

**REPORT OF JOINT INSPECTION TEAM UNDER THE LEADERSHIP OF  
DR. JOSE C. SAMUEL,  
CHIEF CONSULTANT (NHM) ON THEIR VISIT TO ANDHRA PRADESH**



**Date of visit: 06-10 September, 2010**



**National Horticulture Mission  
Ministry of Agriculture  
Department of Agriculture & Cooperation  
Krishi Bhavan, New Delhi**

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# REPORT OF THE JOINT INSPECTION TEAM UNDER THE LEADERSHIP OF DR. JOSE C. SAMUEL, CHIEF CONSULTANT (NHM) WHICH VISITED ANDHRA PRADESH DURING 06-10 SEPTEMBER, 2010

## INTRODUCITON

The Joint Inspection Team (JIT) comprising of the following Members visited Andhra Pradesh during 6<sup>th</sup> to 10<sup>th</sup> of September, 2010 to review the progress under the Central and Centrally Sponsored Schemes, particularly National Horticulture Mission (NHM) and Micro Irrigation Schemes in the State:

1. Dr. Jose C. Samuel, Chief Consultant (NHM) - Team Leader
2. Dr. Tamil Selvan, Director, Directorate of Arecanut & Spices Development, Kozhikode
3. Shri Venkatesh Hubballi, Director, Directorate of Cashew & Cocoa Development, Kochi
4. Dr. Satyanarayana Reddy, Senior Scientist (Hort.), APHU, Rajendernagar, Hyderabad
5. Dr. Shiva Shankar Mantha, Professor (Agronomy), PFDC, College of Agriculture, ANGRAU, Rajendernagar, Hyderabad
6. Shri D. Balaji Naik, Executive Director, SHM, Andhra Pradesh, Hyderabad
7. Shri Ananda Rao, Project Officer, APMIP, Hyderabad
8. Shri R.R. Sharma, Technical Officer (Hort.), Ministry of Agriculture, New Delhi

Other Schemes such as NHB and CDB Schemes were also reviewed by the JIT during a preliminary meeting held on the 6<sup>th</sup> of September, 2010 at Hyderabad. The JIT visited Renga Reddy, Chittoor, Guddapah and Medak Districts. During the meeting held on 6.09.2010 at Hyderabad the representatives of various Agencies/ Boards participated. The Minutes of the meeting is given at **Annexure I**. The JIT also called the Agriculture Production Commissioner, Govt. of Andhra Pradesh on 09.09.2010 to appraised him about the observations of the JIT.

## MAIN OBSERVATIONS

- ✚ The system of production and supply of quality planting material, particularly for fruits like Mango and Citrus (Sweet Orange), Papaya, Banana, etc. needs to be streamlined. In the districts visited, farmers were making their own arrangements for getting the planting material from far off destinations.
- ✚ Nurseries being set up under NHM, both under Public and Private sector, should have permanent infrastructure besides mother block for producing scion material.
- ✚ Vegetable seeds need to be produced and promoted.
- ✚ Participation of SC / ST farmers in the area expansion programme, on a cluster basis, is a welcome sign. Such farmer groups need to be encouraged to set up Post Harvest Management facilities like Pack Houses, besides facilitating tie up with markets.
- ✚ More focus needs to be given on HRD of farmer groups. Many farmers are taking up horticulture venture for the first time.
- ✚ Creation of community tanks should be designed to capture rain water. Most of the community tanks have been integrated with micro irrigation, which is a welcome sign.
- ✚ Farmers availing drip irrigation need to be trained on the use and maintenance of the system.
- ✚ More focus is needed on Post Harvest Management activities. Setting up of Ripening Chamber is a welcome sign. Disbursement for such infrastructure projects involving credit should be completed in a speedy manner.

- ✚ More markets need to be established. Release of funds to the markets already set up, such as the flower market at Gudimalkapur, Hyderabad need to be expedited.
- ✚ Processing facilities for turmeric and other horticulture produce need to be promoted.
- ✚ Scientific infrastructure being set up in the public sector, such as bio-control labs, leaf tissue analysis labs, plant health clinics in providing advise to the farmers in scientific management of the crops. It need to be ensured that such infrastructure is utilized to its fullest capacity for which necessary trained manpower should be in place and recurring cost met for.
- ✚ Use of ICT for programme monitoring of NHM activities at the District level needs to be activated. None of the districts are presently reporting progress on the NHM website.
- ✚ NHM logo and boards need to be displayed wherever assistance has been provided.
- ✚ The staff at the district level involved in NHM activities needs to be strengthened.
- ✚ There is a need to publicize the NHM programmes through print and electronic media.

The JIT called on Shri A.R. Goel, Agriculture Production Commissioner & Principal Secretary (Agri), on 09.09.2010 and highlighted the above mentioned issues to him. During the interaction he mentioned that Andhra Pradesh has been predominantly a rice producing State. Good economic growth was witnessed in agriculture in the State during the Eighties. However, problem in availability of water emerged during the late Nineties and by the turn of the Century, it became difficult to irrigate paddy crop. Coupled with less availability of

labour, drip irrigation was the only option available. This system of irrigation suited for horticultural crops and thus, there has been a consistent growth in horticulture in conjunction with micro irrigation in the State. He added that this trend would continue for a couple of decades. Presently about 1 to 1.5% of the area under agriculture is being diverted to horticultural crops. In this context, he agreed that production and supply of quality planting material should receive high priority. This task should be undertaken by the Public sector. He also agreed that capacity building should receive high priority. There is also a need to check the indiscriminate area expansion activity. With regard to PHM, there is a need to make more aggressive efforts in order to convince the farmers and entrepreneurs and bring in an attitudinal change in their perception.

While agreeing to look into each of the issues raised by the JIT, he mentioned that the AAP for 2010-11 would need to be modified to provide for more area expansion, particularly since there is a high demand from the districts for coverage under sweet orange and mango.

### **STATUS OF NHM ACTIVITIES**

The NHM activities are being implemented in Andhra Pradesh since November,2005

**Focus Districts** : 1. Guntur 2. Prakasam 3. Kadapa 4. Ananthapur 5. Kurnool 6. Mahabubnagar 7. Ranga Reddy 8. Nizambad 9. Khammam 10. Nalgonda 11. Nellore 12. Chittoor 13. Medak 14. Adilabad 15. Karimnagar 16. Warangal.17. Srikakulam 18. West Godavari 19. ITDA Rampachodavaram and 20 ITDA Paderu.

**Focus Crops** : 1. Mango 2. Sweet Orange 3. Sapota 4. Pomegranate 5.Banana 6. Papaya and 7. Cashew 8. Flowers and 9. Spices

## Physical & Financial Progress under NHM

An amount of Rs. 456.48 Crores were released since inception (upto Aug 2010) (Gol Rs.422.92 cr. & Rs.33.58 cr. from State) out of which an expenditure of Rs.400.10 crore was incurred on major components viz., Area Expansion, Development of Model Nurseries, Rejuvenation, Organic Farming, HRD Training, Farm Mechanization, Post Harvest Management and Awareness Programmes etc.

Since inception till 2009-10, the State has incurred an expenditure of Rs. 400.09 crores under the NHM Scheme. The following are the main achievements of the Horticulture Mission in the State.

- ❖ 142 Nurseries provided assistance under public and private sector.
- ❖ Under Area Expansion **1.74 lakh** Ha. has been brought additionally
- ❖ Rejuvenation of **0.57 lakh ha.** of senile gardens of Mango, Citrus, Cashew and Pomegranate
- ❖ About 1000 community tanks has been created.
- ❖ IPM / INM programme was implemented in an area of **0.74 lakh Ha.**
- ❖ **4700** Vermicompost units were established
- ❖ So far **1.94 lakh farmers** were trained under different aspects of Horticulture
- ❖ 62 pack houses, 14 cold Storages and 12 Ripening chambers, 28 cashew processing units were provided assistance under PHM

### STATEMENT SHOWING THE YEAR-WISE EXPENDITURE, RELEASES FROM 2005-06 to 2010-11

(Rs.in crore)

S.No	Year	Expenditure			Releases	
		Total	Gol (85%)	State (15%)	Gol	State
1	2005-06	14.44	14.44	0.00	44.20	0.00
2	2006-07	69.50	69.50	0.00	75.00	0.00
3	2007-08	95.58	85.39	10.19	78.36	6.30
4	2008-09	121.84	105.04	16.79	129.68	10.69
5	2009-10	98.73	84.25	14.47	95.66	0.80
6	2010-11	19.28	16.39	2.89	0.00	15.79
<b>Total</b>		<b>419.37</b>	<b>375.01</b>	<b>44.34</b>	<b>422.90</b>	<b>33.58</b>

## District Wise Expenditure from 2005-06 to 2009-10

(Rs.in crore)

Sl.No.	District	2005-06	2006-07	2007-08	2008-09	2009-10	Total
1	2	3	4	5	6	7	8
1	Adilabad	0.00	1.30	1.61	1.15	0.96	<b>5.02</b>
2	Nizamabad	0.00	3.73	2.85	1.40	1.83	<b>9.81</b>
3	Karimnagar	0.00	1.55	2.51	2.91	2.20	<b>9.17</b>
4	Medak	0.52	0.68	1.68	2.78	2.35	<b>8.02</b>
5	Mahabubnagar	1.01	4.69	7.77	9.66	8.41	<b>31.53</b>
6	Khammam	1.51	3.32	3.14	1.94	2.44	<b>12.35</b>
7	Warangal	0.00	1.39	3.14	3.34	2.88	<b>10.75</b>
8	Nalgonda	0.37	4.24	7.76	8.93	7.21	<b>28.51</b>
9	Rangareddy	0.51	2.89	1.77	2.31	1.48	<b>8.95</b>
10	Kadapa	2.00	9.01	10.23	16.36	11.48	<b>49.08</b>
11	Kurnool	0.86	3.95	4.70	5.05	4.16	<b>18.73</b>
12	Anantapur	1.99	10.06	18.77	20.84	20.67	<b>72.32</b>
13	Chittoor	0.00	1.10	3.72	10.67	7.31	<b>22.79</b>
14	Visakhapatnam	0.00	0.00	0.00	0.71	1.81	<b>2.52</b>
15	East Godavari	0.00	0.00	0.19	0.23	0.00	<b>0.43</b>
16	West Godavari	0.92	2.25	2.94	3.52	3.20	<b>12.82</b>
17	Guntur	1.89	4.85	5.84	4.92	4.45	<b>21.95</b>
18	Prakasam	2.52	7.68	7.01	6.92	5.14	<b>29.27</b>
19	Nellore	0.00	1.60	3.04	4.01	2.69	<b>11.35</b>
20	Srikakulam	0.03	2.71	2.98	4.76	2.44	<b>12.93</b>
21	Head Office	0.30	2.51	3.91	9.45	5.62	<b>21.80</b>
	<b>Total</b>	<b>14.44</b>	<b>69.51</b>	<b>95.58</b>	<b>121.84</b>	<b>98.73</b>	<b>400.10</b>

Discussions were held at length with the Commissioner Horticulture & Mission Director SHM on 10.9.2010 about the physical and financial performance under different component of NHM Scheme.

Mrs. G. Jayalakshmi, Commissioner Horticulture mentioned that the achievements have exceeded the targets (even AAP targets) in some of the components, particularly area expansion under perennial crops. They are in the process of reconciling the financial progress vis a vis targets. In this context, she added that the AAP for 2009-10 may need some modification to accommodate the excess achievement during the previous years. She also mentioned that a person will be deputed to DAC, Delhi to finalize the matter.



The Annual Action Plan, with an outlay of Rs. 123.75 crore, envisages the following activities during 2010-11.

- Area Expansion in **9995 Ha.** wherein 3240 Ha., will be covered under convergence with NREGS.
- Rejuvenation in **17070 Ha.** of senile gardens of Mango, Citrus and Cashew
- IPM / INM in an area of **15,000 Ha.**
- Protected Cultivation in an area of **735 Ha.**
- **1500** Ha. Organic Farming, **1600** Vermi-compost units and **300** HDPE Vermi Beds.
- Capacity Building for **18,302** farmers.
- **120** Pack Houses, **8** Cold Storages, **5** Primary Processing Units and **20** Ripening Chambers.
- Proposed to implement the PHM schemes for Rythu Mitra groups, farmers clubs, Vikas Volunteer Clubs and Mutually Aided Cooperative Societies and horticulture growers co-operative societies.
- It is also proposed to create awareness among the farmers in Post Harvest Management to avail assistance by farming commodity association groups.
- Cluster approach will be adopted with a minimum area of 50 Ha. in each cluster for one crop for easy monitoring and for better market.

The expenditure till July, 2010 is Rs.1928.71 lakhs under maintenance of the gardens, Mission Management and Human Resource Development. Work on other components like area expansion and other activity has commenced from September, 2010.

## STATUS OF MICRO IRRIGATION

The Centrally Sponsored Scheme on Micro irrigation is being implemented in Andhra Pradesh since 2005-06. Under the Scheme, both Horticulture crops and non horticulture crops except Oilpalm, Energy Plantations (Eucalyptus, Teak, Rubber etc.,) and sericulture are covered.

So far, an amount of Rs.621.09 crores has been released by the GOI against which, an expenditure of Rs.555.42 crore has been incurred. An area of 4.68 lakh ha has been covered till 2009-10 as per the following breakup:

Area in ha.,

Sl. No.	Year	Drip		Sprinkler		Total	
		Target	Ach.	Target	Ach.	Target	Ach.
1	2	3	4	5	6	7	8
1	2005-06	45521	6775			<b>45521</b>	<b>6775</b>
2	2006-07	61814	60873	23750	23750	<b>85564</b>	<b>84623</b>
3	2007-08	84800	84846	30000	30000	<b>114800</b>	<b>114846</b>
4	2008-09	102000	87381	37500	36200	<b>139500</b>	<b>123581</b>
5	2009-10	102100	99890	37500	38451	<b>139600</b>	<b>138341</b>
	<b>Total</b>	<b>396235</b>	<b>339765</b>	<b>128750</b>	<b>128401</b>	<b>524985</b>	<b>468166</b>

### ❖ Sector wise area covered under CSS (area in ha)

▪ Horticulture	:	332494
▪ Non- Horticulture		
○ Sprinkler	:	128401
○ Sugarcane	:	7271
<b>Total</b>	:	<b>468166</b>

**STATEMENT SHOWING THE YEAR-WISE EXPENDITURE, RELEASES FROM 2003-04 to 2009-10**

(Rs. in Crore)

Sl. No.	Year	Financial Achievement (Expenditure on Subsidy)				Financial Released			
		Total Cost	Subsidy			Beneficiary Contribution	GOA P	Gol	Total
			GOAP	Gol	Total				
1	2003-06	<b>420.04</b>	200.63	9.33	<b>209.96</b>	<b>210.08</b>	<b>241.66</b>	<b>61.29</b>	<b>302.95</b>
2	2006-07	<b>327.70</b>	91.13	111.65	<b>202.78</b>	<b>124.92</b>	<b>0.00</b>	<b>195.20</b>	<b>195.20</b>
3	2007-08	<b>405.98</b>	158.94	145.59	<b>304.53</b>	<b>101.45</b>	<b>180.00</b>	<b>57.47</b>	<b>237.47</b>
4	2008-09	<b>406.28</b>	166.88	154.08	<b>320.96</b>	<b>85.32</b>	<b>50.00</b>	<b>97.27</b>	<b>147.27</b>
5	2009-10	<b>692.59</b>	381.31	245.04	<b>626.35</b>	<b>66.24</b>	<b>255.23</b>	<b>209.86</b>	<b>465.09</b>
<b>Total</b>		<b>2252.59</b>	<b>998.89</b>	<b>665.70</b>	<b>1664.59</b>	<b>588.00</b>	<b>726.89</b>	<b>621.09</b>	<b>1347.98</b>

An outlay of Rs. 240.00 crore has been earmarked for the year 2010-11 for covering an area of 1.65 lakh ha., for 2010-11. Out of this, Gol has permitted to utilize an amount of Rs.66.75 crores towards the committed expenditure of 2009-10.

**A. MI Systems installation target**

Physical target	:	1,65,500 ha.,
Drip	:	1,21,750 ha
Sprinkler	:	43,750 ha

**Project Cost : Rs.887.93 crores**

**Subsidy portion (90% of system cost) : Rs. 624.57crores**

GOI share (Grant to GoAP)	:	Rs. 173.99 Crores
State share (RIDF assistance)	:	Rs. 450.59 Crores
Bank Loan/farmers contribution	:	Rs. 263.36 Crores

**B. Transfer of Technology :**

1. Demo Plots : No: 200    GOI Assistance: Rs. 0.85 crores

**Total GOI Assistance (A+B) : Rs. 174.83 crores (Rs. 173.99+0.85crores)**

## Target & Achievement under CSS during 2010-11 as on 31-07-10:

(Area in ha., Rs. in lakhs)

Sl. No	Particulars	Target	Achievement
1	Physical	165500	24374
2	Financial	17483.00	4896.51

Andhra Pradesh Production Council conducted a 3rd party evaluation of the Project for covering an area of 5.26 lakh ha involving 3.66 lakh farmers. They observed that

- 97% of the MI systems are functional
- 2.5% of the systems are non-performing
- 0.5% of the systems non –existing

All 3% Non-performing systems were converted as performing by providing proper training and service to identified beneficiaries. Other findings of the study are as under:

- 3.52 lakh farmers (96%) informed -saving of water with 25-50%
- 3.44 lakh farmers (94%) pined- achieved increased yield with 25-50% in case of Drip and 50% in case of sprinkler.
- 2.93 lakh farmers (80%) indicated -savings in labour cost by more than Rs.2000/- per acre per annum
- 3.29 lakh farmers (90%) claimed - increased of income from. Rs.10,000/- to 25,000/- per acre per annum.
- 100% additional yield in case of Sugar cane
- 2.81 lakh farmers felt - incidence of pests reduced

## VISIT TO DISTRICTS

Details of visit under taken by the JIT in different Districts are described here under:

## **Ranga Reddy District**

The JIT covered Ranga Reddy District on 6.09.2010. Shri D. M Reddy, Assistant Director of Horticulture, Ranga Reddy District provided the basic information about the District.

The total area under horticulture crops in Ranga Reddy is 57,246 Ha which represents 25% of district total cropped area. The maximum area is under vegetables (29418 ha) followed by fruits (17964 ha), spices (7,012 ha), flowers (2,562 ha) and M& AP (290 ha). The district has varied natural resource base for the tropical, subtropical and arid corps.

The main crops identified for development in the District under NHM are banana sweet orange, mango, papaya, loose flowers and turmeric.

Out of 33 agriculture mandals existing in the district 21 mandals having enough ground water and 12 mandals are over exploited. Soil types are black cotton, laterite, red and sandy loams in nature. Average rain fall is 781 mm.

The District surrounds the Hyderabad and ready made market is existing for vegetables and flowers. District stands first in production of crops like Carrot, Beet root, Gourds, Cabbage, Capsicum in the state. District also stands first in production of cut flowers like Gerbera, Cornation, Gladioulus in the state.

There are 13 Ryhubazars, two whole sale markets, one each for flowers and fruits and 6 for vegetables serving for district farmers. Retail giants like Reliance, More, ITC Choupal, Spencer, Metro, Heritage, Food World etc are operating their collection centers in the district.

There are 28 Cold storages actively working in the district, however, only 3 are being used to store horticulture products. Recently entrepreneurs' are coming

forward to establish ripening chambers, mini cold store and processing units in the district.

So far, an area of 4721 ha has been brought under the potential horticultural crops with an expenditure of Rs. 451.55 lakh.

#### **Area Production productivity of Horticulture crops in Ranga Reddy District**

Crop	2004-05			2008-09			% Difference		
	Area	Prodn.	Pvty	Area	Prodn.	Pvty	Area	Prodn.	Pvty
Mango	4635	37080	8.0	7120	61232	8.6	53.6	65.1	7.5
Banana	103	2369	23.0	411	14399	35.0	299.0	507.8	52.2
Guava	2004	24048	12.0	2247	33705	15.0	12.1	40.2	25.0
Acid lime	311	4292	13.8	372	5580	15.0	19.6	30.1	8.7
Sweet orange	1039	13507	13.0	3378	45603	13.5	225.1	237.6	3.8
Pomegr-nate				48	1140	30.0			
Papaya	74	5661	76.5	194	15544	80.0	162.2	174.6	4.6
Chilli	2991	7178	2.4	1126	3378	3.0	-62.41	-52.9	25.0
Turmeric	4710	18369	3.9	4518	28012	6.2	-4.1	52.5	59.0
Ginger	54	97	1.8	96	1920	20.0	77.81	1879.4	1011.1

Source: ADC, Ranga Reddy

With NHM intervention, there has been improvement in production and productivity of horticultural crops in the District. The area and production under chillies is however coming down in the district.

The other activities taken up under NHM in Ranga Reddy District include setting up of Plant Health Clinic (PHC), Leaf Tissue Analysis Lab (LTAL) and Bio Control Lab (BCL). The JIT inspected one of the PHC and LTA set up at Environmental Protection Training and Research Institute (EPTRI), Gaohitiwoli, during 2009-10. Dr. Siva Kumar Swaminathan, Senior Scientist & Head, Biotechnology Division and Dr. J. Sessa Srinivas, Senior Scientist of EPTRI explained the functioning of the PHC and LTA.

EPTRI has established two PHC, one at Hyderabad and the other at Kapada. These two units are catering to 18 districts of the State in respect of banana, 10 district in respect of papaya and 10 district in respect of citrus crops. The pathogens being diagnosed are *Banana Bract Mosaic Virus*, *Banana Streak Virus* and *Cucumber Mosaic Virus (Infections chlorosis) Banana*, *Citrus Mosaic Virus*, *Citrus Tristeza Virus* and *Candidatus liberibacter asiaticus*\_(citrus greening) in respect of Citrus and *Papaya Ring Spot, Virus, Crinkle phytoplasmas, Papaya leaf curl virus* and *Papaya Mosaic potese virus* for Papaya. A fee of Rs. 500/- per pathogen is being charged for analyzing the samples. Sop far 2010 samples have been analysed.

In the case of LTAL, 1470 samples have been analysed. A fee of Rs. 600/- per sample is being charged.

The samples are being collected by the Assistant Director of Horticulture in the District, who in turn send it to EPTRI for analysis. The result of analysis is again sent back to ADH, who inform the farmers and recommends necessary corrective measures in the care of any deficiency charges for analysis is being met under RKVY Scheme.

The JIT members suggested EPTRI to provide necessary corrective steps / inputs by the EPTRI in the test results.

The JIT also visited the Bio Control Lab set up in the private sector by Mrs. Sudha Reddy at Backukpalli under the name of K.N. Bio Science (India) Ltd. An amount of Rs. 40.00 lakh was provided for the purpose during 2009-10. Various bio control agents such as *Trichoderma Horizanium*, *Trichoderma virde*, *Pseudomonas florasense*, *Bavaria basiana* PGPR, *Pacilomysis* and *Verticilium* are being produced in the lab for commercial sale.

Glimpse of various activities visited by the JIT in Ranga Reddy District is given on the following pages.

## GLIMPSES OF ACTIVITIES VISITED IN RENGA REDDY DISTRICT



The JIT Members inspected the LTA Lab and Plant Health Clinic set up with NHM assistance at EPTRI in Rengareddy District.



Bio Control Lab set up in the Private sector in Renga Reddy District.



## Chittoor District

The JIT covered Chittoor District on 07.09.2010 Shri S.A Suibramaniam, Horticultural Officer, Tirupaty and Shri A. Kodeswar Rao, HO, Chittoor provided the details.

The total geographical area of Chittoor District is 15150 sq. mts comprising of 16 block and 1540 villages. The net sown area of the District is 326395 ha. The area under horticulture in the District is 85,314 ha with a production of 7.44 lakh tones (as of 2006-07).

Chittoor ranks second, after Krishna district, in production of mangoes. The production of mangoes during 2006-07 was to the tune of 4 lakh tones from an area of 50,000 ha. Vegetables are being grown in 21,654 ha, of which tomato occupies the major share.

The main crops identified for development under NHM in Chittoor District are Banana, mango, floriculture and coriander. The details of area, production and productivity of major horticultural crops in the District is given below:

### Area, Production and Productivity of major horticultural crops in Chittoor District

(Area ha, production, Productivity t/ha)

	2004-05			2008-09			% Difference		
	Area	Produn.	Pvty.	Area	Produn.	Pvty.	Area	Produn.	Pvty.
Mango	48913	391304	8	64500	554700	8.6	31.9	41.8	7.5
Banana	1100	25300	23	1530	53550	35.0	39.1	111.7	52.2
Papaya				352	28144	80.0			
Chilli	3242	7781	2	413	1239	3.0	-87.3	-84.1	25.0
Turmeric	68	265	4	77	477	6.2	13.2	80.0	59.0
Coriander	101	71	1	101	121	1.2	0.0	70.4	70.4

Source: SHM web site. There has been improvement in production and productivity of horticultural crops in the District, except for chillies.

An expenditure of Rs. 2276.68 lakh has been incurred under NHM till 2009-10, as per the following break up.

<b>Year</b>	<b>Amount (Rs. in lakh)</b>
2006-07	88.70
2007-08	406.83
2008-09	1148.95
2009-10	632.20
<b>Total</b>	<b>2276.68</b>

The main activities taken up are:

- Setting up of 27 nurseries
- Coverage of 6746 ha under perennial fruits.
- Coverage of 504 ha under non perennial fruits.
- Coverage of 51.6 ha under protected cultivation.
- Coverage of 1000 ha under organic farming.
- Creation of 15 community tanks.
- Setting up of 69 pack houses, 8 cold storage units and 4 ripening chambers.
- Setting up of 4 rural markets.

The main observations are as under:

1. Most of the farmers are arranging the planting material for area expansion activity through their own sources.
2. All the plots visited under area expansion have availed drip irrigation, which is a welcome sign. In some plots only the young (new) plants are being irrigated through drip system.
3. Display board & NHM logo need to be placed prominently to generate awareness about NHM Scheme.
4. Payment to the beneficiaries is being made through online transfer. During the first year, the subsidy is provided in the form of inputs.

5. There is a scope to improve the design and layout for construction of community tanks by tapping the water from the drainage system rather than pumping water into the tank, particularly in hilly/ undulating topography as found in SV Puram Village, Kadamalpet Mandal.
6. A Group of farmers (Shri R. Subbarama Raju, Shri Prabhakar Raju, Shri Subramaniam, etc. who have availed assistance for area expansion under mango at S.B.R. Puram village have planned to set up 7 pack houses in their mango cluster. Their application, which is pending with SHM, need to be processed expeditiously.
7. Some of the plots under area expansion needed weeding.
8. Papaya cultivation with drip and plastic mulching has been taken up at Karvetinagar Mandal. Due to use of thin (50 microm) plastic mulch, weeds have penetrated the mulch.
9. Filtration unit for drip irrigation has been installed in a low laying area in the plot of Shri V. Ragenderan at Marrisipalle village. The system need to be realigned.
10. The small nursery set up at AR KVK, Anjaneyapuram lacked the basic infrastructure such as mother block and shade net. Moreover, assistance has been availed from National Medicinal Plants Board also for the same nursery area.
11. The Food Processing Unit set up by Jain Irrigation System Ltd. at Gollapalle is providing good support for processing of mango. The unit is being expanded for processing tomatoes. Assistance has been provided for setting up ripening chamber for mango and cold storage for storing mango pulp which is functioning well.

The JIT visited the plots of area expansion activities, nursery development by KVK, micro irrigation.

Glimpses of some of the activities visited are depicted on the following pages.

## GLIMPSES OF ACTIVITIES VISITED IN CHITTOOR DISTRICT



Area expansion taken up in different field

Creation of water resources



Activities such as area expansion under mango, guava, creation of community tank with plastic lining and mulching taken up in Chittoor district.

## GLIMPSES OF ACTIVITIES VISITED IN CHITTOOR DISTRICT (CONTD)



Activities such as area vegetable seedling production and area expansion



View of a Small Nursery set up at KVK. The nursery needs better maintenance and upkeep. Moreover, assistance has been availed from NMPB also.

## GLIMPSES OF ACTIVITIES VISITED IN CHITTOOR DISTRICT (CONTD)



Ripening chamber and cold storage set by Jain Irrigation Systems Ltd

## YSR (Guddapah) District

The JIT covered YSR District on 08.09.2010. Shri MKV Srinivasalu and Shri Dharmaya, AD Horticulture provided the details for the District.

The total area of YSR District is 15359 sq. mts with 2 Revenue Divisions, 51 Mandals, 804 Gram Pancyats and 965 Revenue villagers. The gross cropped area of the District is 472545 ha of which the irrigated area is 190252 ha.

The total area under horticultural crops in the District is 77412 ha of which the major share is under fruit crops (48295 ha) followed by spices (190.46 ha) and vegetables (7995 ha).

The main crops identified for development under NHM in YSR District are Banana , sweet orange, Mango, Papaya, Pomegranate, Sapota, Floriculture, Coriander and turmeric. The details of area, production and productivity of major horticultural crops in the District is given below:

### Horticultural crops in Area, Production and Productivity of YSR District

(Area ha, production, Productivity t/ha)

	2004-05			2008-09			% Difference		
	Area	Produn.	Pvty.	Area	Produn.	Pvty.	Area	Produn.	Pvty.
Mango	17606	140848	8.0	21720	186795	8.6	23.4	32.6	7.5
Banana	3706	85238	23.0	5229	183015	35.0	41.1	114.7	52.2
S. Orange	3419	44447	13.0	11409	154022	13.5	233.7	246.5	3.8
Papaya	1866	142749	76.5	5152	412136	80.0	176.1	188.7	4.6
Chilli	3926	9422	2.4	1039	3117	3.0	-73.5	-66.9	25.0
Turmeric	2772	10811	3.9	2800	17360	6.2	1.0	60.6	59.0
Ginger									
Coriander	23549	16484	0.7	12500	15000	1.2	-46.9	-9.0	71.4

Source: SHM web site. There has been improvement in production and productivity of Horticultural crops in the District, except for chillies.

The main activities taken up under NHM in the District are setting up of nurseries, area expansion, rejuvenation, creation of community tanks INM/IPM, protected cultivation, ripening chambers besides HRD.

The JIT visited the bio control lab and model nursery established at the Horticulture Research Station under Andhra Pradesh Horticulture University (APHU) at Anatharajupet. The JIT also visited the plots under area expansion, rejuvenation, micro irrigation, community tanks, and ripening chambers.

Some of the main observations made during the visit to YSR District are as under:

1. The Bio control lab established at the HRS, Anatharajupet with an investment of Rs. 70.00 lakh is expected to provide bio inputs, particularly *Trichoderma* spp, *pseudomonas fluorescens* and *Nonmuarea sileyi* for the horticultural crops in the district. So far 70 kgs of *Trichoderma* spp has been sold. The equipments need to be shifted to the new premises. It needs to be ensured that there is proper isolation of the lab from the other academic activities at HRS.
2. Micro irrigation of betlevine has helped to enhance the productivity of the crop besides water saving. Adequate training on running and maintenance of the drip irrigation system needs to be provided.
3. Good efforts have been made to develop papaya cluster at Equavareddy Palli Harijanawada in the land belonging to SC/ST farmers. The production system has been integrated with drip irrigation. However, the planting material has been procured from private sources without any quality check.
4. Ripening chamber set up by Mrs. Lakshmi Venkataeshwara at Sivuni Palls village, Sidhout Mandal, with a total capacity of 10 tonnes/ day is providing good support to the banana growers in the region. Although the work has been completed. The subsidy is yet to be disbursed. SHM needs to expedite the disbursement of subsidy amount to the beneficiary.

Glimpses of some the activities visited are depicted on the following pages.



## GLIMPSES OF ACTIVITIES IN CUDAPPAH DISTRICT



Bio control lab and Model Nursery set up at college of Horticulture



Drip irrigation system for banana



Papaya cluster in farmers belonging to SC/ST farmers at Equavareddy Palli Vilalge

## Glimpses of Activities in Cudapah District



Banana Ripening chamber set up by Mrs. Lakshmi



Community tank created at



Vermi compost unit set up by Shri Rama Chandra Aiyah

## Medak

The JIT covered Medak District on 9.9.20.10. Mrs. Ramalakshmi Assistant Director of Horticulture provided the details for the districts.

The total area of Medak District is 9700 sq. m area under horticulture in Medak District is 62343 ha producing about 9.35 lakh tones of horticulture produce. The major share of the area is under vegetables (31576 ha) followed by spices (14879 ha) and fruits (14025 ha). Other crops like flowers, medicinal and aromatic plants are also grown to a limited extent.

The main crops identified for development in Medak District are Aonla, Banana, Sweet orange, mango, papaya, pomegranate, floriculture, coriander and Turmeric. The details of area production and productivity of main horticultural crops in the District is given below:

### Horticultural crops in Area, Production and Productivity of Medak District

(Area ha, production, Productivity t/ha)

	2004-05			2008-09			% Difference		
	Area	Produn.	Pvty.	Area	Produn.	Pvty.	Area	Produn.	Pvty.
Mango	5287	42296	8.0	7410	63726	8.6	40.2	50.7	7.5
Banana	1795	41285	23.0	4517	158095	35.0	151.6	282.9	52.2
S. Orange	218	2834	13.0	798	10769	13.5	266.1	280.0	3.8
Papaya	145	11093	76.5	941	75280	80.0	549.0	578.6	4.6
Chilli	8005	19212	2.4	5720	17160	3.0	-28.5	-10.7	25.0
Turmeric	2500	9750	3.9	3850	23870	6.2	54.0	144.8	59.0
Coriander	2985	2090	0.7	1045	1254	1.2	-65.0	-40.0	71.4

Source: SHM web site. There has been improvement in production and productivity of horticultural crops in the District, except for chillies and coriander.

The interventions taken up under NHM in the District are:

- Setting up of 6 nurseries.
- Area expansion -1500 ha under fruits, 90 ha under flowers and 20 ha under spices.
- Protected cultivation in 66 ha.

- Adoption of organic farming in 700 ha.
- Setting up of PHM & Market infrastructure.
  - 20 pack houses, 2 cold storage unit, 1 ripening chamber

The JIT visited the activities relating to nursery development, Bio control lab and Disease Forecasting Unit at Fruit Research Station, Sngareddy and area expansion & MI cluster under sweet orange at Thogarpally village, Kondapur Mandal.

The observation of the JIT are as follows:

- The Model Nursery at FRS, Sangareddy has a good germ plasm collection of horticultural crops, particularly mango, custard apple, Guava and sapota.
- Proper layout plan for the Model Nursery need to be prepared, duly depicting the mother block, grafting area, location of water source etc.
- The Disease Forecasting Unit has been integrated with instruments for weather monitoring and data logger.
- The DFU should bring out proper advisories for forecasting and corrective measures for horticultural crops, particularly for mango. A web enabled forecasting system meet to be put in place in the lone run.
- The building for Bio control lab is under construction.
- Display of NHM logo is necessary at all locations.
- The sweet orange orchards established by Shri T. Kistaiah at Thogarpally village during 2006-07 has started bearing. Drip irrigaiiotn has also been availed, which was, however not in case at the time of the visit. The planting material for the same was purchased from a private nursery at Railway Kodur, Gudappah District.

Glimpses of some of the activities visited are depicted on the following pages.

## Glimpses of Activities in MEDAK District



Model Nursery at FRS, Sangareddy



Diseases Forecasting units



Building for Bio Control Lab under construction

## Glimpses of Activities in MEDAK District (Contid.)



Sweet orange orchard under bearing storage which was planted by Shri T. Kistia with NHM a Assistance during 2006-07. He has earned Rs. 1.00 lakh from his first crop. Tomato was taken As inter crop.

## Glimpses of Flower market set up at Hyderabad



The wholesale Flower Market was inaugurated by the Chief Ministry of AP on 15<sup>th</sup> April, 2010



There was brisk business on 10.9.2010 a day before Ganesh Chaturthy