha/day), and B:C ratio (2.40). Due to high cost of input maximum NMR (62405 Rs/ha/yr) was recorded with 100% NPK through fertilizer to both crops

Thus, there was a saving of 50% NPK costly fertilizers through INM without sacrificing the productivity and profit of the cropping system along with improvement in soil health and dependency on inorganic fertilizers. Based on the sustainability index of productivity worked out from the yields of crops during last 30th years, INM treatments particularly fertilizer + FYM or green manure produced almost at par sustainable grain yields of entire cropping system than 100% NPK through fertilizer to both crops.

3. Powarkheda Centre:Intensification and diversification of need based cropping systems research for different agro-climatic zones of Madhya Pradesh.

- *At Powarkheda, ten crop sequences were tested for sixth time. The soybean- potato-sorghum fodder* cropping sequence led to record maximum SEY (123.32 q/ha/year), NMR (326460 Rs/ha/year) and B:C ratio (7.50) followed by *Soybean-potato- sesame* crop sequence with SEY, NMR and B:C ratio of 119.91 q/ha/yr, 314230 Rs/ha/yr and 6.91 respectively. *Basmati rice-wheat-greengram cropping system stood in the 3rd rank with the SEY*, Net monetary returns and B:C ratio of 78.79 q/ha/yr, 181540 Rs/ha/year, and 3.31 respectively.

4. Development of synthesized sustainable model for predominant cropping systems under irrigated conditions (Powarkheda).

- At Powarkheda in *soybean-wheat cropping system*, application of fertilizers on soil test value with other agronomical practices recorded the maximum productivity of component crops (*Soybean 13.88 q/ha wheat 45.45 q/ha and WEY (67.14 q/ha)*) as well as monetary gains (NMR Rs. 66920 q/ha/year and B:C ratio 1.65). This was closely followed by where integrated nutrient management practices were adopted (soybean 11.38 q/ha, wheat 42.92 q/ha), WEY (60.70 q/ha/year), NMR (Rs. 57122/ha/year) and B:C ratio 1.43. Treatment receiving integrated nutrient management enhanced some of the soil properties viz. pH, EC, N,P and K contents over their initial values except to organic carbon.

5. Development of Organic Farming Package for system based high value crops.

- This was the 10th year of experimentation on organic farming for soybean-wheat (durum) cropping system at Powarkheda, application of 100% NPK through fertilizer along with secondary and micronutrients as per soil test values produced highest WEY (55.81 q/ha/year), net profit (Rs 71424/ha/year) as well as B:C ratio (1.78).

6. Development of Organic Farming Package for system based high value crops.

- 100% NPK through fertilizers + Zn as per soil test to both crops registered the highest REY (50.05 q/ha/yr), NMR (Rs 77560/ha/year) and B:C ratio (1.64) followed by 50% NPK through fertilizers + 50% N through FYM to both crops with the REY, NMR and B:C ratio of 47.06, 73071 Rs/ha/yr and 1.63.
- Amongst the organic nutrient management 1/3 N through each of FYM, Vermi Compost and Neem cake + BGA + Rock phosphate + PSB to both crop gave the maximum REY (48.57 q/ha/yr), NMR (Rs 65503/ha/year) and B:C ratio (1.17) followed by 1/3 N through

each of FYM, Vermi Compost and Neem cake + agronomic practices of weed control to both crops with the REY, NMR and B:C ratio (45.56 q/ha/yr, Rs 56091/ha/year) (1.16).

7. Climate Change Technology :Management of cropping systems for resource conservation and climate change (Jabalpur).

- An experiment on climate change through tillage, cropping systems, mulches and fertility levels conducted at Jabalpur has indicated that *the combination of conservation tillage in rice – berseem cropping system with mulching and 125 per cent RDF resulted in maximum REY (126.42 q/ha/year), NMR (Rs. 82618/ha/year and B:C ratio of 2.24).*
- The productivity of component crops under *rice – wheat, rice – berseem (fodder and seed), maize – wheat and sorghum – wheat cropping systems were maximum under conventional tillage with mulching and 125 per cent recommended dose of fertilizer.* The values of REY, NMR and B:C ratio under each cropping system were also maximum with conventional tillage with *mulching and 125 per cent RDF.*

APPROVED COST NORMS & INPUT CAFETERIA : 2016-17**1. Cluster Demonstration : Coarse Cereals - Sole Crop****A. 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 Azospirillum, 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

B. 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

C. 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

D. 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

E. 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

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 (<i>Transplanted & DSR</i>)		
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 (<i>Including Seed Treatment</i>).		
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: RICE

(Amount in Rs.)

S. No.	Interventions/Input	Recommendation	Total Cost /ha
1.	Demonstration of High Yielding Varieties of rice (<i>Transplanted & DSR</i>)		
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

B. CSBD: WHEAT

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

IV. 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

V. 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

CAFETERIA OF INTERVENTIONS FOR CLUSTER DEMONSTRATIONS IN MADHYA PRADESH FOR 2016-17**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)	<ul style="list-style-type: none"> · Atrazine/Simazine 1.0 Kg a.i./ha as pre-emergence (2.0 Lt/ha commercial prod.) · 2,4-D (Ethyl ester) 0.5 Kg a.i. /ha as post emergence (1.33 kg/ha commercial product) 	350
5	Bio-fertilizers (Azotobactor, PSB, Potash mobilizing)	<p>Azotobacter, Azosprillum and PSB</p> <ul style="list-style-type: none"> - 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 	300
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

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 virideor Carbendazim 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)	<ul style="list-style-type: none"> 2,4-D (Ethyl ester) 0.5g a.i. /hg as post emergence (1.33 Lit/ha commercial product) 	300
		<ul style="list-style-type: none"> 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 (Azotobacter, PSB, Potash mobilizing bacteria and zinc solubilizing bacteria)	Azotobacter, Azosprillum and PSB	300
		<ul style="list-style-type: none"> 3 kg of each inoculant should be taken. 	
		<ul style="list-style-type: none"> 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

INTERCROPING DEMONSTRATION FOR 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/ kodo kutki (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 (appprate & recommended)	Pendimethalin 1.0 kg a.i./ ha (3.33 Lit/ha Commercial Product)	900
5	Bio-fertilizers (Azotobactor, PSB, Potash mobilizing	Rhizobium, Azotobacter, Azospirillum and PSB - 5 g each inoculant /kg seed with crop specific.	100
7	Publicity material/Visit of Scientists/Field Day	-	800
	Total		5000

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 (appropriate&recommdoned)	<ul style="list-style-type: none"> · Metsulfuran – 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

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 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 of Metalaxyl @ 3 g/lit of water, at appearance of phytophthora blight Chickpea – Soil incorporation of Trichoderma viride @ 2.5 kg/ha along with FYM	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. 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 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 Jaggery 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/Vermicompost (about 40% moisture should be maintained) - Broadcast the mixture over one hectare land.	300.00
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

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 biofertilizers		
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	<p>BGA</p> <ul style="list-style-type: none"> · 3 kg of each inoculants should be taken. <p>For transplanted rice</p> <ul style="list-style-type: none"> · 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. <p>Direct seeded rice</p> <ul style="list-style-type: none"> · 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. <p>Blue Green Algae</p> <ul style="list-style-type: none"> · Soil based BGA inoculums @ 10 kg/ha for both the conditions. 	300.00
4	Demonstration on effectiveness of weedicides (appropriate and recommended)	<p>Herbicide for direct seeded rice (DSR)</p> <ul style="list-style-type: none"> · 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 – Na 20 g a.i./ha (0.2 kg/ha commercial product) 	400.00
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

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 biofertilizers		
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	<p>BGA</p> <ul style="list-style-type: none"> · 3 kg of each inoculant should be taken. <p>For transplanted rice</p> <ul style="list-style-type: none"> · 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. <p>Direct seeded rice</p> <ul style="list-style-type: none"> · 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. <p>Blue Green Algae</p> <ul style="list-style-type: none"> · Soil based BGA inoculums @ 10 kg/ha for both the conditions. 	300.00
4	Demonstration on effectiveness of weedicides (appropriate and recommended)	<p>Herbicide for direct seeded rice (DSR)</p> <ul style="list-style-type: none"> · 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 – Na 20 g a.i./ha (0.2 kg/ha commercial product) 	400.00
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

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 biofertilizers		
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 · 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.	300.00
4	Demonstration on effectiveness of weedicides (appropriate and recommended)	Herbicide for Stress Tolerant variety (STV) · 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 – Na 20 g a.i./ha (0.2 kg/ha commercial product)	400.00
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

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 biofertilizer		
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 (Neutrillize 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	<p>BGA</p> <ul style="list-style-type: none"> · 3 kg of each inoculant should be taken. <p>For transplanted rice</p> <ul style="list-style-type: none"> · 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. <p>Direct seeded rice</p> <ul style="list-style-type: none"> · 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. <p>Blue Green Algae</p> <ul style="list-style-type: none"> · Soil based BGA inoculums @ 10 kg/ha for both the conditions. 	300.00
4	Demonstration on effectiveness of weedicides (appropriate and recommended)	<p>Herbicide for Line Transplanted (LT)</p> <ul style="list-style-type: none"> · 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 – Na 20 g a.i./ha (0.2 kg/ha commercial product) 	400.00
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

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 of Metalaxyl @ 3 g/lit of water, at appearance of phytophthora blight	
		Chickpea – 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. Supplement Molybdenum @ 1 g Amonium Molibdate/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 (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 Supplement 1 g Amonium Molibdate/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 (about 40% moisture should be maintained)	
		· 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 (appropriate&recommonded)	<ul style="list-style-type: none"> · Metsulfuran – 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
4	Publicity material/ Visit of Scientists / Field Day		800.00
	Total		5000.00

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	<p>BGA</p> <ul style="list-style-type: none"> · 3 kg of each inoculant should be taken. <p>For transplanted rice</p> <ul style="list-style-type: none"> · 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. <p>Direct seeded rice</p> <ul style="list-style-type: none"> · 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. <p>Blue Green Algae</p> <ul style="list-style-type: none"> · Soil based BGA inoculums @ 10 kg/ha for both the conditions. 	300.00
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)	<p>Herbicide for direct seeded rice (DSR)</p> <ul style="list-style-type: none"> · 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 – Na 20 g a.i./ha (0.2 kg/ha commercial product) 	350.00
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 including seed treatment	Seed rate 20 kg/ha	1800.00
1.2	Chick Pea/field pea including seed treatment	Seed rate 80 kg/ha	
1.3	Lentil/Horse gram including 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 inoculant slurry over 80-100 kg of seed	
		· It 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.	
		· 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 beneficial 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

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 biofertilizers		
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	<p>BGA</p> <ul style="list-style-type: none"> · 3 kg of each inoculant should be taken. <p>For transplanted rice</p> <ul style="list-style-type: none"> · 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. <p>Direct seeded rice</p> <ul style="list-style-type: none"> · 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. <p>Blue Green Algae</p> <ul style="list-style-type: none"> · Soil based BGA inoculums @ 10 kg/ha for both the conditions. 	300.00
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)	<p>Herbicide for direct seeded rice (DSR)</p> <ul style="list-style-type: none"> · 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 – Na 20 g a.i./ha (0.2 kg/ha commercial product) 	350.00
5	Insecticide	Fipronil G 10kg/ha, Chlorpyriphos 20 EC@1 Lit/ha	1050.00
6	Demonstration on IPM	Light trap safer to beneficial 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	Seed rate 100 kg/ha	1600.00
	Introducing newly released high yielding varieties with specific to region including seed treatment		
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 (appropriate&recommonded)	· Metsulfuran – 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)	
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

INTERCROPING DEMONSTRATION : 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 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.	100.00
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.			

FRONT LINE DEMONSTRATION ON INTERCROPING (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

FRONT LINE DEMONSTRATION ON 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	5125
3	Neem Oil / NPV 500 LE	2 Liter	
4	Pendimethalin	5 Liter	
5	Triazophos 40EC	1.25 lit.	
6	Fenvalerate 20EC	500 ml	
7	Publicity material/Visit of Scientists/Field Day	-	1000
	Total		8000

FRONT LINE DEMONSTRATION ON 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

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

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 chlorpyrifos 20% EC 1.5 liter Prophenophos 50% EC 2 liter	2500.00
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

SCHEME-WISE AGRI. MACHINERY SUBSIDY PATTERN

(Amount in Rs.)

S. No.	Scheme	Component	Category of Farmers	Scheme proposed Subsidy	Top-Up Proposed	Total Subsidy
1	NFSM	Sprinkler	All Category Farmers	Rs.10000/-ha or 50% of cost whichever less	4500/-	14500/-
2	NFSM	Rotavator	All Category Farmers	Rs.35000/-ha or 50%	-	-
		Thresher	All Category Farmers	Rs.40000/-ha or 50%	-	-
3	RKVY, NOOMP, NMSA	Sprinkler	Marginal & Small Farmer	Rs.9800/-ha or 50% of cost whichever less	4500/-	14300
			Large Farmer (2 ha. above lend)	Rs.9800/-ha or 35% of cost whichever less	4500/-	11360
4	NOOMP, SMAM	Thresher and Rotavator	20 -25 HP Small, Marginal, SC & ST	Rs.25000/-ha or 50% of cost whichever less	-	-
			20 -25 HP Other Farmer	Rs.2000/-ha or 40% of cost whichever less	-	-
			35HP Small, Marginal, SC & ST	Maximum 63000/-	-	-
			35 HP Other Farmer	Maximum 50000/-	-	-

Note: Therefore, according to the above, variation in subsidy pattern in various scheme, field functionaries facing problem for satisfying farmers

SCHEME-WISE SUBSIDY PATTERN: AGRICULTURAL MACHINERY

(Amount in Rs.)

S. No.	Name of Scheme	Component	Category of Farmers	Subsidy rate	Remarks
1	RKVY, NMOOP, NMSA	Sprinkler Set	Marginal & Small Farmers	Rs.9800/- per ha or 50% of cost whichever less.	
			Others farmers	Rs.6860/- per ha or 35% of cost whichever less.	Farmers have more than 2 ha land, subsidy have been reduced from 50% to 35 % .This is discrepancy in the scheme of NMOOP, RKVY & NMSA. The pattern of subsidy should be equal to NFSM.
2	NFSM	Sprinkler Set	All Category Farmers	Rs.10000/- per ha or 50% of cost whichever less.	
3	NMOOP, SMAM	Thresher and Rotavator	20 -35 HP, Marginal, Small,SC & ST farmers	Rs.25000/- per Machine or 50% of cost whichever less.	The discrepancy have been found in the Scheme of SMAM & NMOOP in the subsidy pattern. The pattern of subsidy should be equal to NFSM.
			20 -35 HP, Other Farmers	Rs.20000/- per Machine or 40% of cost whichever less.	

			More than 35HP, Marginal, Small, SC & ST farmers	Rs.63000/- per Machine	
			More than 35 HP, Other Farmers	Rs.50000/- per Machine	
4	NFSM	Rotavator	All Category Farmers	Rs.35000/-per Machine or 50% cost whichever less	
		Thresher	All Category Farmers	Rs.40000/-per Machine or 50% cost whichever less	

Note: Variation in subsidy pattern in various schemes i.e RKVY, NMSA, NMOOP, SMAM and NFSM. Field level functionaries are facing a lot of problem in this regard to satisfy the farmers.

SUBSIDY PATTERN UNDER NFSM IMPLEMENTS

(Rs. In lakhs)

S.No.	Name of Implement	NFSM (Max. Subsidy 50%)	SC/ST/small/marginal/women farmers (Max. subsidy 50%)	Other farmers (Max. subsidy 40 %)
1	Multi-crop Planter	0.15	0.63	0.50
2	Seed Drill	0.15	0.44	0.35
3	Power Weeder	0.15	0.19	0.15
4	Zero-till-Multi-crop Planter	0.15	0.44	
5	Rotavator	0.35	0.63	0.50
6	Laser land leveller	1.50	0.63	0.50
7	Paddy Thresher/Multi-crop Thresher	0.40	0.63	0.50
8	Paddy Transplanter	0.75	0.94 (4 row), 2.0 (above 4 row)	0.75 (4 row) 2.0 (above 4 row)

Annexure-VII

NFSM- Kharif Minikit Allocation Mung/Urd Year 2016-17

S.No.	Districts	Block	NSC (Pant Urd-31)	NAFED (Mung -TJM-3)	Total
1	Jabalapur	7	336	220	556
2	Katni	6	288	190	478
3	Balaghat	10	480	320	800
4	Chhindwara	11	520	352	872
5	Seoni	8	384	250	634
6	Mandla	9	430	288	718
7	Dindori	7	336	224	560
8	Narsinghpur	6	288	192	480
9	Sagar	11	520	352	872
10	Damoh	7	336	224	560
11	Panna	5	240	160	400
12	Tikamgarh	6	288	192	480
13	Chhatarpur	8	384	256	640
14	Rewa	9	430	288	718
15	Sidhi	5	240	160	400
16	Singroli	3	144	96	240
17	Satna	8	380	256	636
18	Shahdol	5	240	160	400
19	Anuppur	4	192	128	320
20	Umaria	3	144	96	240
21	Indore	4	192	128	320
22	Dhar	13	624	416	1040
23	Jhabua	6	288	192	480
24	Khargone	9	432	288	720
25	Barwani	7	336	224	560
26	Khandwa	7	336	224	560
27	Burhanpur	2	96	64	160
28	Alirajpur	6	288	192	480
29	Ujjain	6	288	192	480
30	Mandsaur	5	240	160	400
31	Neemach	3	144	96	240
32	Ratlam	6	288	192	480
33	Dewas	6	288	192	480
34	Shajapur	4	192	128	320
35	Agar	4	192	128	320
36	Morena	7	336	224	560
37	Sheopurkala	3	144	96	240
38	Bhind	6	288	192	480
39	Gwalior	4	192	128	320
40	Shivpuri	8	384	256	640
41	Guna	5	240	160	400
42	Ashoknagar	4	192	128	320
43	Datia	3	144	96	240
44	Bhopal	2	96	64	160
45	Sehore	5	240	160	400
46	Raisen	7	336	224	560
47	Vidisha	7	336	224	560
48	Rajgarh	6	288	192	480

49	Hoshangabad	7	336	220	556
50	Harda	3	144	96	240
51	Betul	10	480	320	800
	Total	313	15000	10000	25000

NFSM Mini-Kit Allocation Rabi Gram/Urd Year 2016-17

S.no.	Districts	Block	NSC (Gram)			NSC	HIL	Total
			JG-14	JG-6	JG-63	PU-31	PU-31	
1	Jabalpur	7	3	14	538	22	112	689
2	Katni	6	2	12	461	19	96	590
3	Balaghat	10	4	20	769	32	160	985
4	Chhindwara	11	4	22	846	35	176	1083
5	Seoni	8	3	16	615	26	128	788
6	Mandla	9	4	18	692	29	144	887
7	Dindori	7	3	14	538	22	112	689
8	Narsinghpur	6	2	12	461	19	96	590
9	Sagar	11	4	22	846	35	176	1083
10	Damoh	7	3	14	538	22	112	689
11	Panna	5	2	10	384	16	80	492
12	Tikamgarh	6	2	12	461	19	96	590
13	Chhattarour	8	3	16	615	26	128	788
14	Rewa	9	4	18	692	29	144	887
15	Sidhi	5	2	10	384	16	80	492
16	Singroli	3	1	6	231	10	48	296
17	Satna	8	3	16	615	26	128	788
18	Shahdol	5	2	10	384	16	80	492
19	Anuppur	4	2	8	308	13	64	395
20	Umariya	3	1	6	231	10	48	296
21	Indore	4	2	8	308	13	64	395
22	Dhar	13	6	25	999	41	200	1271
23	Jhabua	6	2	12	461	19	96	590
24	Khargone	9	4	18	692	29	144	887
25	Barwani	7	3	14	538	22	112	689
26	Khandwa	7	3	14	538	22	112	689
27	Burhanpur	2	1	4	154	6	32	197
28	Alirajpur	6	2	12	461	19	96	590
29	Ujjain	6	2	12	461	19	96	590
30	Mandsaur	5	2	10	384	16	80	492
31	Neemach	3	1	6	231	10	48	296
32	Ratlam	6	2	12	461	19	96	590
33	Dewas	6	2	12	461	19	96	590
34	Shajapur	4	2	8	308	13	64	395
35	Agar	4	2	8	308	13	64	395
36	Morena	7	3	14	538	22	112	689
37	Sheopurkala	3	1	6	231	10	48	296
38	Bhind	6	2	12	461	19	96	590
39	Gwalior	4	2	8	308	13	64	395
40	Shivapuri	8	3	16	615	26	128	788
41	Guna	5	2	10	384	16	80	492
42	Ashoknagar	4	2	8	308	13	64	395
43	Datia	3	1	6	231	10	48	296
44	Bhopal	2	1	4	154	6	32	197

45	Sehore	5	2	10	384	16	80	492
46	Raisen	7	3	14	538	22	112	689
47	Vidisha	7	3	14	538	22	112	689
48	Rajgarh	6	2	12	461	19	96	590
49	Hoshangabad	7	3	14	538	22	112	689
50	Harda	3	1	6	231	10	48	296
51	Betul	10	4	20	769	32	160	985
Total		313	125	625	24063	1000	5000	30813

NFSM mini kit allocation Summer Moong/Urd year 2016-17

S.No.	Districts	Block	NAFED Moong-TJM-3	HIL URD-PU-31	Total
1	Jabalpur	7	56	112	168
2	Katni	6	48	96	144
3	Balaghat	10	80	160	240
4	Chhindwara	11	88	176	264
5	Seoni	8	64	128	192
6	Mandla	9	72	144	216
7	Dindori	7	56	112	168
8	Narsinghpur	6	48	96	144
9	Sagar	11	88	176	264
10	Damoh	7	56	112	168
11	Panna	5	40	80	120
12	Tikamgarh	6	48	96	144
13	Chhattarour	8	64	128	192
14	Rewa	9	72	144	216
15	Sidhi	5	40	80	120
16	Singroli	3	24	48	72
17	Satna	8	64	128	192
18	Shahdol	5	40	80	120
19	Anuppur	4	32	64	96
20	Umariya	3	24	48	72
21	Indore	4	32	64	96
22	Dhar	13	100	200	300
23	Jhabua	6	48	96	144
24	Khargone	9	72	144	216
25	Barwani	7	56	112	168
26	Khandwa	7	56	112	168
27	Burhanpur	2	16	32	48
28	Alirajpur	6	48	96	144
29	Ujjain	6	48	96	144
30	Mandsaur	5	40	80	120
31	Neemach	3	24	48	72
32	Ratlam	6	48	96	144
33	Dewas	6	48	96	144
34	Shajapur	4	32	64	96
35	Agar	4	32	64	96
36	Morena	7	56	112	168
37	Sheopurkala	3	24	48	72
38	Bhind	6	48	96	144
39	Gwalior	4	32	64	96
40	Shivapuri	8	64	128	192
41	Guna	5	40	80	120
42	Ashoknagar	4	32	64	96
43	Datiap	3	24	48	72

44	Bhopal	2	16	32	48
45	Sehore	5	40	80	120
46	Raisen	7	56	112	168
47	Vidisha	7	56	112	168
48	Rajgarh	6	48	96	144
49	Hoshangabad	7	56	112	168
50	Harda	3	24	48	72
51	Betul	10	80	160	240
	Total	313	2500	5000	7500

**Progress of Soil Health Card Scheme for Soil Samples Collection & Testing
upto 30/09/2016**

State/UT	MP
Target for soil sample collection from April to July 2016	1750000
No. of soil samples collected from April to July 2016	1470634
% Samples collected against the targets of April to July 2016	84.04
No. of STL's with Micronutrients testing facilities	24
No. of shifts	Double 22
Total no. of labs without micro nutrients	26
No. of Labs under ICAR/KVKs/SAU	28
No. of Labs under ICAR/KVKs/SAU without micronutrients	3
Total no. of labs with Micronutrients	27
No. of labs in schools and colleges	0
Total no. of labs without micro nutrients	51
No. of samples allotted to labs	1090440
Target no. of samples to be tested in 2016-17	1750000
Upto last month August	294149
During the current month (Sept.)	91745
Total	3220877.04

Progress of soil health Card Scheme

S.No.	State/UT	Total targets for no. of SHCs printed and distributed in 2016-17	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	7665100	936882	1800850	2737732	911497	660210	1571689

Status of Soil Testing Laboratories as on 30/09/2016

State/UT	Particulars	MP
Total No. of STLs with Micronutrient testing facilities under SHC	Mobile/Static labs	27
	Minilabs	0
Out of total STLs(in col no.3) involved in SHC programme	No. of labs out sourced	0
	No. of labs in schools and colleges	0
	No. of labs under KVKs with analysing capacity per month	25
	No of labs under ICAR/SAUs	3
	With two shifts	22
	With one shifts	28
	Grand total no. of labs	72
	Per month capacity of testing samples of the STLs in Col 3	1000
	Soil testing progress during current Month	71584

Progress on No. of Integrated Samples/Analysis/ and No. of released soil health cards (SHC) as on dated 05/09/2016

Division	Indore
District Name	Jhabua
Physical target provided by Directorate for 2016-17	17500
No of sample not received in labs against Integrated samples	1537
Total Physical target	19037
No of integrated samples against target (Irrigated)	5131
No of integrated samples against target (Non-Irrigated)	13869
No of soil samples against Integrated samples (Irrigated and Non-Irrigated)	19000
Total no of samples received in labs 2016-17	19000
No of samples left for analysis in 2015-16	3871
No of samples for Analysis (2016-17)	22871
Total Analyzed samples (2016-17)	5654
Total samples left for Analysis (2016-17)	17217
Target distribution of Directorate to provide SHC	1,24,200
No of SHC distributed against target	18,559

Summary Statement of District Irrigation Plan (Jhabua)

Deptt.	Component	2016-17	2017-18	2018-19	2019-2020	2020-2021	Total Cost
RD	IWMP (PMKSY Watershed)	831.73	624.13	222.13	0.00	0.00	1677.99
	MGNREGS	11441.53	18339.52	18339.52	22658.59	24138.09	94917.25
WRD	AIBP	11611.41	0.00	0.00	0.00	0.00	11611.41
	Har Khet Ko Pani	0.00	337.00	1421.00	1011.00	333.00	3102.00
	MPWRD (TSP)	12571.88	3291.83	4280.00	2502.00	3393.00	26038.71
Agriculture	Micro Irrigation	339.05	1018.95	1018.95	505.28	503.08	3385.31
	Per drop more crop (Suppl. Water Manag. Activity)	3467.23	10662.58	10680.58	5347.16	5308.91	35466.46
	ATMA Target	14.40	42.40	42.80	21.40	20.82	141.82
Horticulture	Per drop more crop (Micro Irrigation)	2552.00	3763.00	3927.00	3045.00	3076.00	16363.00
Total		42829.23	38079.41	43491.23	35090.43	36772.90	196263.20

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, Malviya Matar- 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, Jawahar Matar 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, Bisco Ujala, Pusa Ujala, NM 7725
7.	Wheat	Lok-1, GW-147, GW-366, GW-322, HI-1544
8.	Cotton	DCH-32, B.T. Cotton, Mahalaxmi
9.	Paddy	Pusa Sugandha 4 & 3, Hy. DRRH-2, DRH-775, MPU 1010

Physical & Financial Target to the Division/Districts/MP State under CSS-NFSM during 2016-17

A. NFSM-PULSES

(Rs. in Lakh)

Division/ Districts	Demonstration on Imp. Techn.		Prod. & distri. of HYVs Seeds		Assist. of Seed Prod.		INM		IPM		Effici. Water Appl. Tools		Cropping sys. Based training		ME (PMT) at District		ME at District level		Demo. by NGO/KVK		Grand Total
	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Fin.
Indore Division																					
Indore	500	52.50	300	7.50	300	7.50	550	13.775	2600	13.00	276	32.65	40	5.60		6.50		1.00	4	0.30	140.33
Dhar	2000	175.0	2010	50.25	2010	50.25	3900	22.45	4250	21.25	461	54.65	66	9.24		4.00		1.00	6	0.45	388.54
Jhabua	700	62.50	800	20.00	800	20.00	1250	7.15	1100	7.00	160	19.00	21	2.94		10.50		1.00	2	0.15	150.24
Alirajapur	1500	127.50	2000	50.00	2000	50.00	2350	13.525	2500	12.50	271	32.15	39	5.46		1.00		1.00	4	0.30	293.44
Khargone	1500	122.5	2300	57.50	2300	57.50	1350	7.90	1500	7.50	170	20.00	23	3.22		6.50		1.00	2	0.15	283.77
Badwani	1450	116.25	2400	60.00	2400	60.00	850	4.85	900	4.50	105	12.50	13	1.82		4.00		1.00	1	0.075	265.00
Khandwa	1600	130.00	2800	70.00	2800	70.00	1550	8.925	1750	8.75	190	22.50	26	3.64		10.50		1.00	2	0.15	325.47
Burhanpur	1100	87.50	850	21.25	850	21.25	650	3.825	600	3.00	70	8.25	9	1.26		1.00		1.00	1	0.075	148.41
Division Total	10350	873.75	13460	336.50	13460	336.50	14300	82.40	15500	77.50	1703	201.70	237	33.18		44.00		8.00	22	1.65	1995.18
Ujjain Division																					
Ujjain	1100	107.50	400	10.00	400	10.00	3850	22.20	4100	20.50	436	51.65	64	8.96		10.50		1.00	6	0.45	242.76
Ratlam	900	82.50	700	17.50	700	17.50	2500	14.30	2700	13.50	300	35.50	42	5.88		4.00		1.00	4	0.30	191.98
Mandsaur	1000	90.00	1100	27.50	1100	27.50	2400	13.78	2600	13.00	276	32.65	40	5.60		4.00		1.00	4	0.30	215.33
Neemuch	300	27.50	400	10.00	400	10.00	800	4.60	700	3.50	80	9.50	11	1.54		1.00		1.00	1	0.08	68.72
Shajapur	700	67.50	400	10.00	400	10.00	2400	13.78	2600	13.00	285	33.75	41	5.74		8.40		1.00	4	0.30	163.47
Dewas	1300	132.50	500	12.50	500	12.50	5200	29.85	5750	28.75	611	72.40	89	12.46		10.50		1.00	8	0.60	313.06
Agarmalwa	900	77.50	1000	25.00	1000	25.00	1650	9.45	1750	8.75	190	22.50	27	3.78		4.00		1.00	3	0.23	177.21
Division Total	6200	585.00	4500	112.50	4500.00	112.50	18800	107.95	20200	101.00	2178	257.95	314	43.96		42.40		7.00	30	2.25	1372.51
MP State	87294	7613.05	104550	2613.75	104550	2613.75	161077	924.14	175000	875.00	19030	2254.50	2712	379.68		395.00		51.00		18.75	17738.62

Physical & Financial Target to the Division/Districts/MP State under CSS-NFSM during 2016-17

B. NFSM-COARSE CEREALS

(Rs. in Lakh)

Division/Districts	Demonstration of Improved Technology										Distribution of Certified Seed					
	Maize		Sorghum (Jowar)		Pearl Millet (Bajra)		Any Other (Kodo-Kutki)		Demo. on Intercropping		HYVs		Hybrid Seeds		Grand Total	
	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
Indore Division																
Dhar	1700	85.00	200	10.00	100	5.00			100	5.00	350	5.25	600	30.00		140.25
Jhabua	1500	75.00							100	5.00	300	4.50	500	25.00		109.50
Alirajapur	900	45.00	200	10.00	100	5.00			100	5.00	300	4.50	500	25.00		94.50
Khargone	1100	55.00	300	15.00					100	5.00	270	4.05	500	25.00		104.05
Badwani	1300	65.00	600	30.00	100	5.00			100	5.00	400	6.00	700	35.00		146.00
Division Total	6500	325	1300	65	300	15			500	25	1620	24.3	2800	140		594.30
Ujjain Division																
Ratlam	1000	50.00									200	3.00	300	15.00		68.00
Mandsaur	600	30.00									100	1.50	200	10.00		41.50
Shajapur	100	5.00									30	0.45	58	2.90		8.35
Division Total	1700	85.00									330	4.95	558	27.9		117.85
MP State	18000	900.00	2100	105.00	1800	90.00	1500	75.00	1002	50.10	5000	75.00	8958.00	447.90		1743.00

Physical & Financial Target to the Division/Districts/MP State under CSS-NFSM during 2016-17

C. NFSM-COTTON

(Rs. in Lakh)

Districts	Front Line Demonstration (FLD) on Integrated Crop Management (ICM)		FLD on Desi and ELS Cotton/ELS Cotton Seed Production		FLD on Intercropping		Trial on High Density Planting System HDPS		Grand Total	
	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
Dhar	85	5.95	20	1.60	100	7.00	42	3.78	247	18.33
Jhabua	20	1.40	10	0.80	70	4.90	20	1.80	120	8.90
Khargone	100	7.00	50	4.00	100	7.00	80	7.00	330	25.00
Badwani	60	4.20	10	0.80	100	7.00	20	1.80	190	13.80
Khandwa	50	3.50	10	0.80	90	6.30	20	1.80	170	12.40
Burhanpur	40	2.80	10	0.80	80	5.60	20	1.80	150	11.00
Alirajpur	20	1.40	10	0.80	40	2.80	10	0.90	80	5.90
Ratlam	20	1.40	10	0.80	50	3.50	10	0.90	90	6.60
Dewas	20	1.40	10	0.80	40	2.80	10	0.90	80	5.90
MP State	455	31.85	150	12.00	750	52.50	252	22.68	1607	119.03

Physical & Financial Target to the Division/Districts under CSS-NFSM during 2016-17

D. NFSM-SUGARCANE

(Rs. in Lakh)

Intervention	Dhar		Barwani		Burhanpur		MP State	
	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
Demonstration on intercropping and single bud chip technology with sugarcane	20	1.60	20	1.60	30	2.40	392	31.36
State level training by sugarcane research institute, SAUs, KVK etc.					1	0.40	4	1.60
Grand Total	20	1.60	20	1.60	31	2.80	396	32.96

Financial Allocation to the Division/Districts under CSS-NFSM during 2015-16 -2016-17

E. NMOOP

(Rs. in Crore)

Division/Districts	2016-17			2015-16 (Final)		
	Allocation	Expenditure	% exp. against allocation	Allocation	Expenditure	% exp. against Allocation
Indore Division						
Indore	1.99	0.64	32	2.53	2.34	93
Dhar	1.91	0.46	24	1.59	1.59	100
Jhabua	1.12	0.00	0	0.70	0.70	100
Alirajapur	1.34	0.11	8	0.61	0.07	11
Khargone	1.56	0.26	17	1.76	1.10	63
Badwani	0.98	0.05	5	0.90	0.25	27
Khandwa	1.58	0.18	11	1.23	0.57	46
Burhanpur	0.70	0.10	15	0.61	0.61	100
Division Total	11.18 (21%)	1.80	16	9.92	7.23	73
Ujjain Division						
Ujjain	1.11	0.00	0	1.76	0.54	31
Ratlam	1.18	0.08	7	1.08	1.06	98
Mandsaur	1.66	0.39	24	1.62	1.62	100
Neemuch	1.08	0.19	17	2.26	1.26	55
Shajapur	0.47	0.08	18	0.77	0.77	100
Dewas	1.37	0.31	22	2.82	2.23	79
Agarmalwa	1.23	0.23	19	1.74	0.24	14
Division Total	8.11 (15%)	1.28	16	12.05	7.71	64
MP State	53.94	5.42	10	55.43	32.58	59

S.No.	District	Year	NFSM Pulse			NFSM (CC)			NFSM (Com.C)			NMOOP		
			All.	Rel.	Exp.	All.	Rel.	Exp.	All.	Rel.	Exp.	All.	Rel.	Exp.
6	Shajapur	2012-13	325.00	325.00	324.00	0.00	0.00	0.00	0.00	0.00	0.00	320.63	320.63	320.63
		2013-14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	150.12	150.12	149.97
		2014-15	161.14	161.14	160.33	0.00	0.00	0.00	0.00	0.00	0.00	86.72	86.72	76.69
		2015-16	235.49	235.49	235.19	0.00	0.00	0.00	0.00	0.00	0.00	76.83	76.83	76.83
		2016-17	47.82	47.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.23	47.23	21.29
7	Agar	2012-13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2013-14	542.25	0.00	510.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2014-15	631.39	0.00	414.71	0.00	0.00	0.00	0.00	0.00	0.00	200.94	0.00	1.12
		2015-16	401.00	0.00	239.60	0.00	0.00	0.00	0.00	0.00	0.00	2.42	0.00	2.41
		2016-17	57.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	105.27	0.00	16.53
	Ujjain Division	2012-13	2026.88	2005.79	1943.34	0.00	0.00	0.00	0.00	0.00	0.00	1521.99	1523.99	1488.48
		2013-14	3671.83	3047.99	3240.92	0.00	0.00	0.00	0.00	0.00	0.00	1022.84	1020.84	959.43
		2014-15	3764.23	2601.24	2580.67	85.00	0.00	40.09	1.50	1.00	0.00	1008.95	808.01	699.45
		2015-16	3010.39	2430.75	1994.25	115.61	258.54	29.35	1.50	1.00	0.00	883.54	881.12	518.47
		2016-17	997.25	455.96	38.88	50.00	0.00	0.00	0.00	0.00	0.00	799.70	589.65	156.06

(Rs: In Lakhs)

S. No.	District	Year	NMAET			NMSA			RKVY			SHC			PKVY		
			All.	Rel.	Exp.	All.	Rel.	Exp.	All.	Rel.	Exp.	All.	Rel.	Exp.	All.	Rel.	Exp.
6	Shajapur	2012-13	131.15	131.15	131.15	0.00	0.00	0.00	675.33	675.33	675.33	0.00	0.00	0.00	0.00	0.00	0.00
		2013-14	69.20	69.20	69.20	0.00	0.00	0.00	250.26	250.26	250.26	0.00	0.00	0.00	0.00	0.00	0.00
		2014-15	22.81	22.81	22.78	0.00	0.00	0.00	173.62	173.62	169.08	0.00	0.00	0.00	0.00	0.00	0.00
		2015-16	11.30	11.30	11.30	7.77	7.77	7.77	356.12	356.12	356.12	8.57	8.57	8.57	12.00	12.00	1.00
		2016-17	0.00	0.00	0.00	52.64	0.00	0.00	38.80	38.80	4.00	17.07	17.07	1.86	10.00	10.00	11.68
7	Agar	2012-13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2013-14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2014-15	0.00	0.00	0.00	10.51	0.00	10.51	1.53	0.00	88.12	0.00	0.00	0.00	0.00	0.00	0.00
		2015-16	0.00	0.00	0.00	32.95	0.00	15.19	1.57	0.00	1.14	0.00	0.00	0.00	0.00	0.00	0.00
		2016-17	0.00	0.00	0.00	18.13	0.00	0.00	29.28	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00
Ujjain Division	2012-13	386.31	386.31	355.97	0.00	0.00	0.00	2285.82	2285.82	2184.03	0.00	0.00	0.00	0.00	0.00	0.00	
	2013-14	400.26	400.26	411.54	0.00	0.00	0.00	1436.43	1436.43	1185.01	0.00	0.00	0.00	0.00	0.00	0.00	
	2014-15	295.63	159.06	145.80	196.39	129.25	167.64	1304.32	1279.36	1279.24	0.00	0.21	0.14	0.00	0.00	0.00	
	2015-16	213.49	144.76	150.21	273.63	113.56	66.88	2637.79	2636.22	2351.58	51.90	51.90	34.09	56.00	56.00	3.00	
	2016-17	48.60	75.60	47.49	239.50	125.65	9.86	481.85	406.17	119.44	53.20	53.20	8.11	61.00	61.00	28.68	

