

Report of Visit to Chhattisgarh State by Dr. M. Dutta, National Consultant (Oilseeds) from 6th to 9th November, 2017

A visit was made by the National Consultant (Oilseeds) to Chhattisgarh State w.e.f. 6th to 9th Nov., 2017 to monitor the programme implementation of NMOOP, NFSM, TRFA, BGREI and Seed Village programme including the status of fund utilization.

A. Meeting with Senior Officials of State Government and SAU:

A meeting was held on 6th Nov., 2017 at the Directorate of Agriculture, Chhattisgarh State in which senior officials of Directorate of Agriculture, Horticulture, State Seed & Development Corporation and IGKV were present (**list enclosed**). It was informed by the Director Agriculture that the State Agriculture Department has been awarded the first prize in Rajya Mahotsav programme by HE, the President of India on 5th Nov., 2017 at Naya Raipur, Chhattisgarh. As per the discussion held and documents submitted, the financial utilization by the State is slow particularly for MM-II under NMOOP. The State was requested to submit demand for release of 2nd installment of funds and it was informed that the same has already been submitted recently. It was emphasized that Mini Mission and component-wise physical and financial progress is to be submitted by the State Government for further release of funds.

During discussion, it emerged that the State is implementing a centralized procurement programme for all agricultural implements called CHAMPS through the State Seed & Agriculture Development Corporation. Although this is desirable from administrative point of view, this is slowing down the expenditure under the particular intervention, hence, needs revisiting by the State Government in order to expedite utilization of funds. The State Department is discouraging spring/summer rice cultivation and is encouraging pulses cultivation by providing 50% subsidy on pulses during 2017-18. The burning of rice stubble is also being penalized wherever practiced.

Rainfall:

The State received 23% less rainfall during 2017 as compared to the normal average rainfall. The rainfall received from June to October, 2017 was 1050.2 mm as compared to 1256.6 mm received during 2016 and average rainfall of 1286.9 mm. The state experienced a long dry spell towards the end of cropping season.

Area and Production of Major Crops:

(Area in ha; Production in tonne)

Crop	Average of last 03 years		Current year 2017-18	
	Area	Production	Area Targeted	Area Sown
Kharif Crops				
Rice	3736.96	5895.60	3650.00	3687.23
Maize	209.51	393.55	225.00	225.65
Small Millets	81.58	24.62	85.00	74.97

Total Kharif Cereals	4028.05	6313.77	3960	3987.85
Pigeon pea	128.03	77.90	150.00	137.50
Black gram	151.33	54.83	160.00	156.31
Green gram	25.29	10.60	30.00	28.00
Total Kharif Pulses	304.65	143.33	340.00	321.81
Groundnut	52.89	63.15	62.00	57.83
Sesame	34.80	12.62	38.00	36.61
Soybean	130.33	77.59	140.00	132.54
Total Kharif Oilseeds	218.03	153.36	240.00	226.98
Rabi Crops				
Wheat	162.17	244.01	196.98	-
Small Millets	6.19	2.06	7.50	-
Chick pea	362.61	357.99	390.00	-
Lentil	26.16	8.79	30.00	-
Field pea	47.90	18.22	60.00	-
Total Rabi Pulses	605.02	631.07	684.48	-
Rapeseed & Mustard	133.39	73.64	176.00	-
Linseed	55.17	22.57	75.53	-
Total Rabi Oilseeds	188.56	96.21	251.33	

Area under all kharif crops including rice, coarse cereals, pulses and oilseeds has increased in the State as compared to that of the average of last 3 years. The sowing of rabi crops is not yet complete, however, the area targeted has been kept higher as compared to last 3 years' average.

Fund Utilization – NFSM, NMOOP, TRFA & Seed Village Programme:

The financial progress submitted by the State is given as under:

(Rs. in lakh)

Year	Approved allocation			Availability of funds			Expenditure		
	Central Share (CS)	State Share (SS)	Total CS+SS	Unspent balance as on 1.4.2017	Release of CS	Total CS	CS	SS	Total
NFSM-Rice									
2017-18	3225.462	2150.308	5375.77	1228.972	613.13	1842.102	937.985	625.322	1563.308
NFSM- Pulses									
2017-18	4705.098	3136.73	7841.828	413.736	621.83	1035.566	836.076	557.384	1393.461
NFSM- Coarse cereals									
2017-18	172.65	115.1	287.75	68.65	86.32	154.97	89.56	59.7	149.26
NMOOP MM-I									
2017-18	464.65	309.76	774.41	3.8	140.041	143.841	70.420	46.946	117.367
Seed Village Programme									
2017-18	221.835	147.883	369.718						154.56
TRFA									
2017-18	305.770				305.770				

TRFA:

Under TRFA, the State has submitted revised programme on 28.10.2017 for 5 districts (Raipur, Rajnandgaon, Raigadh, Kanker and Kondagaon) with a total financial target of Rs. 2548.17 lakh for the year 2017-18. Against the proposal, a Central Share of Rs. 305.77 lakh has been released on 6.11.2017 under NMOOP to the State. It was requested that training component may be included under TRFA as sensitization of farmers on utilization of rice fallows is essential to spread the TRFA campaign among the farming community.

Seed Village Programme:

The State has submitted revised proposal for rabi 2017-18 on 3.11.2017 with a financial details as given below and the same has been passed on to the Seed Division, DAC&FW:

(Rs. in lakh)

GoI Share (60%)	State Share (40%)	Total
220.15	146.76	366.91
125.80	83.87	209.66
47.17	31.45	78.62
393.12	262.08	655.20

Seed Requirement and Availability:

(Qty. in q)

Crop	Seed availability rabi 2016-17	Seed requirement rabi 2017-18	Seed availability rabi 2017-18	Seed distribution
Wheat	57310	70910	71280	2510
Maize	5461	6482	6500	-
Spring rice	4442	-	-	-
Chick pea	32086	50000	50210	1315
Field peas	4385	5000	5040	30
Lentil	795	1000	1010	2
Green gram	547	932	940	1
Black gram	854	1027	1030	5
Lathyrus	77	3000	3030	61
Horse gram	-	100	100	-
Mustard	339	1385	1395	25
Rapeseed	275	600	600	6
Linseed	59	400	400	8
Safflower	23	280	280	5
Groundnut	1364	2380	2380	-
Sesame	15	35	38	-
Sunflower	-	89	89	-
Total	108032	143620	144322	3968

During kharif 2017, a total of 8,55,425 q seed of various crops was made available by the State Seed and Agriculture Development Corporation against the total demand of 7,44,965 q seed by the State Department and 6,35,232 q seed was distributed. The seed availability (1,44,322 q) during rabi 2017-18 is in surplus of the seed requirement (1,43,620 q) by the State

and is 33% more than the quantity produced (1,08,032 q) during rabi 2016-17. However, the distribution of seed so far is lagging behind which may be expedited to achieve the desired target of crop production.

Seed Minikits:

(Seed Minikits No.)

Crop	Indent	Allocation	Receipt	Agency
NFSM				
Chick pea	28125	28125	28125	NSC, NAFED
Lentil	3750	3750	3750	NSC
Black gram	2500	2500	-	HIL#
NMOOP				
Mustard	88900	74000	74000	NSC, HIL, NAFED
Groundnut	2500	2500	-	NSC*
Safflower	1400	1400	-	NSC*
Linseed	17000	17000	17000	NSC, NAFED
Total NFSM & NMOOP	144175	129275	122875	
TRFA-Pulses				
Chick pea	50000	17500	17500	NSC
Lentil	5000	2500	2283	NSC
Green gram	5000	-	-	
TRFA-Oilseeds				
Mustard	10000	5000	5000	NSC
Groundnut	10000	2000	1321	NSC
Total TRFA- Pulses & Oilseeds	80000	27000	26104	
Grand Total	224175	156275	148979	

#Not supplied by HIL yet; *Supply to be made by 15th Nov., 2017

As against the total indent of 2,24,175 no of seed minikits of pulses and oilseeds, 1,56,275 nos. of seed minikits have been allocated and 1,48,979 nos. have been received by the State till date. There is shortfall in supply of seed minikits particularly of groundnut, safflower by NSC and black gram by HIL. Some of the varieties under minikits programme like JAKI 9218 have crossed 10 years age limit, hence, new varieties may be supplied.

Seed Hub Programme on Pulses:

Seed Hub	Target (q)	Tagged seed (q)	% Achievement
Kharif 2016-17			
KVK, Kawardha	600	699.50	116.58
KVK, Rajnandgaon	550	364.12	66.20
KVK, Kanker	500	120.50	24.10*
KVK, Bhatapara	500	99.60	19.92
KVK, Surguja	550	18.61	3.38
KVK, Janjgir-Champa	500	No programme*	
AICRP-Pulses	750	445.5	59.40
Total	3950	1747.8	44.20

*Late allocation of Seed Hub Programme.

Crop-wise Target under Pulses Seed Hub 2017-18:

Seed Hub	Pigeon pea	Field pea	Chick pea	Lentil	Green gram	Lathyrus	Black gram	Total
KVK, Bhatapara	200	150	200	200	-	-	-	750
KVK, Surguja	-	350	350	250	-	-	-	950
KVK, Rajnandgaon	-	350	300	200	-	-	-	850
KVK, Kawardha	100	250	-	150	200	250	-	950
KVK, Kanker	100	150	250	250	150	-	100	1000
KVK, Janjgir-Champa	100	200	350	100	150	-	100	1000
AICRP-Pulses	150	300	250	200	-	-	-	900
Total	650	1750	1700	1350	500	250	200	6400

The Seed Production targets under Seed Hubs has been revised by the university as per the suitability of the crop to a particular KVK, however, the total quantity of seed to be produced has been kept the same. Director, ICAR-IIPR may consider the above request of the SAU.

DBT Implementation:

The State has initiated compliance of DBT and has directed the districts for online entry of the beneficiaries on the NMOOP portal of DAC&FW, however, problem is being faced for 18 districts, which has been communicated to the Sr. Programmer, NFSM for rectification.

B. Field Visit

District Rajnandgaon (07.11.2017):

KVK, Surgi:

Under Pulses Seed Hub programme 513 q of gram variety JAKI 9218, JG 63 and 60 q of field pea variety Paras were produced during rabi 2016-17. The seed production is undertaken both at the KVK farm as well as on farmers' field. Under seed infrastructure, seed processor has been installed and construction of seed godown is nearing completion. The varieties under seed production are more than 10 years old and lifting of seed produced by the KVK is an issue that needs to be solved. The revolving fund available under Seed Hub Programme needs to be created at KVK level for faster procurement of seed from the seed growers. In addition to gram and field pea, the KVK has taken up seed production of rice variety, Barosal Poha Selection-1 and pigeon pea variety Rajiv Lochan.

A meeting was held with the farmers at village **Kasari**, block Dungargadh of district Rajnandgaon followed by field visit to the farmers field. The farmer Sri Ganesh has sown gram variety JAKI 9218 after the short duration rice variety MTU 1010. The crop was sown with seed drill and the crop was at flowering stage having good vegetative growth.

Next visit was made to village **Sahaspur** in the same block where farmer Sri Kamal Narain Karwar was provided 60 kg seed of gram variety JAKI 9218 along with Rhizophos. The crop was more than 15 days old and the crop condition was good. In the village **Tilaibhat**, block Khairagarh farmers Sri Yuvraj Chandravanshi and Sri Manrakhan Sahu have been provided 60 kg each of JAKI variety 9218 along with Rhizophos and PSB. The crop was sown on 25th Oct., 2017 after harvest of soybean. The bio-pesticide, azadiractin has also been provided. Farmer Sri Yuvraj Chandravanshi has also taken up lentil after harvest of rice crop which was also in good condition.

District Durg (08.11.2017):

Oil Palm plantation has been taken up on farmers' field by 3F Oil Palm Agrotech Pvt Ltd. in about 150 ha in **Durg** district and 180 ha in **Balod** district. At village **Konka**, block Dhamadha, farmer Sri Ram Dayal has undertaken oil palm planting in collaboration with 3F Oil Palm in about 5.0 ha area. The plantation was done in 2014 and it has come to fruiting during 2016 and about 100-200 kg of FFB has been harvested so far. Unfruitfulness was observed due to lack of pollination by weevils and winter pollination is required. The bore well dug for the plantation got dried up due to drought in the district during previous year. No intercrop was taken under the orchard, but guava plantation has been taken up in between oil palm plants.

In the same village **Konka**, block Dhamadha, farmer Sri Kamtaram Sahu has undertaken oil palm plantation during 2015 with tomato, cow pea, pigeon pea and chick pea being grown as inter crops sequentially. In one of the plots, the oil palm plants were heavily pruned to accommodate chick pea sowing which was yet to germinate. Initial fruiting was observed in some plants, but the severe pruning in the orchard may affect the health of oil palm plants and delay fruit bearing. It was informed by the farmer that during drought period in recent years, the water table is going down steadily and may create problem of irrigation in future.

At village **Paraskol** in the same block, farmer Sri Tejeshwar Sonwani has taken up 3.75 ha oil palm plantation during 2015. Pigeon pea has been taken as an intercrop, which was of long duration and more in height resulting in less growth of oil palm plants.

Next visit was made to village **Kapasda**, block Dhamadha where farmer Sri Ashish Pungaliar has taken up oil palm plantation during 2015 in 2.0 ha area. Intercropping of bottle gourd, cow pea, cauliflower and red amaranth were taken up one after the other providing good economic return. The orchard was in good health and may start bearing fruit shortly. The farm is located nearer to Raipur with good availability of irrigation water and large number of migrating labour from Odisha.

Next visit was made to village **Belodi** in block Durg where farmer Sri Bihari Lal Kushwaha has set up organic farm in about 0.8 ha area with rice varieties Vishnu Bhog, Govind Bhog, Madhu Raj and Zinc Fortified Rice were being grown under organic mode for the past three years. The Madhu Raj variety of rice is particularly suitable for diabetic patients. The rice

crop will be followed by wheat and mustard crops under similar organic mode of cultivation. The farmer has set up vermi-compost unit together with multiplication of bio-agents and production of local pesticides using cow urine and other ingredients. In one plot, Vishnu Bhog variety of rice was affected by stem borer insect resulting in sterile panicles. The wheat varieties Bansi and Kanak were being sown in the plots after harvest of Govind Bhog rice. The farmer has installed a mechanical chaff cutter-cum-shredder for maize cobs and other green fodder. The organic produce was being sold by the farmer with about 22-25% higher price in the market and the demand for such produce is growing.

The following suggestions/actionable points emerged from the visit:

- Procurement of agricultural implements including micro irrigation implemented under CHAMPS is facing problem in the online system and is contributing towards slow utilization of funds.

Action: SDA

- Training component is essential to spread the TRFA campaign among the farming community, hence, may be included under TRFA sub-scheme for sensitization of farmers.

Action: NMOOP & NFSM - DAC&FW

- Seed situation for rabi 2017-18 is satisfactory, however, the distribution of seed so far is lagging behind, which may be expedited to achieve the target of crop production.

Action: SDA/SS&ADC

- Shortfall in supply of seed minikits particularly in groundnut & safflower by NSC and black gram by HIL and use of varieties like JAKI 9218 which have crossed the age limit of 10 years under seed minikits programme need to be rectified by seed agencies.

Action: NSC/HIL

- Seed production targets under Seed Hubs has been revised by the university as per the suitability of the crop to a particular KVK, however, the total quantity of seed to be produced has been kept the same. Director, ICAR-IIPR may consider the revised programme of the SAU. The varieties included under Pulses Seed Hub Programme are more than 10 years old and lifting of seed produced by the KVK is an issue that needs to be resolved. The revolving fund available under Seed Hub Programme needs to be created at KVK level to facilitate procurement of seed from the seed growers

Action: ICAR-IIPR & SAU

- Permission for distribution subsidy for region specific, well adapted popular varieties more than 15 years old, due to unavailability of sufficient new varieties for specific regions of the State.

Action: NFSM & NMOOP, DAC&FW

- A meeting of oil palm growers and processors in the State may be held urgently and the issue of availability of sufficient water and partial unfruitfulness should be tackled by proper pollination through weevils. Growers should be advised on proper pruning of orchard and suitable inter cropping. The fund utilization under MM-II should be expedited.

Action: State Horticulture Deptt./ICAR-IIOPR/Oil Palm Processors

- Organic farming as adopted by an innovative farmer in district Durg has good potential and needs to be promoted further. However, certification of the organic produce through appropriate agencies may be ensured for providing remunerative prices to the farmers.

Action: SDA

- The State is facing problem of online entry of the DBT beneficiaries for 18 districts under NMOOP and has informed the Sr. Programmer, NFSM for rectification, which may be rectified immediately.

Action: Sr. Programmer, NFSM & NIC

**List of participating officers at Directorate of Agriculture, Raipur, Chhattisgarh
(Date: 06.11.2016)**

Sr. No.	Name of Officer	Designation
1.	Sri M.S. Kerketta	Director of Agriculture
2.	Sri S.K.Ratre	Additional Director of Agriculture
3.	Sri S.R. Verma	Director, SAMETI & Nodal Officer, NFSM
4.	Sri M.P. Singh Chauhan	Joint Director (Horticulture)
5.	Sri C.B. Londhekar	JDA & Nodal Officer, NMOOP
6.	Sri D.K. Bhomer	JDA (Seed), State Seed & Agri. Development Corporation
7.	Dr. Vivek Tripathi	Professor & Associate Director, IGKV
8.	Dr. Jitendra Sinha	Asstt. Professor, IGKV
9.	Sri B.K. Mishra	Dy. Director, Agriculture
10.	Sri Amit Kumar Singh	ADA
11.	Sri R. Swarnkar	SADO
12.	Sri Abhishek Jha	RAEO



Fig:1. Demonstration on rice variety for poha purpose and under construction seed godown at KVK, Surgi, Rajnandgaon



Fig:2: Seed processor installed and demonstration of Pigeon pea variety Rajiv Lochan at KVK, Surgi, Rajnandgaon



Fig. 3: High density orchard of Guava and Pigeon pea on field bunds at KVK, Surgi, Rajnandgaon



Fig. 4: Heavily pruned oil palm plantation and oil palm with Pigeon pea inter crop at Village Konka, District Durg



Fig. 5: Oil palm plantation with tomato inter crop at Village Konka, District Durg



Fig. 6. Oil Palm plantation with cauliflower and guava inter crops at Village Kapasda