

Joint Inspection Team (JIT) Report of National Horticulture Mission (NHM) for  
Tamil Nadu State



## INDEX

Sl.No	Topic	Page No.
1.	General Observation of JIT	3
2.	Introduction	4
3.	Field Visits	
(i)	Visit to Theni District	8
(ii)	Visit to Kodiaknal District	32
(iii)	Visit to Dharmapuri District	44
(iv)	Visit to Krishnagiri District	53

**Dates of Visit: 10.03.2014 to 15.03.2014**

### **Team Members:**

1. Dr. H V L Bathla, Chief Consultant (NHM), DAC, New Delhi.
2. Dr. S. Balakrishnan, Professor and Head HCRI, Periyakulam, Theni
3. Dr. Muthusamy, Principal Investigator (PFDC) and professor Head Dept. of soil conservation, Agriculture Engineering College Institute, TNAU, Coimbatore
4. Sh. Periyasamy, Additional Director of Horticulture, SHM, Tamil Nadu, Chennai.
5. Sh. G. Kandasamy, Joint Director of Horticulture, SHM, Tamil Nadu, Chennai.

## General Observations:

1. Some areas in the State have scarcity of water. Drip irrigation need to be supported on priority basis in these areas.
2. The farmers in Theni district of Tamil Nadu State feel that there is 5-20% loss in grapes vineyard due to birds. Use of anti bird nets supported under NHM has helped in saving this loss. The SHM need to share this experience in the form of a success story clearly indicating the comparison of production data pertaining to anti bird nets vs no net.
3. There is single gate entry in all the polyhouses visited. The gate frequently remains open and also there is some gap in the installation of entry gate. This can lead to pest and disease attack. JIT suggested double gate entry for the polyhouses so that only one gate is opened at a time.
4. Carnation flower varieties which are prone to nematodes should not be recommended for plantation in the polyhouses.
5. A lab known as **Shalom leaf analysis lab** has been established with NHM support of Rs. 6.15 lakh in Hosur Block of Krishanagiri district. For analysis of soil, leaf and water samples they are presently charging from the farmers at the rates of Rs. 300, Rs. 400 and Rs. 200 per sample respectively. JIT feels that SHM, Tamil Nadu should be involved in fixation of these rates.

## **State: Tamil Nadu**

### **Geography**

Tamil Nadu covers an area of 130,058 km<sup>2</sup> (50,216 sq mi), and is the eleventh largest state in India. The bordering states are Kerala to the west, Karnataka to the North West and Andhra Pradesh to the north. To the east is the Bay of Bengal and the union territory of Puducherry. The southernmost tip of the Indian Peninsula is located in Tamil Nadu. At this point is the town of Kanyakumari which is the meeting point of the Arabian Sea, the Bay of Bengal, and the Indian Ocean. The south boundary of India is Kanyakumari, Tamil Nadu.

### **.Climate:**

The climate of Tamil Nadu is basically tropical. Due to its proximity to the sea, the summer is less hot and winter is less cold in plains, the maximum daily temperature is 44.4°C and the minimum temperature is 4.4°C. Tamil Nadu is mostly dependent on monsoon rains, and thereby is prone to droughts when the monsoons fail. The climate of the state ranges from dry sub-humid to semi-arid. The state has three distinct periods of rainfall:

- advancing monsoon period, south west monsoon from June to September, with strong southwest winds;
- North east monsoon from October to December, with dominant north east winds;
- dry season from January to May.

The special feature of climatic conditions in Tamil Nadu is that the four seasons are not distinct and overlap with immediate next season. In the plains there is no winter season and in the hills summer is not severe allowing continuous production of horticultural crops in the state.

There are areas with temperature climate (above 2000 m), subtropical climate (1000 – 2000 m), humid tropical climate 500 – 1000m and tropical climate (upto 500 m) to accommodate all possible types of horticultural crops.

These overlapping seasons have made possible grapes to grow round the year, vegetables and spices in all possible crop rotations and systems of planting. Nearness

to the equator and the presence of long stretch of Western Ghats, discontinuous Eastern Ghats and presence of hills and hillocks in the Plains help moderation of climate to ensure the required heat units and degree – days for growing different kinds of horticultural crops.

### **Broad classification of Horticultural Crops:**

Horticulture crops are classified in to six categories viz., Fruit Crops, Vegetable Crops, Spices and Condiments, Plantation Crops, Flower Crops and Medicinal and Aromatic Plants.

Based on the climatic preferences they are classified as:

Tropical fruit Crops like Banana, Mango, Citrus, Grapes, Guava, Sapota, Papaya, Ber, Pomegranate, Fig, Amla, Custard apple and Pineapple and Sub-Tropical fruits like, Mangosteen, Phalsa, Avocado, etc., The state is the largest producer of bananas, flowers, tapioca, the second largest producer of mango, natural rubber, coconut, groundnut and the third largest producer of coffee, sapota and Tea

### **Fruit crops:**

Fruits crops which come up in cool temperatures and high altitudes are known as temperate fruits. In the hilly areas of Tamil Nadu, the commonly grown temperate fruit crops are Apple, Pear, Persimmons etc., Mango and banana are the leading fruit crops in Tamil Nadu accounting for over 87 per cent of the total fruit production.

Out of about 11.08 lakh ha. of Horticulture Crops in Tamil Nadu fruit crops account for 29.96%.

### **Vegetable Crops:**

In Tamil Nadu, the major vegetable crops are Tapioca, Onion, Tomato, Brinjal, Potato, Lablab, Drumstick, etc., Out of about 11.08 lakh ha. of Horticulture Crops in Tamil Nadu, Vegetables crops are cultivated in 2.84 lakh ha. accounting for 25.63%.

### **Spices & condiments**

Spices and Condiments constitute a very important group of horticultural crops. High income generation and foreign exchange earnings are possible through exports of spices. Spices and Condiments are grown in 1.73 lakh ha. In Tamil Nadu which is around 15.61% of total Horticulture Crops. The important spices crops are Chillies (dried), Pepper, Turmeric, Tamarind, Cardamom, Cloves, etc.

## **Plantation crops**

Plantation Crops are ideally taken up on hill slopes or in valleys. The important Plantation Crops grown in Tamil Nadu are Tea, Coffee, Rubber, Cashew, Bamboo, Cocoa, etc., About 2.75 lakh ha of plantation crops are grown which account for 24.82% of total horticulture crops.

## **Flowers**

The major area under flowers constitutes domestic flowers such as Jasmine, Crossandra, Tuberose, Chrysanthemum, etc., More than twenty different varieties of flowers are cultivated and all flowers are grown according to the prevailing climatic condition. With its varying climatic conditions in the hill ranges and plains, Tamil Nadu offers rich scope for production of various flower crops. Flower crops are grown in 0.32 lakh ha in Tamil Nadu out of 11.08 lakh ha of total Horticulture crops.

## **Medicinal & Aromatic Plants**

Medicinal & Aromatic plants are grown in about 0.12 lakh ha. There is a positive approach for increasing the area in the forth coming years due to potential export value of Medicinal and Aromatic plants. The important Medicinal and Aromatic Plants grown in Tamil Nadu are lemon grass, senna, coleus, Glory lilly, Periwinkle and other plan

## **Land Availability**

### **Nine Fold Classification**

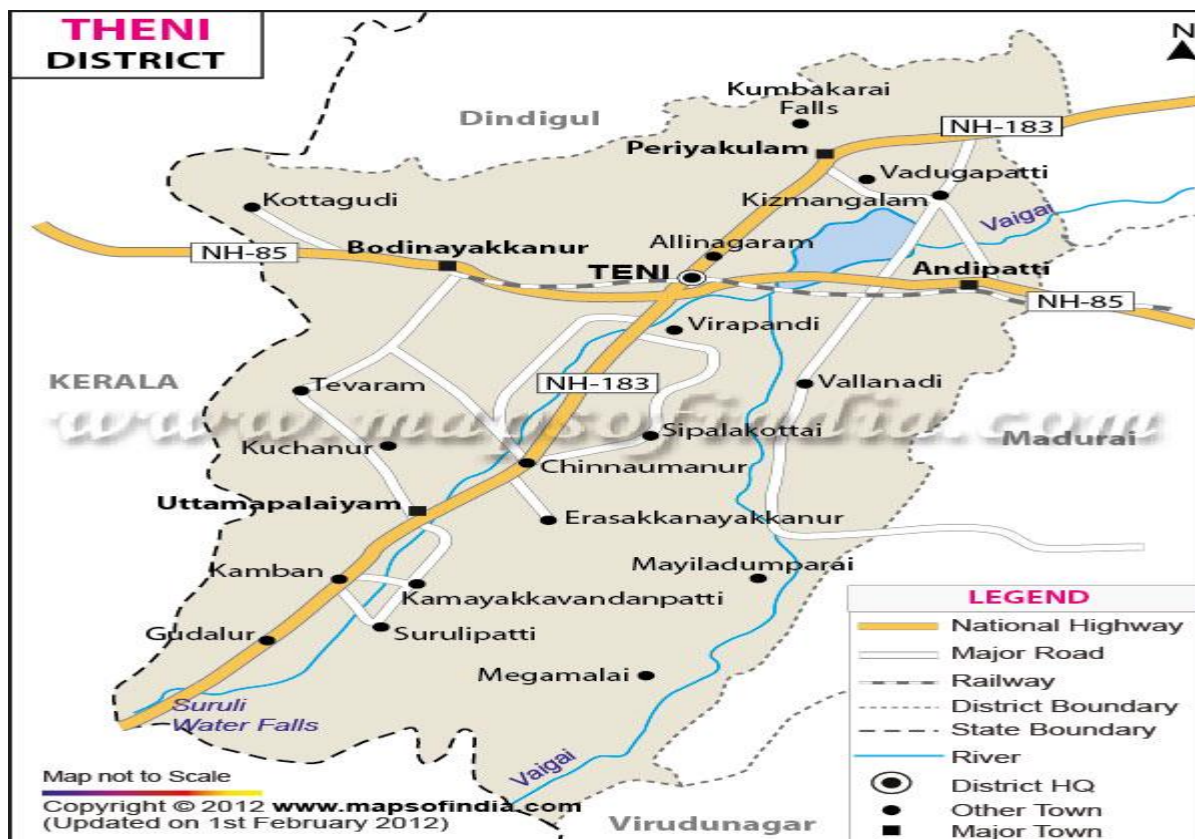
Information on Land use pattern mirrors the picture which we can see how the total geographical area of the State is being utilized for various purposes. Total geographical area was 1.30 crore ha. during 2010-11. The geographical area increased by 44 ha. compared to the previous year the increase in the total geographical area of 44 ha was based on the latest survey as reported by the Revenue official of Namakkal (1ha.) and Erode (43 ha.)

The nine fold classification to the total geographical area of the state is set out below:

(in ha)

Sl. No	CLASSIFICATION	2011-12	2010 - 11	2009 - 10	2008 - 09	2007 - 08	2006 – 07
1.	Forests	2125475 (16.3)	2125475 (16.3)	2126672 (16.3)	2105906 (16.2)	2105818 (16.2)	2106113 (16.2)
2.	Barren and uncultivable land	488557 (3.7)	489253 (3.8)	490335 (3.8)	491908 (3.8)	492229 (3.8)	502404 (3.9)
3.	Land put to non-agricultural uses	2180732 (16.7)	2177034 (16.7)	2175608 (16.7)	2172597 (16.7)	2169195 (16.7)	2159781 (16.6)
4.	Cultivable waste	329117 (2.5)	330938 (2.5)	326445 (2.5)	333441 (2.6)	346889 (2.7)	354264 (2.7)
5.	Permanent pastures and other grazing lands	109568 (0.8)	109568 (0.8)	109924 (0.8)	110009 (01.8)	110127 (0.8)	110293 (0.8)
	Misc. tree crops and groves not included in	252468 (1.9)	252080 (1.9)	252828 (1.9)	258965 (2.0)	261025 (2.0)	268071 (2.1)
7.	Current fallow	967037 (7.4)	1014937 (7.8)	1116981 (8.6)	1013374 (7.8)	980732 (7.5)	906578 (7.0)
8.	Other fallow lands	1594305 (12.5)	1580173 (12.1)	1542137 (11.8)	1497549 (11.4)	1498720 (11.5)	1493069 (11.5)
9.	Net area sown	4985857 (38.3)	4953658	4892142 (37.5)	5042896 (38.7)	5061919 (38.9)	5126072 (39.3)
Total Geographical area		13033116	13033116	13033072	13026645	13026645	13026645
Area sown more than once		903815(6.9)	799006 (6.1)	679568 (5.2)	781352 (6.0)	753255 (5.8)	716718 (6.0)
Gross area sown		5889672 (45.2)	5752664 (44.1)	5571710 (42.8)	5824248 (44.7)	5815174 (44.6)	5842790 (44.9)

## District: Theni



### Location:-

Theni District is situated in between latitude  $9^{\circ}30'$  and  $10^{\circ}30'$  and longitude  $77^{\circ}00'$  and  $78^{\circ}30'$  with an area of 3242.30 sq.km . It is an inland district. It is encompassed on the west by Kerala State, on the east by Madurai District, on the north by Dindigul District and on the south Partly by Kerala and Virudhunagar.

### Climate and Rainfall:-

Theni enjoys Salubrious Climate, It's maximum temperature is  $38.5^{\circ}\text{C}$  and the minimum is  $26.3^{\circ}\text{C}$ . The climate is conducive for agricultural and horticultural crops.

Theni comes under medium rainfall region. The normal rainfall of the district is 829.8mm. South west monsoon being 46%, winter being 6% ,and summer being 27% of total rainfall.

### Agro climatic Zone:-

Based on the rainfall distribution, irrigation pattern, soil characteristics, cropping pattern and physical, ecological and social Characteristics 90% of the district falls



under Southern Zone and the areas adjoining to Western ghat falls under Western Zone accounting for 10% of the areas.

#### LAND CLASSIFICATION IN HECTARES

SL. NO	CLASSIFICATION	Area / Hec
1	Forest	134812.815
2	Uncultivable Lands	12224.506
3	Land put into other than Agriculture Purpose	24614.485
4	Cultivable Waste	2864.405
5	Grass and pasture land	314.700
6	Trees , not included in the net area sown	1223.940
7	Current fallow land	6716.555
8	Other fallow land	25381.425
9	Net area sown	116077.259
<b>10</b>	<b>Total Geographical Area</b>	<b>324430.090</b>
11	Area Sown more than once	10744.975
<b>12</b>	<b>Gross Sown Area</b>	<b>126822.234</b>

#### Physical Feature:

The total geographical area of the district is **324230.09** Ha. The details of Taluks, blocks, village panchayats and town panchayats are illustrated below:

- i) Taluks : Andipatti, Bodinayakanur, Periyakulam, Theni and Uthamapalayam.
- ii) Blocks : Andipatti, Kadamalaikundu, Periyakulam, Theni, Chinnamanur, Uthamapalayam, Cumbam, and Bodinayakanur.
- iii) Revenue Villages : 113.
- iv) Village Panchayats : 130.

v) Town Panchayats : 13.

Manjalar, Periyar, Theniar, Vaigai and Varahanadhi passes through the Theni district. The major river basin is Vaigai.

### **Horticultural Scenerio in Theni District**

Theni district is blessed with favourable climate for growing all kinds of horticulture crops. Since the Theni District lies in the Cumbum valley under foot of the Western Ghats, the prevailing climatic condition is highly suitable for growing all kinds of major Horticulture crops. The category wise Horticultural Crops grown in Theni district is given below:-

Total Cultivation area : 116077 Ha

Cultivation area under Horticulture Crops : 43565 Ha.

Percentage of Horticulture crops cultivation : 37.53%

<b>Sl. No</b>	<b>PARTICULARS</b>	<b>AREA IN HEC</b>	<b>PRODUCTION IN MT</b>
01	Fruits	17532	555974
02	Vegetables	6480	30465
03	Spices and Condiment	5490	20220
04	Plantation Crops	13704	30465
05	Medicinal & Aromatic Plants	60	675
06	Flowers	299	2324
	<b>Total</b>	<b>43565</b>	<b>640123</b>

### **HORTICULTURE DEPARTMENT THENI DISTRICT, Horticulture Crops - Area , Production & Productivity Details**

<b>Sl. No</b>	<b>Crops</b>	<b>Area in Hec's</b>	<b>Productivity mt/hec</b>	<b>Production mt</b>
1.	Banana	5965	74.05	441708
2.	Mango	9779	12.98	126931
3.	Guava	257	11.05	2840

4.	Grapes	2381	32.09	76406
5.	Sapota	591	25.00	14775
6.	Anola	387	14.00	5418
7.	Lemon	263	2.58	679
8.	Sweet Potato	906	40.36	36566
9.	Onion	1021	9.81	10016
10.	Brinjal	459	6.74	3094
11.	Bhendi	1501	12.50	18763
12.	Cabbage	187	56.25	10519
13.	Tomato	2438	20.75	50589
14.	Drum Stick	1301	50.00	65050
15.	Cauliflower	117	20.00	2340
16.	Cashew	7884	0.45	3548
17.	Coffee	3563	0.75	2672
18.	Tea	1556	9.00	14004
19.	Betel Lant	228	22.00	5016
20.	Cocoa	260	1.00	260
21.	Arecanut	1634	0.10	163
22.	Chillies	509	0.72	366
23.	Coriander	237	0.32	76
24.	Rose	24	7.25	174
25.	Jasmine	93	7.75	721
26.	Crossandra	34	2.00	68
27.	Chysanthemum	143	9.00	1287

**Field Visit**  
**Beneficiary no. 1**  
**NHM Area Expansion**

<b>Sl. No.</b>	<b>Details</b>	<b>Remarks</b>
1	Name & address of Beneficiary whose field visited.	P.Palpandiyan S/O.Pathinettampan, Maravapatty
2	Total land available with the beneficiary (ha).	1.25.0Ha
3	Crop Cluster under which covered (ha)	Nil
4	Name & variety of crop planted.	Cashew VRI-3
5	Source of planting material.	Regional Reserch Station, Viruthasalam
6	Number of planting material.	Cashew Grafts - 250 Nos
7	Number of plants planted/ <del>rejuvenated</del> .	Cashew Grafts - 250 Nos
8	Date of plants which survived (also indicate percentage survival).	80%
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	NHM - 12721.00 for 3Years NHM - 2007-2010
10	Amount paid and date of payment.	NHM - 12721.00 for 3Years
11	Mode of payment.	Cheque and Inputs
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	Bore well
13.	Whether Drip/ Sprinkle System in use.	Drip
14.	Other inputs provided.	Azospirillam, Phosphobacteria and Watersoluble Fertilizer and PP Chemicals.
15.	Whether assistance available for Organic Farming	-
16	If so, area covered	-

17.	Assistance available	-
18.	Available marketing facility for the crop.	Tamilnadu and Kerala
19.	Other infrastructure available in the vicinity.	Local Cashew Shelling Factory
20.	General upkeep of the plot; Very good/ Good / Average/ Poor.	Good
21.	Any other relevant observation by the JIT.	

**Beneficiary no. 2**  
**Micro Irrigation 100%**

<b>Sl. No.</b>	<b>Details</b>	<b>Remarks</b>
1	Name & address of Beneficiary whose field visited.	P.Palpandiyan S/O.Pathinettampan, Maravapatty
2	Total land available with the beneficiary (ha)	1.25.0Ha
3	Type of Mi system availed Drip/ Sprinkler	Drip
4	Crops Covered	Cashew VRI-2 & 3
5	Total Area Covered	0.96.0
6	Crop Spacing for Drip	6 m x 6 m
7	Year of Establishment	2013-2014
8	Name of Manufacturer / Supplier	80%
9	Amount paid and date of payment.	Rs.21,214/-
10	Mode of payment.	RTGS
11	Status of Crop	Good
12	General upkeep of the plot; Very good/ Good / Average/ Poor.	
13.	Any other relevant observation by the JIT.	

**Observations:**

1. This activity is area expansion of Cashewnut in 1.25 ha. with 250 cashew grafts planted during 2013-14.
2. Due to drought in the area only 200 plants are available in the field out of 250 plants planted.
3. As per the advice of Department of Horticulture, drip irrigation has been installed with 100% subsidy from NMMI during 2013-14.
4. As present, the crop stand is very good. On an average, the beneficiary has already harvested 4 kg. of raw cashewnut per plant and is expecting another 4 kg. of raw cashewnet per plant.
5. With the installation of drip irrigation the beneficiary is planning to replant the 50 plants which earlier got dried due to drought.

**Beneficiary no. 3****NHM Area Expansion /– Bulbous Flowers**

<b>Sr. No.</b>	<b>Details</b>	<b>Remarks</b>
1	Name & address of Beneficiary whose field visited.	Subbanayakar S/O. Chennama nayakar Sreerangapuram, Aundipatty
2.	Total land available with the beneficiary (ha)	1.60.0
3	Crop Cluster under which covered.	0.70.0 He
4	Name & variety of crop planted.	Tuberose - Local
5	Source of planting material,	Purchase from Local Farmers
6	Number of planting material.	80,000 Bulbs
7	Number of plants planted/ rejuvenated.	80,000 Bulbs
8	Date of plants which survived (also indicate percentage survival).	92% May 2013-14
9	Total amount of subsidy assistance due to the	50% Subsidy Rs.31,500
10	Amount paid and date of payment.	Rs.31,500 yet to be released
11	Mode of payment.	Through ECS and Inputs Supply
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	Open Well
13	Whether Drip/ Sprinkle System in use.	Nil

14	Other inputs provided	19:19:19=45Kg, 13:0:45=41.650Kg, Azos=31.50Kg, Phaspo=3.50Kg, Imida=1.225Lit, Carbandizim+Mang ocep=1.05Kg
15	Whether assistance available for Organic	-
16	If so, area covered	-
17.	Assistance available	-
18.	Available marketing facility for the crop.	Aundipatty and Theni
19.	Other infrastructure available in the vicinity.	-
20	General upkeep of the plot; Very good/ Good / Average/ Poor.	Good
21.	Any other relevant observation by the	-

#### Observations:

1. This is area expansion of Bulbous flowers (Tuberose) supported under NHM during 2013-14.
2. Bulbs were purchased from local farmers.
3. Production of flowers has started and the beneficiary is satisfied with the income generated through sale of flowers.

#### Beneficiary no. 4

#### MI – 100% Drip Irrigation

Sr. No	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Karunanithi S/O. Pandiyan Thirumalapuram
2.	Total land available with the beneficiary (ha)	0.80.5
3	Type of Mi system availed Drip/ Sprinkler	Drip

4	Crops Covered	Valaiyapatty Moringa
5	Total Area Covered	Moringa -0.80.5
6	Crop Spacing for Drip	6m x 6m
7	Year of Establishment	2013-14
8	Name of Manufacturer / Supplier	Kothari
9	Amount paid and date of payment.	100% Subsidy Rs.20018.00
10	Mode of payment.	RTGS
11	Status of Crop	Good
12	General upkeep of the plot; Very good/ Good / Average/ Poor.	
13	Any other relevant observation by the JIT.	

**Observations:**

1. This is drip irrigation for drumstick field in an area of 0.80 ha during 2013-14 supported under NMML.
2. The crop stand is very good.
3. The beneficiary feels that yield of drumstick from drip irrigated field is significantly higher than that not having drip irrigation facility.

**Beneficiary no. 5**  
**HONEY BEE FARM**

S.No.	Details	Remarks
1	Name & address of Beneficiary whose field visited	P.Rajamaniammal W/o.Parthasarathy Ambasamuthiram
2	Total land available with the beneficiary (ha)	1.20 acre
3	Crop Cluster under which covered	Bee hives in coconut field



4	Name & variety of crop planted	Honey bees & Hives
5	Source of planting material	Vibis Honey farm, Madurai
6	Number of planting material.	50 bee hives, 50 colony and 1 honey extractor
7	Number of plants planted/ rejuvenated	-
8	Date of plants which survived (also indicate percentage survival).	-
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	82,000/-
10	Amount paid and date of payment	yet to be released
11	Mode of payment	-
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	Well
13	Whether Drip/ Sprinkle System in use	Drip System in coconut field
14	Other inputs provided	Ulavarsandai card
15	Whether assistance available for Organic farming	-
16	If so, area covered	-
17	Assistance available	-
18	Available marketing facility for the crop	Local, Ulavarsandai - Theni
19	Other infrastructure available in the vicinity	-
20	General upkeep of the plot (Very good/ Good / Average/ Poor)	Good
21	Any other relevant observation by the JIT	

#### **Observations:**

1. The beneficiary has been given 50 Bee hives, 50 colonies and one honey extractor during 2013-14.

2. The maintenance is good.
3. The beneficiary is expecting around 20 kg. of Honey from 50 Bee hives at an interval of 45 days.

**Beneficiary no. 6**  
**NHM-Area Expansion Grapes**

<b>S.No</b>	<b>Details</b>	<b>Remarks</b>
1	Name & address of Beneficiary whose field visited.	V.Nagakumar , S/o Velu, Odaipatty
2	Total land available with the beneficiary (ha)	0.80.0 Ha
3	Crop Cluster under which covered.	-
4	Name & variety of crop planted.	Grapes Manikchand
5	Source of planting material,	Private Purchase
6	Number of planting material.	880 Nos
7	Number of plants planted/ rejuvenated.	880
8	Date of plants which survived (also indicate percentage survival).	90 %
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	Grape AEP I Year & II Year I Year Rs.24000/- II Year Rs.8000/-
10	Amount paid and date of payment.	Mar – 2012, Mar - 2013
11	Mode of payment.	ECS
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	Bore well
13	Whether Drip/ Sprinkle System in use.	Drip
14	Other inputs provided	Water Soluble fertilizers & P.P.Chemicals
15	Whether assistance available for Organic	-
16	If so, area covered	-
17	Assistance available	-
18	Available marketing facility for the crop.	Tamilnadu and Kerala
19	Other infrastructure available in the vicinity.	-

20	General upkeep of the plot; Very good/ Good / Average/ Poor.	-
21	Any other relevant observation by the JIT.	-

**Beneficiary no. 7**

**National Mission Micro Irrigation – 75 % Subsidy**

S.No	Details	Remarks
1	Name & address of Beneficiary whose field visited.	V.Nagakumar , S/o Velu Odaipatty
2	Total land available with the beneficiary (ha)	0.78.0 Ha
3	Type of Mi system availed Drip/ Sprinkler	Drip
4	Crops Covered	Grapes Manikchand
5	Total Area Covered	0.78.0
6	Crop Spacing for Drip	-
7	Year of Establishment	2012-2013
8	Name of Manufacturer / Supplier	
9	Amount paid and date of payment.	Rs.16680 Dec-2013
10	Mode of payment.	RTGS
11	Status of Crop	Yielding Stage
12	General upkeep of the plot; Very good/ Good / Average/ Poor.	Average
13	Any other relevant observation by the JIT.	-

**Observations:**

1. This is 2011-12 grapes area expansion activity under NHM with variety Manikchand.
2. The beneficiary was able to get 16 tons of grapes from the first crop from an area of 0.8 ha. and is expecting better production from the second crop which is due now.
3. It is well maintained and there is no incidence of pest and disease in the field.

4. There is water scarcity in this and he has installed drip irrigation with the support of NMMI.
5. Due to this drip irrigation, the beneficiary is able to maintain a good crop.

**Beneficiary no. 8**

**NHM – ANTI BIRD NET – PROTECTED CULTIVATION**

<b>S.No</b>	<b>Details</b>	<b>Remarks</b>
1	Name & address of Beneficiary whose field visited.	V.Annadhurai , S/o Velu, Odaipatty
2	Total land available with the beneficiary (ha)	0.48.0 Ha
3	Types of Protected cultivation activity (Hi-tech/ Normal GH. Shade net, Plastic tunnel, Antibird net)	Antibird net
4	Year of Establishment	2012-2013
5	Size of Structure (Sq.m)	4800 Sq.m
6	Total Cost	1,00,000/-
7	Agency involved in fabrication and Installation	Local Expert
8	Total Subsidy paid and date of payment	Rs.48000 Mar-2013
9	Crop being grown	Grapes
10	Condition of Structure	Good
11	Condition of Crop	Good
12	Tie up with market	Regular
13	General upkeep of the plot; Very good/ Good / Average/ Poor.	Average
14	Any other relevant observation by the JIT.	-

**Observations:**

1. This is antibirds net activity supported under NHM during 2012-13.
2. The beneficiary feels that there is 5-20% loss in grapes vineyard due to birds.
3. Because of antibirds net, the beneficiary is able to save this loss due to birds.  
The mesh size of the net is 0.75 inch x 0.75 inch.

**Beneficiary no. 9**  
**NADP – New Pandal**

<b>Sr. No.</b>	<b>Details</b>	<b>Remarks</b>
1	Name & address of Beneficiary whose field visited.	P.Maharajan S/O Ponram gowndar Melachinathalaichery,Pannaipuram
2.	Total land available with the beneficiary (ha)	1.41.0
3	Crop Cluster under which covered.	Snake gourd 0.30.0
4	Name & variety of crop planted.	East west seeds,White variety
5	Source of planting material,	Own purchase
6	Number of planting material.	1333 Nos
7	Number of plants planted/ rejuvenated.	1333 Nos
8	Date of plants which survived (also indicate percentage survival).	15.12.2013
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	Rs.60,000.00
10	Amount paid and date of payment.	yet to be released
11	Mode of payment.	ECS
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	Open well
13	Whether Drip/ Sprinkle System in use.	Drip
14	Other inputs provided	
15	Whether assistance available for Organic i Farming	
16	If so, area covered	
17.	Assistance available	

18.	Available marketing facility for the crop.	Thevaram,Chinnamanur,Cumbum
19.	Other infrastructure available in the vicinity.	Cold storage,Chinnamanur
20	General upkeep of the plot; Very good/ Good / Average/ Poor.	
21.	Any other relevant observation by the JIT.	

**Beneficiary no. 10**

**MICRO IRRIGATION**

<b>Sr. No.</b>	<b>Details</b>	<b>Remarks</b>
1	Name & address of beneficiary visited.	P.Maharajan S/O Ponram gowndar Melachinathalaichery, Pannaipuram
2	Total land available with the beneficiary (ha).	0.87.0
3	Type of MI system availed Drip/ Sprinkler	75%
4	Crop(s) covered	Tomato- Nam thari- Iswarya
5.	Total area covered (ha)	0.86.0
6	Crop Spacing (for drip)	1.20m x 0.60m
7	Year of establishment	2013-2014
8	Name of Manufacturer/ Supplier	Jain
9	Total subsidy paid & date of payment	Rs.61447.00
10	Mode of payment	RTGS
11	Status of crop	Pre Flowering Stage
12	General upkeep (Very good/ Good/ Average/ Poor)	
13.	Any other relevant observation by JIT.	

**Observations:**

1. This activity is Pandal Cultivation supported under RKVY for growing vegetables.
2. The crops grown are Snake Gourd and Bottle Gourd.
3. The beneficiary is satisfied with the production of vegetables got from this.
4. Even due to scarcity of water in the area, the beneficiary is able to get good yield with the help of drip irrigation.

**Beneficiary no. 11****NADP New Pandal**

<b>Sr. No.</b>	<b>Details</b>	<b>Remarks</b>
1	Name & address of Beneficiary whose field visited.	Siva kumar S/o. Veeru sikku gowdar Melachinathalaichery,Pannaipuram
2.	Total land available with the beneficiary (ha)	1.20.0
3	Crop Cluster under which covered.	0.70.0
4	Name & variety of crop planted.	Bitter Gourd F1 Hybrid Viney
5	Source of planting material,	Hybrid Vegetables Seeds
6	Number of planting material.	1.440 Kg seeds
7	Number of plants planted/ rejuvenated.	2300-2400 Plants
8	Date of plants which survived (also indicate percentage survival).	15.05.2013
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	Rs.123745.44
10	Amount paid and date of payment.	Rs.120000.00 29.04.2013
11	Mode of payment.	ECS-TMB 072100050051518

12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	Bore well
13	Whether Drip/ Sprinkle System in use.	Drip
14	Other inputs provided	
15	Whether assistance available for Organic i Farming	Counseling stage
16	If so, area covered	
17.	Assistance available	
18.	Available marketing facility for the crop.	Thevaram, Chinnamanur
19.	Other infrastructure available in the vicinity.	Cold Storage Unit-Chinnamanur
20	General upkeep of the plot; Very good/ Good / Average/ Poor.	
21.	Any other relevant observation by the JIT.	

**Observations:**

1. This is Pandal cultivation for vegetables supported under RKVY in an area of 0.7 ha.
2. The beneficiary is satisfied with the production of vegetables namely: Cow Pea and Snake gourd.

**Beneficiary no. 12**

**MICRO IRRIGATION**

Sr. No.	Details	Remarks
1	Name & address of beneficiary visited.	Siva kumar S/o. Veeru sikku gowdar Melachinathalaichery, Pannaipuram
2	Total land available with the beneficiary (ha).	1.20.0
3	Type of MI system availed Drip/ Sprinkler	Drip
4	Crop(s) covered	Bitter Gourd



5.	Total area covered (ha)	0.70.0
6	Crop Spacing (for drip)	2m x 2m
7	Year of establishment	2012-13
8	Name of Manufacturer/ Supplier	Flow Tech Power
9	Total subsidy paid & date of payment	Rs.43264.00
10	Mode of payment	RTGS
11	Status of crop	Harvest Stage
12	General upkeep (Very good/ Good/ Average/ Poor)	
13.	Any other relevant observation by JIT.	

**Beneficiary no. 13**

**NHM Area Expansion - Bulbous flowers**

<b>S.No.</b>	<b>Details</b>	<b>Remarks</b>
1	Name & address of Beneficiary whose field visited	M/s. P.Karunanidhi S/o.Pitchai Upparpatti
2	Total land available with the beneficiary (ha)	1.00 ha
3	Crop cluster under which covered area	0.20 ha
4	Name & variety of crop planted	Tuberose Var. Prajwal
5	Source of planting material	Blubs from Sempatti and Dindigul
6	Number of planting material.	23,600 nos.
7	Number of plants planted	23,600/ 0.2 ha
8	Date of plants which survived (also indicate percentage survival).	95%
9	Total amount of subsidy assistance to the beneficiary as (Rs.)	Rs.9,000/-
10	Amount paid and date of payment	yet to be released

11	Mode of payment	ECS
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	Open well
13	Whether Drip/ Sprinkle System in use	Drip
14	Other inputs provided	Water soluble fertilizers : 19:19:19 & 13:0:45 Plant protection chemicals : Imidachloprid+Mancozeb
15	Whether assistance available for Organic farming	-
16	If so, area covered	-
17	Assistance available	-
18	Available marketing facility for the crop	Theni & Seelayampatti flower market
19	Other infrastructure available in the vicinity	-
20	General upkeep of the plot (Very good/ Good / Average/ Poor)	Good
21	Any other relevant observation by the JIT	

**Beneficiary no. 14**

**NHM Mulching (Protected cultivation)**

S.No.	Details	Remarks
1	Name & address of Beneficiary whose field visited	M/s. P.Karunanidhi S/o.Pitchai Upparpatti
2	Total land available with the beneficiary (ha)	1.00 ha
3	Type of protected cultivation activity (Hi-tech/ Normal GH. Shade net, Plastic tunnel .....)	Plastic mulching – 0.80 hac
4	Year of Establishment	2013

5	Size of structure (Sq.m)	
6	Total Cost	18176/-
7	Agency involved in fabrication and installation	Own
8	Total Subsidy paid and date of payment	Rs.8,000 yet to be released
9	Crop being grown	Tube rose
10	Condition of structure	Good
11	Condition of crop	Yield Stage
12	General upkeep of the plot (Very good/ Good / Average/ Poor)	Good
13	Any other relevant observation by the JIT	

**Observations:**

1. The activity is plastic mulching supported under NHM in an area of 0.8 ha (0.6 ha for Bulbous flowers and 0.2 ha for Curry leaf.)
2. The beneficiary feels that because of mulching he is getting additional yield of 2 kg. of flowers per day.

**Beneficiary no. 15**

**NHM AREA EXPANSION - Hi Density Mango**

Sl. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	V.Janani, W/o. Vivek, Genguvarpatty
2	Total land available with the beneficiary (ha).	1.30.0
3	Crop Cluster under which covered (ha)	0.70.0. Mango (Hi density AEP-I <sup>st</sup> year)

4	Name & variety of crop planted.	Mango – Alphonso Banganapalli, Himapasanth
5	Source of planting material.	State Horticulture Farm, Periyakulam
6	Number of planting material.	280
7	Number of plants planted/ rejuvenated.	280
8	Date of plants which survived (also indicate percentage survival).	20.02.2014
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	16800/- yet to be released
10	Amount paid and date of payment.	Yet to be Paid
11	Mode of payment.	Through ECS
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	WELL
13.	Whether Drip/ Sprinkle System in use.	Drip System
14.	Other inputs provided.	
15.	Whether assistance available for Organic Farming	
16	If so, area covered	
17.	Assistance available	
18.	Available marketing facility for the crop.	Near Ottenchathiram
19.	Other infrastructure available in the vicinity	
20.	General upkeep of the plot; Very good/ Good / Average/ Poor.	Good
21.	Any other relevant observation by the JIT.	

#### Observations:

1. This activity is high density area expansion of Mango (5m x 5m) under NHM during 2013-14.
2. The planting was done during December, 2013 and so far there is no mortality.

**Beneficiary no. 16**

**NHM AREA EXPANSION / REJUVENATION**

<b>Sl. No.</b>	<b>Details</b>	<b>Remarks</b>
1	Name & address of Beneficiary whose field visited.	KV.Kamaraj, S/o.Vellaichamy, Genguvarpatty
2	Total land available with the beneficiary(ha).	4.00.0
3	Crop Cluster under which covered (ha)	4.00.0, Cocoa AEP
4	Name & variety of crop planted.	Cocoa Forester
5	Source of planting material.	Cadburys India Ltd.,
6	Number of planting material.	2000
7	Number of plants planted/ rejuvenated.	
8	Date of plants which survived (also indicate percentage survival).	20.03.2010
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	I st Year Rs.22500/- 2009-2010 Ist year II st Year Rs. 9000/-
10	Amount paid and date of payment.	
11	Mode of payment.	
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	WELL
13.	Whether Drip/ Sprinkle System in use.	Drip System
14.	Other inputs provided.	
15.	Whether assistance available for Organic Farming	
16	If so, area covered	
17.	Assistance available	
18.	Available marketing facility for the crop.	Near Sempatty, Cadbury Company
19.	Other infrastructure available in the vicinity.	
20.	General upkeep of the plot;	Good

	Very good/ Good / Average/ Poor.	
21.	Any other relevant observation by the JIT.	

**Observations:**

1. This is Cocoa area expansion under NHM as an intercrop in Coconut garden in an area of 4 ha. during 2010-11.
2. There is some pest problem in this crop and JIT suggested to discuss with the Entomology Department of TNAU and take up suitable plant protection measures.
3. Due to prevailing water scarcity in this area, the beneficiary has installed drip irrigation supported under NMML.

## Theni District Photographs

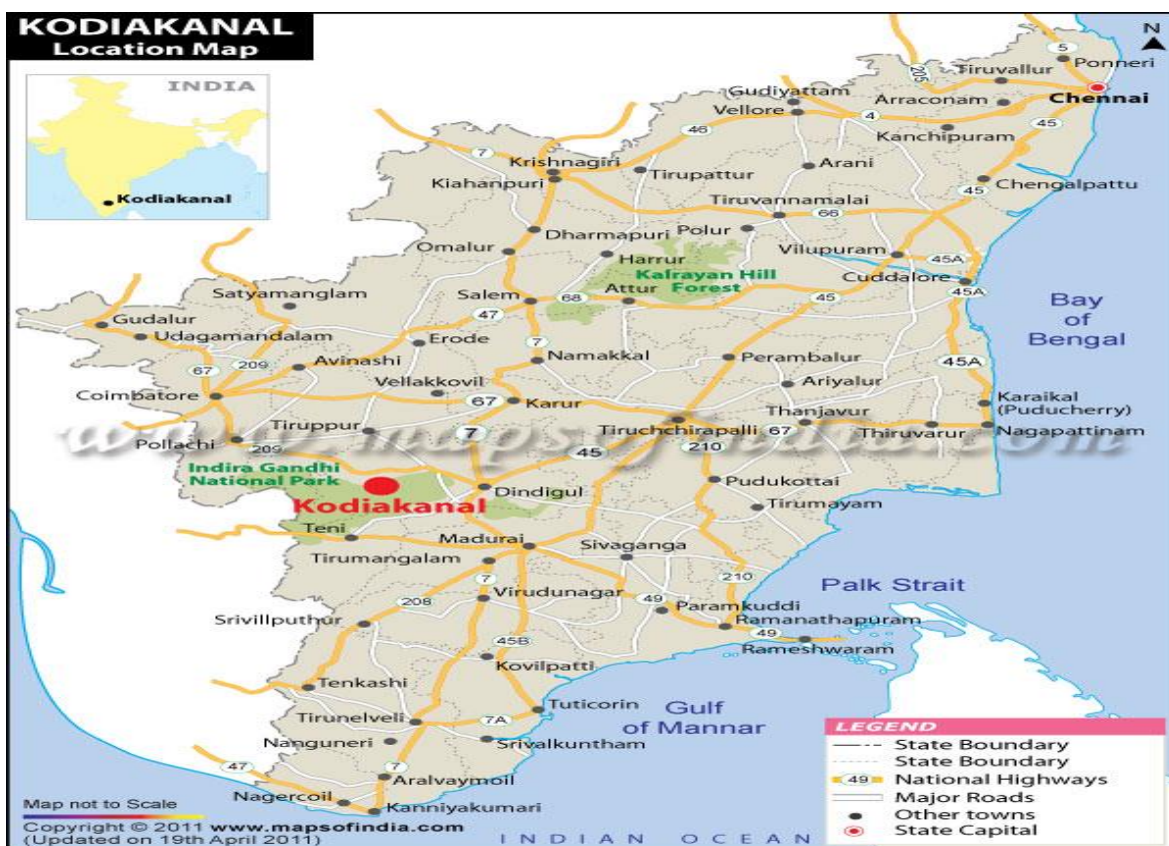


P.Karunanidhi, S/o.Pitchai, Upparpatti.	NHM - AEP - Bulbous Flowers (Tube Rose) - 0.20.0Ha.	2013 -	9,000
	NHM - Protected Cultivation Mulching (Tube Rose & Curry Leaf) - 0.80.0Ha.	2014	8,000



K.V.Kamaraj, S/o.Vellaichamy, Genguvarpatty.	NHM - AEP - Cocoa - 4.00.0Ha.	2009-10 & 2010-11	31,500
---	-------------------------------	----------------------	--------



**District: Dindigul**

## Introduction

**1) PREAMBLE:**

Dindigul District is blessed with conducive climate favoring the growths of Horticulture sector. Dindigul District is unique as it is having 3 district agro climate viz Temperate, subtropical and tropical climate. As such, various crops ranging from tomato to cabbage, Cauliflower, Mango to Pear, plum, peaches and Jasmine to Rose and numbers cupflowers live carnations, Gerbera Bird of Paradise. Having realized the potential for Horticulture expansion Department of Horticulture is implementing various Horticulture programmes of which National Horticulture Mission is major growth chain Programme.



## 2) Area Production and Productivity of Major Horticulture Crops :

Sl.No	Fruits	Area in Ha	Production in Lakh MT	Productivity in tone /Ha
1	Mango	182248	1.003	5.5
2	Banana	4863	2.577	53
3	Hill Banana	1600	24.000	15
4	Citrus Kinds	2051	0.256	125
5	Mandarin Orange	1604	40.100	25
6	Guava	2070	0.227	11
7	Sapota	1476	0.369	25
8	Grapes	45	0.008	19.7
9	Plum	399	4.788	12
10	Other miscellaneous fruits	1025	0.258	25.2

### Vegetables

11	Tomato	2370	0.231	9.75
12	Brinjal	1295	0.143	11.1
13	Bhandi	954	0.071	7.5
14	Cauliflower	591	0.118	20
15	Onion	2951	0.239	8.10
16	Gourds	269	0.053	20
17	Leafy Vegetables	35	0.004	12.5
18	Carrot	585	7.020	12
19	Butter Beans	581	4.648	8
20	Potato	1970	17.730	9
21	French Beans	1050	10.500	10
22	Chow-Chow	35	0.630	18

**Spices**

Sl.No	Details	Area in Ha	Production in Lakh MT	Productivity in tone /Ha
23	Chilies	1619	0.016	0.99
24	Pepper	975	0.003	0.36
25	Garlic	270	1.350	5
26	Coffee	11950	5.975	0.5

**Plants to be Flower Crops**

27	Rose	35	0.002	7.10
28	Jasmine	1446	0.104	7.25
29	Tube Rose	242	0.005	2.10
30	Crossandra	97	0.002	2.0
31	Open cut flower	5		
32	Poly House cultivation	4		

**LAND CLASSIFICATION-Kodaikanal Taluk.**

S.No	Particulars	Firka			Block Total
		Firka-1	Firka-2	Firka-3	
1	Forest	23630	18318	16976	58924
2	Barren and uncultivate land	6836	4224	4730	15790
3	Land put to Non-Agriculture uses	3704	3217	3793	10714
4	Cultivate waste	14	12	8	34
5	Permanent pastures and other grazing land	167	143	125	435
6	Land under Miscellaneous tree crops	621	436	193	1250
7	Current Fallows	122	97	90	309

8	Other fallow lands	8	6	4	18
9	Net Area soun	4716	6102	5991	16809

### Beneficiary No.1

#### Protected Cultivation

Sr. No.	Details	Remarks
1.	Name & address of Beneficiary whose field visited.	P.S. Kirubakaran, S/o Sathasivam, Mannvanur, Kavunji
2.	Total land available with the beneficiary (ha).	0.18.0
3.	Type of Protected cultivation activity (Hi-tech / Normal GH. Shade net, Plastic tunnel.....)	Hi-tech
4.	Year of establishment	2011-2012
5	Size of Structure (Sq. m)	2000 M <sup>2</sup>
6	Total cost	Rs. 1893571
7	Agency involved in fabrication and Installation	A.R. Constructions Engineers, Builders & Real Estates, Kodaikanal.
8	Total subsidy paid and date of payment.	11.09.2012 Rs. 945960
9	Crop being grown	Carnation
10	Condition of Structure	
11	Condition of Crop	
12	Tie up with market	
13	General upkeep (Very good/ Good/ Average/	
14	Any other relevant observation by JIT.	

**Observations:**

1. This is 2000 sq. m. poly house supported under NHM during 2011-12 and growing carnation.
2. The beneficiary has harvested 4 lakh flowers till now and sold. these for Rs. 16 lakh i.e. at an average rate of Rs.4/- per flower.
3. There is no marketing problem as informed by the beneficiary. The maintenance is satisfactory.
4. The polyhouse has a single gate entry and frequently remains open. Also, there is some gap in installation of the entry gate. This can lead to attack of pests and disease.

**Beneficiary No.2**  
**Protected Cultivation**

<b>S. No.</b>	<b>Details</b>	<b>Remarks</b>
1.	Name & address of Beneficiary whose field visited.	R. Ariyadoss, Kavunji, Kodaikanal.
2.	Total land available with the beneficiary (ha).	2.15.0
3.	Type of Protected cultivation activity (Hi-tech / Normal GH. Shade net, Plastic tunnel.....)	Hi-tech
4.	Year of establishment	2012-2013
5	Size of Structure (Sq. m)	2650 M <sup>2</sup>
6	Total cost	Rs. 2536173
7	Agency involved in fabrication and Installation	A.R. Constructions Engineers, Builders & Real Estates,
8	Total subsidy paid and date of payment.	08.03.2013 Rs. 1238875
9	Crop being grown	Carnation
10	Condition of Structure	
11	Condition of Crop	

12	Tie up with market	
13	General upkeep (Very good/ Good/ Average/I Poor)	
14	Any other relevant observation by JIT.	

### **Observations:**

1. The beneficiary has two polyhouses in an area of 2650 sq. m. supported under NHM during 2012-13.
2. The poly house has a single gate entry and gap in installation of entry gate.
3. In one of the polyhouses. the carnation crop is good but in the second polyhouse, 50% of the crop is affected by Nematodes and dried up. The beneficiary has planned to replant this area.
4. JIT was of the view that this is due to the variety grown which is susceptible to Nematodes.

### **Beneficiary No.3** **Adoption of Organic Farming**

<b>Sr. No.</b>	<b>Details</b>	<b>Remarks</b>
1	Name of the project	NHM Vermi compost (Permanent Structure)
2	Year of Implementation	2009-2010
3	Project Period	2009 -2010
4	Name of Implementing Agency	P.S. Kirubakaran, S/o Sathasivam, Mannavanur,
5	Location of Project	Kavunji, (Mannavanur Village)
6	Total Project Cost	Rs. 60000/-.
7	Amount Released by DAC	Rs.30000/-,
8	Expenditure incurred Status	
9	<b>Status</b>	

	• Crops covered	--
	• No of farmers involved	--
	• Name & address of certifying agency	--
	• Whether any certificate issued	--

**Beneficiary No.4**  
**Mechanization in Horticulture,**

<b>Sr. No.</b>	<b>Details</b>	<b>Remarks</b>
1	Name of the project	NHM Mechanization (Power Operated Machine)
2	Year of Implementation	2013-2014
3	Project Period	2013-2014
4	Name of Implementing Agency	Department Horticulture.
5	Location of Project	Raman, S/o Sivasubramani, Kavunji
6	Total Project Cost	Rs. 7075/-.
7	Amount Released by DAC	Rs.3540/-,
8	Expenditure incurred Status	
9	<b>Status</b>	
	• Crops covered	--
	• No of farmers involved	--
	• Name & address of certifying agency	--
	• Whether any certificate issued	--

**Beneficiary No.5**  
**Protected Cultivation- Plastic Mulching**

<b>S.No.</b>	<b>Details</b>	<b>Remarks</b>
1.	Name & address of Beneficiary whose field	A.Jansy Banu (A) Banu Amieethu W/O Abdulhameethu
2.	Total land available with the beneficiary	3.23
3.	Type of Protected cultivation activity (Hi-tech / Normal GH. Shade net, Plastic tunnel.....)	Plastic Mulching
4.	Year of establishment	2013-2014
5	Size of Structure (Sq. m)	1.00.00 Ha
6	Total cost	Rs. 20000
7	Agency involved in fabrication and Installation	Sri Thirupathy Marketing .Dindigul.
8	Total subsidy paid and date of payment.	12.02.2014 Rs. 10000
9	Crop being grown	
10	Condition of Structure	
11	Condition of Crop	
12	Tie up with market	
13	General upkeep (Very good/ Good/ Average/I Poor)	
14	Any other relevant observation by JIT.	

**Observations:**

1. This is plastic mulching supported under NHM during 2013-14 for 400 plum trees and 270 orange trees.
2. The beneficiary feels that there is saving of water and control of weeds due to plastic mulching.

**Beneficiary No.6**  
**Adoption of Organic Farming**

S. No.	Details	Remarks
1	Name of the project	NHM Vermi compost (HDPE Vermi bed)
2	Year of Implementation	2012-2013
3	Project Period	2012-2013
4	Name of Implementing Agency	S.Abdulhameed S/O.Sahul Hameed Poomabari
5	Location of Project	Poomabari, Adisarai.
6	Total Project Cost	Rs. 10000/-.
7	Amount Released by DAC	Rs.5000/-,
8	Expenditure incurred Status	
9	<b>Status</b>	
	• Crops covered	--
	• No of farmers involved	--
	• Name & address of certifying agency	--
	• Whether any certificate issued	--

**Observations:**

1. This is Vermi compost (HDPE Vermi bed) supported under NHM during 2013-14.
2. The beneficiary is producing Vermicompost and using in his own fields.



**Beneficiary No.7****Micro Irrigation**

<b>S. No</b>	<b>Details</b>	<b>Remarks</b>
1	Name & address of beneficiary visited.	Pradema Rajkumar, W/o Rajkumar, Pannaikadu
2	Total land available with the beneficiary (ha).	1.00.0
3	Type of MI system availed Drip/ Sprinkler	Sprine
4	Crop(s) covered	Beans
5	Total area covered (ha)	0.75.0
6	Crop Spacing (for drip)	--
7	Year of establishment	2013-2014
8	Name of Manufacturer/ Supplier	EPC Limited Coimbatore
9	Total subsidy paid & date of payment	Rs. 16993/- 100% Subsidy
10	Mode of payment	
11	Status of crop	
12	General upkeep Very good/ Good/ Average/	
13	Any other relevant observatioy JIT.	

**Observations:**

1. This is sprinkler irrigation supported under NMMI during 2013-14. The crop sown is beans and crop stand is good.
2. The maintenance is satisfactory.

## Beneficiary No.8

### \_Pollination support through honey bee keeping

S. No.	Details	Remarks
1	Name of the project	NHM- Honey bee Hives with bee colony
2	Year of Implementation	2012-2013
3	Project Period	2012-2013
4	Name of Implementing Agency	Pangajam, W/o Pandidurai Pannaikadu
5	Location of Project	Pannaikadu
6	Total Project Cost	Rs.3200/-
7	Amount Released by DAC	Rs. 1600/-
8	Expenditure incurred Status	
9	<b>Status</b>	2 Nos
	• Crops covered	--
	• No of farmers involved	--
	• Name & address of certifying agency	--
	• Whether any certificate issued	--

### Observations:

1. The beneficiary has been given two Honey Bee hives under NHM component 'Pollination support through bee keeping' during 2012-13

## Kodaikanal District photographs



Long View of the Carnation Extent: 2650 M<sup>2</sup>



JIT – Inspected the Vermi Compost Unit

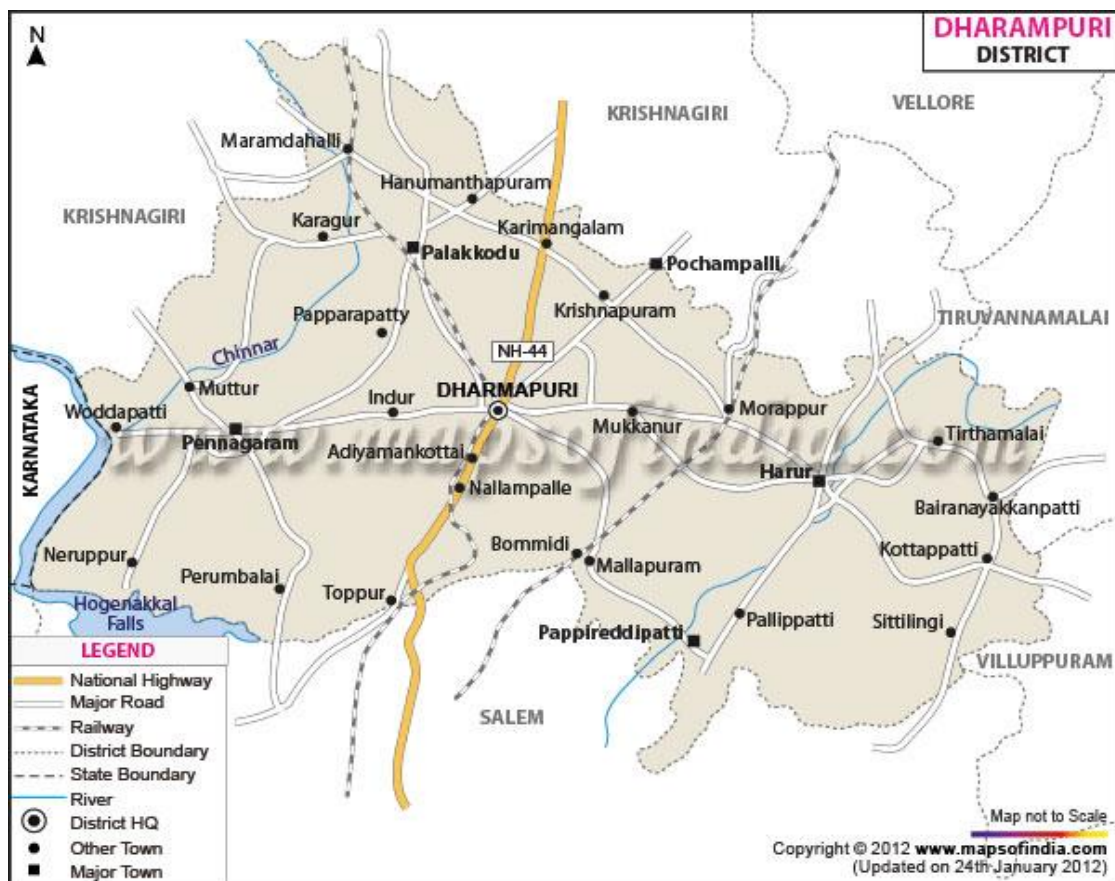


Mulching in Plum Orchard



Honey Bee Hives

## District: Dharmapuri



## Introduction

### Horticultural Crop Area in Dharmapuri district (In Ha.)

CROP	AREA (Ha)	PRODUCTION (tons)	PRODUCTIVITY (tons)
FRUITS	15945	185554	11.6
VEGETABLES	40242	770365	19.14
SPICES	11917	47786	4.01
PLANTATION	10379	85004	8.19
MEDICINAL	334	6680	20.00
FLOWERS	1972	21118	10.71

- Total Geographical Area - 4497.77 Sq kms
- Revenue division – Dharmapuri, Harur
- No of revenue village - 470
- Local bodies
- Municipality - 1
- Panchayath union (block) – 8
- Town Panchayaths - 10
- Village Panchayaths - 236

### Field Visit

#### Beneficiary No.1

#### Protected Cultivation

Sr. No.	Details	Remarks
1.	Name & address of Beneficiary whose field	Laddu@ Chendrayan S/o Chendrayan, Adagapady

2.	Total land available with the beneficiary (ha).	1.00.0
3.	Type of Protected cultivation activity (Hi-tech /Normal GH. Shade net,	Shadnet
4.	Year of establishment	2013-2014
5	Size of Structure (Sq. m)	26m X 20m = 520 Sqm
6	Total cost	Rs. 181950/-
7	Agency involved in fabrication and Installation	K.G. Networks Company privates
8	Total subsidy paid and date of payment.	Rs. 75000/-
9	Crop being grown	Veg- Seedlings, Tomato, Brinjal, Chillies
10	Condition of Structure	Good
11	Condition of Crop	Good
12	Tie up with market	Vegetable growing farmers
13	General upkeep (Very good/ Good/ Average/ I Poor)	Good
14	Any other relevant observation by J1T.	

#### Observations:

1. This is shade net activity supported under NHM during 2013-14 for growing vegetable seedlings.
2. Tomato, Brinjal and Chillies seedling are being prepared.
3. The seedlings are being prepared in the basis of advance orders placed by the farmers.
4. In view of the demand, beneficiary has extended the shade net area at his own.

**Beneficiary No.2**  
**Protected Cultivation**

<b>Sr. No.</b>	<b>Details</b>	<b>Remarks</b>
1.	Name & address of Beneficiary whose field	Thirupathi, S/o Chendrayan Adagapadi
2.	Total land available with the beneficiary (ha).	1.00.0
3.	Type of Protected cultivation activity (Hi-tech /Normal GH. Shade net, Plastic tunnel .....)	Shade net
4.	Year of establishment	2013-2014
5	Size of Structure (Sq. m)	38MX15.5M = 589 Sqm
6	Total cost	Rs. 196793/-
7	Agency involved in fabrication and Installation	K.G. Networks Company Private
8	Total subsidy paid and date of payment.	Rs/ 75000/- 10.02.2014
9	Crop being grown	Veg – Seedlings Tomato, Brinjal, Chillies
10	Condition of Structure	Good
11	Condition of Crop	Good
12	Tie up with market	Vegetable growing Farmers
13	General upkeep (Very good/ Good/ Average/ I Poor)	Good
14	Any other relevant observation by J1T.	

**Observations:**

1. This is shade net activity supported under NHM during 2013-14 for preparation of vegetable seedlings.
2. Demand based seedlings are being prepared for Tomato, Brinjal and Chillies.
3. The maintenance is satisfactory.

**Beneficiary No.3**  
**Protected Cultivation**

<b>Sr. No.</b>	<b>Details</b>	<b>Remarks</b>
1.	Name & address of Beneficiary whose field	Ponnan S/o Ponnusamy, Adagapadi
2.	Total land available with the beneficiary (ha).	0.80.0
3.	Type of Protected cultivation activity (Hi-tech /Normal GH. Shade net, Plastic tunnel .....)	Shade net
4.	Year of establishment	2013-2014
5	Size of Structure (Sq. m)	26MX21M = 546 Sqm
6	Total cost	Rs. 175314/-
7	Agency involved in fabrication and Installation	K.G. Networks Company Private
8	Total subsidy paid and date of payment.	Rs/ 75000/- 10.02.2014
9	Crop being grown	Veg – Seedlings Tomato, Brinjal, Chillies
10	Condition of Structure	Good
11	Condition of Crop	Good
12	Tie up with market	Vegetable growing Farmers
13	General upkeep (Very good/ Good/ Average/ I Poor)	Good
14	Any other relevant observation by J1T.	



**Beneficiary No.4**  
**Protected Cultivation**

<b>Sr. No.</b>	<b>Details</b>	<b>Remarks</b>
1.	Name & address of Beneficiary whose field	K. Madhu S/o Kaliappan , Adagapadi
2.	Total land available with the beneficiary (ha).	1.50.0
3.	Type of Protected cultivation activity (Hi-tech /Normal GH. Shade net, Plastic tunnel .....)	Shadnet
4.	Year of establishment	2013-2014
5	Size of Structure (Sq. m)	34MX15M = 510 Sqm
6	Total cost	Rs. 184140/-
7	Agency involved in fabrication and Installation	K.G. Networks Company private
8	Total subsidy paid and date of payment.	Rs. 75000/- 10.02.2014
9	Crop being grown	Veg- Seedlings, Tomato, Brinjal, Chillies
10	Condition of Structure	Good
11	Condition of Crop	Good
12	Tie up with market	Vegetable growing farmers
13	General upkeep (Very good/ Good/ Average/ I Poor)	Good
14	Any other relevant observation by J1T.	

**Beneficiary No.5**  
**Post Harvest Management**

**Pack House/Cold Storage**

<b>S n</b>	<b>Details</b>	<b>Remarks</b>
1	Name of the project	Cold Storage
2	Year of Implementation	2009-10
3	Project Period	2009-10
4	Name of Beneficiary	D.S. Ekball
5	Location of Project	Palacode
6	Total Project Cost	500 Lakhs
7	Amount Released & date	200 Lakhs
8	Expenditure incurred	500 Lakhs
<b>9</b>	<b>Status</b>	
	Capacity of unit	
	Commodity	
	Equipments purchased	
	Condition of infrastructure	
	Whether NHM logo displayed	
	Whether funds disbursed to agency	

**Observations:**

1. This is cold storage supported under NHM during 2009-10.
2. Total capacity is 6500 MT.
3. The commodities being stored are Tamarind, Chillies and processed tamarind.

**Beneficiary No.6****Protected Cultivation**

<b>Sr. No.</b>	<b>Details</b>	<b>Remarks</b>
1.	Name & address of Beneficiary whose field	Samraj S/o Sama gounder, Ellumichanahalli
2.	Total land available with the beneficiary (ha).	2.5 ha
3.	Type of Protected cultivation activity (Hi-tech /Normal GH. Shade net, Plastic tunnel .....)	Poly house
4.	Year of establishment	2011-2012
5	Size of Structure (Sq. m)	4000 Sqm
6	Total cost	
7	Agency involved in fabrication and Installation	Vinayaga Enter prices
8	Total subsidy paid and date of payment.	Rs. 13,00000
9	Crop being grown	Capsicum
10	Condition of Structure	Good
11	Condition of Crop	
12	Tie up with market	
13	General upkeep (Very good/ Good/ Average/ I Poor)	
14	Any other relevant observation by J1T.	

**Observations:**

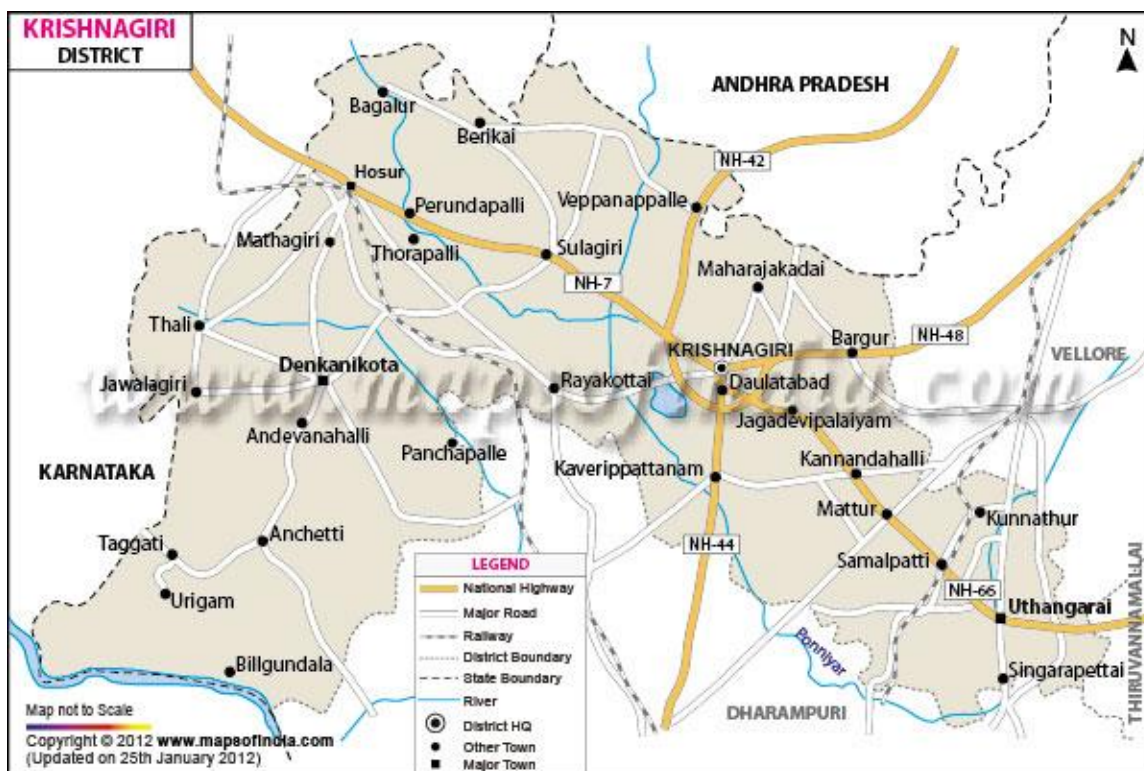
1. This is poly house created under NHM during 2010-11 and 2011-12 with a total area of 4000 sq. m.
2. Presently, coloured capsicum is grown and the crop stand is very good.

3. The poly house has single gate entry which frequently remains open. Also, there is a gap in installation of the entry gate.

### District Dharmapuri Photographs



## District Krishnagiri



### Introduction

#### GENERAL PROFILE OF KRISHNAGIRI DISTRICT

#### INTRODUCTION :

The TamilNadu has been divided into seven Agro climatic zones based on different climatic conditions viz, Western Zone, Southern zone, North Eastern zone, North Western zone, Delta zone, High rain fall zone, and Hilly and Tribal zone.

Krishnagiri occupies the **Fourth zone** called as “**North Western zone**” The profile of the Krishnagiri District is described below.

#### SOIL TYPES :

Red loamy soil and black mixed loam soils are prevailing in the District.  
(Red soil, Clay soil, Forest and Barren, Other soil.)

### Krishnagiri District Horticulture Area.

SL.No.	Particulars	Area (Ha.)	Production( MT.)	Productivity ( MT.)
1	Fruits	39965	369676	9.25
2	Vegetables	5214	82225	15.77
3	Plantation Crops	214	2955	13.81
4	Spices& Condiments	2409	10527	4.37
5	Flowers	1751	14306	8.17
	<b>Total</b>	<b>49553</b>	<b>479689</b>	<b>9.68</b>

### Field Visit

### Beneficiary No.1

### Production of planting material

### STRENGTHENING OF TISSUE CULTURE UNIT

Sr.No.	Details	Remarks
1	Name of the project	<b>Strengthening of Tissue Culture Unit</b>
2	Year of implementation	2013-14
3	Project period	Long term
4	Name of implementing Agency	<b>GENEWIN BIOTECH</b>
5	Location of project	Perandapalli Shoolagiri Block

		Krishnagiri Dt. Tamilnadu.
6	Total project cost (Rs.in lakhs)	15.000
7	Amount Released by DAC (Rs.in lakhs)	<b>7.500</b>
8	Expenditure incurred (Rs.in lakhs)	15.00
9	Status of Project	
	❖ Name of crops for which seeds produced	<b>Tissue Culture Banana plants</b>
	❖ Quantity produced.	Two Million/year
	❖ Quantity sold	Two Million/year
	❖ Rate	Rs 6.00/plant
	❖ Amount realized through sale (Rs.in lakhs)	80.000
	❖ Whether NHM logo displayed	Yes

## **GENEWIN BIO-TECH**

### **ABOUT THE FIRM :**

Genewin Bio-Tech started on 2007 with one million plants production capacity. Based on huge demand for the quality banana plants for last two decades farmers are being impressed by the micro propagated plants in our nation. The promoters has got strong customer base in Tamilnadu, Andhra pradesh, Karnataka and in North India.

**MANAGEMENT TEAM :**

Dr.V.Palani, Mrs. Usha palani and Mrs.Manasa Satheesh.

**AIM :**

To save the farming community through supply of quality banana planting materials (plants). Hence farmer could get high yield and high returns through cultivation.

**IMPORTANCE OF TISSUE CULTURE**

- Production of large number of plants from elite clones
- Rapid multiplication
- Free from pest and disease
- Better survival rate in the field
- To produce genetically identical population
- Uniform growth and maturity
- Easy harvesting and marketing
- High yield and high income
- Round the year availability

**ACHIEVEMENTS**

The company has supplied last year one million plants to the farmers of Tamil Nadu, Andhra and Karnataka. All are impressed with the quality of plants and they have got better yield of 30 kgs to 50 kgs per plant, This year the firm is planning to sell around 1.5 million plants.



**Beneficiary No.2****Micro irrigation**

\	Details	Remarks
1	Name & address of beneficiary visited.	Mr. Sekar S/o Chinna Nanjappa Tiruchipalli Village Shoolagiri Block
2	Total land available with the beneficiary (ha)	1.20
3	Type of MI system availed Drip / Sprinkler	Drip
4	Crop(s) Covered	Ribbed guard
5	Total area Covered (ha)	1.10
6	Crop Spacing (for Drip)	1.20 x 0.60 Mt.
7	Year of establishment	2013-14
8	Name of manufacturer / Supplier	EPC
9	Total subsidy paid & date of payment	Rs 1,02,061.00
10	Mode of payment	RTGS
11	Status of crop	Flowering
12	General upkeep Very good / Good / Average / Poor	Very Good

13	Any other relevant observation by JIT.	

**Observations:**

1. This is micro irrigation in an area of 1.1 ha supported under NMMI during 2013-14. The crop grown is Ribbed Gourd or Ridge Gourd.
2. The crop was sown during January, 2014 and crop stand is satisfactory.

**Beneficiary No.3**  
**Production of planting material**  
**LEAF ANALYSIS LAB**

Sr.No.	Details	Remarks
1	Name of the project	<b>Leaf Analysis Lab</b>
2	Year of implementation	2013-14
3	Project period	Long term
4	Name of implementing Agency	<b>Shalom Leaf analysis Lab</b>
5	Location of project	614/11 Jonabanda Road O.Karapalli Village Hosur Block Krishnagiri Dt. Tamilnadu.
6	Total project cost) (Rs.in lakhs)	12.300
7	Amount Released by DAC (Rs.in	<b>6.150</b>

	lakhs)	
8	Expenditure incurred (Rs.in lakhs)	18.500
9	Status of Project	
	❖ Name of crops for which seeds produced	<b>Soil, Water and Leaf sample analysis Lab</b>
	❖ Quantity produced.	<b>1000 each leaf and water samples</b> <b>2000 Soil samples</b>
	❖ Quantity sold	
	❖ Rate	Soil sample Rs.300/Sample. Water sample Rs. 200/Sample. Leaf Sample Rs.400/Sample.
	❖ Amount realized through sale (Rs.in lakhs)	
	❖ Whether NHM logo displayed	Yes

#### Observations:

1. This is leaf analysis Lab supported under NHM with a subsidy of Rs. 6.15 lakh during 2013-14.
2. The farmers are getting their samples analysed and are being charged per sample Rs. 400/- for leaf analyses, Rs. 300/- for soil analysis and Rs. 200/- for water analysis. The farmers feel, this facility is useful for them.
3. The records of the farmers are being maintained and analysis report is given to the farmers concerned.

4. JIT suggested that the feedback should also be obtained from the farmers and kept in record.

### **SHALOM LEAF (TISSUE) ANALYSIS LAB**

**O.KARAPALLI, HOSUR – 635135, KRISHNAGIRI DT, TAMILNADU.**

#### **Project :**

Establishment of Leaf Analysis Lab in Krishnagiri Dt ,Tamilnadu.

#### **Aim :**

1. To introduce leaf analysis as a modern and more scientific tool for nutrient management,
2. To strengthen the efforts of Department of Horticulture and Agriculture to popularize balanced nutrition
3. To support the NHM activities in the Krishnagiri Dt (poly house, open cultivation) and to train young graduates for self employment by establishing leaf analysis lab in every district through agriculture clinics

#### **Objective :**

1. To introduce leaf analysis for need based nutrient management in Agriculture & Horticulture crops to increase yield and Quality
2. To increase profitability by economizing on fertilizer application to identify deficient and excess nutrients.
3. To promote balanced nutrition to improve quality and post harvest life,
4. To emphasize preventive management in plant protection expenses and produce healthy, pesticide free produce.

#### **Capability :**

1. An analysis of Leaf for NPK, and secondary nutrient in different Horticulture crops.
2. Analysis of soil for pH, available nutrients and texture for interpreting the data.
3. Testing irrigation water for its suitability to Horticulture and Agriculture crops.

**Beneficiary No.5**  
**Protected Cultivation**

Sr.No.	Details	Remarks
1	Name & address of beneficiary whose field visited.	<b>Mr.Palanisamy.K, S/o Karuppagounder, Achettipalli, Hosur.</b>
2	Total land available with the beneficiary (ha)	1.00
3	Type of protected cultivation activity (Hi-tech / Normal GH shade nt, Plastic tunnel ....)	High tech green house
4	Year of establishment	2013-14
5	Size of Structure (Sq.m)	<b>2000 Sq.m.</b>
6	Total cost (Rs.in lakhs)	13.000
7	Agency involved in fabrication and installation	Laya Enterprises, Hosur
8	Total subsidy paid and date of payment (Rs.in lakhs)	<b>6.500</b>
9	Crop being grown	<b>Gerbera</b>
10	Condition of structure	Very Good
11	Condition of crop	Very Good
12	Tie up with market	Yes
13	General upkeep Very good / Good / Average /	Very Good

	Poor	
14	Any other relevant observation by JIT.	

**Observations:**

1. This is Hi- tech green house for 2000 sq. m. under NHM during 2013-14.
2. Gerbera was planted during the last week of September, 2013 and harvesting has been started during December, 2013.
3. On an average, around 2000 flowers are harvested per day and marketing is not a problem.
4. The beneficiary feels satisfied with the rate he is getting.

**Beneficiary No.6**  
**Production of planting material**  
**Pre cooling unit**

Sr.No.	Details	Remarks
1	Name of the project	<b>Pre cooling unit</b>
2	Year of implementation	2013-14
3	Project period	Long term
4	Name of implementing Agency	<b>Pappaiah</b> <b>S/o Muniyappa</b>
5	Location of project	<b>H.Chttipalli</b> <b>Kelamangalam Block</b>

6	Total project cost) (Rs.in lakhs)	18.000
7	Amount Released by DAC (Rs.in lakhs)	<b>5.500</b>
8	Expenditure incurred (Rs.in lakhs)	18.000
9	Status of Project	
	❖ Name of crops for which seeds produced	Rose flowers storage
	❖ Quantity produced.	10 Lakhs stems / year
	❖ Quantity sold	10 Lakhs stems / year
	❖ Rate	Rs.2/stem.
	❖ Amount realized through sale (Rs.in lakhs)	20.000
	❖ Whether NHM logo displayed	Yes

**Observations:**

1. This is pre-cooling unit supported under NHM during 2013-14.
2. This is being used for pre-cooling of flowers and storing for another 10 days, if required so.
3. The beneficiary is having grading, cutting and packing facilities of his own.

## Krishnagiri District Photographs

