



GOVERNMENT OF ODISHA

ACTIVITY REPORT 2016-17



Department of Agriculture
and Farmers' Empowerment





Hon'ble Minister, Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development, Odisha presenting the 9th Global Agriculture Leadership Award to Hon'ble Chief Minister, Odisha



Government of Odisha

**ACTIVITY REPORT
OF
DEPARTMENT OF AGRICULTURE AND
FARMERS' EMPOWERMENT
DURING 2016-17
AND
PROGRAMMES FOR 2017-18**

DEPARTMENT OF AGRICULTURE AND
FARMERS' EMPOWERMENT

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ACTIVITIES OF AGRICULTURE AND FARMERS' EMPOWERMENT DEPARTMENT DURING 2016-17 AND PROGRAMMES FOR 2017-18

1. INTRODUCTION

Odisha is an agrarian State. Agriculture is the largest private enterprise of the State which provides employment, both directly and indirectly, to more than 62% of the total workforce. Agriculture is considered as the lifeline of Odisha's economy as majority of the population depends on agriculture for their livelihood. Increase in agricultural production and farm productivity are essential for providing food security to the vast majority of the population and achieving significant growth in the income levels of the people of the State.

The State has total geographical area of 155.71 lakh hectares of which total cultivated land is about 61.80 lakh hectares which constitutes about 39.69% of the total geographical



area of the State. The net area sown is about 54.24 lakh hectares constituting 34.8% of the geographical area of the State. Small and marginal farmers constitute more than 90% of the farming community. The strategy for accelerating agricultural growth requires action in terms of bringing technology to the farmers, improving the efficiency of investments, increasing areas under irrigation, increasing systems support and rationalising subsidies, diversifying cropping pattern, while protecting food security concerns, and fostering inclusiveness through a group approach, by which the poor will get better access to land, credit and skills.

The State has taken several steps for the development of agriculture and allied sectors. In order to provide special emphasis in allocation of funds to these sectors, a separate Agriculture budget is being presented from 2013-14 thereby enhancing the budget outlay of agriculture & allied sectors from ₹ 5627.87 crore in 2012-13 to ₹13181.89 crore during 2016-17 and it has further been proposed to enhance to ₹14930 crore during 2017-18. With a view to empower farmers of the State, the Agriculture Department has been renamed as Department of Agriculture and Farmers' Empowerment. Besides, the State has a separate Agriculture cabinet as a Committee of Cabinet to monitor and provide direction and focus to plans and policies related to agriculture & allied sectors. In order to facilitate development in short term and long term plan and strategies for empowerment and overall development & growth of agriculture and allied sectors "Agriculture Cabinet" as a Committee of Cabinet has been constituted in the State.

Despite several hurdles like frequent occurrence of natural calamities with erratic monsoon and uneven distribution of rainfall, agricultural production has been increasing. The food grains production during 2014-15 reached an all-time high of 118 lakh MT surpassing all previous records. In spite of the adverse conditions, the State could be able to produce higher food grains and the State was awarded with the prestigious "Krishi Karman Award" for the fourth times during 2010-11, 2012-13, 2013-14 and 2014-15. A gap still exists between the potential and actual yield obtained by the farmers in many of the crops and strategies have been taken for achieving the targeted productions. The Government has formulated State Agriculture Policy 2013 to have a reliable growth in Agriculture Sector by providing enhanced assistance to the farming community and other stakeholders of the State. Government has intensified the efforts to improve production and productivity with sustainable agricultural

practices and foster inclusive growth to strengthen agricultural economy and income of the farmers with higher investment, efficient production technology, post-harvest solutions, effective value addition and remunerative market options. State Government is committed to usher in a sustainable and inclusive growth in the agriculture sector, the most vital sector in State's economy.

The rich natural resource endowment with prevalent diversified agro-climatic conditions of the State suitable for a wide variety of crops offers immense scope for agricultural growth. The climate of the State is tropical, characterized by high temperature, high humidity, medium to high rainfall and mild winter. The normal annual rainfall is 1451.2 mm distributed over 69 rainy days. South-West monsoon contributes about 81.2% of annual rainfall in 53-57 days during the months of June to September. The average annual temperature of the State is 26.89°C with mean annual maximum of 32.56°C and mean annual minimum of 21.30° C. From the physiographic point of view, the State is divided into four Zones, viz. (i) the Northern Plateau (ii) the Eastern Ghat zone (iii) the Central Table lands and (iv) the Coastal zone. On the basis of climate, soil, rainfall, topography and cropping patterns, the State has been delineated into ten Agro-Climatic Zones.

2. BUDGETARY SUPPORT TO THE DEPARTMENT

2.1. The Department's elaborate field organization is supported by the Administrative Expenditure budget of the State Government. Strategic interventions for increasing production and productivity of various crops and plethora of watershed development programmes are supported by budget provision mainly under various Centrally Sponsored Plan Schemes. Budgetary support in the form of back-ended subsidy for investment subsidy on private L.I.Ps (Deep Borewell, Dugwells, Shallow Tube wells and Surface lift points) under Jananidhi –I & II and capital investment subsidy on Commercial Agro-Enterprises, Agro Service Centres and several other important programmes are provided under the State Plan. For a holistic development of Agriculture & allied sectors, the flagship scheme namely Rashtriya Krishi Vikas Yojana (RKVY) is being implemented in the State from the year 2007-08. Several central sector schemes are being implemented in the State that include National Food Security Mission (NFSM), National Mission for Sustainable Agriculture (NMSA), National Mission on Oilseed and Oil Palm (NMOOP), National Mission on Agricultural Extension and Technology (NMAET),

Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), Paramparagat Krishi Vikas Yojana (PKVY) etc. Four Sub Missions namely Sub Mission on Agricultural Extension (SMAE), Sub- Mission on Seed and Planting Material (SMSP), Sub Mission on Agricultural Mechanization (SMAM) and Sub Mission on Plant Protection and Plant Quarantine (SMPP) under National Mission on Agricultural Extension and Technology (NMAET), are being implemented in the State. The horticultural development activities are mainly taken up under a comprehensive scheme namely Mission for Integrated Development of Horticulture (MIDH). National Horticulture Mission, is being implemented under MIDH. National Horticulture Mission is now implemented in 24 districts of the State. Except area expansion under fruit crops all other initiatives of NHM are being implemented in all districts of the State. Government have launched a scheme for development of horticulture in 6 Non-Mission Districts namely Bhadrak, Boudh, Jagatsinghpur, Jajpur, Kendrapada and Jharsuguda under the State Plan. Several other strategic interventions in horticulture are supported by State Plan. An ambitious watershed development programme is supported under Integrated Watershed Management Programme (IWMP). Keeping in view the re-charging of ground water through a large number of watersheds, efforts are being intensified for sustainable harnessing of groundwater in water deficit areas of the State to increase production and productivity of various crops. Fortunately, the State has very good reserves of ground water in many villages located in the rain-fed areas.

2.2. During the year 2016-17, under Budget provision including Supplementary, the Department received a Non-Plan Budget provision of ₹ 586.70 crore and a State Plan Budget of ₹3092.21 crore which includes ₹ 1694.12 crore for State Plan schemes and of ₹ 1398.09 crore provisions for both State Share and Central Share of Centrally Sponsored Schemes (CSS). The CSS budget provision includes ₹ 534.69 crore under Rashtriya Krishi Vikas Yojana (RKVY) ₹165.73 crore under National Food Security Mission (NFSM), ₹ 96.48 crore under National Mission for Sustainable Agriculture (NMSA), ₹ 26.18 crore under National Mission on Oilseed & Oil Palm (NMOOP), ₹ 135.94 crore under National Mission on Agricultural Extension & Technology (NMAET), ₹ 111.30 crore under National Horticulture Mission (NHM), ₹ 138.42 crore under Integrated Watershed Management Programme (IWMP), ₹ 163.33 crore for Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), ₹8.33 under World Bank assisted Neeranchal Project,

₹ 16.67 crore under Paramparagat Krishi Vikas Yojana (PKVY) etc. Further, Government of India have released ₹ 330.48 crore under Rashtriya Krishi Vikas Yojana, ₹ 43.68 crore under National Horticulture Mission (NHM) for carrying out horticultural activities in the State. The State has also received from GoI ₹34.66 crore under NFSM, ₹64.91 crore under NMAET, ₹9.54 crore under NMSA including PKVY & PMKSY, ₹8.41 crore under NMOOP, ₹91.39 crore under IWMP, ₹ 1.266 crore under World Bank Assisted Neeranchal Project.

2.3. For the year 2017-18, Department has proposed a Administrative Expenditure Budget provision of ₹ 764.26 crore which include ₹ 132.65 crore for Grant-in- aid to OUAT. Besides, a provision of ₹ 3359.09 crore has been proposed which includes ₹ 1659.09 crore for State Plan schemes and ₹ 1700.00 crore for Centrally Sponsored Scheme (CSS). The provisions for CSS include ₹707.55 crore under Rashtriya Krishi Vikas Yojana (RKVY), ₹145.51 crore for National Food Security Mission (NFSM), ₹ 70.92 crore under National Mission for Sustainable Agriculture (NMSA), ₹24.60 crore under National Mission on Oilseed & Oil Palm (NMOOP), ₹ 191.58 crore for National Mission on Agricultural Extension & Technology (NMAET), ₹ 102.04 crore under National Horticulture Mission (NHM), ₹ 155.20 crore under Integrated Watershed Management Programme (IWMP), ₹39.88 crore under World Bank assisted Neeranchal Project, ₹ 11.46 crore under Paramparagat Krishi Vikas Yojana (PKVY), ₹ 250 crore under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), ₹1.00 crore under Accessible India Campaign (Sugamya Bharat Abhiyan) and ₹ 0.25 crore under Global Environment Facility Project etc.

2.4. The Department operates through Directorate of Agriculture & Food Production, Directorate of Horticulture, Directorate of Soil Conservation and Watershed Development and 6 nos. of autonomous organizations namely Odisha State Seeds Corporation (OSSC), Odisha Agro-Industries Corporation (OAIC), Odisha State Cashew Development Corporation (OSCDC), Agricultural Promotion and Investment Corporation of Odisha Limited (APICOL), Odisha State Seeds and Organic Products Certification Agency (OSSOPCA) and Institute on Management of Agricultural Extension (IMAGE). The State has one Agriculture University i.e. the Odisha University of Agriculture & Technology (OUAT) with its affiliated colleges and research stations to cater to the needs of the farmers.

3. ACTIVITIES OF THE DIRECTORATE OF AGRICULTURE AND FOOD PRODUCTION

The Directorate of Agriculture provides a host of extension services and carries out a number of crop-specific programmes. The activities are taken up under the State Plan Schemes and Centrally Sponsored Schemes like Rashtriya Krishi Vikas Yojana (RKVY), National Food Security Mission (NFSM), National Mission of Sustainable Agriculture (NMSA), National Mission on Oilseed and Oil Palm (NMOOP) and National Mission on Agricultural Extension and Technology (NMAET). The NMAET will comprise of four Sub Missions namely Sub Mission on Agricultural Extension (SMAE), Sub-Mission on Seed and Planting Materials (SMSP), Sub Mission on Agricultural Mechanization (SMAM) and Sub Mission on Plant Protection and Plant Quarantine (SMPP) catering to various development interventions required.

3.1. Agricultural Extension Services

3.1.1. The Agriculture Extension machinery under the Directorate of Agriculture is engaged in the transfer of latest production technologies to the farmers round the year. There is tremendous scope for up-gradation of technologies adopted in farming of different crops in the State. The Agricultural Extension Workers from the village level and upwards play the most significant role in the process of technology transfer. Besides personal contact and advice on package and practices on crop production, 4,513 Farmers' Training Programmes, 16 Farmers' Field Schools, 2,51,095 Demonstrations and 1,49,864 hectares of line sowing / transplanting / intercropping of field crops have been conducted during 2016-17 (upto December, 2016) under different crop oriented programmes like Promotion of SRI, Promotion of Improved Agronomic Package of Practices, NMOOP, NFSM and RKVY and their sub-schemes for bringing the advanced production technologies to the door-step of the farmers. Two nos. of Trainers' Training for extension workers have been organized at the State level before the Kharif and the Rabi season during 2016-17 to equip the field functionaries with information about recent advances in production technologies of different crops.

3.1.2. Besides technology transfer, building awareness and confidence among the farmers for crop substitution from paddy to more remunerative non-paddy crops like pulses, oilseeds, vegetables and other horticultural crops, particularly in the highlands, encouraging varietals replacement and propagation of newer location-specific high yielding varieties, popularizing the use of improved and mechanized farm implements for carrying out field operations effectively and timely, have been the focus of our extension efforts.

3.2. Agricultural Farms

3.2.1. There are 62 farms existing under Directorate of Agriculture & Food Production having total geographical area of 2,177 hectares scattered around the State. The Departmental farms are used for production of Foundation and Certified Seeds for use in various Departmental programmes and also to increase the seed replacement ratio of various crops. During 2016-17, 22,539 quintals of foundation Seeds (Paddy-22,030 qtls. + Non-paddy- 529 qtls), 993 quintals of certified seeds (Paddy- 908 qtls. + Non-paddy- 85 qtls.) and 105 quintals of Truthfully Labeled seeds (Paddy- 75 qtls. + Non-paddy- 30 qtls.) is estimated to be produced in these Farms. During 2017-18, it is programmed to produce 22,805 quintals of foundation seeds (22,100 qtls. Paddy + 705 qtls. Non-paddy) and 300 quintals of Truthfully Labeled non-paddy seeds in these farms..

3.2.2. During 2016-17, Infrastructure strengthening and development (creation of irrigation potential, repair & construction of boundary wall, Irrigation channel, farm roads, renovation of existing seed processing plants, renovation and construction of new seed storage godowns, threshing floors, etc) of the Agricultural farms have been taken up with an expenditure of ₹440.00 lakh under State Plan scheme “Development of Agricultural Farms”. It is envisaged to further strengthen the Govt. Agricultural Farms with a proposed outlay of ₹ 500.00 lakh during 2017-18.

3.3. Soil Testing Services

3.3.1. In order to know the soil health and maintain soil fertility status soil testing provides an important technical support service to the farmers of the State. To cater to this need of the farmers, the Department provides facilities for soil testing through 27 Static Soil Testing Laboratories (SSTL) located at Balasore, Baripada, Bolangir, Berhampur, Bhawanipatna, Cuttack, Phulbani, Sambalpur, Semiliguda, Sundargarh, Angul, Keonjhar, Nuapada, Subarnapur, Bargarh, Rayagada Malkangiri, Nawarangpur, Boudh, Deogarh, Jharsuguda, Nayagarh, Puri, Kendrapara, Jagatsinghpur, Dhenkanal and a State Level Lab at Bhubaneswar and 14 Mobile Soil Testing Laboratories (MSTL) to test about 3.34 lakh soil samples annually. Besides 3 more static and 3 mobile soil testing laboratories are



in the process of being established. Soil testing services are provided to the farmers with nominal charges of ₹ 5 /- per sample. It is programmed to increase the soil Testing Capacity to 4.37 lakh soil samples by 2017-18

3.3.2. During 2016-17 (till January, 2017), 2,74,680 soil samples have been tested including backlog samples of 2015-16 in the Department's laboratories and 8,01,698 Soil Health Cards have been issued based on the grid.

3.3.3. During 2017-18, it has been programmed to analyze 3.34 lakh soil samples through Soil Testing Laboratories. The farmers will be provided with Soil Health Cards with necessary recommendations for use of fertilizer to upkeep soil health.

3.4. National Mission on Oilseeds and Oil Palm (NMOOP)

3.4.1. National Mission on Oilseeds and Oil Palm (NMOOP) is being implemented in the State since 2014-15 which envisages increase in production of vegetable oils sourced from Oilseeds, Oil Palm and Tree Borne Oilseeds (TBOs). Under the Mission, 3 no. of Mini Missions namely Mini Mission-I on Oilseeds, Mini Mission –II on Oil Palm and Mini Mission-III on Tree Borne Oilseeds (TBOs) are being implemented in the State. The Mini Mission-I on Oilseeds are being implemented for the development of cultivation of oilseed crops by the Directorate of Agriculture & Food Production and Mini Mission –II on Oil Palm & Mini Mission –III on TBOs are being implemented by the Directorate of Horticulture.

3.4.2. Mini Mission –I on Oilseeds

3.4.2.1. The scheme is being implemented with the objective of development and cultivation of vegetable oilseed crops. During 2016-17, about ₹542.79 lakh (CS-₹325.67 lakh + SS-₹217.12 lakh) has been spent till January' 2017. The achievement during 2016-17 (January, 2017) and programme for 2017-18 under Mini Mission –I on Oilseeds are as follows:

3.4.2.2. Under Seed Distribution Programme quality seeds of different oilseeds were supplied to the farmers at subsidized rates. 5191 quintals of certified seeds have been supplied during 2016-17 to the farmers with a total subsidy of ₹65.77 lakh. During 2017-18, it has been programmed to distribute 11,633 quintals of various certified seeds with a financial involvement of ₹ 290.83 lakh as subsidy.



3.4.2.3. During 2016-17 (till January'2017), incentive worth ₹4.80 lakh and ₹29.93 lakh is extended for production of 480 quintals of foundation seeds and 2,800 quintals of Certified seeds respectively.

3.4.2.4. It is programmed to support production of 4,000 quintals of foundation seeds and 13, 200 quintals of certified seeds with a proposed expenditure of ₹ 40.00 lakh and ₹132.20 lakh respectively during 2017-18.



3.4.2.5. During 2016-17, 1,849 quintals of breeder seeds has been procured for multiplication with assistance worth ₹184.91 lakh. During 2017-18, for improving availability of HYV Seeds, it has been programmed to procure 550 quintals of breeder seeds with a proposed cost of ₹ 55.00 lakh.

3.4.2.6. Subsidy is being provided on gypsum/ pyrites to boost the productivity of groundnut in the State During 2017-18, there is a programme to supply gypsum/ pyrite and other soil application materials for soil amelioration in 20,000 hectares with a proposed cost of ₹150.00 lakh.

3.4.2.7. 20 nos. of Farmers' Field School (FFS) and 120 nos. of Farmer's Training have been conducted with an expenditure of ₹5.34 lakh and ₹28.80 lakh respectively during 2016-17.

3.4.2.8. It is programmed to conduct 30 numbers of FFS and 300 nos. of farmer's training during 2017-18 with an expense of ₹8.01 lakh and ₹72.00 lakh respectively.

3.4.2.9. 5016 Ha. of Block demonstrations were conducted with an expenditure of ₹234.48 lakh to demonstrate improved methods of different Oilseeds production during 2016-17.

3.4.2.10. It has been programmed to take up 3500 nos. of block demonstrations during 2017-18 at an expense of ₹110.00 lakh.

3.4.2.11 During 2016-17(till January 2017), 7075 PP equipments have been popularized at a subsidy cost of ₹ 43.89 lakh. Besides, 1011 sprinkler sets have been popularized providing subsidy to the tune of ₹ 99.07 lakh.

3.4.2.12. During 2017-18, it is programmed to assist farmers for procurement of 1500 nos. of sprinkler sets and 20000 plant protection equipment at an expense of ₹147.00 lakh and ₹120.00 lakh respectively.

3.4.2.13. Subsidy worth ₹ 26.00 lakh was extended to cover 5200 hectares under PP chemicals/ weedicide application respectively during 2016-17.

3.4.2.14. During 2017-18, there is a programme to extend subsidy worth ₹160.50 lakh for covering 30,000 hectares under PP chemicals and 3,500 hectares under Bio-fertilisers.

3.5. National Food Security Mission (NFSM)

A Centrally Sponsored Scheme, National Food Security Mission (NFSM) has been launched from 2007-08 in the State with the objective of increasing production of rice and pulses through area expansion and enhancement of productivity in a sustainable manner in the identified districts. From the financial year 2011-12, the NFSM-Rice was implemented in 15 districts namely Bolangir, Jajpur, Dhenkanal, Angul, Kalahandi, Nuapada, Keonjhar, Malkangiri, Nawarangpur, Kandhamal, Boudh, Nayagr, Deogarh, Jharsuguda & Sundargarh and NFSM -Pulses in all 30 districts of the State. Besides, a special scheme Accelerated Pulse Production Programme (A3P) is being implemented from 2010-11 till 2013-14. Subsequently, during 2014-15, Govt have revised the guidelines of NFSM and as per the revised Guidelines, NFSM have five major components such NFSM - Rice, NFSM-Pulses, NFSM-Coarse Cereals, NFSM Commercial Crops and NFSM-Wheat. Except NFSM-Wheat, all other components are being implemented in the State from the financial year 2014-15. Under NFSM Rice, 14 districts of the State has been covered which include Angul, Bolangir, Boudh, Ganjam, Jajpur, Kendrapara, Keonjhar, Malkangiri, Mayurbhanj, Nuapada, Nawarangpur, Nayagarh, Sambalpur and Sundargarh. Under NFSM Pulse all 30 districts of the State are being covered. Similarly, under NFSM Coarse cereals 6 districts namely Gajapati, Ganjam, Keonjhar, Koraput, Nawarangpur and Rayagada are being covered from the financial year 2014-15. Under NFSM Commercial crops Cotton, Jute and Sugarcane crops are covered in the State from the financial year 2014-15.

NFSM - Rice are being implemented in 8 selected districts namely Angul, Deogarh, Jharsuguda, Keonjhar, Kandhamal, Malkangiri, Nuapada & Sundargarh districts and NFSM Pulses in all 30 districts of the State. A sum of ₹ 3871.16 lakh (NFSM-Rice ₹ 2011.42 lakh, NFSM-Pulses- ₹ 1603.36 lakh, NFSM-Coarse Cereals – ₹55.35 lakh and NFSM-Commercial Crops – ₹ 201.03 lakh) has been utilized during 2016-17 (till January, 2017) under NFSM in the State for implementation of various programmes. A sum of ₹ 14551.91 lakh (NFSM Rice ₹7500.00 lakh, NFSM-Pulses-₹6500.00 lakh, NFSM-Coarse Cereals – ₹ 300.00 lakh and NFSM-Commercial Crops – ₹ 251.91 lakh) has been proposed in the budget for implementation of various programmes under NFSM-Rice, NFSM-Pulses, NFSM Coarse Cereals, and NFSM Commercial Crops in the State during 2017-18.

3.5.1. NFSM-Rice

3.5.1.1. During 2016-17 (till January, 2017), Cluster demonstrations on Line Transplanting, SRI, Direct seeded Rice and Cropping Systems were taken up in 22,334 hectares at a cost of ₹1368.63 lakh.

3.5.1.2. During 2017-18, there is a programme to conduct such cluster demonstrations in 50,000 hectares at a total cost of ₹4250.00 lakh.

3.5.1.3. During 2016-17 (till January, 2017), assistance was provided for use of Micronutrients, Plant Protection Chemicals, Bio-agents and Weedicides under Plant Protection and Soil Management in 6,9814 hectares with a total cost of ₹349.07 lakh.

3.5.1. 4. During 2017-18, it is proposed to provide similar assistance in 1.60 lakh hectares at an estimated cost of ₹ 800.00 lakh.

3.5.1.5. About, 9,213 nos. of Resource conservation tools were popularized by extending subsidy worth ₹154.58 lakh.

3.5.1.6. Similarly, it is proposed to popularize 11,400 such resource conservation tools and 9870 pumpsets with an estimated subsidy cost of ₹ 735.00 lakh and ₹987.00 lakh respectively.

3.5.1.7. Besides, 340 nos. of Cropping System based Trainings were organized with an expense of ₹ 45.90 lakh during 2016-17 (till January' 2017).

3.5.1.8. It is proposed to organize 200 nos. of such trainings during 2017-18 at a cost of ₹ 28.00 lakh.

3.5.1.9. Besides, subsidy worth ₹ 93.24 lakh was extended for popularizing use of 9,324 quintals of HYV seeds during 2016-17 (till January, 2017).

3.5.1.10. It is proposed to extend subsidy assistance worth ₹200.00 lakh to farmers for procurement of 20,000 quintals of HYV paddy seeds during 2017-18.



3.5.2. NFSM-Pulses

3.5.2.1. In order to increase area, production and productivity of pulses in State, NFSM-Pulses are being implemented in all the 30 districts of the State. During 2016-17, a sum of ₹1603.36 lakh has been utilized (till January, 2017). Similarly, it has been programmed to implement different interventions for enhancing pulse production with an estimated cost of ₹ 6500.00 lakh for 2017-18 for all the 30 districts of the State.

3.5.2.2. During 2016-17 (till January, 2017), 25,950 nos. of Cluster demonstrations of improved technologies have been conducted with an expense of ₹1159.75 lakh.

3.5.2.3. Similarly, it is programmed to conduct 41,000 nos. of such demonstrations with an estimated cost of ₹3825.00 lakh during 2017-18.

3.5.2.4. Subsidy assistance worth ₹ 124.50 lakh has been extended under Integrated Nutrient Management and Integrated Pest Management components covering 27,460 hectares of pulses during 2016-17 (till January, 2017).



3.5.2.5. Similarly, it is programmed to extend subsidy assistance of ₹ 710.00 lakh for the two components during 2017-18.

3.5.2.6. During 2016-17 (till January' 2017), 10,000 nos of resource conservation tools and 718 efficient water application tools have been popularized at a subsidy cost of ₹204.00 lakh and ₹72.10 lakh respectively.

3.5.2.7. It is programmed to popularize 18,600 nos of resource conservation tools and 2560 efficient water application tools along with 5,70,000 meters of pipes carrying water at an estimated cost of ₹ 658.00 lakh and ₹ 484.00 lakh respectively during 2017-18.

3.5.2.8. A total of 400 cropping system based trainings have been conducted at a cost of ₹ 28.00 lakh during 2016-17 (till January' 2017).

3.5.2.9. During 2017-18, it is programmed to conduct 150 such trainings at a cost of ₹ 21.00 lakh.

3.5.3. NFSM - Coarse Cereals

NFSM-Coarse Cereals are being implemented in the State in 6 districts of the State namely Gajapati, Ganjam, Keonjhar, Koraput, Nawarangpur & Rayagada from the financial year 2014-15. The major Coarse Cereals-Maize & Ragi were grown in 2.56 lakh hectares and 1.41 lakh hectares respectively during 2016-17. The productivity of Maize



and ragi in the State are estimated at 2856 kg and 899 kg per hectare respectively during 2016-17 (as per 2nd Advance estimate). The following development activities are being taken up through NFSM-Coarse Cereals during 2016-17 (Till January, 2017).

3.5.3.1. During 2016-17 (till January' 2017), 1,230 demonstrations on improved packages of Maize and Ragi had been taken up at a cost of ₹ 55.35 lakh.

3.5.3.2. There is a programme to take up 6,000 such demonstrations on Maize and Ragi at a cost of ₹ 300.00 lakh during 2017-18.

3.5.4. NFSM-Commercial Crops

The schemes namely, "Sustainable Development of Sugarcane Based Cropping Systems (SUBACS), Technology Mission on Cotton and Jute Technology Mission have been subsumed under one scheme i.e. "NFSM-Commercial Crops" from the financial year 2014-15. A sum of ₹ 201.03 lakh have been spent for taking up following interventions during 2016-17 (till January, 2017) under the scheme NFSM-Commercial Crops. Besides, it has been programmed to take up following interventions during 2017-18 under the scheme with an outlay of ₹ 251.91 lakh.

3.5.4.1. Cotton

3.5.4.1.1. Cotton is a major commercial crop predominantly grown during Kharif in the KBK districts. Various interventions for development of cotton crop have been taken up during 2016-17 (till January, 2017) with the total expenditure of ₹102.63 lakh. A sum of ₹ 112.91 lakh has proposed for 2017-18 for implementation of the scheme in the State.

3.5.4.1.2. During 2016-17, front line demonstrations on Integrated Crop Management and Inter cropping were taken up in 1434 hectares with cost of ₹ 100.38 lakh.

3.5.4.1.3. Similarly, it is programmed to take up 1577 nos. of Frontline Demonstrations under such categories with an estimated cost of ₹110.39 lakh during 2017-18.

3.5.4.1.4 Besides, trials on high density planting system were conducted in 25 hectares at an expense of ₹ 2.25 lakh.

3.5.4.1.5. It is programmed to take up 28 such trials during 2017-18 at a proposed cost of ₹ 2.52 lakh.



3.5.4.2. Jute & Mesta

3.5.4.2.1. Jute and mesta are also grown as fibre crops in the State as commercial crop. It is envisaged to continue Jute development programme under NFSM-Commercial Crops from the financial year 2014-15. During 2016-17, Front Line Demonstrations on Production Technologies were conducted during Kharif 2016 over 925 hectares at a cost of ₹74.00 lakh under NFSM-Commercial Crops (Jute). Five State Level Trainings are also being conducted with an expenditure of ₹ 2.00 lakh.



3.5.4.2.2. Similarly, it is programmed to conduct Front Line Demonstrations on Production Technologies in around 1,204 hectares at a cost of ₹ 96.40 lakh under NFSM-Commercial Crops (Jute) during Kharif 2017. Besides, six state level trainings are proposed to be organised at a cost of ₹ 2.40 lakh.

3.5.4.3. NFSM-Commercial Crops-Sugarcane

Sugarcane is grown in the State in about 0.35 lakh hectares with production of 25.43 lakh M.T. The productivity of sugarcane is 71980 kg/ha (2013-14) which is more than the national average of 69838 kg/ha. Various interventions are being undertaken under NFSM-Commercial Crop Sugarcane.

3.5.4.3.1 During 2016-17 (till January' 2017), Demonstrations on Intercropping and Single Bud-chip technologies were conducted in around 280 hectares at an expense of ₹ 22.40 lakh.

3.5.4.3.2 There is a programme to conduct such demonstrations in 468 hectares at a cost of ₹ 37.44 lakh during 2017-18.

3.5.4.3.3. During 2016-17, over 50,286 tissue culture seedlings are being provided to the farmers at subsidized rate by utilizing subsidy of ₹1.76 lakh.

3.5.4.3.4. Similarly, it is programmed to supply 50286 tissue culture seedlings at a cost of ₹1.76 lakh during 2017-18.

Besides, two state level trainings for middle level officers are proposed to be organised at a cost of ₹ 0.80 lakh.



3.6. National Mission for Sustainable Agriculture (NMSA)

National Mission for Sustainable Agriculture (NMSA) is being implemented since 2014-15 with objective of promoting sustainable agricultural practices while indulging in modern crop husbandry. The scheme includes Soil Health Management (SHM), Soil Health Card, Paramparagat Krishi Vikas Yojana , Climate Change & Sustainable Agriculture; Monitoring, Modeling and Networking (CCSAMMN), Rainfed Area Development (RAD), On-farm Water Management (OFMW). Out of them SHM, Soil Health Card, PKVY & CCSAMMN is being implemented by Directorate of Agriculture.

3.6.1. Soil Health Management (SHM) under NMSA

The SHM component of the Scheme is being implemented in the state since 2014-15 with the objective of up-keeping of soil health through promoting use of soil test based recommendations, organic manures and Integrated Nutrient Management besides capacity building and conducting Front Line Demonstrations for sustainable crop production. During 2016-17 (till January' 2017), No fund was received from GoI. During 2017-18, only token provision has been made since the interventions would be taken up under Soil Health Card.

3.6.2. Soil Health Card

The component of the Scheme is being implemented in the state since 2015-16 with the objective of providing the farmers with soil health cards with recommendations based on soil test results.

3.6.2.1. During 2016-17 (till January' 2017), a sum of ₹ 440.00 lakh has been received and 3,58,635 Soil Health Cards have been provided at a cost of ₹403.05 lakh.

3.6.2.2. It is programmed to provide at least 3.37 lakh soil health cards to farmers at a cost of ₹1002.95 lakh during 2017-18.

3.6.2.3. Similarly, there is a programme to conduct 100 farmers' training at an estimated cost of ₹24.00 lakh during 2017-18.

3.6.3. Paramparagat Krishi Vikash Yojana (PKVY)

The Scheme started to be implemented in the state during 2015-16. During 2016-17 (till January, 2017), 120 clusters of 50 acres each is being taken up under the programme with the received sum of ₹642.43 lakh. It is programmed to take up another 320 clusters at a cost of ₹1146.00 lakh during 2017-18.

3.6.4. Climate Change and Sustainable Agriculture: Monitoring, Modeling and Networking (CCSAMN) of NMSA

In the present days scenario the agro-ecological situation is poised for a sea-change due to possible impacts of climate change which is expected to impact crop production and food security at large. The scheme launched in the country from 2014-15 with the objective of adapting to and mitigating the impacts of climate change on agriculture. No fund has been received from GOI during 2016-17.

However, there is an Action Plan of ₹300.00 lakh for implementing different interventions under the scheme during 2017-18.

Component	Unit	Programme	
		Phy.	Fin. In lakh ₹
<i>i) Research Projects</i>			
Varietal Trial for Climate resilient agriculture	Dist.	4	10.00
Soil water Conservation techniques	Dist.	4	10.00
Promotion & Establishment of Climate resilient varieties	Dist.	4	10.00
<i>ii) Model Projects</i>			
Develop "Comprehensive Block Development Plan	Block	4	20.00
Validating and revising crop contingency plans at local level	Block	4	40.00
Reviving promising local vars having resilience	Dist.	2	20.00
Develop, field test and run a community led agro-advisory model	Dist.	2	30.00

Component	Unit	Programme	
		Phy.	Fin. In lakh ₹
Eol for R&D for developing models on weather forecasting & Crop Planning		0	5.00
iii) Pilot Projects			
Installation of AWS & Agromet Observatory (3 nos.)	Nos.	3	30.00
Adopting Cropping systems as per bio-physical conditions	Block	4	40.00
iv) Capacity building and Training			
Training and Demonstration on Climate Change adaptation	Nos.	2	61.00
v) Management Cost/Administrative expenses			24.00
TOTAL			300.00

3.7. National Mission on Agricultural Extension and Technology (NMAET)

The Centrally Sponsored Scheme - NMAET is being implemented in the State from the financial year 2014-15. This includes four Sub-Missions; Sub Mission on Agricultural Mechanisation (SMAM), Sub-Mission on Agricultural Extension (SMAE), Sub-Mission on Seed and Planting Material (SMSP) and Sub-Mission on Plant Protection and Plant Quarantine (SMPP). During 2016-17, A sum of ₹ 9899.77 lakh has been released (till February, 2017) for implementation of various Sub Missions under NMAET. It has been proposed to implement the programme with an outlay of ₹ 19158.00 lakh during 2017-18.

3.7.1. Sub-Mission on Agricultural Mechanization (SMAM)

Subsidy assistance for farm mechanization previously being extended under Centrally Sponsored Scheme “Macro Management of Agriculture” are being taken up under SMAM from 2014-15. Besides, the Central Plan schemes “Promotion of Agriculture Mechanisation through Training, Testing and Demonstration” and “Post-Harvest Management & Technology” have also been subsumed under this Sub Mission. It has been programmed for promoting agriculture mechanization for implementation of various components of Sub Mission such as Promotion and Strengthening of Agricultural Mechanization through Training, Testing and Demonstration and Distribution of Post-Harvest Technology and Management (PHTM); Financial Assistance for Procurement of Agriculture Machinery and Equipment; Promotion of Farm Mechanization in Selected Villages; Financial Assistance for Promotion of Mechanized Operations were carried out through Custom Hiring Centres etc. During 2016-17, ₹ 5091.83 lakh has been released for implementation of the programme.

3.7.1.1. During 2016-17(till January'2017), 1,188 power tillers, 358 rotavators and 129 power driven implements have been popularized at a subsidy cost of ₹ 1069.65 lakh.

3.7.1.2. There is a programme to popularize 4,198 power tillers, 1,627 rotavators, 778 multi-crop threshers and 1022 seed-cum-fertiliser drill during 2017-18 at a subsidy cost of ₹ 4280.00 lakh.

3.7.1.3. During 2016-17, assistance worth ₹1000.00 lakh was extended for establishment of 250 nos. of Custom Hiring Centres.

3.7.1.4. During 2017-18, it is programmed to provide assistance worth ₹1640.00 lakh for establishment of 410 nos. of Custom Hiring Centres.

3.7.2. Sub-Mission on Seed and Planting Material (SMSP)

3.7.2.1. This Sub-Mission is being implemented in the State from 2014-15. The Central Plan Schemes "Development & Strengthening of Infrastructure for Production & Distribution of Quality Seeds", "Development & Strengthening for Imparting Tour & Training on Seed Infrastructure Facilities" and "Scheme for Protection of Plant Varieties and Farmer's Right Act-2001" were subsumed under this Sub Mission. During 2016-17, no fund was received from Gol and programme continued with the spill-over amount.

3.7.2.2. During 2017-18, it is programmed to renovate one seed testing laboratory and procure one DNA finger printing machine at an estimated cost of ₹130.00 lakh.

3.7.2.3. One seed farm would be strengthened with a cost of ₹ 80.21 lakh.

3.7.2.4. It is programmed to construct 5 storage godowns and 10 storage structures in govt. seed farms with an estimated cost of ₹ 542.50 lakh.

3.7.2.5. During 2017-18, it is programme to popularize 18,510 quintals of certified seeds among farmers and take up seed production in 4,903 hectares at an estimated cost of ₹700.00 lakh and ₹547.29 lakh respectively.

3.7.3. Sub-Mission on Plant Protection and Plant Quarantine (SMPP)

3.7.3.1. The Sub-Mission is being implemented from 2014-15 with the objective of strengthening plant protection and quarantine in the state through modernization of pest management approach.

3.7.3.2. During 2016-17, no fund has been received for the purpose.

3.7.3.3 It is proposed to take up modernization of pest management at an estimated cost of ₹37.00 lakh during 2017-18.

3.7.4. Sub-Mission on Agricultural Extension (SMAE)

The Sub-Mission is being implemented from 2014-15. The Centrally Sponsored Scheme “Support to State Extension for Extension Reforms” and the Central Plan Scheme “Capacity Building to Increase Competitiveness in Agriculture” and “AGRISNET Project/ National e-Governance Plan for Agriculture (NeGP-A)” have been subsumed under this.

3.7.4.1. During 2016-17, a sum of ₹2841.72 lakh has been released for implementation of extension activities of the State including activities of ATMA till February, 2016 for implementation of various extension programme of the State. A sum of ₹ 8200 lakh has proposed for implementation of the scheme during 2017-18. Besides, there is a programme to implement various programmes under NeGP-A with proposed outlay of ₹400.00 lakh during 2017-18.

3.7.5 National Project on Agro Forestry

It is also programmed to implement a newly proposed National Project on Agro Forestry with an estimated cost of ₹ 521.00 lakh during 2017-18.

3.8. Crop Production Management

3.8.1. Input subsidy

During 2016-17 (till Jan'2017), ₹5200.00 lakh have been utilized as seed subsidy for supplying certified seeds of various field crops. About 5.73 lakh quintals of quality seeds of different field crops have been distributed to the farmers and nearly 3.00 lakh quintals through DBT. For administering input subsidy about 17.92 lakh farmers have been registered and ₹29.00 crore worth of input subsidy



has been extended to farmers through DBT. It has been proposed to utilize ₹5000.00 lakh during 2017-18 to meet the subsidy cost of popularizing certified seeds of various crops.

3.8.2. Corpus funds for Seeds

Quality seeds and planting material is the basic and critical input for improving productivity and production of agricultural and horticultural crops. At present, Odisha State Seed Corporation (OSSC), Odisha Agro Industries Corporation (OAIC) and Odisha State

Cashew Development Corporation (OSCDC) are involved in production and distribution of seeds and planting materials to the farmers of the State. To meet the increasing demand for seeds and planting materials of the farmers, during 2016-17, a corpus fund of ₹10000 lakh has been provided these agencies to procure and pre-position quality seeds and planting materials at the desired locations sufficiently ahead of the sowing season. A sum of ₹ 10000.00 lakh has been proposed which includes ₹ 6000 lakh for OSSC, ₹ 3000 lakh for OAIC and ₹ 1000 lakh for OSCDC for 2017-18 for the purpose.

3.8.3. Corpus funds for fertilizers

In order to supply fertilizer to the farmers in time as per their demand, pre-positioning of fertilizers is required both for Kharif and Rabi seasons. A corpus funds of ₹ 10000 lakh has been proposed for both the agencies (₹ 7500 lakh for MARKFED and ₹ 2500 lakh for OAIC) for prepositioning of fertilizers during 2017-18.

3.8.4 Promotion of System of Rice Intensification (SRI)

System of Rice Intensification is a technology having promise for the future especially when water is increasingly becoming a scarce resource. The Promotion of SRI is implemented from 2009-10 as a State Plan scheme with the objective of enhancing rice production by increasing water use efficiency and economizing use of quality seeds and other inputs. The SRI technology has gained wide popularity in the state.



During 2016-17 (till Jan'2017), SRI was taken up in 16340 hectares with an expenditure of ₹817.00 lakh. A token provision of ₹0.01 lakh has been made during 2017-18.

3.8.5. Promotion of Improved Agronomic Package of Practices

3.8.5.1. The Scheme is implemented in the state in order to demonstrate and popularize improved agronomic packages of various crops with the objective of enhancing production and productivity. During 2016-17 (till January' 2017), line sowing and line transplanting was promoted in 1,09,087 hectares with an expenditure of ₹1636.31 lakh. Besides, seed treatment campaign was taken up in 3.03 lakh hectares with an expenditure of ₹174.39 lakh during 2016-17 (till January' 2017).

3.8.5.2. During 2017-18, it is programmed to promote Line sowing and Line transplanting in 34,722 hectares, Dhanicha for seed production and green manuring in 9,469 hectares and organize seed treatment campaign in 2,26,394 hectares with an estimated total cost of ₹1000.00 lakh.

3.8.6 Promotion of Integrated Farming

The Scheme is implemented to demonstrate and popularize Integrated Farming. It is programmed to promote 120 such integrated farms at a subsidy assistance of ₹120.00 lakh during 2017-18.

3.8.7. Promotion of Integrated Farming in tribal areas

The Scheme is implemented to demonstrate and popularize Integrated Farming in tribal areas from 2016-17. During 2016-17, it has been programme to conduct the programme with the financial involvement of ₹250 lakh. There is a programme to promote such Integrated Farms in Tribal areas at a proposed cost of ₹347.69 lakh during 2017-18.

3.8.8. Technology Mission on Sugarcane Development

The Scheme is implemented in the state to popularize new cultivars by multiplying breeder and foundation level planting materials. Different interventions “Sustainable Sugarcane Initiative, Ratoon Management Demonstration, subsidy on weedicides, assistance on production of sugarcane seedlings, incentive on early planting, replacement of sugarcane varieties in non-sugar factory area etc. were taken up with the aim of enhancing sugarcane production for utilizing the crushing capacity available in the state.



3.8.8.1. During 2016-17 (till January' 2017), Sustainable Sugarcane Initiative and Ratoon Management demonstrations were taken up in 1280 hectares with an expenditure of ₹188.50 lakh. Besides, assistance was provided for seed replacement to a tune of 40 MT with the subsidy cost of ₹ 2.00 lakh.

3.8.8.2. Three farmer-scientist-extension functionary interface has been organized with the cost of ₹1.92 lakhs during 2016-17.

3.8.8.3. During 2017-18, similar interventions would continue covering 2,000 hectares with a proposed cost of ₹287.50 lakh.

3.8.8.4 There is a programme to create seed hubs of 200 hectares in sugarcane growing areas at an estimated assistance of ₹40.00 lakh.

3.8.8.5 It is programmed to popularize 100 power operated sugarcane crusher at a subsidy cost of ₹20.00 lakh.

3.8.8.6. Three days onsite training will be organized for 200 sugarcane farmers at an expense of ₹0.90 lakh. Besides, 3 farmer-scientist-extension functionary interfaces would also be organized with the cost of ₹1.92 lakh.

3.8.8.7. Production incentive worth ₹ 80.00 lakh would be extended to farmers producing more than 100 MT sugarcane per hectare in around 1000 hect.

3.8.8.8 One hectare primary nursery would be established at a sugar factory for producing tissue culture seedlings at an estimated cost of ₹1.00 lakh.

3.8.8.9. During 2017-18, it has been programmed to take up such interventions with an estimated cost of ₹231.31 lakh.

3.8.9. Technology Mission on Oilseeds & Pulses

The Scheme was implemented from 2013-14 with an objective to supplement the efforts put in under Central sector Schemes to boost oilseed and Pulse production in the state. A token provision of ₹0.01 lakh has been proposed for 2017-18.

3.8.10. Technology Mission on Jute & Mesta

The Scheme was implemented since 2013-14. During 2016-17, Jute and Mesta farmers were assisted for construction/ excavation of 99 numbers of *Kutcha* retting tanks with the cost of ₹30.00 lakhs. A token provision of ₹0.01 lakh has been made for 2017-18.

3.8.11. Management of Acid Soils

The scheme was implemented since 2007-08 to ameliorate soil in culturable tracts affected with soil acidity. A token provision of ₹ 0.01 lakh has been proposed for 2017-18.

3.8.12. Organic Farming

The scheme has been launched since 2013-14 to promote Organic farming. Since soil health concerns are being addressed under PKVY a token provision of ₹0.02 lakh has been proposed under organic farming for 2017-18.

3.8.13. Operationalisation of Soil Testing and Quality Control laboratories

Soil Health and quality of agri-inputs have been one of the important aspects of crop production. Thus, it was programmed to further consolidate the soil testing and quality enforcement measures through strengthening our built-in facilities under the scheme “Operationalisation of Soil Testing and Quality Control Laboratories” from 2013-14. A token provision of ₹0.01 lakh has been made for 2017-18.



3.8.14. Promotion of Need Based Plant Protection

This sub-scheme is being implemented since 2014-15 for taking up need based plant protection measures. During 2016-17, no specific measures were required to be taken. Similarly, the sub-scheme shall continue to be implemented under a new component “Plant Protection” during 2017-18 with an estimated cost of ₹100.00 lakh.



3.8.15. Development of Agriculture in Collaboration with International Institutions

This sub-scheme is implemented since 2016-17 for taking up Agriculture Development Programmes in collaboration with International Institutions. International Rice Research Institute (IRRI), Philippines took up technology interventions in rice and screening of tolerant varieties of rice in the state. Till January' 2017, ₹2500.00 lakhs had been spent for different interventions. Similarly, the interventions would be taken up during 2017-18 in collaboration with IRRI with an estimated cost of ₹1688.00 lakh.

3.8.16. Special Programme for Promotion of millets in Tribal Area

The millets are the important diet for tribal pocket of the State. Due to its nutritional values millets are slowly gaining popularity in other part of the State. In order to enhance production and productivity of millets in tribal areas, Special Programme for millets in Tribal

areas has been implemented in the State. A sum of Rs, 1241.00 lakh has been proposed during 2017-18 to implement the project in the tribal districts of the State.

3.8.17. Grant to State Fertilizer Procurement Agencies (New Component)

This scheme is implemented from 2016-17 for assisting State fertilizer Procurement Agencies like MARKFED and OAIC to facilitate prepositioning and smooth distribution of fertilizers. During 2016-17, ₹500.00 lakh have provided for purpose for making timely availability of fertilizer to the farmers.

The sub-scheme would continue to be implemented during 2017-18 with an estimated cost of ₹500.00 lakh.

3.9. Capital Investment and Farm Mechanisation

3.9.1 Development of Infrastructure for Post Harvest Management

The scheme is being implemented since 2013-14 with the objective to develop infrastructure for post- harvest management in a bid to facilitate value addition for better returns.

3.9.1.1. During 2016-17, steps were taken to establish 1,366 Community threshing floors at a cost of ₹10000.00 lakh. Till January' 2017, 201 such threshing floors were established at an expense of ₹1500.60 lakh.

3.9.1.2. During 2017-18, it is proposed to take up different interventions with a proposed cost of ₹6738.00 lakh.

3.9.2 Subsidy under Agriculture Policy (Agr.)

This scheme being implemented with the objective of promoting agri-entrepreneurship in the State through extending Capital Investment Subsidy.

3.9.2.1. Agri-Enterprises:

Establishment of Commercial Agri-Enterprises has been considered as one of the prime movers for not only self-employment but also for creation of employment opportunities for others. Capital Investment Subsidy @ 40% subject to a maximum limit of ₹50.00 lakh (50% limited to ₹50.00 lakh for SC/ST/ Women/ unemployed graduates of agriculture and allied sciences) is provided on a back-ended basis for such ventures. During 2016-17 (till December' 2016), establishment of 77 nos of commercial agri-enterprises & 317 Agro Service Centres have been promoted at a subsidy cost of ₹2155.00 lakh. During 2017-18, it has been proposed for extending such Capital Investment Subsidy to agri-preneurs for setting up different Commercial Agri-Enterprises to a tune of ₹8273.92 lakh.

3.9.3. Farm Mechanization

Farm mechanization has great significance for enabling farmers to take up timely and quality agricultural operations, reducing costs of production and improving the productivity. Thus, massive farm mechanisation programme is being taken up under State Plan Scheme “Popularisation of Agriculture Implements, equipments and diesel pumpsets”(under State Plan), RKVY, NFSM and Sub Mission on Agricultural Mechanisation schemes (under Central Sector Schemes) to popularise modern farm equipments and machineries.



3.9.3.1. During 2016-17, various agriculture implements and machineries are being popularized extending subsidy worth ₹35825.39 lakh (SP-₹24199 lakh +CSP ₹11626.39 lakh) under State Plan and Central Sector Schemes out of which ₹23960.00 lakh ha been utilized (till January' 2017).

Sl. No.	Machinery/ equipment	Subsidy Pattern	Achievement 2016-17	
			Physical	Financial ₹ in lakh
1	Tractor	50% of cost limited to ₹90,000/-	154	138.60
2	Power Tiller	50% of cost limited to ₹75,000/-	6296	4722.00
3	Reaper	50% of cost limited to ₹80,000/-	444	355.20
4	Transplanter	75% of cost limited to ₹1,50,000/-	782	1173.00
5	Rotavator	75% of cost limited to ₹80,000/-	7070	5656.00
6	Special Power Operated Implements	50-75% of cost limited to ₹60,000/- to ₹2,00,000/-	3798	2658.60
7	Power Operated Implements	50-75% of cost limited to ₹25,000/- to ₹45,000/-	2004	901.80
8	Post Harvest Machinery	50% of cost limited to ₹2,00,000/-	1568	3136.00
9	Power Thresher	50% of cost limited to ₹24,000/-	2500	600.00
10	Combine Harvester	50% of cost limited to ₹5,00,000/- to ₹6,00,000/-	502	2761.00
11	Mannual/ Bullock Drawn Implements	75% of cost limited to ₹6,000/-	20740	1244.40
12	Pumpsets	50% of cost limited to ₹15,000/-	3500	525.00
13	Laser Leveller	@ 50 % limited to ₹ 3.00 lakh	34	102.00
	Grand Total			23973.60

3.9.3.2. Taking into the consideration the popular demand, it has been programmed to popularise 2,350 tractors, 9,704 power tillers, 385 reapers, 1,014 transplanters, 7,217 rotavators, 2,864 power threshers, 443 combine harvesters, 49 laser levelers, 2,369 power driven implements, 4,030 special power driven implements, 1,575 post harvest machinery, 16,600 pumpsets, 22,525 manual/ bullock drawn implements and promoting 410 Farm Machinery Banks and 20,000 hectares of mechanized transplanting during 2017-18 extending subsidy worth ₹37782.50 lakh (SP-₹ 26500.00 lakh + CSP-₹11282.50 lakh). As a result, farm power consumption is estimated to increase to 1.80 kW/ ha during 2017-18 from that of 1.60 kW/ha likely to be achieved during 2016-17.

3.10. Training and Capacity Building of Agriculture

3.10.1. Refresher Training for Extension Functionaries

The scheme is being implemented since 2007-08 for capacity building of extension functionaries. During 2016-17, different training programmes are being taken up for enhancing the skill of extension functionaries with an expense of ₹100.00 lakh. Similarly, ₹50.00 lakh has been proposed as provision for organizing such training programmes during 2017-18.

3.10.2. Intensive Extension Campaign on Agriculture

The scheme is being implemented since 2013-14 with the aim of creating public awareness among farmers regarding various cutting edge technologies available for farmers and developmental programmes in agriculture sector. Krushak Sampark Melas in each block and District Mahostavs in every district are being organised. Different programmes are being telecast and broadcast through different mass media.



Information dissemination and awareness are also being created by running Krushi Rathas across the villages. Extension communication materials are being published and distributed among farmers. Folk art forms are also organized for creating such awareness.

3.10.2.1. During 2016-17, such awareness programmes are being taken up and ₹341.67 lakh has been utilized till January '2017.

3.10.2.2. It is proposed to continue such efforts with a proposed cost of ₹350.00 lakh during 2017-18.

3.10.3. System Development

The scheme is implemented from 2016-17 with the aim of taking up various system development works for effective service delivery in agriculture sector.

3.10.4 Certification of Agricultural Programmes

The scheme is being implemented from 2016-17 with the aim of taking up various skill development interventions in collaboration with Agriculture Skill Council of India for capacity building of unemployed youth with the financial involvement of ₹ 100.00 lakh. A provision of ₹100.00 lakh has been proposed for 2017-18 for implementation of the programme.

3.11. Harnessing of surface and ground water

3.11.1. Jalanidhi (RIDF)

One of the strategies to increase the productivity is provision of assured irrigation facilities to the farm land. Keeping this in view, it is envisaged to provide assistance for under RIDF for establishment of Private Lift Irrigation Points (shallow tube wells, deep bore wells, dug wells and river lift projects etc). The installation of the PLIPs is being implemented in two formats from 2014-15 (viz. Jalanidhi-I- for establishment of individual PLIPs and Jalanidhi-II- for establishment of cluster shallow tube well and Cluster micro river lifts). Jalanidhi-II is being implemented by Water Resources Department.



Sl.No.	Type of PLIP	Assistance Pattern
JALANIDHI-I		
1	Shallow Tube Well	50% of the Project cost subject to a limit of ₹20,000/-. In addition, in case of cluster of 10 nos. or more STWs the cost of electrification will be borne by Govt. limited to ₹4.00 lakh.
2	Deep Bore Well	75% of the project cost subject to a limit of ₹50,000/- (excluding cost of electrification). In addition, 75% of Genset / electrification cost subject to a limit of ₹50,000/- lakh (for energisation).
3	Dug Well	75% of the project cost subject to a limit of ₹75,000/-.
4	River lift/ Surface lift Project	75% of the project cost subject to a limit of ₹60,000/. Community-based/ Regd. bodies will get 90% subsidy provided the minimum coverage is 40 ha.

Sl.No.	Type of PLIP	Assistance Pattern
JALANIDHI-II		
1	Cluster Shallow Tube Well	Beneficiary Contribution is ₹20,000/- per project. <i>(For BPL of ST & SC category, the beneficiary contribution is ₹10,000/- per project. To be implemented in a cluster of at least 5 projects.)</i>
2	Cluster Micro River Lifts	Beneficiary contribution is ₹20,000/- per project. <i>(For BPL of ST & SC category, the beneficiary contribution is ₹10,000/- per project. To be implemented in a cluster of at least 3 projects.)</i>

3.11.1.1. During 2016-17 (till January' 2017), 10,215 nos.of such PLIPs (STW- 654 BW-8,843, DW- 718) have been established under Jananidhi-I through extending subsidy of ₹5661.27 lakh bringing 20,450 hectares of additional area under assured irrigation. Besides, 492 Cluster STWs and 814 Cluster RLPs have been established under Jananidhi-II extending a subsidy of ₹ 3634.00 lakh bringing another 2,600 hectares under assured irrigation.

3.11.1.2. During 2017-18, there is a proposal for establishment of 16,975 nos. of such PLIPs (15,275 nos. under Jananidhi-I & 1,700 nos. under Jananidhi-II) bringing an additional area of around 34,000 hectares under assured irrigation with a financial assistance of ₹15030.00 lakh. Besides, 500 nos. of Solar SPV 3HP Pumpsets will be popularized with a financial assistance of ₹1000.00 lakh.

3.11.2 Sustainable Harnessing of Ground Water in Water Deficit Areas (BKVY)

The programme of Sustainable Harnessing of Groundwater in Water Deficit Areas (BKVY) was introduced in 26 districts of the State in 2010-11. The scheme is being implemented through Odisha Lift Irrigation Corporation under the Water Resources Department. Under the scheme, deep bore wells are being constructed in clusters in the farmers' fields. Under each deep bore well project approximately 5 hectares of land is being covered under assured irrigation in Kharif season and 2 hectares in Rabi season. During 2016-17, 13,796 nos. of bore wells have been engendered with the financial involvement of ₹ 52000.00 lakh. There is a programme for energisation of 17,000 Ha. for creation of additional 34,000 Ha during Rabi and providing protective irrigation for 85,000 Ha. during Kharif season with a proposed outlay of ₹ 54000.00 lakh during 2017-18.

3.12. Biju Krushak Kalyan Yajana (BKKY)

The Scheme is being implemented from 2013-14 to provide health and accident insurance 5 members of every farm family including the farmer free of cost upto ₹1.00 lakh to safeguard against health hazards. The BKKY was grounded in November, 2013 with the objective to enrolling all the farm families in the State.

3.12.1. During 2016-17, till date, around 57, 64, 359 farm families have been enrolled and an expenditure of ₹ 20.97 lakh has been incurred (till January' 2017). Under this, 3.61 lakh beneficiaries have been treated and claims worth ₹18042.99 lakh settled.

3.12.2. During 2017-18, it is programmed to support all farm families in the State under health insurance cover free of cost and a sum of ₹8811.00 lakhs has been provisioned.



3.13. Infrastructure Development (Agriculture Sector)

3.13.1. Development of Agricultural Farms

The scheme is being implemented with the objective of strengthening Departmental Agricultural farms engaged in quality seed production. During 2016-17 (till January' 2017), farm developmental works were taken up with an expense of ₹440.00 lakh. The developmental works would continue during 2017-18 with an estimated cost of ₹500.00 lakh.

3.13.2 Strengthening and Infrastructure Development for Training / Research Centre / Laboratories / Implement Factory etc.

The Directorate of Agriculture has 3 Regional Institutes for Training on Extension (RITE), 27 Soil Testing Laboratories (except Bhadrak, Jajpur & Gajapati), 2 fertilizer Testing Laboratories, 13 Adaptive Research Stations, 1 Institution of Minor Irrigation and Water Use, 1 seed testing laboratory and 1 Odisha Farm Machineries Research and Development Centre (OFMRDC), Bhubaneswar. RITEs have engaged themselves in imparting intensive training to farmers, agri entrepreneurs and the extension functionaries, while Adaptive Research Stations are engaged in multi-location trials and evolving location specific technologies. The various Laboratories (Soil / Fertilizer / Pesticide/ Seed testing) look after quality control

and soil testing aspects. The OFMRDC designs, tests and produces different agricultural implements/ machineries. Under the scheme the infrastructure facilities of these institutions are strengthened. During 2016-17 (till January' 2017) ₹102.80 lakh has been utilized for strengthening of these institutes/laboratories. During 2017-18, a token provision of ₹0.01 lakh has been proposed.

3.13.3. Infrastructure Development of Sale Centres

The Scheme is being implemented in the state for infrastructure development of input sale centers so that the agri-inputs could be stored well in advance to facilitate timely agricultural operations by the farmers. During 2016-17, the input godowns were strengthened with a cost of ₹120.00 lakh. During 2017-18, it is programmed to take up such works at a proposed cost of ₹ 100.00 lakh.

3.13.4. Construction of New Buildings

This Scheme is being implemented in the state for construction of new buildings in order to strengthen Agriculture extension to aid smooth implementation of programmes from 2012-13. During 2016-17, the construction works are being taken up with ₹ 2550.00 lakh and ₹1331.00 lakh has been utilized till January' 2017. During 2017-18, the construction activities of new departmental buildings and Krishi Bhawan are proposed be taken up. A sum of ₹4060 lakh is proposed as outlay for the purpose.

4. RASHTRIYA KRISHI VIKAS YOJANA (RKVY)

The Rastriya Krishi Vikash Yojana (RKVY) has been introduced in the State since 2007-08 as an Additional Central Assistance to the State. The scheme promotes development of agriculture, horticulture and other allied sectors like animal husbandry, dairy development, fisheries, agriculture research & education, minor/lift Irrigation, command area development and watershed development etc. The RKVY was operationalized in Odisha during Rabi 2007-08 with 100 % central assistance up to 2014-15,.From the year 2015-16, the fund sharing pattern has been changed as 60:40 (Gol share : State share). The State Agriculture Department is the Nodal Department for implementation of RKVY and SAMETI, i.e, IMAGE is the Nodal Agency. Since inception of RKVY i.e., from the year 2007-08 in the State, 620 nos. of projects are implemented by 24 Implementing Agencies.

4.1. During 2016-17, the State have received ₹33048.00 lakh which include ₹21575.00 lakh under Normal RKVY and ₹ 10250.00 lakh under Bringing Green Revolution in Eastern India (BGREI) & ₹1223.00 lakh under Foot & Mouth Disease (FMD) (Sub-schemes) with sharing

pattern of 60:40 (State Share-60% and Central Share-40%). Apart from these schemes, another two sub schemes such as (i) Targeting rice fallow areas in Eastern India for pulses and oilseeds with a project cost of Rs 1500.00 lakh (ii) Crop diversification programme for replacing tobacco farming with alternate crops in Koraput and Rayagada districts of Odisha with a project cost of Rs 18.33 lakh are also being implemented in the State.

4.2. Special Initiatives taken up by the State for DBT

4.2.1. During the year 2016-17, the component like subsidy towards distribution of seeds under BGREI programme is being provided directly to the beneficiary farmers through DBT towards subsidy on seed distribution under the programme. Further, action has been initiated to include the components like incentives on production of seeds and need base inputs as well as asset building (subsidy on farm machineries/equipments) under DBT.

4.3. Special initiative has been taken up for geo tagging of infrastructures/ Assets created under RKVY since inception through Bhuvan platform developed by NRSC,Hyderabad in collaboration with Gol.



4.4. Bringing Green Revolution to Eastern India (BGREI)

BGREI programme is being implemented in the State since 2011-12 for increasing productivity of rice. During the year 2016-17, this project is being implemented in 22 non- NFSM districts of the State with approved Action Plan of ₹17082.99 lakh.

4.4.1. During 2016-17, 77,900 ha. of different types of demonstrations have been conducted out of which 26,700 ha. were under stress tolerant rice varieties.





4.4.2. During 2016-17, 15,950 Ha of cropping system based demonstrations are being conducted in the farmers' field under the programme.

4.4.3. During, 2016-17, subsidy has been provided on distribution 22,891.5qtl. of newly released HYV paddy seeds.

4.4.4. During 2016-17 (Till January, 31.01.2017), a sum of ₹ 836.59 lakh is being utilised as subsidy for supply of need based inputs like Micro nutrients, Bio-fert., Gypsum, PP chemicals & Weedicides etc. to the farmers.

4.4.5. During 2016-17, 2,000 nos. of pumpsets, 1,023 nos. seed-cum-fert. drill, 2,570 rotavators, 743 transplanters, 1,835 nos. paddy threshers have been supplied to farmers on subsidy under Asset building with an expenditure of ₹2544.20 lakh during 2016-17 (till January, 2017).

4.4.6. Steps are being taken for establishment of 37 nos. of Community cluster deep bore wells, 31 nos. of Community Shallow Tube wells & 35 nos. of Community micro lift irrigation projects with an outlay of ₹1691.21 lakh under Site Specific Activities and construction of 116 nos. of Community Threshing floors under Marketing support with total financial involvement of ₹845.609 lakh under the scheme.

4.5. A sum of ₹ 70755.04 lakh has been proposed for 2017-18 for implementation of the projects of agriculture and allied sectors under the scheme RKVY including all Sub Schemes of RKVY.

5. ACTIVITIES OF THE DIRECTORATE OF HORTICULTURE

The Directorate of Horticulture carries out a range of activities promoting horticultural crops like fruits, vegetables, spices & flowers mostly under National Horticulture Mission and also under State Plan schemes in the non-mission districts. Besides, Coconut Development Board (CDB) sponsored programmes for coconut development, National Mission on Oil Seed and Oil Palm (NMOOP -Oil palm) are also implemented in the State.. Similarly Drip and Sprinkler irrigation is being promoted under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) in the State. The physical and financial achievement during 2016-17 and programme for 2017-18 under various schemes are indicated below.

5.1 Mission on Integrated Development in Horticulture (MIDH)

After restructuring Centrally Sponsored Scheme National Horticulture Mission (NHM) is a component of Mission for Integrated Development of Horticulture (MIDH). Besides, schemes of Coconut Development Board (CDB) and Director of Cashew and Cocoa Development Board (DCCD) have been merged with MIDH.

5.1.1. National Horticulture Mission (NHM)

National Horticulture Mission (NHM) is in operation in the State since 2005-06 and some activities have been extended to 30 districts with the objectives of increasing production of selected fruits in the State for enhancing the economic status of the farmers, promotion of export oriented agro based industries, training and development of market infrastructure



etc. The scheme was implemented under Central Sponsored Plan with 100% GOI funding in 2005-06 & 2006-07. From 2007-08, it has been included under CSP scheme with a funding pattern of 85:15 between GOI and the State till 2014-15. From 2015-16 the funding pattern is 60:40 between GOI and the State.

24 districts of the State namely Cuttack, Puri, Nayagarh, Khurda, Balasore, Mayurbhanj, Gajapati, Keonjhar, Kalahandi, Koraput, Nawarangpur, Malkangiri, Rayagada, Nuapada, Bolangir, Subarnapur, Phulbani, Ganjam, Dhenkanal, Sundargarh, Sambalpur, Angul, Bargarh & Deogarh were identified in 4 clusters for development of 9 major horticultural crops under National Horticulture Mission. The crops shortlisted are :- mango, citrus, litchi and banana in fruits, cashew in plantation crops, ginger & turmeric in spices, and rose, marigold, gladioli in floriculture.

Sl. No	Name of the District	Crop Selected
1.	Cuttack	Mango, Banana, Cashew, Citrus, Pineapple, Flower, Betel Vine
2.	Puri	Mango, Banana, Cashew, Flower, Betel Vine
3.	Nayagarh	Mango, Banana, Cashew, Citrus, Flower
4.	Khurda	Mango, Banana, Cashew, Citrus, Flower, Betel Vine
5.	Balasore	Mango, Banana, Cashew, Flower, Betel Vine
6.	Mayurbhanj	Mango, Banana, Cashew, Citrus, Litchi, Flower
7.	Keonjhar	Mango, Banana, Cashew, Citrus, Flower
8.	Gajapati	Mango, Banana, Cashew, Citrus, Litchi, Pineapple, Flower
9.	Ganjam	Mango, Banana, Cashew, Citrus, Flower, Betel Vine
10.	Koraput	Mango, Banana, Cashew, Citrus, Litchi, Flower
11.	Malkangiri	Mango, Banana, Flower
12.	Nawarangpur	Mango, Banana, Flower
13.	Rayagada	Mango, Banana, Cashew, Litchi, Flower
14.	Kalahandi	Mango, Banana, Cashew, Citrus, Flower
15.	Nuapara	Mango, Banana, Cashew, Citrus, Flower
16.	Bolangir	Mango, Banana, Papaya, Citrus, Pineapple, Flower
17.	Subarnapur	Mango, Banana, Citrus, Flower
18.	Dhenkanal	Mango, Banana, Papaya, Cashew, Flower
19.	Kandhmal	Mango, Banana, Citrus, Litchi, Ginger, Turmeric Flower,
20.	Sambalpur	Mango, Cashew, Citrus, Banana, Litchi, Pomegranate, Custard apple, Pine apple, Flower
21.	Bargarh	Mango, Cashew, Citrus, Banana, Litchi, Pomegranate, Guava, Custard apple, Pineapple, Flower
22.	Deogarh	Mango, Cashew, Citrus, Banana, Litchi, Pomegranate, Guava, Custard apple, Pine apple, Flower
23.	Sundargarh	Mango, Cashew, Citrus, Banana, Litchi, Pomegranate, Flower
24.	Angul	Mango, Cashew, Citrus, Banana, Litchi, Papaya, Flower

As per the guidelines of Govt. of India, Odisha Horticulture Development Society under the Chairmanship of Minister, Department of Agriculture and Farmers' Empowerment has been constituted for implementation of Mission activities. One Executive Committee under Principal Secretary, Department of Agriculture and Farmers' Empowerment and District Management Committees under Collectors have been formed for implementation of activities.

5.1.1.1. Fruit Orchard Development

5.1.1.1.1. For encouraging farmers to establish fruit orchard on their private holdings, assistance up to 40-50% of cost of cultivation is provided to the farmers @ ₹12,750/- per ha for mango, ₹35,000/- per ha for pineapple, ₹26,000 per ha. for Banana sucker, ₹40,985/- per ha for Tissue Culture Banana, ₹30,000/- per ha for papaya, ₹24,000/- per ha. for pomegranate, ₹17,675/- per ha for litchi, ₹19,170/- per ha for guava, ₹20,004 per



ha for citrus, ₹16,400 per ha for High density mango and ₹20,660/- per ha. for high density guava plantation under NHM. New fruit orchards covering 4109.34 ha. of mango, 87.70 ha. of litchi, 10 ha of guava, 10 ha of pomegranate, 113.34 ha of papaya, 136.28 ha of Banana TC, 46 ha. of Banana sucker, 29 ha. of Citrus and 5 ha of pineapple have been achieved during 2016-17. The expenditure has been made till December, 2016 for establishment of New Garden is ₹ 418.58 lakh against the ₹ 600.69 lakh as per Action Plan.

5.1.1.1.2 During 2017-18, in the Annual Action Plan of NHM, thrust has been diverted to protected cultivation, mechanisation and activities under post harvest management. There is a programme to cover 60 ha of pineapple, 533.33 ha. of banana tissue culture, 150 ha. banana sucker, 500 ha of papaya, 100 ha. of litchi, 100 ha of pomegranate, 5,000 ha of mango, 20 ha guava, 40 ha. of citrus in the farmers field during 2017-18 with the financial outlay of ₹ 774.92 lakh.

5.1.1.2. Development of Floriculture

There is an increasing demand for flowers like rose, gladioli, marigold and tuberose in and around the urban centres of the State. With a view to encourage farmers of the State to increase their farm income and to create employment opportunities through floriculture,

emphasis has been laid on this programme. Under the programme small and marginal farmers will be provided assistance up to 40% and other farmers up to 25% of cost of cultivation ranging from ₹10,000/- per ha. to ₹60,000/- per ha for taking up commercial cultivation of flowers in their fields. During 2016-17, flower cultivation over an area of 248.40 ha was taken up under NHM programme with a financial expenditure of ₹ 27.11 lakh(till December,



2016) against the outlay of ₹67.59 lakh. There is a programme for 2017-18 to cover about 240 ha. under floriculture, with a financial outlay of ₹42.25 lakh.

5.1.1.3. Human Resource Development

During 2016-17, HRD activities were taken up for 6,965 farmers within the State and 307 outside the State to build confidence among farmers through cross learning. Besides, 3 nos. of Gardeners training has been organised and 152 farmers have been sent for exposure visit outside the State for skill up-gradation. Similarly, it has been programmed for 2017-18 to send 15,000 farmers for training within the State and 1,500 nos. of farmer for outside the State. Besides 1,000 nos. of farmers will be sent to outside States for exposure visit for skill up-gradation. The financial achievement till December, 2016 is ₹111.66 lakh against Action Plan of ₹250.10 lakh during 2016-17. During 2017-18, Action Plan has been prepared with a budget outlay of ₹ 353.20 lakh for similar interventions.

5.1.1.4. Vegetables Cultivation

During 2016-17, achievement has been made for 1809.86 ha hybrid vegetables till December, 2016 against the programme 3000 ha. Besides, emphasis has also given on Seed Production Programme. The expenditure for 2016-17 is ₹280.83 lakh till December, 2016 against target of ₹600 lakh. The Budget outlay for 2017-18 is ₹540 lakh with a target of 2700 ha under the scheme.



5.1.1.5. Protected Cultivation

During 2016-17, 1281.56 ha under plastic mulching, 0.25 ha Tubular Structure and 1.16 ha. under shade net house has been achieved. Similarly programme has been made for 1500 ha. of Plastic mulching, 8 ha of shade net houses, 0.5 ha of plastic tunnels, 0.5 ha of walk in tunnels, 1.1 ha anti bird / anti hail nets, 17.2 ha. for Naturally ventilated system, 16 ha of different flowers & high value vegetables to be grown under poly house in the year 2017-18. During 2016-17 the financial achievement is ₹ 246.77 lakh against the target of ₹801.58 lakh till December, 2016 in the component and financial outlay 2017-18 is ₹1571.33 lakh.



5.1.1.6. Horticulture Mechanisation

Farm mechanization plays a significant role in enabling the farmers to take up timely horticultural operations, reduce cost of production thereby increase the productivity of the crops. During 2016-17, subsidy has been provided for 16 nos. Tractor upto 20 PTO HP, 9 nos. Power Tiller (Below 8 BHP), 50 nos. Self-propelled Horticulture Machinery. It has been programmed for 2017-18 to provide subsidy to the farmers for popularization of 85 nos Tractor (up to 20 PTO HP), 80 nos. of Power Tiller (below 8 BHP), 75 nos. self- propelled horticulture machinery. The financial achievement for 2016-17 is ₹22.28 lakh till December, 2016. The financial outlay for 2017-18 is ₹182.00 lakh.



5.1.1.7. Integrated Post Harvest Management

In order to reduce post-harvest losses in horticultural crops, there is a programme to provide assistance to the farmers under Post Harvest Management. During 2016-17, 28 nos. of pack houses, 1 nos. of Pre-Cooling Units, 1 no. of Cold room, 13 nos. Preservation Unit

(low cost), 129 nos. of low cost onion storage structures, 193 nos. of Pusa Zero energy cool chamber, 6 nos. of Cold storage have been achieved. During 2017-18, it has been proposed for establishment of 250 nos. of pack house, 2 nos. integrated pack house, 20 nos. Pre cooling unit, 17 nos. of cold room, 5 nos. of Primary mobile processing unit, 10 nos. of cold store , 5 nos. of Technology induction and modernisation of cold chain, 5 nos. of refrigerated Transport vehicle, 2 nos. of ripening chamber, 120 nos of Evaporative low energy cool chamber, 15 nos. of Preservation unit (New unit), 5 nos. of Preservation unit (upgraded), 1300 nos. of low cost onion storage structure, 1500 nos of pusa zero energy. The financial achievement for year 2016-17 is ₹1227.09 lakh till December, 2016 against the target of ₹3174.70 lakh. Similarly the financial outlay of ₹3972.95 lakh for 2017-18 has been proposed.

5.1.1.8. Establishment of Marketing Infrastructure for Horticultural Produce

Due to inadequate marketing infrastructure, the producers are not getting remunerative prices for their produce at the time of harvest. Keeping in view, during 2016-17, 1 no. Rural market / Apnimandi/ Direct Market, has been established. During 2017-18, it has been proposed for establishment 6 nos. of Rural market / Apnimandi / Direct Market, 6 Nos. retail market / outlet, 20 nos. Static / Mobile Vending Cart / Platform with cool chamber and 5 nos. of Functional infrastructure for collection, sorting / grading. The financial achievement during 2016-17 is ₹10.00 lakh till December, 2016 against the target of ₹126.10 lakh. The financial outlay 2017-18 is ₹124.50 lakh.

5.1.2. Coconut Development Board (CDB)

5.1.2.1. Integrated farming in Coconut holding for productivity improvement

Assistance is being provided to the farmers @ ₹ 35,000/- ha in two years in equal installments under the sub head “Laying out of demonstration plot”. 100 ha has been covered during 2016-17. It is proposed to provide maintenance of 121.5 ha. for 1st Yr. and 50 ha. for 2nd year during 2017-18. An amount of ₹ 30 lakh has been proposed to keep in the budget for 2017-18 as a Central share.



5.1.2.2. Establishment of Regional Coconut Nursery

The scheme envisages raising of coconut seedling in Govt. Farm & Nurseries and seedlings will be sold to the farmers at subsidized rate for area expansion on coconut in the State. During 2016-17, 10,000 coconut seedlings have been produced. An amount of ₹ 24 lakh has been proposed in the budget for 2017-18. Target has been fixed to prepare 75,000 nos. coconut seedlings during 2017-18.

5.2. Horticulture Programme in Non- Mission Districts

A provision of ₹100.00 lakh has been proposed in the State budget during 2017-18 for Area Expansion Programme as per NHM guideline for 6 districts namely Bhadrak, Boudh, Kendrapara, Jagatsinghpur, Jajpur and Jharsuguda as the area expansion programme has not been taken up under National Horticulture Mission. During 2016-17, 274 ha. have been achieved under fruit crops, 78 ha. in hybrid vegetables cultivation and 40 ha. in floriculture under the programme. During 2017-18, the tentative major interventions will be coverage of 300 ha. for fruit plantation crops, 50 ha. in floriculture and 100 ha in Hybrid vegetables.

5.3. Strengthening of School of Horticulture

There are three training institutes namely School of Horticulture at Khordha, Horticulture Training Institute, Kalinga in Kandhamal and Horticulture Training Institute, Nildungri in Sambalpur districts under the Directorate of Horticulture for imparting training to the departmental staff as well as rural youth for self-employment. To preserve the heritage building available at School of Horticulture Khordha the budget provision of ₹ 150 lakh has been kept during 2016-17. ₹ 500.00 lakh has been proposed during 2017-18 for the purpose.

5.4. Establishment & Revival of Block Level Nurseries

In order to provide quality planting materials for public sale as well as utilization in Govt. programmes, it has been programmed to establish / revive at least one nursery in each Block for production and stocking of quality planting materials of fruit, vegetables & flowers. As such, 43 nos. of Block level nurseries will be revived / established with an outlay of ₹ 150 lakh during 2016-17. Similarly, it has been programmed to revive/ establish 30 nos. Block level nurseries with a financial outlay of ₹ 200.00 lakh during 2017-18.

5.5. Development of Potato, Spices & Vegetables

In order to encourage farmers to take up cultivation of Onion and other vegetables, quality seed materials has been sold to the farmers at subsidized rate. During 2016-17, 200

qtls. of seed potatoes (Kharif), 574qtls. of onion seeds in Rabi, 70 qtl. of onion seeds in Kharif, have been supplied to the farmers at a subsidized rate. An expenditure of ₹403.88 lakh has been made till the end of February 2017 against sanction of ₹451.97 lakh. A sum of ₹600 lakh has been proposed in the budget during 2017-18 for the purpose.



5.6. Input Subsidy

Development of horticulture is dependent on supply and use of quality inputs 5,80,024 nos. of Quality planting materials of different plants like, K.lime Seedling, Coconut Seedling, Mango graft, Cashew graft, Litchi Gottee, Sopota graft, Papaya seedling and Drumstick seedling have been supplied to the farmers for backyard plantation at subsidized rate during 2016-17. Besides, it has been targeted to establish 4,335 nos. single line trellis in the vine growing areas. An expenditure of ₹185.64 lakh has been made for the purpose against total provision of ₹ 200.00 lakh till February 2017. Similar programme will be taken up for 2017-18 with the financial outlay of ₹150.00 lakh.

5.7. Inter cropping of Fruit orchards

The main objective of the scheme is to increase the area as well as production of the crops like Pineapple, Marigold, Vegetables etc. Besides, it also provides the nutritional security to the small and marginal farmers of the State. During 2016-17 a sum of ₹79.08 lakh has been utilized till the end of February 2017 against total out lay of ₹85.00 lakh. During 2017-18, a token provision of ₹0.01 lakh has been proposed for continuance of the scheme



5.8. Special Crop Specific Scheme – Floriculture

The scheme envisages to achieve self-sufficiency in floriculture besides generation of revenue for the farmers. The existing floriculture scheme available under NHM / Hort.

Prog. in Non-mission districts does not cater to the demand of the State for which a new scheme is being implemented under State Plan. It has been programmed to take up rose, tuberose, & marigold for cultivation and provide assistance to floriculture farmers. During 2016-17 an amount of ₹50.00 lakh has been sanctioned out of which a sum of ₹43.62 lakh has been utilized till the end of February, 2017 for covering marigold in 12 ha., Rose 6 ha. and Tube rose in 3 ha. During 2017-18, a token provision of ₹0.01 lakh has been proposed for continuance of the schemes.

5.9. Special Crop Specific Scheme – Coconut

The objective of the scheme is to increase area and production of Coconut as the existing provision made under the Coconut Development Board (CDB) schemes are not sufficient to meet the demand of the State. The programme is being implemented in the coconut growing coastal areas from 2013-14. It has been programmed to take up 1,250 ha. under



area expansion, with a provision of ₹300.00 lakh for 2016-17. A sum of ₹296.17 lakh has been utilized for area expansion under coconut in 1250 ha by the end of February, 2017. An outlay of ₹ 250.00 lakh has been proposed for taking up area expansion in 1050 ha, under the scheme during 2017-18.

5.10. Special Crop Specific Scheme – Banana

The Scheme is being implemented to make the State self-sufficient in banana production and generate more profit to the farmers as the areas covered under existing schemes like NHM / Hort. Prog. in Non-Mission District are not sufficient to cater to the demand of the State. It has been programmed to take up banana tissue culture plantation under the scheme to give impetus to banana cultivation in the State. During 2016-17, an amount of ₹100 lakh has been provisioned and a sum of ₹95.86 lakh has been utilized till Feb.2017 and 96.5 ha. has been covered under the



scheme by the end of February 2017. During 2017-18, a token provision of ₹0.01 lakh has been proposed for continuance of the schemes.

5.11. Special Crop Specific Scheme- Betel Vine

A new scheme has been introduced during 2013-14 to increase the Production, Productivity of Betel Vine. As farmer has to incur a huge expenditure during its initial period of establishment, hence it is proposed to provide assistance to the tune of 50% of the 1st year establishment cost in the new scheme “Special Crop Specific Scheme- Betel vine” under State plan with the objective to promote Betel vine cultivation in the State. 207 nos. Boroj



has been established during 2016-17. An amount of ₹100.00 lakh has been provided during 2016-17 for implementation of the programme and a sum of ₹97.36 lakh has been utilized by the end of February 2017. An amount of ₹ 100.00 lakh has been proposed during 2017-18 in the scheme to establish 250 nos. of New Boraj.

5.12. Organic Farming

Organic farming in Horticulture is becoming increasingly important due to its manifold benefits to the society. Its environmental and economic benefits have captured attention in many countries. Consumers' demand for organically produced food products and society's demand for more sustainable development, provide new opportunities for organic farming and business around the world. The emphasis has been given the Agriculture Policy 2013 for adoption and certification of Organic Farming in the State. The Scheme has been introduced during 2013-14. During 2016-17, a sum of ₹ 40 lakh has been kept for the purpose. During 2016-17, 3rd Yr. adoption and certification over an area to 500 ha. has been achieved. During 2017-08, a token provision of ₹0.03 lakh has been kept for continuance of the scheme.



5.13. State Potato & Onion Mission

State Potato Mission has been implemented during 2015-16. The aim and objective of the mission is to make the state self-sufficient in Potato Production as well as availability. Accordingly emphasis has been provided to increase area, production of Table Potato, Production of Seed Potato and establish cold storage. The budget outlay for the year 2016-17 is ₹ 6000 lakh and proposed outlay for 2017-18 ₹ 2000 lakh.



5.14. Mission Plus

Emphasis has been given in protected cultivation, Post-Harvest Management, Establishment of Cold Storage and Farm Mechanization in Agriculture Policy 2013. State Govt. is providing top up subsidy for the purpose. During 2016-17, a sum of ₹2000 lakh has been kept in the budget provision. An amount of ₹ 1000 lakh has been proposed during 2017-18 for the purpose.

5.15. Setting up of a company for marketing of Fruit and Vegetable

Marketing of horticulture produce has immense importance to get good return by for farmer. Besides, marketing also takes care uniform distribution and minimize post harvest losses. Basing on these objectives during 2016-17 budget provision has been made to the tune of ₹ 500.00 lakh for establishment of a company for marketing of fruits and vegetables in the State.

5.16. Establishment of Floriculture Marketing

To develop a modern market building at Bhubaneswar for sale of Fruits, Vegetables and Flowers an amount of ₹ 500.00 lakh has been kept during 2016-17. During 2017-18, it is proposed to keep ₹ 1000 lakh for completion of work.

5.17. Human Resource Development

The objectives of the scheme to impart training to Officers, Horticulture Overseer (H.O.), Horticulture Extension Worker (HEW) and farmers. During 2016-17, 56 nos. newly

recruited HEWs has completed training and training of 63 nos. new recruited HEWs are in progress in Center of Excellence, Deras and SOH, Khurda. The financial achievement is ₹ 20.32 lakh (till February, 2017) against the budget provision is ₹ 26.39 lakh.

5.18. State initiative for Micro Irrigation

Micro Irrigation plays an important role for optimum use of irrigation water. Besides economic utilization of irrigation water, it plays an important role in fertilizer application, weed control and to get an optimum growth and yield of the crop. At present the subsidy is being provided to the beneficiary under Pradhan Mantri Krishi Sichayee Yojana @ 35% to 60% for various categories of farmers. The farmers are not attracted to implement



micro irrigation with such subsidy. So it is proposed to provide an additional subsidy over and above the subsidy provided in PMKSY. During 2017-18, a sum of ₹ 995 lakh has been provisioned for the purpose.

5.19. National Mission on Oil Seed and Oil Palm Planation (NMOOP)

Oil Palm is an important commercial crop being promoted in the State. The scheme envisages for area expansion under Oil Palm including promotional components like drip irrigation, intercropping, bore well, diesel pumpset, machinery tools etc. During 2016-17, an Area of 1260 ha. has been taken of for Oil Palm Plantation for which subsidy @ ₹8000/ha has been provided to the farmers towards cost of seedling. For old plantations subsidy has been given for maintenance @ ₹ 4000 / ha , each year for 1st Yr., 2nd year , 3rd year and 4th year maintenance. There is a provision for intercropping in Oil palm fields @ ₹ 3000 / ha.



each year from 1st to 4th year. There is also provision for machinery tools, farmers training, training of Extension worker, Local Initiatives, and Establishment of Seed garden. During 2016-17 the annual action plan was finalized for ₹465.302 lakh out of which ₹ 232.65 lakh has been expended. Proposed budget provision for 2017-18 is ₹ 10.00 Crore and target has been fixed for 1260 ha.

The physical achievement for the year 2016-17 and Action Plan for 2017-18 is as below.

Name of the Component	2016-17		2017-18
	Phy. Tar. in ha.	Phy. Ach. in ha.	Phy.in ha.
Area expansion			
Planting material @₹ 8000/ha.	1260	1260	1260
Maintenance (1 st Yr+2 nd Yr.+3 rd Yr.+4 th Yr.)	4134.83	2460	4010
Intercropping	4134.83	1000	4010
Establishment of Seed Garden	15	0	15

5.20. Pradhan Mantri Krishi Sinchayee Yojana -Micro Irrigation

The centrally sponsored scheme of Micro Irrigation is implemented under “Per Drop More Crop of Pradhana Mantri Krishi Sinchayee Yojana. Micro Irrigation ensures access to water in more areas and is an efficient method of water use. It is generally used to provide assured protective irrigation for less water intensive crops in rain-fed regions. It is very useful for horticulture crops. For encouraging use of drip irrigation and sprinkler irrigation, suitable for fruit crops, vegetables, medicinal crops, floriculture crops, Oil seeds and Pulses etc. It is generally used to provide assured protective irrigation for less water intensive crops in rain-fed regions. It is very useful for horticulture crops. For encouraging use of drip irrigation and sprinkler irrigation, suitable for fruit crops, vegetables, medicinal crops and floriculture crops, subsidy to extent of 35 to 60% (For SF & MF in DPAP blocks 60%, for General Farmer in DPAP blocks 45%, for SF & MF in Non DPAP blocks 45% and for General Farmers in Non DPAP blocks 35%) of the cost, is being provided to the farmers. It has been targeted to cover 19320 ha. under Micro Irrigation during 2016-17 with a financial outlay of ₹ 21.67Crore out of which 1750 ha. has been achieved with an financial expenditure of ₹ 3.3 crore. During 2017-18, it is proposed to cover 17753 ha. with financial outlay of ₹ 25.00 crore.

6. SOIL CONSERVATION AND WATERSHED DEVELOPMENT

Government of Odisha has given priority to the development of rain fed areas in the State during the 12th five year plan. Odisha Watershed Development Mission (OWDM) was established during the year 2000 under the Department of Agriculture farmers' Empowerment, as a dedicated agency with the mandate to plan, coordinate, streamline and supervise watershed implementation in the State of Odisha in a Mission Mode. OWDM has also been designated as the State Level Nodal Agency (SLNA) for implementation of the flagship programme, Integrated Watershed Management Programme (IWMP).

6.1. Integrated Watershed Management Programme

6.1.1. IWMP was launched by the Department of Land Resources, Government of India during the year 2009. The main objectives of IWMP are to restore ecological balance by harnessing, conserving and developing degraded natural resources such as soil, vegetative cover and water. The outcomes expected are prevention of soil run-off, regeneration of natural vegetation, rain water harvesting and recharging of the ground water table. This enables multi-cropping and the introduction of diverse agro-based activities, which in turn help to provide sustainable livelihoods to the people residing in the watershed areas. IWMP projects are taken up in clusters covering an area of 5,000-6,000 hectares for realizing visible impacts. IWMP is in operation in the 26 districts except Puri, Kendrapada, Bhadrak and Jagatsinghpur. Currently six batches of projects in 310 clusters have been sanctioned covering an area of 17.02 lakh hectares with a project outlay of ₹ 2191.52 crores. Out of



310 projects, 243 projects are under implementation in 18 IAP districts covering an area of 13.28 lakh ha with a project outlay of ₹1746.38 crores. The cost norm is ₹ 12,000/- per hectare in non-IAP and ₹ 15,000/- per hectare for IAP districts with a cost sharing of 90:10 (central share: state share). The project cycle of each IWMP project is 4-7 years. It is spread over three phases' namely preparatory phase, works phase and consolidation & withdrawal phase. IWMP is implemented through Community Participation, Community mobilization, Entry Point Activities, Institution and Capacity Building, preparation of Detailed Project Report with active participation of community are taken up during the preparatory phase. Soil and moisture conservation measures, water harvesting structures, dry land horticulture, plantations etc. are taken up in the works phase of the project.

IWMP has been an integral component of PMKSY i.e PMKSY – Watershed Development from 2015-16. An amount of Rs 7,000 lakh has been spent during 2015-16 (upto December 2016) under PMKSY – WD and an amount of ₹ 15,000 lakh has been planned to be spent for 2017-18.

6.1.2. Institution and Capacity Building

Promotion of community based organizations is an important activity under IWMP. CBOs such as Self Help Groups (SHGs), Users Groups(UGs), Watershed Committees (WC) etc. are organized and strengthened for planning and implementation of different watershed interventions.

6.1.2.1. Watershed Committee

The Watershed Association i.e. the general body of the watershed committee constitutes the Watershed Committee (WC) to implement the Watershed project with the technical support of the Watershed Management Team (WMT) in the village. The Watershed Committee (WC) is registered under the Society Registration Act, 1860. The Watershed Committee (WC) consists of at least 10 members, half of the members are representatives of SHGs and User Groups, SC/ST community, women and landless persons in the village. One member of the WMT is represented in the Watershed Committee (WC). There exists a Watershed Committee in each micro-watershed covering an area of 500-1,000 hectares.



6.1.2.2. Self Help Groups (SHGs)

The Watershed Committee constitute SHGs in the watershed area with the help of Watershed Management Team (WMT) from amongst poor, small and marginal farmer households, landless/ asset less poor agricultural laborers, women and SC/ST persons. These groups are homogenous groups having common type of identity and interest who are dependent on the watershed area for



their livelihood. SHGs are engaged in micro-finance and micro-enterprise activities. 2,534 SHGs have been formed, adapted and strengthened with 25,632 members during 2016-17 so far. An amount of ₹ 4.73 lakh has been mobilized as savings by these SHG members. It has been programmed for 2017-18 to promote 1,000 SHGs under the scheme.

6.1.2.3. Users Groups (UGs)

The Watershed Committee (WC) also constitutes User Groups in the watershed area with the help of WMT. These are homogenous groups of persons consisting of those who are likely to derive direct benefits from a particular watershed work or activity. The User Groups are responsible for the operation and maintenance of all the assets created under the project. During 2016-17, 2,417 User Groups (UGs) have been formed to take up land based activities with 14,517 members. An amount of Rs 182.21 lakh have been mobilized as WDF contribution from the watershed activities. It is projected to form 2,000 UGs for 2017-18.

6.1.2.4. Capacity building

Capacity building has been given importance considering the fact that IWMP is being implemented through CBOs and this plays a major role in effective delivery of the programme. Accordingly focus has been given to train the primary stakeholder such as watershed committee, SHG, UG, Community Interest Group (CIG) members. During the year 2016-17, 11,200 farmers, SHGs, UGs and CIG members have been trained on different themes such as Watershed Guidelines, Agriculture, Horticulture, Fisheries, Mushroom Cultivation, Dairies etc. Skill training on mobile repairing, fitter, driving etc. has been imparted for self employment. About 870 farmers have been taken on exposure to visit different successful watershed and livelihood projects within and outside the State. It is projected for 2017-18 to train of 16,000 farmers and take 1,000 farmers on exposure visit under the programme.

6.1.3. Watershed Development Works

Watershed Development component is the soul of IWMP. Around 56 percent of the budget is spent for implementing different soil & moisture conservation, water harvesting, plantation and ground water recharge activities. The activities are implemented following the ridge to valley approach. All activities contribute towards restoration of the health of the catchment area by reducing the volume and velocity of surface run-off, including regeneration of vegetative cover in forest and common land. Drainage line treatment with a combination of vegetative and engineering structures, such as earthen checks, brushwood checks, gully plugs, loose boulder checks, gabion structures are constructed for water harvesting and water management. During 2016-17, 2.10 lakh hectares have



been treated with different land and water management interventions. 12,120 hectares of cultivable wastelands have been brought under cultivation due to implementation of watershed activities. It is proposed to treat 2.08 lakh hectares during 2017-18.

6.1.4. Livelihoods, production System and micro-enterprise promotion:

An amount of Rs 1,604 lakh has been spent during 2016-17 under “Livelihoods for the Assets less and Production System & Micro Enterprise” components. The initiatives revolve around few select activities such as goatery, pisciculture, vegetable production and cash crops etc. and are intended to Improve livelihoods, and incomes through forward linkages. A programme “Provision of Women Friendly Farm Tools” has been taken up in collaboration with ICAR – Central Institute for Women in Agriculture. The programme provides carefully sequenced support to 500 Self Help Groups and intends to address drudgeries of farm women through introduction of women.

6.2. National Mission for Sustainable Agriculture (NMSA)

The aim of NMSA is to make Agriculture more productive, remunerative, sustainable and climate resilient by promoting location specific integrated / composite farming system and conserve natural resources through appropriate soil and moisture conservation measures. NMSA promotes integrated farming system covering crops, livestock, fishery, plantation and pasture based farming system for enhancing livelihood opportunities and ensuring food security by minimizing the risk on crop failure. In our countries 40% of total crop production is derived from 60% of Rainfed area. That means there will be uncertainty in crop production in the event of adverse climatic condition. Hence, the objective of National Mission for Sustainable Agriculture (NMSA) is to make agriculture more productive, sustainable, remunerative climate resilient by adoption of appropriate integrated Farming system and value addition measures. RAD is one of four component of NMSA which adapts a cluster based approach for development and conservation of natural resources along with integrated farming practices.

6.2.1. Rain fed Area Development (RAD)

Rainfed Area Development (RAD) is one of the four components of National Mission for Sustainable Agriculture (NMSA) which adopts an area based approach for development and conservation of Natural resources along with appropriate integrated farming system. It explores potential utilization of natural assets created / available through Watershed Development and Soil conservation activities under MGNREGS / NWDPRA / RVP / RKVY / IWMP etc.

RAD aims at promoting Integrated Farming System (IFS) with emphasis on multi cropping, rotational cropping, inter cropping, mix cropping practices and allied activities of Horticulture, Livestock, Fishery, Forestry, Apiculture, Mushroom etc which enable the farmers in not only maximizing farm production for sustainable livelihood , but also to mitigate the impact of drought, flood and other extreme weather events. Under this programme, location specific crops, fruits, vegetables, medicinal plants etc. are supported and natural resource strengthening activities are either converged or supplemented

40 clusters with an Integrated Farming System in 5848 hectares are proposed for treatment during 2016-17 under this programme with an approved outlay of ₹ 2400.65 lakh. Integrated Farming system along with interventions under value addition and natural resource development works are under progress. 45 clusters with an integrated farming system of 7100 hectares are programmed for treatment during 2017-18 with a cost of ₹ 30.00 crores.

6.3. PMKSY: Pradhan Mantri Krishi Sinchai Yojana

The Pradhan Mantri Krishi Sinchai Yojana (PMKSY) has been launched during 2015-16 by Ministry of Agriculture and Farmers Welfare, GoI. The overreaching vision of Pradhan Mantri Krishi Sinchai Yojana (PMKSY) will be to ensure access to some means of protective irrigation to all agricultural farms in the country, to produce 'per drop more crop', thus bringing much desired rural prosperity. PMKSY will strategize by focusing on end-to end solution in irrigation supply chain, viz. water sources, distribution network, efficient farm level applications, extension services on new technologies & information etc. PMKSY has four programme components: (i) Accelerated Irrigation Benefit Programme, (ii) Har Khet Ko Pani, (iii) Per Drop More Cropa and (iv) Watershed Development.

The state has taken initiatives in implementation of PMKSY by establishing necessary institutions as per the operational guidelines of PMKSY. The State Level Sanctioning Committee (SLSC) and Inter Department Working Group (IDWG) have been constituted and Odisha Watershed Development Mission (OWDM) has been designated as State Nodal Agency for PMKSY at State.

Preparation of District Irrigation Plan (DIP) is mandatory for implementation of PMKSY and approval by SLSC. All the DIPs placed in the GoI website. Total budget for five years 2016-17 to 2020-21 is ₹ 51463.98 crores.

6.4. The World Bank assisted National Watershed Management Project – Neeranchal

The World Bank assisted National Watershed Management Project – Neeranchal has been approved by Government of India to support the watershed development component of the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY). Neeranchal aims to improve incremental conservation outcomes and agricultural yields for communities in selected sites, and adoption of new processes and technologies into the broader programme. Neeranchal is being implemented at national level and nine project states. Odisha has been identified as one of the nine focus States in the country for implementation of the Neeranchal Project.

6.4.1. An amount of ₹ 211.117 lakh has been sanctioned under Neeranchal to take up preparatory activities during 2016-17. Five projects in each district have been identified in Mayurbhanj and Kandhamal for implementation of Neeranchal.

6.4.2. An amount of ₹ 3988 lakh has been estimated for the year 2017-18 for implementation of Neeranchal.

7. ODISHA UNIVERSITY OF AGRICULTURE & TECHNOLOGY (OUAT)

Orissa University of Agriculture and Technology has its humble beginning in the year 1962 as the 2nd Agricultural University in the country with the objective to develop technical manpower through quality education in the field of agriculture and allied sciences and to carry out research and extension activities to promote agricultural growth and productivity and to improve the economic conditions of the rural community. The University focuses on new technology innovation, dissemination of knowledge through the education, training, research, extension, consultancy and policy support programmes.

7.1. Financial achievements of the University for the year 2016-17

The University has a target to utilize a total fund of ₹1250.00 lakh received under state plan during the year 2016-2017, from which ₹900.00 lakh was spent under salaries (AICRP 25%, College of Agriculture, Bhawanipatna 100%, College of Horticulture, Chiplima 100%), ₹150.00 lakh was spent under infrastructure development of College of Veterinary Science & Animal Husbandry and other colleges of OUAT, ₹50.00 lakh under repair and renovation of hostels and ₹150.00 lakh was spent for non salary expenditure of 10 Agro-Polytechnic Centers. The financial grants of the university is utilized by the concerned establishments as per the financial guide lines of Govt of Odisha/ ICAR/ Govt of India/other funding agencies supervised and monitored by the concerned Deans and Directors and the accounts are settled by the Comptroller of the University. The grant in aid to OUAT has been substantially increased from ₹1250 lakh to ₹ 2473.39 lakhs during 2017-18 to provide more emphasis to take up research and extension activities.



7.2. Academic and Extracurricular Achievements

The University imparts education and training on Agriculture, Horticulture, Forestry, Veterinary Science & Animal Husbandry, Agricultural Engineering, Home Science, Fishery Sciences, Basic Sciences, Microbiology, Bio-informatics, Computer Application and Agri-Business Management through 10 colleges and one Centre for Post Graduate Studies (CPGS). Ten numbers of Agro polytechnic centers started operating from 2012 in 10 different Agro-climatic Zones of the State. The University has so far produced 18,269 Graduates, 6,875 Post Graduates and 394 Ph.Ds in different disciplines. During 2016, 756 Graduates, 418 Post-graduates and 11 Ph.D students in various disciplines passed out from OUAT. The present intake capacity of the University is 1,886.

- » OUAT ranked 3rd in ICAR – Junior Research Fellowship Examination – 2016 at National level among 76 Agriculture Universities of the country.
- » Four students of College of Agricultural Engineering and Technology, OUAT, Bhubaneswar participated in the event entitled “Ag Hack” organized by Confederation of Indian Industries at Chandigarh during 19th – 22nd November, 2016. Two of them won cash prize of ₹1.00 lakh for developing an App. on “Agricultural Insurance”. They have been also invited to attend the next meet to be held in Israel.
- » Three students of College of Agriculture, Bhubaneswar won the “Best Paper Award” for their paper “Sustainable multi fuel improved cook stove” in the Paper Presentation Competition organized by “Project Council an European Citizens' Initiative (ECI)” in collaboration with Union Ministry of Urban Development at Chennai on 19th November, 2016 under the Make in India initiative.
- » OUAT emerged as Champion in ICAR-AGRIUNIFEST-2016 (Art and Cultural Festival of Agriculture Universities of India) among the 42 Agricultural Universities of the country participated in the fest.
- » Cadets of 1 (O) R&V NCC Squadron, won one silver medal in Republic Day horse riding competition- 2016.

7.3. Research

The Orissa University of Agriculture and Technology undertakes basic, applied and adaptive research in all the 10 Agro-climatic zones of the state with an objective of generating location specific technologies for higher production and productivity in agriculture and allied sectors. The research activities are carried out in 8 Regional Research and Technology Transfer Stations (RRTTS), 4 Regional Research and Technology Transfer Substations (RRTTSS), 7 Commodity Research Stations and 13 Adaptive Research Stations spread over the state. In addition to these 52 All India Co-ordinated Research Projects, 69 *ad hoc* Research Projects are in operation with financial support from ICAR, Govt. of India, State Government and several other external funding agencies.

7.3.1. Salient Research Findings:

- » The university so far has released **151** high yielding crop varieties suitable to different agro-climatic zones of the state.
- » Four crop varieties were released by OUAT during 2016-17 viz., two in Paddy (Pratibha and Pradeep) and one each in Sugarcane (Charchika) & Ginger (Subhadra).
- » OUAT has developed 15 new cultivars of different crops (two each in Finger millet, Grain Amaranth, Chilli and Cotton; one each in Blackgram, Groundnut, Sesame, Tomato, Turmeric, Ridge gourd and Country bean) which are awaiting release by the State Variety Release Committee.
- » Profitable cropping systems for different Agro-climatic zones have been identified both for irrigated and rainfed areas of coastal and inland districts of the State
- » Secondary and micro nutrient management practices have been standardized for Rice, Maize, Sesame, French bean
- » Integrated Nutrient Management practices for individual crops and cropping systems have been developed. Integrated Pest Management modules for rice, pulses, sugarcane, brinjal, cole crops, turmeric, mustard, banana and cotton have been developed.
- » Organic packages for rice-based high value cropping systems have been standardized.
- » Integrated disease pest and weed control measures in Rice, Blackgram, Groundnut, Jute, Cotton, Cashew and Linseed have been developed
- » Potato varieties such as Kufri Khyati (yield - 209.1 q/ha) & Kufri Ashoka (yield -192.9 q/ha) of 60 days duration and Kufri Puskar (yield -262.3 q/ha) of 75 days duration are recommended for Odisha by the scientists of OUAT for higher yield under Odisha situation.
- » Cultivation of *Lilium* cv. Black Out, Nashville, Fangio, Pavia and Tresor are recommended for cultivation under Poly-house / Green houses of the State which can earn profit up to ₹1.00 lakh from 500m² land area.
- » Mastitis is a serious problem in the dairy cattle of the state. The Veterinarians of OUAT have recommended teat dipping with 5% (W/V) *Haldi* solution (*Curcuma longa*) for five minutes after each milking and oral administration of dicalcium phosphate powder 25 g/day for 90 days, to prevent subclinical mastitis.
- » Scientists of OUAT have developed colored meat type poultry bird (Pallishree) for backyard rearing.
- » The Agricultural Engineers of the University have developed and / tested various farm machineries viz. three row rice transplanter (for female agricultural workers),

tractor operated multi-crop seed cum fertilizer drill for direct seeding of rice (DSR), self propelled 8-row rice transplanter, tractor operated groundnut thresher, bullock drawn 8 row drum seeder, manual *mahua* seed decorticator and power operated *mahua* stamen remover etc. for smooth and easy on and off farm operations as well as to reduce the drudgeries associated with farm and post harvest operations.

- » Two strains of *Volvariella* mushroom namely, OSM 11 and OSM 12 and Oyster mushroom variety, *Pleurotus pulmonarius* have been identified and recommended for cultivation in the coastal Odisha.
- » Method of scientific beekeeping of *Apis cerena indica* has been standardized for Odisha by scientists of OUAT.
- » OUAT has produced 9114.74 quintals seeds of paddy, pulses, oilseeds and other crops as well as 24,85,034 numbers of quality planting materials of different crops (Mango, Cashew, Medicinal plants, Forest plants and vegetables) during 2015-16 at different research stations, coordinated projects and KVKs.

7.4. Extension

The Directorate of Extension Education is transferring technologies to the farmers' field through 31 Krishi Vigyan Kendras (KVKs), Information and Communication section, University Extension Block Programme, Distance Education programme, Video Project, Agriculture Technology Information Centre and Odisha Gender Resource Centre. The 31 Krishi Vigyan Kendras of the University are operating in 28 districts of the state.

The Krishi Vigyan Kendras takes up various extension programs like on-farm testing, frontline demonstrations; training to farmers, farm women, rural youth & extension functionary; farmers' fair; field day; exhibition; kisan mobile advisory service; diagnostic visit etc. for transfer of technologies relating to agriculture and allied sectors.

7.4.1. Capacity building

Under the capacity building programme, 1410 vocational trainings for 35,336 farmers and farm women, 344 trainings for 5,395 rural youth and 186 trainings for 3251 extension personnels have been conducted by the KVKs of OUAT. Besides, 42 sponsored training programmes with involvement of 1,586 participants have also been undertaken by the KVKs. In all the training programmes, 45,568 persons were trained among which there were 12,882 female participants.

7.4.2. On-Farm Testing (OFT)

On-farm testing programs are undertaken for assessment and refinement of technologies in the farmers' field. A total of 425 numbers of OFTs were conducted involving 4,767 farmers on various aspects of agriculture and allied sectors.

7.4.3. Frontline Demonstration (FLD)

A total of 441 numbers of FLDs (general) were conducted involving 4,201 farmers and farm women. Under FLDs (oilseed and pulses), 97 demonstrations were carried out with involvement of 3864 farmers.

7.4.4. Exhibitions/Trainings/ Farmers' Fair/ Scientific Advisory Committee

During the year, the KVKs have organized 125 no. of exhibitions, 258 no. of field days, 114 no. of special day celebrations, 66 no. of *Kissan Gosthi*, 105 no. of farmers' club meetings, 52 no. of ex-trainees *sammelan*, 60 Scientific Advisory Committee meetings, where 1,833 participants have attended. Forty-six Farmers' Fairs have been organized with 19,669 participants and 689 no. of group meetings have also been organized.

7.4.5. Skill Development Training

Skill up gradation training programs have been organized in the KVKs in six vocations for 600 nos. of rural youths of different watershed areas across the state with support from Odisha Watershed Development Mission.

7.4.6. Other Activities

- » Through the KVKs of OUAT 16,755 soil samples and 406 water samples have been analyzed to facilitate the farmers for soil test based fertilizer application. During the period under report 29,353 soil health cards have been issued to farmers in different districts of the State.
- » Publication of different farm literatures, bimonthly Odia magazines, KVK newsletter and popular articles are regular activities of the Directorate of Extension Education of the university.
- » Single window delivery system for supply of agricultural inputs, technology and information to farmers has been effective through Agricultural Technology Information Centre (ATIC). The farmers are being immensely benefited through ATIC.

7.5. Programmes for the year 2017-18

- » Enhancing collaboration in the field of teaching, research & extension education with different National and International Institutions / Universities and State Governments.
- » Implementation of e-governance in the University with academic automation on priority.
- » Operationalisation of Directorate of Career Counseling and Entrepreneurship.
- » Functioning of 32 Community Radio Stations (CRS) in 31 KVKs and one at University headquarters.

8. EXTENSION TRAINING AND IMAGE

IMAGE inherited its infrastructure from the Erstwhile Gram Sevak Talim Kendra, Bhubaneswar and is declared as a State Level Agriculture Management & Extension Training Institute (SAMETI) under the NATP with effect from 2nd October, 1997. With the introduction of the Agricultural Reforms Scheme under the NATP, the Institute was declared as an Autonomous Society registered under the Societies Act with effect from 1.3.1999.

The major mandate of the Institute is training, consultancy, facilitation, networking and documentation. The Institute is Governed by a small Committee of Executive Council under the Chairmanship of Secretary to Government, Department of Agriculture and Farmers' Empowerment. In addition to training IMAGE also has a mandate to manage the funding of the following schemes.

8.1. Extension Reforms

The Centrally Sponsored Plan scheme "Support to State Extension Programme for Extension Reform" with 90:10 funding pattern has been extended to all Districts in 2007-08. During 2014-15, the scheme has been brought under the Sub Mission on Agriculture Extension (SMAE) under National Mission on Agricultural Extension and Technology (NMAET). Institute on Management of Agricultural Extension (IMAGE) as a State Agricultural Management and Extension Training Institute (SAMETI) caters to the HRD needs of ATMA's in districts by facilitating preparation of Strategic Research and Extension Plan (SREP), conducting Techno Managerial Training at district level and other trainings, disseminating farm information by organising district level exhibitions and distribution of printed leaflets and such other activities. During 2015-16, Government of India has revised the funding pattern to 60:40 between Central Government: State Government. With a view to encourage exchange ideas among the farmers and to facilitate farmer- scientist interaction, popularisation of new technology among the farmers, District Level Fair are being organised in all districts of the State and one State Level Krishi Mahotsava is being organised in the State.

8.1.1. During 2016-17, 137 nos. of different trainings had been conducted and 5,407 nos. of participants are trained. Apart from this, funds have been utilized to carry out such extension reforms activities in all the 30 ATMA's with total expenses of ₹4385.16 lakh under the Sub Mission Agricultural Extension (SAME) under National Mission of Agriculture Extension and Technology.

8.1.2. During 2017-18, a sum of ₹ 19158 lakhs has been provided for the scheme NMAET for implementation of four Sub Missions including Sub Mission on Agricultural Extension (SAME).

8.2. Training Programmes

Over the years IMAGE has developed a core competency for organising various on-campus and off-campus trainings on subjects relating to Agriculture and allied sectors, besides Agricultural Extension Management for the senior, middle level and grass-root level functionaries including farmers, SHG members and NGOs. During 2016-17, 137 nos. of different trainings had been conducted and 5,407 nos. of participants are trained. Apart from this, funds have been utilized to carry out such extension reforms activities in all the 30 ATMAs with total expenses of ₹4385.16 lakhs under the Sub Mission Agricultural Extension (SAME) under National Mission of Agriculture Extension and Technology.

8.3. Diploma in Agriculture Extension Services for Input Dealers (DAESI)

IMAGE has been exploring the possibility of creating an effective Alternate Extension Model in the State. The DAESI Programme run by MANAGE; which is self financing Course was considered a suitable model for developing an alternate extension model in Odisha also. During 2016-17 under RKVY, 18 numbers of DAESI centers have been started in Odisha covering 720 nos. of trainees in 22 districts of the State.

8.4. Kisan Call Centre

The Kisan Call Centre (KCC) is functioning in the State since 21st January 2004 with a single toll free telephone No.1551 (1800-180-1551). The KCC has been restructured and re-organized to provide information on Agriculture, Horticulture, Veterinary & Animal Husbandry, Fishery and other allied sectors. Farmers are provided information on all Agriculture Schemes, Subsidies of Central Govt & State Govt, Crop Management, Disease Pest Control Management, Market Price and Mandi arrival details, Weather forecast etc. The center is open from morning 6am to night 10 pm throughout 365 days of the year.

The IKSL (IFFCO Kisan Sanchar Limited) is now operating level-I, where 24 nos. of Farm Tele Advisors (Agriculture-13, Horticulture-4, Veterinary-1, Fisheries-4 and Agricultural Engineering-2) are engaged by IFFCO Kisan Sanchar Ltd. on rotational sequence, to answer the farmers' queries.

8.5. Post Graduate Diploma in Agricultural Extension Management (PGDAEM)

The Post Graduate Diploma in Agricultural Extension Management (PGDAEM) offered by MANAGE Hyderabad is organized by IMAGE as the State Resources Centre and Examination centre. 150 candidates pass out during the year 2015-16 & 123 nos. of candidates are enrolled during the year 2016-17.

8.6. CCKN-IA Project

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) assisted bilateral technical cooperation project called “Climate Change Knowledge Network in Indian Agriculture (CCKN-IA)” is in operation on pilot basis in 8 villages each in Dhenkanal sadar and Kankadahad blocks of Dhenkanal and in 7 villages each in Chatrapur and Sanakhemundi blocks of Ganjam districts of our state. An open source Web platform and Android based Mobile Application called Network of Information on Climate (ex)Change “NICE +” has been developed and in operation now for effective integration and exchange of information and knowledge across all stakeholders. More than 2,150 nos. of farmers from the project villages were registered in the application by the Field Agents through the Tablets issued to them. Weather forecast data & weather based advisories in form of SMS & One Pager are being created at project block levels, validated, translated and disseminated at pilot district levels to the registered farmers. Contents in form of SMS were directly disseminated to the mobiles of the intended farmers. Contents in form of One Pager transmitted to the Tablets, after copied to A₄ size Xerox paper, are being pasted in Display Boards affixed at each project village by the Field Agents. Field Agents are disseminating the weather forecast data and weather based advisories to the villagers at least once in a week in every project village through Group Meeting. More than 300 nos. of SMS and 125 nos. of One Pagers have been created in the platform within 31st December 2016. 10 nos. of pilot projects for demonstration in farmer’s field identified in consultation with scientists of KVKs and officials of line departments of concerned districts and approved by MoA & FW, GoI are under implementation in pilot villages through Watershed Organisation Trust (WOTR), Ahmadnagar, a NGO partner of GIZ, New Delhi. To make the content delivery system more effective Agricultural Block Level Contingency Plans (ABLCPs) have been developed in association with line departmental officials, Scientists of OUAT and Experts from CRIDA. For awareness on Climate Change one video document linking magic show with agricultural technologies have been developed by the project.

8.7. Green Agriculture Project

GEF 6 assisted Green Agriculture Project is going to be implemented in specific project area being centred around the Similipal National Park of Mayurbhanj district over a period of 7 years in coordination with different departments. The focal areas of the Project would be Biodiversity, Land Degradation, Climate Change Mitigation and Sustainable Forest Management with the objective of catalyzing transformative change for India's Agriculture sector to support achievement of national and global environmental benefits and conserve critical biodiversity and forest landscapes. Team of Experts, nominated and facilitated by Food & Agriculture Organisation, after the exhaustive Field Mission are in the process of developing Full Scale Proposal for the project.

8.8. Development of Mobile Apps

To ensure quick information flow in Agriculture sector in both directions, to maintain transparency in program implementation and to have real time track on achievements it has been decided to develop Mobile APPs for use by the functionaries of Agriculture Department. NIC has been awarded to develop such APPs. Two such APPs i.e, on Demonstration and Extension activities are expected to be ready for implementation in the coming Kharif season.

8.9. Skill Development Training Under Chief Minister's Employment Generation Programme

IMAGE, was recognized as SAMETI by Govt. of India. Since then IMAGE is conducting training catering to the need of departmental officers as well as officer departmental. Based on the application and subsequent evaluation by Agriculture Skill Council of India (ASCI), IMAGE is authorized for conducting skill based training on paddy farmers, pulses cultivators, harvesting machine operator, micro irrigation technician and quality seed grower.

Steps are being taken to bring the training institutes functioning under Directorates of Agriculture & Food Production, Horticulture and Soil Conservation & Watershed Development in alignment with NSQF. In the meantime ToT programmes such as Harvesting Machine Operator, Quality Seed Grower, Small Poultry Farmer, Dairy Farmer and Boiler Poultry Worker have been conducted at IMAGE from 19.01.17 to 21.01.17. ASCI has assessed the

performance of the trainers by third party. In addition 1006 no of youths have completed skill training out of which 468 are self-employed in the field of Agriculture. Four courses and 12 nos. of Skill Trainings for Rural Youths (STRY) are also in progress in RITEs.

8.10. Community Radio Stations

Community Radio Stations (CRS) have been established in 11 districts (Khurda, Jagatsinghpur, Kandhmal, Puri, Cuttack (Biribati), Nuapada (Khariar), Jajpur, Nayagarh, Keonjhar, Bhadrak, Bargarh of the State for providing farm advisory in local language to the farmers.

8.11. Farmers' Portal

31,170 nos. of progressive farmers have been selected from 6,234 GPs @ 5nos./GP. Profile data related to these progressive farmers have been uploaded in the Farmers' Portal. In addition Package of Practices for different crops, Farmers Friendly Handbook, Leaflets & Journals (including videos), Soil Testing Laboratory details, Extension Reforms (Demos/ Farmer Friend/Field School) etc. have been uploaded in the Farmers' Portal for benefit of the farmers.

8.12. Documentation in Electronic Media

Documentation of SRI method of Rice Cultivation, Rice Production Technology, Seed Treatment Campaign, Bringing Green Revaluation to Eastern India (BGREI), Kharif /Rabi, Hybrid Sunflower and Maize, Groundnut Seed Treatment Campaign, Line Transplanting of Paddy, Mustard Cultivation, Fully Mechanized Rice Cultivation, Accelerated Pulse Production, Soybean Cultivation, Scented Rice Cultivation, Success of colour bird (Poultry) rearing in Odisha, Success of Goat Rearing, Organic Crop Cultivation, White Sesamum Cultivation, Onion Cultivation, Summer Mung Programme, DAESI Programme, Groundnut Cultivation, Integrated Farming Models, Pest Surveillance, Control of Yellow Mossaic virus, Hybrid Sunflower, Introduction of Neem coated urea, Introduction of sweet corn etc. has been made for dissemination among farmers' in electronic media.

8.13. During 2017-18, a sum of ₹ 19158 lakhs has been provided for the scheme NMAET for implementation of four Sub Missions including Sub Mission on Agricultural Extension (SAME) including NeGP.

9. ODISHA STATE SEED & ORGANIC PRODUCTS CERTIFICATION AGENCY (OSSOPCA)

Basing on the Govt. of India guidelines and recommendation of the Seed Review Team, a separate Seed Certification Wing started functioning in the State in the year 1974. Orissa State Seed Certification Agency (OSSCA) started working as an autonomous body with effect from 01.09.1978. Later OSSCA was renamed as Odisha State Seed & Organic Products Certification Agency (OSSOPCA) from 30.05.2008. Within OSSOPCA, a separate Agency named Odisha State Organic Certification Agency (OSOCA) has been carved out to perform the Organic Certification activities. OSOCA has been accredited as 5th Public Sector Organic Certification Body from the APEDA, Ministry of Commerce, GOI On 01.06.2012.

As per the Seeds Act, 1966 and Seeds Rule, 1968 OSSOPCA performs its defined activities within six broad phases of certification. It verifies the genetical identity of different crop varieties, high degree of Physical Purity & Germinability, free from Other Crop Seeds, Weed Seeds and all designated Seed Borne Diseases thereby qualifying the minimum prescribed standards both under laboratory & field conditions. From Kharif-2014, the entire process of seed certification has been made online & implemented throughout the State of Odisha. Besides bringing more transparency in seed certification activities, it has benefited all stake holders and farmers, because of time saving, risk free and benevolent nature. It is a matter of pride that the Govt. of India has felicitated OSSOPCA with National Award for e-Governance during the 19th National Conference 2015-16 at Nagpur for innovative use of ICT by State Government PSUs/ Cooperatives/ Federations/ Societies on 22.01.2016, which is published in National Bulletin of “Excellence in e-Governance” released by DARPG, Govt. of India on the eve of 20th National Conference on e-Governance held on 9th Jan, 2017 at Vishakhapatnam, A.P.

During the year 2016-17, the total area under registration till date is 25,012.14 ha, out of which 24,145.19 ha has been registered during Kharif-2016 and 866.95 ha during Rabi 2016-17, which is under progress. Similarly, the area certified so far during Kharif-2016 is 21,619.10 ha, out of which quantity certified is 16,685.75 qtls and it is under progress. In the broader perspective, OSSOPCA is committed towards Quality Seed Certification & Production as well as make available desired quality seeds of different Crop Varieties to the farmers of Odisha during 2017-18 & coming years.

10. AGRICULTURAL PROMOTION AND INVESTMENT CORPORATION OF ODISHA LIMITED (APICOL)

10.1. The Agricultural Promotion and Investment Corporation of Odisha Limited (APICOL), established during the year 1996 as a promotional organization is engaged in promotion of commercial agri-enterprises including agro based and food processing industries in the State. The Corporation has been implementing various programmes through the agricultural extension network of the Department to encourage mechanization, investment in the field of agriculture and other allied activities including investment in creation of captive irrigation source in farmers' fields through establishing Shallow Tube Wells (STWs), Bore Well (BW), Dug Wells (DW) and River Lift Irrigation Projects (RLIP). The corporation acts as the channelizing agency for release of subsidy under various schemes of State Agriculture Policy 2008 as well as New Agriculture Policy 2013 including farm mechanization under various central and State Plan schemes including RKVY scheme & State Plan schemes. It also provides escort services to Houses engaged in Agri-business.

10.2. Commercial Agri-Enterprises (CAE) / Agro Service Centres (ASC)

10.2.1. Establishment of Commercial Agri-Enterprises has been considered as one of the prime movers for not only self-employment but also for creation of indirect employment opportunities. Capital Investment Subsidy @ 40% subject to a maximum limit of ₹ 50.00 lakh (50% limited to ₹50.00 lakhs for SC/ST/Women/ graduates of agriculture and allied sciences) is provided on a back-ended basis for such ventures. 243 Commercial Agri-Enterprises along with 1122 nos. of Agro Service Centers have been established during 2015-16 against which Capital Investment Subsidy amounting to ₹ 6366.33 lakh have been released..

10.2.2. During 2016-17, such activities were intensified for setting up of Commercial Agri-Enterprises and Agro Service Centers in large numbers with a subsidy provision of ₹13000.00 lakh under State Agriculture Policy. During 2016-17, 77 nos. of Commercial Agri-Enterprises and 317 nos. of Agro Service Centers have been established (till end of December, 2016). Capital Investment Subsidy amounting to ₹2155.00 lakh have been released for these projects.

10.3. Private Lift Irrigation Projects (PLIPs).

10.3.1. Subsidy amounting to ₹6696.86 lakh have been disbursed during 2015-16 against establishment of 12632 nos. PLIPs in the State.

10.3.2. Subsidy amounting to ₹ 4064.00 lakh have been disbursed during 2016-17 (till December, 2016) against establishment of 7121 nos. PLIPs in the State.

10.4. Creation of Common infrastructure facility for Development of Post Harvest Management (PHM) facilities for Export Promotion.

APICOL is acting as the Virtual Office of Agricultural and Processed Food products Export Development Authority (APEDA), under the Ministry of Commerce and Industry, Government of India. The goal of APEDA is to maximize foreign exchange earnings through increased agro exports, to provide better income to the farmers through higher unit value realization and to create employment opportunities in rural areas by encouraging value added exports of farm produce.

10.4.1. APEDA offer financial assistance under various schemes. Under the scheme of Infrastructure Development, APEDA has sanctioned financial assistance to a tune of ₹528.3549 lakh for setting up of an integrated post harvest pack house as common facility for fresh fruits and vegetables at Titilagarh in Bolangir District of Odisha. The Integrated Pack House is completed in all respect and is in operational stage. The fruits and vegetables growers of Bolangir and nearby districts can avail the facility available in the Integrated Pack House.

10.4.2. A Walk-in-type cold room of size 10'x10'x10' was also set up at Bijupatnaik International Airport, Bhubaneswar under the financial assistance of APEDA, Government of India to facilitate export of agri-horti products from the State. The exporters of agricultural and horticultural products of the State may utilize the facility as air cargo facility is now available at Bhubaneswar Airport.

10.4.3. APICOL is also organizing outreach programmes for prospective entrepreneurs to disseminate the facilities available under various plan schemes of APEDA, to promote export of APEDA scheduled products

10.5. Small Farmers' Agri-Business consortium (SFAC)

APICOL is also acting as the State Agency for Small Farmers' Agri-Business consortium (SFAC) under Ministry of Agriculture, Government of India. SFAC provides Venture Capital Assistance (VCA) to promote investments in agri-business projects by way of Soft Loan to supplement the financial gap worked out by the sanctioning authority of Term Loan under means of finance with respect to cost of project. Venture Capital for agri-projects is being provided either @ 26% of the promoter's equity or ₹50.00 lakh whichever is lower. For projects located in North Eastern Region, Hilly States and in all cases in any part of the country where the project is promoted by a registered Farmer Producer Organization (APO), the quantum of Venture Capital Assistance will be the lowest of either (i) 40% of the promoter's equity or (ii) ₹50.00 lakh. Qualifying projects under venture capital are of agriculture and allied sector such as horticulture, floriculture, medicinal and aromatic plants, minor forest produce, apiculture, fisheries, dairy and poultry etc. The cost of proposed agribusiness project would have to be ₹15.00 lakh and above subject to a maximum of ₹500.00 lakh.

11. ODISHA STATE SEEDS CORPORATION (OSSC)

The Odisha State Seeds Corporation Ltd. (OSSC) has been designated as the Nodal Agency for production, procurement, processing and supply of quality seeds to the farmers of the State. The Odisha State Seed and Organic Products Certification Agency (OSSOPCA) is responsible for certification of the seeds produced in the State under the Seeds Act.

11.1. The OSSC has been implementing the “Seed Village Programme” as “Mo Bihana Yojana” for production of certified paddy and non-paddy seeds through seed growers. Incentives at various rates are given to the seed growers under various schemes for taking up production of certified seeds. The seed produced in farmers’ fields are processed by the OSSC/Government Processing Plants and through designated private processors and are procured by the OSSC Ltd after certification by the OSSOPCA. During 2016 Kharif 10,427.50 hectares of paddy area was certified and the expected certified seed production would be around 4.00 lakh quintals and the procurement is in progress. Out of 4,000 ha registered area of Kharif Groundnut 3,200 hectares was certified and altogether 12372 of various categories of certified seeds has been procured. During Rabi-2016-17 production season, 876 ha of paddy coverage has been achieved against the target of 900 hectares. The targeted area of 181 ha of Mustard and 2162 ha of Groundnut has been achieved. Coverage under Moong and Biri seed is under progress.

11.2. Besides procuring seeds from the farmers under the Seed Village Programme, the OSSC procures certified seeds from OUAT, MOU farms, the National Seeds Corporation and other National/State level Seeds Corporations for meeting farmers need for quality seeds. During 2016-17, 3,44,350 quintals of seeds of different crops as detailed below were made available by OSSC.

Quantity of seed supplied during 2016-17

Sl No	Name of seeds	Total Quantity supplied(in quintals)
1	Paddy(Early)	21298
	Paddy(Medium)	73791
	Paddy(Long)	200652
	Paddy(superfine)	761
	Paddy(Scented)	0
	Total (Paddy)	296502
2	Ragi	33

SI No	Name of seeds	Total Quantity supplied(in quintals)
	Maize	180
3	Wheat	0
4	Moong	19993
5	Arhar	2022
6	Field Pea	90
7	Blackgram	5099
8	Bengalgram	212
8	Groundnut	19934
9	Mustard	232
10	Niger	4
11	Til	49
12	Jute	0
13	Dhanicha	0
	Total(Non-Paddy)	47848
	Grand Total	344350

11.3. The OSSC achieved a turnover of ₹145.00 crore and profit of ₹1.08 crore (provisional) during 2016-17

11.4. During 2017-18, there is a target to supply 5,23,213 quintals of different kinds of quality seeds as detailed below

Programme for Supply of seeds for 2017-18

SI No	Name of the Seed	Total Qty to be supplied (in Qtls)
1	Paddy & Cereals(Wheat, Maize,Ragi)	480035
2	Pulses(Moong, Biri, Arhar, Gram, Field Pea etc)	23372
	Oil seeds(Groundnut, Mustard, Niger,Til)	19806
	Total	523213

11.5. The Certified seeds of different varieties of paddy, pulses and oil seeds etc, are sold to the farmers of the State through authorized Private dealers of OSSC and PACS/LAMPS on DBT mode. To ensure quality of the seeds and to prevent sale of spurious seeds, seed samples were drawn for analysis by the Quality Control Inspectors.

12. ODISHA AGRO INDUSTRIES CORPORATION (OAIC)

The Odisha Agro Industries Corporation Limited (OAIC) is functioning in the State since 1974. It is engaged in marketing of various Agricultural Inputs including agricultural machinery / equipments / implements through its network. Besides, the Corporation also executes Shallow Tube wells, Bore wells and River Lift Irrigation Projects for the farming community. It also provides other inputs such as fertilizers, pesticides and cattle / poultry feed to the farmers.

12.1. During 2015-16, the Corporation has made a turnover of ₹527.15 crore against annual target of ₹608.66 crore. During the said year, it has supplied 339 no. of tractors, 187 power tillers, 190 power reapers/thresher, 260 storage bins, 55,421 sprayers and 28,179 diesel pump sets. Besides, it has energized 148 Bore wells and has



also executed 2,339 direct lift projects. It has also supplied 1,02,314 M.T. of fertilizer, 5,999 M.T. of Gypsum and 2,589 M.T. of Seeds. The Corporation has also produced 908 M.T. of Cattle feed during 2015-16.

12.2. As against target of ₹552.83 crore for the FY 2016-17, the Corporation has already made a turnover of ₹235.85 crore up to December, 2016. During the said period, it has supplied 202 nos. of Tractor, 149 Power Tillers, 697 Power Reaper/Threshers, 486 Storage Bins, 6,819 Sprayers and 10,818 Diesel Pump sets. Besides, it has energized 10 Bore wells and has also executed 1,306 Direct Lift Projects. It has also sold 72,038 M.T. of Fertilizer and 439 M.T. of seeds. The Corporation has also produced 653 M.T. of Cattle Feed up to December 2016.

12.3. The Corporation has made a programme to achieve annual turnover of ₹554.23 crore with an estimated profit of ₹ 13.00 crore for the ensuing financial year 2017-18.

13. ODISHA STATE CASHEW DEVELOPMENT CORPORATION (OSCDC)

The OSCDC Ltd. was established in the year 1979 with main objectives to develop land, raise cashew plantation and other suitable species, render technical guidance and assistance to cashew growers and make available good planting materials. In 1993, the OSCDC Ltd was declared as “Nodal Agency” for development of cashew in the State. Now the OSCDC Ltd. has 572 numbers of cashew



plantations over an area of 28,218 ha spread over 20 districts of which 284 number of plantations over an area of 12,337 ha. are old and senile. OSCDC dispose all the plantations through auction on annual as well as 3 years on leasing basis. The OSCDC is now taking up replanting work in existing plantations by removing old and senile cashew trees with high yielding varieties of cashew grafts. Since, the year 1999-2000 till 2016-17 nearly 7094.18 ha of replantation has been undertaken with part assistance from Directorate of Cashew and Cocoa Development and RKVY Scheme.

13.1. The annual turnover of OSCDC was ₹2853 lakh for the FY 2014-15 and ₹1697 lakh (provisional for the FY 2015-16. The projected turn over for 2016-17 is ₹1350 lakh. The OSCDC Ltd. has been running in profit for quite some time became a debt free organization since 1995-96 and has an accumulated profit of ₹24.28 crore at the end of 2015-16. The Odisha State Cashew Development Corporation Ltd. has paid dividend to the Government amounting to ₹3,48,82,000/- (Rupees three core forty-eight lakh eighty-two thousand) only up to 2014-15 out of its net profits for the said years against paid up equity share capital of ₹1,55,04,000.00.

13.2. The OSCDC Ltd. has established 19 numbers of cashew clonal nurseries. The details of graft production year wise since 2012-13 are given below.

2012-13	2013-14	2014-15	2015-16
18.82 lakh	26.82 lakh	21.40 lakh	20.71 lakh

13.3. The OSCDC Ltd. has programmed to produce 30.00 lakh of cashew grafts during 2016-2017.



Hon'ble Minister, Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development, Odisha receiving the 9th Global Agriculture Leadership Award from Prof. K.S Solanki, Hon'ble Governor of Haryana and Sj. Ram Naik, Hon'ble Governor of Uttar Pradesh

