

**GUIDELINES FOR IMPLEMENTATION OIL PALM CULTIVATION IN ODISHA UNDER THE  
SCHEME OF OIL PALM DEVELOPMENT PROGRAMME (OPDP) – ISOPOM AND  
OIL PALM AREA EXPANSION (OPAE) - RKVY DURING 2012-13**

**Palm oil**, is an edible plant oil derived from the mesocarp of the fruit of the oil palm (*Elaeis guineensis*). It is not to be confused with palm kernel oil derived from the kernel of the same fruit, or coconut oil derived from the kernel of the coconut palm (*Cocos nucifera*). The Oil is naturally reddish in color due to a high beta-carotene content, Palm Oil, along with coconut oil, is one of the few highly saturated vegetable fats. It is semi-solid at room temperatures and contains several saturated and unsaturated fatty acids. Like all vegetable oils, palm oil does not contain cholesterol, although saturated fat intake increases both LDL and HDL cholesterol. Palm oil is a common cooking ingredient in the tropical belt of Africa, Southeast Asia and parts of Brazil.

India is a one of the major producers and consumers of vegetable oils. India accounts for 12-15 % of area under oil seeds and 6-7 % of Production of Vegetables oil in the world. Still the availability of edible oils is insufficient to meet the domestic demand. Under the competing demand on agriculture land from various crops, the production edible oils can be increased only if the productivity can improve the economy condition of farmers. From the given constraints, Cultivation of Oil Palm is the best choice for farmer.

In Odisha Palm Oil has good acceptances as a cooking media because of its good quality and nutritive value. Report based on nutrition studies has indicated that Palm Oil is a wholesome source of energy. Earlier Oil Palm Plantations were raised in the State in the year 1993 – 94 in small scale. However, during 1999 due to Super Cyclone these plantations were damaged and farmers also uprooted the plantations as no processing unit was established during that period. Besides no Company came forward to purchase Fresh Fruits Bunches. Subsequently, the State Government made MoU's with the five Oil Palm Plantations Companies and they were allotted different districts to coordinate plantation programme.

There was a stipulation in the MoU that the Oil Palm Companies will establish an Oil Extraction Unit in the allotted districts within three years. However, none of the Company except M/s- Laxmi Balaji Oil Mills Pvt. Ltd., have established an Extraction Unit. During 2010-11, four additional districts viz, Cuttack, Nawarangpur, Bargarh and Bhadrak have been included to take up new plantation.

A Special initiative has been taken up by GOI through OPAE under RKVY during 2011-12 to cover more area under new plantation to augment the production of palm oil up to 3.00 lakh tones in the next 5year. The Government of India have decided that the oil palm under ISOPOM will cover only the component of Maintenance of plantation made during 2008-09 and 2009-10 and committed components of OPDP like staff & contingency etc. But new area expansion will be taken up under OPAE(RKVY). In Odisha 3000 ha have been covered during 2010-11 under ISOPOM(Oil Palm) and 4300 ha area have been covered under RKVY(Oil Palm) during 2011-12. The subsidy for maintenance has been received for 3700 ha as 1<sup>st</sup> yr during 2011-12 under RKVY(Oil Palm) but of

2<sup>nd</sup> yr maintenance for 2011-12 plantation for 4300 ha has been received during 2012-13. In the year 2012-13, 3<sup>rd</sup> yr maintenance of the 2010-11 plantations has been received under ISOPOM(Oil Palm).

In view of the above, the detailed guidelines for 2012-13 has been prepared according to the existing subsidy pattern.

## 2. Ongoing Programme for Oil Palm Development:

Oil Palm Development Programme (OPDP) was launched during 1991-92 under the "Technology Mission on Oilseeds and Pulses" (TMOP) with a focus on area expansion in Odisha. From 2004-05 onwards, the scheme is being implemented as part of the "Integrated Scheme of Oilseeds, Pulses, Oil Palm & Maize" (ISOPOM) and provides support for quality Oil Palm cultivation in the State. Under this scheme, support is provided for planting material, cultivation cost, installation of drip irrigation system, diesel pump sets, training, development of waste land and technology transfer through demonstration and publicity.

Fresh Fruit Bunches (FFBs) of oil palm are highly perishable and need to be processed within 24 hrs of harvest. Realising the special circumstances regarding the cultivation, gestation, sustainability, production, harvesting and processing of Oil Palm, the State Directorate of Horticulture has tried to establish a linkage of oil palm farmers with oil palm processors and oil palm industry. Area expansion programme under ISOPOM in association with the oil palm industry is being taken up in the State. Identified areas are allocated to private entrepreneurs as detailed below, for overall development of the sector i.e. from plantation to procurement of Fresh Fruit Bunches (FFBs) at a reasonable price.

### List of MoU signed Oil Palm companies operating in Odisha:

Name of the Company	Name of the District
Lakshmi Balaji Oils Pvt. Ltd., Rayagada	Nawarangapur, Koraput, Rayagada
Godrej Oil Plantation Ltd. , Berhampur	Bargada, Ganjam, Gajapati
3F Oil Palm Agro-Tech Pvt Ltd.,Dhenkanal	Dhenkanal, Cuttack, Jajpur
Ruchi Soya Industries Ltd., Balasore	Mayurbhanja, Bhadrak, Balasore
Vaidehi Palms Pvt. Ltd., Nayagarh	Nayagarh, Boudh

A special initiative is being undertaken under RKVY during 2012-13 for implementation of a Special Programme on Oil Palm Area Expansion (OPAE) in order to augment the production of palm oil. The guidelines for 2007-08 should be followed for the components like Maintenance of Plantation up to 2010-11, Demonstration, Exposure visit of Farmers & Officials and Wasteland development. Similarly, the guidelines for OPAE programme under RKVY should be followed for all other components from 2011-12 as given below. The components in either of the schemes may be dovetailed as per requirements.

## 3. Selection of Beneficiaries:

The DDH /ADH/AHO shall select the beneficiaries with the help of their field functionaries and shall intimate the Company for providing Planting materials or other inputs. The Extension personnel of the MoU signed Companies assigned for that area may be involved in selection of beneficiaries, but they have to intimate the concerned DDH /ADH/AHO for finalization of beneficiary list before

taking up any plantation or provision of inputs. In any case the Beneficiary has to apply for Oil Palm plantation indicating details of land holding, Bank branch & Account number in the format assigned by the Directorate of Horticulture.

#### **4. Distribution of Planting Materials (Oil palm seedlings):**

The concerned Company shall arrange to provide on farm delivery of disease free & healthy Oil Palm Seedlings (Exotic/Indigenous) @ 143/ ha, to the selected beneficiaries. During the year 2011-12, there is a provision for New Plantation under OPAE programme under RKVY. Subsidy admissible is 85% of the cost of planting material limited to Rs. 10000/-per ha for entire land holding of the farmer. Considering the revised cost of seedlings @ Rs.83/- each, the beneficiary has to pay Rs. 12.50/ seedling and balance Rs. 70.55/ seedling shall be the subsidy. Hence, per ha of 143 plants, Farmer's share, Rs.1780.35 (143 x 12.50) + Subsidy, Rs.1088.65 (143 x 70.55) = Rs. 10088.65/- or, say Rs.10000/-. However, where there is spill over of funds for plantation under ISOPOM, the assistance shall be provided as per the previous guidelines i.e. 75% of the cost limited to Rs.7500/ha. In any case, within seven days of completion of plantation, the Extension Personnel of the Company has to intimate concerned DDH /ADH/AHO under intimation to Horticulture Directorate through e-mail. Within 10 days of receiving the intimation of plantation, concerned DDH /ADH/AHO shall conduct verification and basing on verification, shall release subsidy amount on planting materials to the Company through A/c payee Bank Cheque/online money transfer under intimation to Horticulture Directorate. DDH /ADH/AHO may collect Farmers' share for seedlings and remit to the Company or the Company may directly collect from the beneficiaries.

#### **5. Assistance for cost of cultivation during gestation period:**

During the year 2012-13, there is provision for Maintenance of New Plantation under OPAE programme under RKVY. Subsidy @ 50% on the cost of maintenance is extended for 4 years including planting year. The rate of subsidy for maintenance is @ Rs.6000/- per ha for 1<sup>st</sup> year/Planting year @ Rs.3500/- per ha, for 2<sup>nd</sup> year @ Rs.4500/- per ha, for 3<sup>rd</sup> year and @ Rs.6000/- per ha for 4<sup>th</sup> year. However, for older plantations done under ISOPOM, subsidy admissible is 50%, but shall be provided as per the old rate of assistance i.e. @Rs 4600/- per ha for 1<sup>st</sup> year/Planting year, @Rs 3300/- per ha for 2<sup>nd</sup> year @Rs 3500/- per ha for 3<sup>rd</sup> year and @Rs 4100/- per ha for 4<sup>th</sup> year.

As per NHM guidelines, there is provision for release of 100% subsidy on maintenance of plantation in the 2<sup>nd</sup> year of plantation in case there is survival of 75% plants and in the 3<sup>rd</sup> year of plantation in case there is survival of 90% of plants. This means, for 100 plants in the planting year, if 75 or more plants are survived in the 2<sup>nd</sup> year, 100 % subsidy on maintenance should be provided. Similarly, if 90% plants out of 75 plants survived in the 3<sup>rd</sup> year i.e. 67 or more plants, the beneficiary shall be eligible to get 100% subsidy. Similar procedure should be followed in Oil Palm plantations undertaken by this Directorate. But there should be 100% survival of 3<sup>rd</sup> year plantation for 4<sup>th</sup> year release of subsidy.

In case of Oil Palm plantation, since survival of number of healthy plants in a locality is badly required for establishment and running of a processing unit, it has been decided to provide assistance through subsidy even in case of survival of fewer plants. In that case the subsidy shall be estimated

as per the percentage of survival for that year. But however, the farmer should be insisted to gap fill with their own investment and MoU signed Company should provide planting materials with reasonable cost. In case of availability of unspent amount of maintenance cost, it can be used as cost of planting materials for gap filling at subsidised rate as applicable. The Cost of cultivation of Oil Palm during gestation period may be followed as indicated below.

### Cost of Cultivation

Area -1ha.

Density-143 plants

Spacing-9m x 9m (Triangular system)

Cost in Rs.

Sl. No.	Components of cost	1st year		2nd year		3rd year		4th year	
		Unit / MD	Cost (Rs.)	Unit / MD	Cost (Rs.)	Unit / MD	Cost (Rs.)	Unit / MD	Cost (Rs.)
	<b>A. LABOUR @ Rs.100/- per MD</b>								
1	Lay out, Demarcation & Land Prepn.	4	400		0		0		0
2	Digging of pits (1.0m x 1.0m x 1.0m)	25	2500	1	100		0		0
3	Filling of pits( carrying compost, mixing with soil & basal dose of fertiliser)	4	400	1	100		0		0
4	Planting followed by watering	5	500	1	100		0		0
5	Irrigation Expenditure	20	2000	14	1400	20	2000	18	1800
6	Intercultural operation(hoeing, weeding, application of fertiliser & manure)	8	800	5	500	10	1000	6	600
7	Application of PP chemicals & Hormone	5	500	3	300	6	600	5	500
8	Prunning /ablation / pollinating weevil		0	2	200	6	600	3	300
9	Harvesting , Post harvest handling		0		0	0	0	5	500
	<b>SUB TOTAL – A:</b>	71	7100	27	2700	42	4200	37	3700
	<b>B. INPUTS</b>								
1	Planting materials	143 nos.							
2	Cost of manure @ Rs. 500 / MT	5	2500	3	1500	0	0	2	1000
3	Fertilisers								
	N @ Rs.10.90 per Kg.	57	621	57	621	85	927	114	1243
	P <sub>2</sub> O <sub>5</sub> @ Rs. 21.90 per Kg	29	635	29	635	43	942	86	1883
	K <sub>2</sub> O @ Rs. 9.50 per Kg	57	542	57	542	85	808	114	1083
4	Cost of PP chemicals	L.S.	500		500		1000		2000
5	Mulching materials ( husk, leaf, etc.)	L.S.	0		500		1000		1000
	<b>SUB TOTAL –B:</b>		<b>4797.9</b>		<b>4298</b>		<b>4676</b>		<b>8209</b>
	<b>C. Miscellaneous Expenses</b>		102		2		124		91
	<b>GRAND TOTAL:</b>		<b>12000</b>		<b>7000</b>		<b>9000</b>		<b>12000</b>

50% Subsidy:

6000

3500

4500

6000

## 6. Supply of Drip Irrigation System:

During the year 2011-12, the assistance will be provided as per the subsidy admissible under National Mission on Micro-Irrigation (NMMI) up to 5 ha per farmer. As clarified in the Video Conference with Gol on 30.11.2011, there is a provision of 70% of the cost of drip irrigation system for Oil Palm plantation at 9M X 9M spacing (in Triangular system) is indicated below. But it should be calculated by the AAE of concerned DDH Range for the actual area of plantation. However, where there is spill over fund for Drip Irrigation, under ISOPOM, the assistance shall be provided as per the NMMI norm, the target may be reduced as per availability of funds. The Farmers are eligible to get subsidy for installation of Drip irrigation in the ratio of (40:30:30) = (GOI: State: Farmer's share). But only the Small / Marginal Farmers are eligible to get subsidy in the ratio of (50:30:20).

### Indicative cost of Drip system in Oil Palm plantations:

Area	Indicative cost	Subsidy limit (70%) for Big farmer	Subsidy limit (80%) for Small/Marginal farmer
0.20 ha	Rs.9588	Rs.6712	Rs. 7,670.40
0.40 ha	Rs.16604	Rs.11623	Rs. 13,283.20
1.00 ha	Rs.23983	Rs.16788	Rs. 19,186.40
2.00 ha	Rs.39371	Rs.27560	Rs. 31,496.80
3.00 ha	Rs.60780	Rs.42546	Rs. 48,624.00
4.00 ha	Rs.76644	Rs.53651	Rs. 61,315.20
5.00 ha	Rs.97314	Rs.68120	Rs. 77,851.20

## 7. Supply of Diesel/Electric pump set for drip system:

During 2012-13, there is a provision for supply of Pump set (diesel/electric) of capacity up to 10 HP under OPAE programme under RKVY @ 50% of the cost limited to Rs10000/pump set. Out of these, 70% area should be for 1 ha holding farmers including SM/MF; 20% area for 2 ha holding farmers; 5% area for 3 ha holding farmers; 3% area for 4 ha holding farmers and 2% area for 5 ha holding farmers. However, where there is spill over fund for supply of Diesel Pump set, under ISOPOM, the assistance shall be provided as per the new guideline, but minimum area should be 0.4 ha and the farmer may opt for Diesel / Electric Pump set. In order to keep uniformity within the Department of Agriculture, the practices adopted in Directorate of Agriculture & Food Production, should be adhered to. The approved guidelines communicated by DA & FP for selection of company/model/indicative cost etc are available with the DDA/DAO, which should be followed for the year of Procurement. The Model, Manufacturer & Capacity of Diesel / Electric Pump set should be selected by the beneficiary in consultation with Company Extension Personnel/Drip Installation Personnel & Asst. Agriculture Engineer. It may be of 0.5 HP to 10.0 HP, but the subsidy admissible should be 50% of the cost of pump set, limited to Rs.10000/- per set. In case any amount remaining balance, the DDH /ADH/AHO can go for more beneficiaries/ pump sets according to allotment received. The target of pump sets is indicative only from the financial point of view.

### **8. Inputs to inter-cropping in Oil Palm fields:**

During 2012-13, there is a provision for providing inputs for Inter cropping in OPAE programme under RKVY @ 50% of the cost limited to @ Rs.10, 000/- per hectare for purchase of planting material of horticultural inter-crops/ seed materials of field crops. But, 75% funds should be utilized for procurement of planting materials/ seeds and 25% for production or protection of inputs for intercrop fields. Farmer shall choose suitable crop. Subsidy shall be released after joint verification of concerned AHO and Company representative. ADH/DDH may constitute a committee at their level including a member representative from the MoU signed company and finalise the cost norms for crops of local demand. But the subsidy should not exceed the limit. The farmers have to pay the balance amount and MoU signed company should facilitate for arrangement of Planting Materials & Inputs.

### **9. Assistance for INM, IPM, Fertigation, P P Chemicals & Tree guard etc:**

During 2012-13, there is provision for providing inputs for assistance for INM/ IPM, Fertigation, P.P. Chemicals, Tree guards etc. in OPAE programme under RKVY limited to Rs. 5000/- per ha. Permits shall be issued to the farmer by the concerned DDH /ADH/AHO as per requirement, as practiced in the DA & FP. The farmer shall purchase the inputs from dealers approved by DA&FP at admissible subsidized rate. The balance cost of inputs shall be paid by concerned DDH /ADH/AHO to the dealer. Concerned Oil palm companies should avail license from the concerned DAO to facilitate supply of Liquid/ water soluble fertilizers required for fertigation through drip system. However, the subsidy can be utilised for fencing/tree guard as per the option of the farmer. In that case the subsidy amount can be released directly to the farmer after verification. For tree guard / fencing, the subsidy may be released after verification by concerned AHO.

### **10. Construction of Vermi-compost Units at Oil Palm field:**

In order to promote use of organic manure and vermi-compost in oil palm, during 2012-13, there is a provision for providing subsidy of 50% on the cost of construction of Vermi-Compost units limited to Rs.15000/- per unit measuring 15 Meter length, 0.9 meter width and 0.24 meter depth. However, farmer may opt for smaller size of Vermi-units similar to the norm covered under NHM/ RKVY/ CDB schemes.

### **11. Subsidy for bore wells at oil palm farms:**

In order to create water source, there is a provision of construction of Bore well / Water harvesting structure in OPAE programme under RKVY. Subsidy is admissible @ 50% of the cost limited to Rs.50000/- per bore well or water harvesting structure. The norm shall be similar to that followed by DA&FP.

### **12. Setting up of Oil Palm processing units:**

During 2012-13, there is provision for providing assistance of 50% of the cost establishment of Oil Processing units, limited to 250.00 lakh per unit for the mill of 5 MT/hr FFBs processing

capacity. For this purpose the MoU signed companies have to apply to the Director of Horticulture, Odisha

### 13. Demonstration of Plantation:

In order to educate the farmers on Oil Palm cultivation, some Demonstration plots should be established. The oil extraction companies should take active participation in establishing the demonstration plot from planting to extraction of crude oil, along with the technical assistance from the Govt. officials from the Horticulture department. It is proposed to take up demonstration plots of one ha in private/ institution land with an expenditure of Rs19,200/- per ha.

### 14. Development of Waste Land:

In order to increase cultivable land, waste land can be developed and can be utilized for Oil Palm cultivation. Waste land can be developed for cultivation by levelling, removal of stones and debris, land reclamation etc. for which 50% assistance can be given to beneficiary/institution @ Rs. 19,400/- per ha.

### 15. Farmers' Training:

Training of farmers shall be conducted by concerned ADH /AHO/ Company with the expenditure Rs. 15,000/- for 50 participants / Oil Palm growers including women beneficiaries. The training should be conducted in Block level. The Company should submit the training program schedule before concerned ADH / DDH for prior approval. The AHO of the concerned block is responsible to conduct such training program in co-ordinate with company. The expenditure pattern is as follows.

1	Working lunch @ Rs.50/- per farmer ( for 50 farmers for two days)	Rs.5000
2	Allowances @ Rs.50/- per day per farmer (for 50 farmers for two days)	Rs.5000
3	Training Materials @ Rs.20 per trainee (for 50 farmers)	Rs. 1000
4	Honorarium to the Guest Lecturers for two days @ Rs.500/- per	Rs. 2500
5	Misc. contingencies including visit to field / factory	Rs.1500
	<b>Total</b>	<b>Rs.15000</b>

### 16. Exposure Visit of Farmers:

Exposure visit of farmers to outside State shall be organised by concerned company to Oil Palm Research/Processing area with the expenditure of Rs. 5000/- per farmer.

### 17. Provision of Chicken mesh:

In order to protect oil palm roots and fruits from Rodent damage, Chicken mesh can be provided to the farmers @ Rs. 14/- per plant limited to Rs. 2000/- per ha. Concerned DDH/ADH can procure the Chicken mesh and provide the farmer at the time of planting.

### 18. Mobility & Extension / Contingency:

The funds placed for the purpose of meeting contingency like POL, Misc. Expenditure, hired vehicles if necessary, telephone charges, purchase / repair of materials for computers and its peripherals, repair of Fax, Xerox etc.

**19. Fixation of MSP:**

Commission for Agricultural Costs and Prices(CACP) has recommended Minimum Support Price(MSP) for all crops in its mandate (24 in nos) across the country without any State Specific differential ,formula for pricing FFBS be the send across all the states.

However, As the agro-climatic condition of Odisha is at par with Andhra Pradesh , we may adhere to the formula adopted by Andhra Pradesh for pricing of FFBS which is as follows.

Formula: - 12% on net CPO weighted average price +33% on 9% recovery of palm kernel nuts weighted average price.

As such price fixed for purchase of FFBS at Andhra Pradesh shall be followed for Odisha till CACP recommended any MSP.

*This guideline will be applicable for achievement of spill over physical and financial target of previous years OPDP & OPAE program.*

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**APPROVED**



**Director of Horticulture, Odisha**