

Joint Inspection Team (JIT) Report of National Horticulture Mission Scheme for Odisha State



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Dates of Visit: 27.1.2014 to 1.2.2014

Team Members:

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4. Representative SHM, Odisha

General Observations/ Recommendations

- The team observed that the progress made by the Department of Horticulture in establishment of Centre of Excellence, Deras is very good. Thrust has now been given on Protected Cultivation, Farm Mechanization and Post Harvest Management. The progress made in producing planting material, upgradation of public sector nurseries and popularizing floriculture cultivation in the State is also appreciable.
- Adequate training programmes on different aspects need to be arranged for the cultivators. Also, refresher training programmes/exposure visits are required for the implementing officers.
- Rejuvenation of senile mango orchards need to be taken up on priority basis.
- The Odisha Lift Irrigation Corporation (OLIC) is providing borewells in different places. The drip irrigation convergence with this scheme is very beneficial especially the places where land cannot be put into cultivation due to lack of irrigation facilities.
- Necessary infrastructure need to be created for increasing the production of quality planting material at model Nursery, Nisar Farm, Govt. of Odisha.
- Swosti Farmers Vegetables Multipurpose Cooperative Society Ltd., Semiliguda, Koraput has availed subsidy for Refrigerator, Cool Chambers, Pack house etc. The working of the society need to be monitored for sharing their experience with other similar societies.
- Sign board depicting the name of the activity and other details alongwith NHM logo need to be installed at some places.

Introduction

Horticulture consisting of fruits, vegetables, spices, floriculture, root & tuber crops, mushrooms, medicinal & aromatic plants as well as plantation crops has emerged as a core sector in agriculture due to its substantial increase both in area and production. Today horticulture has established its credibility in improving income through increased productivity, generating employment and in enhancing export besides providing household nutritional security. The growing economic importance of horticultural crops especially fruits; vegetables and flowers could be attributed to the increasing demand arising from domestic as well as overseas markets. The increasing domestic demand could be attributed to the increase in income, population growth, changing consumption pattern and growing awareness for better nutrition. At national level horticulture sector has emerged as a potential player in the Indian economy contributing 30% to GDP in agriculture from more than 8.5% area under horticultural crops as well as a means of diversification in overall development of agriculture. The earlier seasonal availability of fruits and vegetables has now extended to all the year round, increasing the per capita consumption of fruits and vegetables. The national goal of achieving 4% growth in agriculture can be achieved through the major contribution in growth from horticulture.

One important trend observed in the last five years is that horticulture development has gradually moved out of its rural areas to urban areas and from traditional agricultural enterprise to the corporate sector. This trend has led to the adoption of improved technology, greater commercialization and professionalism in the management of production and marketing of different horticulture crops. The National Horticulture Mission Schemes have helped in exploring the horticulture potential of the State since 2005-06 as it provides scope for taking up a variety of components in areas of development of planting material, production and productivity improvement programmes, PHM and marketing.

Odisha is the 10th largest state in area and 11th in population in the country, accounting for 5% of the geographical area and 4% of the population of the country. The state has a geographical area of 1.56 lakh sq. km and population of 3.68 crores as per 2001 census. Administratively the state is divided into 30 districts, 58 subdivisions, 314 CD

blocks, 171 tahasils, 35 municipalities and corporations, 6234 gram panchayat and 11349 villages. Out of the total population, Scheduled Caste and Scheduled Tribes constitute 17% and 22% of the total population respectively. 85% of the population lives in rural area. Cultivators and agricultural labourers constitute 65% of the total workforce. The total literacy percentage is 63.08. The state is located in the eastern region of the country and spreads 450 kms along the Bay of Bengal.

Climate: The climate of the state is tropical, characterized by high temperature, high humidity, medium to high rainfall and a mild winter. The normal rainfall is 1482.2 mm distributed over 72 rainy days. South West monsoon contributes about 81-83 % of the annual rainfall in 53-57 days during June-September. The mean 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 .

Soil : From the physio-graphic point of view, the State consists of four Zones, viz. (i) Northern Plateau (ii) Eastern Ghat zone (iii) Central Table lands, and (iv) Coastal plain zone. However, on the basis of climate, soil, rainfall, topography and crops suitability, the state has been divided into ten Agro- Climatic zones. The soil types differ widely from highly acidic to slightly alkaline and from light sandy to stiff clays. The soils are mainly acidic with the degree of acidity varying widely. Further, about 4 lakhs hectares are exposed to saline inundation, 3.54 lakh ha. to flooding and 0.75 lakh ha. to water logging particularly in the deltaic areas.

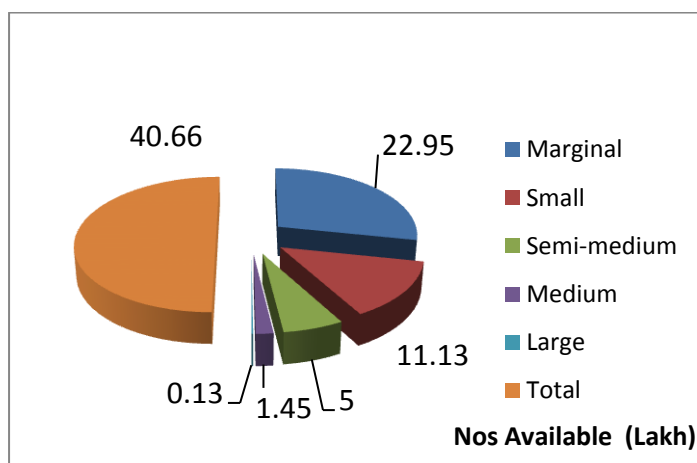
Potential for Horticulture: The agro-climatic diversity in the State with its high rain fall distributed over a four-month monsoon and a reasonably moderate winter allows for growing a variety of horticultural crops. The agro-climatic conditions are immensely suitable for perennial fruit crops like mango, litchi, guava, oranges and limes; annual fruit crops like banana, pineapple and papaya ; spices like ginger, turmeric and chilly, a variety of roots and tubers and a whole range of vegetables. The low-temperature hilly areas at higher altitude offer ideal conditions for growing off-season vegetables. Of late floriculture is also showing excellent prospects. The State thus enjoys a natural comparative advantage for horticulture with possibilities for growing a diversified basket

of fruits, vegetables, spices, tubers and flowers; whose potential has not been fully exploited.

Farming structure: According to the agricultural census there were 40.66 lakh operational farm holdings occupying 50.81 lakh ha with an average land holding of 1.25 ha the marginal and small farmers constitute 85% of the farmers who have access about 50% of the operational area. Thus the remaining 50% is occupied by only 15% of landholders as depicted.

NUMBER AND STRUCTURE OF FARM HOLDINGS

Category of farmers	Holding size (ha)	Nos (Lakh)	Area (Lakh ha)
Marginal	< 1.0	22.95	11.55
Small	1.0-2.0	11.13	15.44
Semi-medium	2.0-4.0	5.00	13.44
Medium	4.0-10.0	1.45	8.18
Large	> 10.0	0.13	2.20
Total	1.25	40.66	50.81



Activity Visited: Centre of Excellence, Deras

A project proposal for establishment of Centre of Excellence at Deras, Khurda has been sanctioned under RKVY, 2012-13 with a financial allocation of Rs. 18.00 crores.

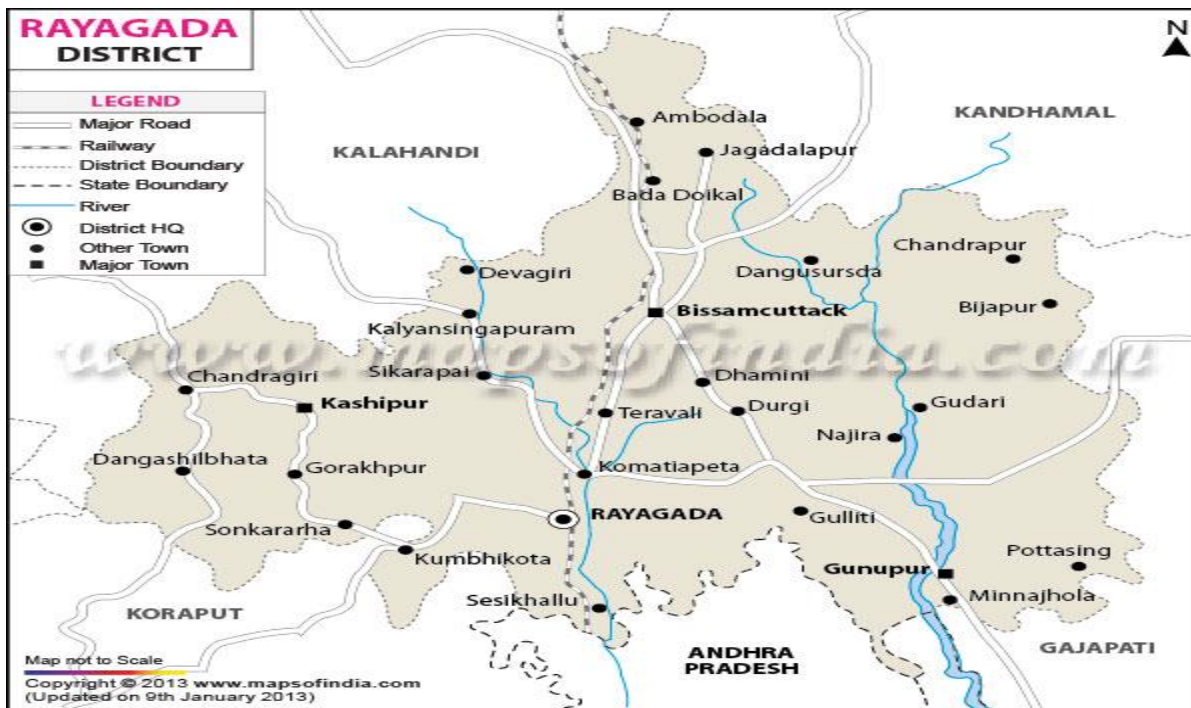
Objectives

- I. The centre will act as demonstrative farm on hi-tech production of vegetables, semi perennial fruits and flowers under protected structures supported with micro irrigation and mulching.
- II. It shall impart training on modern technologies of horticulture to the farmers, entrepreneurs as well as refresh the knowledge of staffs.
- III. It shall produce high quality vegetable seedlings through automatic seedling machine as per indent of farmers in the vegetable clusters.

Observations

- The efforts made by the Department of Horticulture in establishment of Centre of Excellence, Deras are appreciable. Number of polyhouses , Net houses, Poly Tunnels etc. have been created so far and in some cases the production of Tomato, Cucumber, Capsicum, Cherry tomato etc. has also started. The Department should now take up the other two objectives i.e. demonstration of the technology to the farmers and production of quality seedling for the farmers.

District Rayagada



District Profile

The tribal dominated Rayagada district is situated in Southern part of Odisha. It has been constituted into a separated district w.e.f. the 2nd October 1992 after being carved out from erstwhile Koraput district. Rayagada district is characterized by its unparalleled natural beauties-high mountains deep valleys, perennial streams, dark forests, green fields and unadulterated tribal life and their rich culture, 56% of its population is tribals thereby making it a tribal district. Some extinguishing tribes viz. Dangaria Kandha, Kutia Kandha and Lanjia saura are found only in this part of the world. Rayagada district lies between 19 and 20 degree North latitudes and 82 and 84 degree East Longitudes. It extends in the East, upto Gajapat District, in the West upto Koraput and part of Kalahandi District, in the south upto Parvatipuram sub-division of Andhra Pradesh and in the North upto Kalahandi and Kandhamal districts of Odisha

Field Visit

Beneficiary No. 1

Sr. No.	Details	Remarks
1	Name of the project	Sprinkler irrigation under NMMI
2	Year of Implementation	2013-14
3	Project Period	2013-14
4	Name of Implementing Agency	Horticulture Dept.
5	Location of Project	Sampini
6	Total Project Cost	1561838
7	Amount Released by DAC	1154508
8	Expenditure incurred	1154508
9	Current Status of Project	
	Capacity	
	Command Area	
	Whether linked with new plantation or old plantation	
	Whether funds disbursed	

Observations

- Convergence of sprinklers under NMMI with the borewell scheme of the Odisha State Government is very good. Under this scheme sprinklers have been provided to a group of 46 small farmers.
- There is an urgent need to impart training to the farmers regarding dismantling and reassembling of the sprinkler system.

Beneficiary No. 2

Sr. No.	Details	Remarks
1	Name of the project	Demonstration of Turmeric
2	Year of Implementation	2013-14
3	Project Period	2013-14
4	Name of Implementing Agency	Horticulture Dept.
5	Location of Project	Majiguda
6	Total Project Cost	1217
7	Amount Released by DAC	1217
8	Expenditure incurred	1217
9	Status	
	Name of crop	Turmeric
	Technology adpted	Yes
	Whether location easily approachable	Yes
	Whether NHM logo displayed	yes

Observations

- Turmeric has been sown in this case which is almost under shade of mango trees. This needs to be avoided for getting better production of turmeric.
- Site needs to be inspected by the local officer before sanction of area expansion. Since this is not a traditional crop of the area, technology of cultivation should also be explained to the cultivators.

Beneficiary No. 3

Sr. No.	Details	Remarks
1	Name of the project	Vermi compost under rkvy
2	Year of Implementation	2013-14
3	Project Period	2013-14
4	Name of Implementing Agency	Horticulture Dept.
5	Location of Project	Gunupur
6	Total Project Cost	15000/-
7	Amount Released by DAC	7500/-
8	Expenditure incurred	7500/-
9	Status	
	Crop covered	Vegetables, Flowers, fruits
	No. of farmers involved	1
	Name and address of certifying agency	Horticulture Department
	Whether any certifying	Yes
	Whether funds disbursed	yes

Observations

- Vermicompost units given to the beneficiary are in production and the beneficiary is taking keen interest.

Beneficiary No. 4

Sl.No.	Details	Remarks
1	Name of the Project:	Model Nursery

2	Year of Implementation:	2008-09
3	Project Period	
4	Name of Implementing Agency:	Horticulturist, Rayagada
5	Location of Project:	Kumbharsila, Kashipur Block
6	Total Project Cost:	Rs.18,00,000/-
7	Amount Released by DAC:	Rs.9,00,000/-
8	Expenditure incurred:	Rs.18,00,000/-
9	Status of Project	
10	Name of Nursery and crops for which plants are produced	Harapriya Nursery,
		Mango Plants
11	Name of crops for which seeds produced	
12	Quantity produced	4 to 5 lakhs nos of grafts.
13	Quantity sold	4 to 5 lakhs nos.
14	Rate	Rs.24/-
15	Amount realizes through sale	
16	Whether NHM logo displayed:	Yes.

Observations

- The beneficiary of Hara Priya Nursery is very enterprising and producing quality planting material.

Beneficiary No.-5

Observations

- The tissue culture Banana of Sh. K.C. Mahapatra is giving very good production and well maintained. It appears that on an average the banana bunch weight is about 35-40 kg.

Rayagada District Photographs



District Koraput



District Profile:

Koraput district was established on 1st April, 1936. Decorated by forests, waterfalls, terraced valley's and darting springs, the district draws the nature loving people. The koraput district lies at 17.4 degree to 20.7 degree North latitude and 81.24 degree east longitude. The region was ruled by several dynasties, Ikshvakus, Nalas, Ganga kings and kings of Suryavanshi, who nominated the Koraput region before the arrival of British. Finally the Koraput became a district in the year 1936.

The Koraput district covers an area of 8379 sq km and population is 11, 80,637 as per 2001 census. The district has 2 sub divisions namely Koraput and Jeypore. There are 14 tehsils, 14 blocks, one municipality, 3 NACs, 23 police stations, 2028 villages and 226 gram panchayats functioning in the district of Korapur.

Koraput district experiences minimum 12.0 celsius and maximum 38.0 Celsius temperature. The district experiences mainly three seasons i.e. summer, winter and rainy. Summer occurs from April to June, Rainy season is from June to October and winter from November to March. Winter season in Koraput district is longer than other parts of Odisha. The economy of the district is primarily based on forestry and

agriculture (including shifting cultivation), the bulk of commodities used domestically for everyday use are agricultural and forest products.

. Beneficiary No. -1

Observations

- The Model Nursery established at the Nissar Farm, Govt. of Odisha during 2007-08 is producing about 50000 mango plants and 3000-4000 plants of Litchi per year.
- JIT feels that there is need to develop more infrastructure for production of more planting material to make the district self sufficient in quality planting material.

Beneficiary No. -2

Observations

- The activities given to the small farmer Sh. Govind Chand Sahoo are floriculture, Vermibed, area expansion of Mango are doing very well.
- The beneficiary Mr. Sahoo also need to be trained in Post Harvest Management practices.

Beneficiary No. -3

Observations

- The mango plantation of Sh. Hanu Sahoo was full of weeds and growth was also not good.

Beneficiary No. -4

Observations

- The mulching of mango planting for the 10 beneficiaries (Mr. Apene Renghi and 9 others) i.e. 1000 plants in village Duruguda, G.P.-Padmapura is very good and growth is also highly satisfactory

Beneficiary No. -5

Observations

- Swostic farmers vegetables multipurpose cooperative Society Ltd. has purchased refer van and just started using this facility.
- The packhouse cum cold room at Subai village is ready but electricity connection is yet to be obtained.

- JIT advised to get the power connection at the earliest and start reaping the benefits of these.

Beneficiary No. -6

Observations

- The poly house of 160 sq. m. created under RKVY by Mrs. Nirupma Mishra in Village Semiliguda is well maintained and the ornamental plants kept are very good.

Beneficiary No. -7

Observations

- The G-9 Banana production in the field of Sh. Gopi Nath Dash, Village: Kolasnagar, G.P. Badakarenga in one hectare is good and growth is also satisfactory. The bunch weight of Banana is around 20-25 kg. But the fruiting has taken place after 18-20 months. This needs to be looked into.

Beneficiary No. -8

Observations

- The drip irrigation given under NMMI for vegetables to Sh. Chandu Lal Hirji Chawda is working satisfactory and showing good results and farmer is very happy. This land was not under cultivation earlier due to lack of water. This drip irrigation is supported by borewell given under Odisha lift irrigation corporation (OLIC).

Beneficiary No. -9

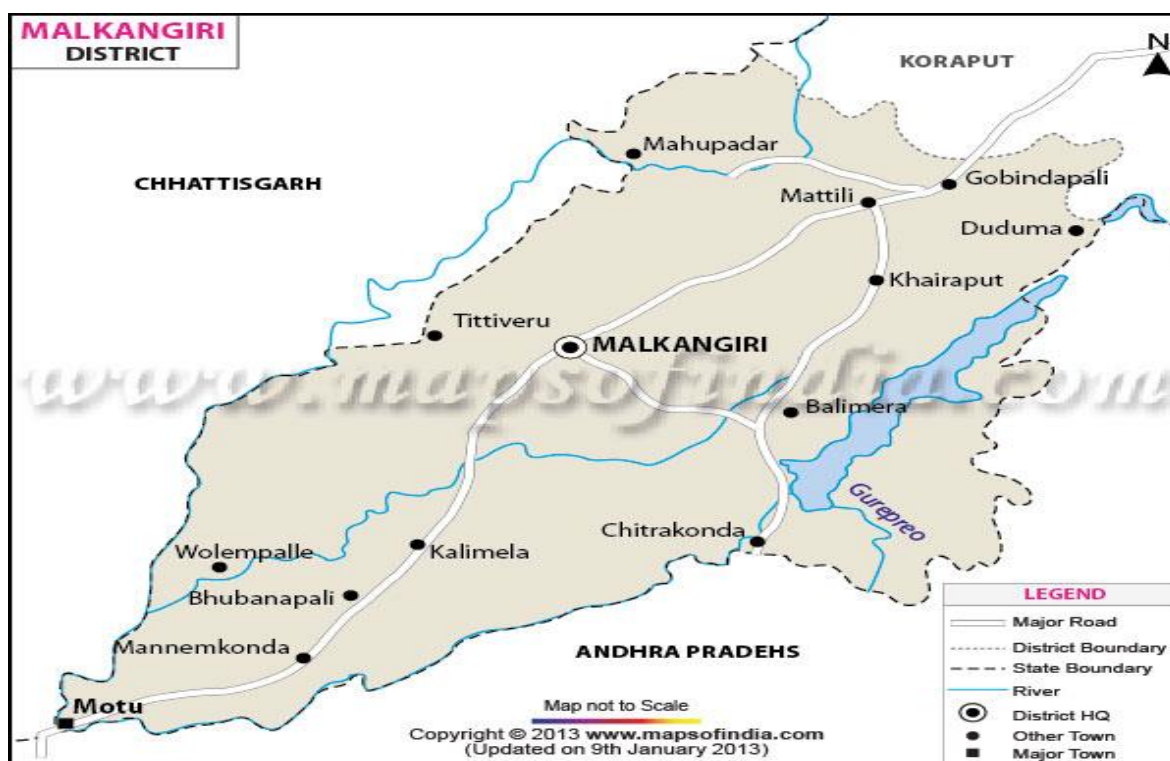
Observations

- Growth G-9 Banana and Mango given under area expansion component of NHM to Sh. Chandu Lal Hirji Chawda is very good.

Koraput District Photographs



District Malkangiri



Malkangiri District.

Malkangiri district is characterized by its unparalleled beauties with high mountains, deep villages; perennial stream, dark forest green fields & unadulterated tribal life & their culture 75% of its population are tribals there by making a tribal district. This district is situated in a section of South Eastern Ghat Zone constitutes the wavy form of topography. It has vast expose of mountain range along with several hill streams which ultimately pass to the rivers – Potteru and Saptadhara. The altitude of the district ranges between 300 to 900 mt. above mean sea level. There is a lot of potential in the district for Agriculture and allied activities particularly on Horticultural plantation. Considering the agro climatic condition horticultural crops like Mango, Cashew, Banana, K. Lime & Pineapple have been grown successfully.

Climate:

The Climate of this district is generally warm and humid with mean maximum & minimum temperature of 38° and 20° C respectively. May, June are the hottest months

and December, January are the coldest months. This district experiences hot summer and cold winter. The mean relative humidity recorded as 60%.

Rainfall:

The normal rainfall of the district is 1080.79 mm / 56 rainy days against the state average of 1502.6mm & 73 rainy days. July to September are usual monsoon months where 75% of rainfall is recorded.

Field Visit

Beneficiary No.1

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Adu Pujari S/o- Sukra, Village : Tiluguda, G.P. Udulibeda, Block: Khairput, Dist. Malkangiri.
2	Total land available with the beneficiary (ha).	2.5 ha
3	Crop Cluster under which covered.	Mango
4	Name & variety of crop planted.	Mango – Malika
5	Source of planting material.	Government farm/ Regd. Private nursery.
6	Number of planting material.	100 nos.
7	Number of plants planted/ rejuvenated.	29.07.2005
8	Date of plants which survived (also indicate percentage survival).	
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	Rs. 5699/-, 2383/- & 3575/-
10	Amount paid and date of payment.	Dt.23.05.06,22.04.07&16.06.08
11	Mode of payment.	Account payee cheque
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	Nil
13.	Whether Drip/ Sprinkle System in use.	No
14.	Other inputs provided.	Pesticides & Organic Manure 1. Shyamala – 17.500 Kg 2. Zyme – 1.00 Kg 3. Chlorapyriphos- 625 ml 4. Monocrotopos- 250 ml 5. Carbondizium- 125gm.
15.	Whether assistance available for Organic Farming	No
16	If so, area covered	Not applicable
17.	Assistance available	No

18.	Available marketing facility for the crop.	Local Market, also nearby Gobindapalli
19.	Other infrastructure available in the vicinity.	No
20.	General upkeep of the plot; Very good/ Good / Average/ Poor.	Good
21.	Any other relevant observation by the JIT.	

Observations:

- The mango area expansion of Mr. Adu Pujari given during 2005-06 is showing very good results.
- Some pest problem has been noticed and JIT advised the concerned officers to consult the experts in Odisha University of Agriculture and Technology (DUAT) and suggest remedial measures.

Beneficiary No.2

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Balaram Katia S/o- Sukra, Village : Tiluguda, G.P. Udilibeda, Block: Khairput, Dist. Malkangiri.
2	Total land available with the beneficiary (ha).	3.5 ha
3	Crop Cluster under which covered.	1 ha
4	Name & variety of crop planted.	Mango – Amarpali
5	Source of planting material.	Government farm/ Regd. Private nursery.
6	Number of planting material.	100 nos.
7	Number of plants planted/ rejuvenated.	25.08.2007
8	Date of plants which survived (also indicate percentage survival).	
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	Rs. 5699/-, 2200/- & 4675/-
10	Amount paid and date of payment.	Dt.05.11.07,24.12.07&23.03.09
11	Mode of payment.	Account payee cheque
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	Lift irrigation
13.	Whether Drip/ Sprinkle System in use.	No

14.	Other inputs provided.	Pesticides & Organic Manure 1. Shyamala – 17.500 Kg 2. Zyme – 1.00 Kg 3. Chlorapyriphos- 625 ml 4. Monocrotopos- 250 ml 5. Carbondizium- 125gm.
15.	Whether assistance available for Organic Farming	No
16.	If so, area covered	Not applicable
17.	Assistance available	No
18.	Available marketing facility for the crop.	Local Market, also nearby Gobindapalli
19.	Other infrastructure available in the vicinity.	No
20.	General upkeep of the plot; Very good/ Good / Average/ Poor.	Good
21.	Any other relevant observation by the JIT.	

Observations

- The mango Area expansion of Mr. Balram Katia given during 2007-08 is showing very good production.
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Beneficiary No.3

Observations

- The drip irrigation given to Sh. Damugolare and 12 other beneficiaries of Village Burudiguda under NHM for 13 Ha. as a convergence with borewell scheme of the State Govt. is very good.
- Some laterals have been stolen
- Recently, the borewell has gone out of order due to clogging and needs to be repaired.

Malkangiri District Photographs

