

REPORT OF JOINT INSPECTION TEAM ON THEIR VISIT TO PUDUCHERRY ON 14TH FEBRUARY, 2013



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Department of Agriculture & Cooperation
Horticulture Division
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REPORT OF JOINT INSPECITON TEAM UNDER THE LEADERSHIP OF DR. JOSE C. SAMUEL, CHIEF CONSULTANT (NHM) WHICH VISITED PUDUCHERRY ON 14TH OF FEBRUARY, 2013

The Joint Inspection Team (JIT) comprising of the following Members visited Puducherry on 14th February, 2013 to review the progress under National Horticulture Mission (NHM) in the UT:

1. Dr. Jose C. Samuel, Chief Consultant (NHM)
2. Shri Homey Cherian, Director, DASD, Calicut
3. Shri R.R. Sharma, Assistant Director (NHM), DAC, New Delhi
4. Dr. M. Selvarajan, Professor & Head (Fruit Crops) Horticulture College & RI, TNAU, Periakulam
5. Dr. I. Muthuswamy, Prof. (SWC Engg) & PI, PFDC, TNAU, Coimbatore
6. Shri R. Jyanadevan, Deputy Director, DCCD, Kochi
7. Shri Ashok Gahrotra, Sr. Project Officer, NCPAH, New Delhi

Shri V. Rajendran, Deputy Director of Agricutlure (Hort.), Shri S. Prabakaran, Agriculture Officer, Shri V. Kathiravan, and Shri P. Anebajagane, Horticulture Officers accompanied the Team during the field visits. Discussions were held with Shri Jaishankar, Additional Director of Agriculture.

Horticulture in Puducherry

Major horticulture crop in the UT is coconut. Fruits like banana and mango are being cultivated to a large extent. Other fruit like lime/lemon, guava, sapota and aonla are also being grown in the UT.

Comparative details of area, production and productivity of various horticultural crops during 2012-13 in the UT are given the following Table:-

A. Fruits

Sl. No.	Crops	Area (ha)			Production (MT)			Productivity (MT/ha)		
		2009-10	2012-13	% Change	2009-10	2012-13	% Change	2009-10	2012-13	% Change
1	Banana	412	253	-38.6	14420	10745	-25.5	35.00	42.47	21.3
2	Mango	382	137	-64.1	6112	2886	-52.8	16.00	21.07	31.7
3	Citrus	20	12	-40.0	160	88	-45.0	8.00	7.33	-8.3
4	Guava	85	58	-31.8	2550	496	-80.5	30.00	8.55	-71.5
5	Sapota	94	40	-57.4	564	341	-39.5	6.00	8.53	42.1
6	Amla	27	18	-33.3	135	82	-39.3	5.00	4.56	-8.9
7	Others	110	14	-87.3	440	55	-87.5	4.00	3.93	-1.8
	Total	1130	532	-52.9	24381	14693	-39.7	21.58	27.62	28.0

B. Flowers

Sl. No.	Crops	Area (000' ha)			Production (000' MT)			Productivity (MT/ha)		
		2009-10	2012-13	% Change	2009-10	2012-13	% Change	2009-10	2012-13	% Change
1	Jasmine	49.2	19	-61.4	492	123	-75.0	10.00	6.47	-35.3
2	Crossandra	52	6	-88.5	312	38	-87.8	6.00	6.33	5.6
3	Marigold	110	35	-68.2	990	248	-74.9	9.00	7.09	-21.3
4	Tube Rose	5	1	-80.0	25	3	-88.0	5.00	3.00	-40.0
5	Tornia	6	1	-83.3	30	2	-93.3	5.00	2.00	-60.0
6	Rose	2	1	-50.0	17	4	-76.5	8.50	4.00	-52.9
7	Others	27	2	-92.6	162	3	-98.1	6.00	1.50	-75.0
	Total	251.2	65	-74.1	2028.0	421	-79.2	8.07	6.48	-19.8

C. Aromatic & Medicinal Flowers

Sl. No.	Crops	Area (000' ha)			Production (000' MT)			Productivity (MT/ha)		
		2009-10	2012-13	% Change	2009-10	2012-13	% Change	2009-10	2012-13	% Change
1	Coleus	1		-	4	0	-	4.00	0	0
2	Aloevera	1	0.2	-80.0	13	1.8	-86.2	13.00	9.00	-30.8
3	Other (turmeric)	22	50	127.3	66.03	131	98.4	3.00	2.62	-12.7
4	Betelvine	20	4		420	271	-35.5	4.00	67.75	1593.8
	Total	44	50.2	14.1	503.03	403.8	-19.7	11.43	8.04	-29.6

D. Plantation crops

Sl. No.	Crops	Area (000' ha)			Production (000' MT)			Productivity (MT/ha)		
		2009-10	2012-13	% Change	2009-10	2012-13	% Change	2009-10	2012-13	% Change
1	Coconut	1592	988	-37.9	189.44	112.4	-40.7	0.12	0.11	-4.4
2	Cashew	209	95	-54.5	495	936	89.1	2.37	9.85	316.0

* In lakh nuts

Source Annual Action Plan 2013-14

NHM in Puducherry

NHM scheme was initiated in Puducherry during the year 2009-10. Year wise details of funds provided activities undertaken in the UT are given below:-

(Rupees in lakh)

Year	Amount Release	Expenditure Incurred	Main activities
2009-10	33.25	27.96	Area expansion (AE)
2010-11	56.34	85.35	AE, Protected cultivation (PC)
2011-12	64.00	58.00	AE, PC, HRD
2012-13	46.57	34.20	AE, IPM
Total	200.16	178.51	

Annual Action Plan (AAP) for 2012-13 was approved with outlay of Rs.107.46 lakh against which an amount of Rs.45.67 lakhs was released.

Mostly area expansion activities have been taken up in the UT. However, there has been considerable decline in area, production and productivity of horticulture crops, which needs to be looked into.

Requirement of planting material for horticulture crops are being sourced mainly from KVK. However, the KVK has a limited capacity. The Tissue culture unit which was set up in 1995-96 needs renovation and rehabilitation to augment production capacity of tissue culture banana plantlets.

Appreciable efforts were made to promote protected cultivation in the UT since 2011-12. However, the cyclone "Thane" that hit Puducherry region during last week of December 2011 had an adverse impact on green house structures.

UT Administration has been focusing on strengthening and reconstruction of green houses that were damaged.

Field visits

JIT visited the plot of Shri Vadivelu at Kolhapurinatham who has taken up area expansion of guava (L 49) in 0.6 ha during 2012-13. First installment of Rs.5,940 was awaiting approval during the time of visit. Farmer was advised to take up canopy management.

Another plot of Shri Krishnamurthy was also visited who has taken up guava cultivation in about 2 ha. First installment of Rs. 19,107 was awaiting approval.

JIT visited the plot of Sh. Thillai at Mannadipet whose naturally ventilated green house structure (1008 sq. m.) constructed during 2011-12 had got partly damaged due to cyclone. The structure was fabricated by Siroz Consultants Ltd., Pune. In all, subsidy assistance of Rs.4.67 lakh was paid to the farmer. The farmer has made appreciable efforts to rehabilitate the green house. Marigold was being cultivated in the green house during the time of visit of JIT, for which he was provided subsidy assistance. He was getting about 100 kgs of marigold flower in a week which had a ready market at Puducherry @ Rs.25/- per kg. Sh. Thillai has taken up cultivation of TC banana in his plot, for which he proposes to avail subsidy under NHM.

GLIMPSES OF ACTIVITIES VISITED IN PUDUCHERRY



Shri Vadivelu has taken up cultivation of guava in 0.60 ha during 2012-13. Farmer has taken inter crop of tapioca. He was advised to undertake canopy management to maintain uniformity in tree height.



Shri Krishnamurthy has also taken up cultivation of guava (L 49) in an area of 1.9 ha during 2012-13 along with inter cropping. He was advised to adopt canopy management.



Shri Thillai has taken up cultivation of marigold after renovating the green house which got damaged partly during the cyclone 'Thani' in December, 2011.

JIT interacted with Dr. Vasanta Kumar, Project Coordinator, Perunthalaiva Kamaraj Krishi Vigyan Kendra (RKVK), Kurumbapet. The KVK has been providing good support in production of planting material or taking up area expansion activities under NHM. A TC Unit was set up during 1995-96 for producing TC banana plantlets.

A Bio control was established by the KVK with technical support from National Bureau of Agriculturally Important Insects, ICAR in the year 1997. NHM assistance of Rs. 25.00 lakh has been provided during 2011-12 to strengthen the Bio control lab. Following Bio agents / Bio pesticides are being produced by the KVK:

Egg Parasitoid *Trichogramma japonicum*

Egg Parasitoid *Trichogramma chilonis*

Nucleo Polyhedro Viral (NPV) Biopesticide for *Spodoptera litura*

NPV Biopesticide for *Helicoverpa armigera*

Mycoinsecticide *Beauveria bassiana*

Antagonistic Bacterial Biopesticide *Pseudomonas fluorescens*

Antagonistic Fungal Biopesticide *Trichoderma viride*

Antagonistic Fungal Biopesticide *Trichoderma harzianum*

PKKVK is making good efforts in promoting use of IPM practices which has helped in reducing the consumption of harmful chemical inputs. A Centre of Excellence in IPM has been created at the KVK. Generation toxicological data for two NPV biopesticides, viz. *Spodoptera litura* and *Helicoverpa armigera* is for the first time in India

Glimpses of some of the activities visited at the PKKVP are given overleaf.

GLIMPSES OF ACTIVITIES VISITED AT KVK, PUDUCHERRY



Products of Bio control lab which has been established with NHM assistance during 2011-12.



View of traps developed by the KVK for Integrated Pest Management in horticulture crops



View of some of the equipments being use by the KVK.

Observations and Recommendations

1. Decrease in area and production of horticulture crops, particularly for crops which are being developed through NHM interventions is a cause of concern, which needs to be looked into.
2. Efforts made in promoting protected cultivation through green houses received a major set back due to cyclone 'Thani' in December, 2011. While some of the farmers, whose damage to the structure was comparatively less, have tried to rehabilitate the GH structure, few of the farmers have yet to make up their loss. Since the area is prone to cyclones, it would be worthwhile to insure the GH structure.
3. PKKVK, Puducherry has been instrumental in promoting IPM technology in the region, thus resulting in reduction in pesticide consumption.
4. PKVK is involved in production and supply of quality planting material for horticulture crops including Tissue Culture banana. Since the present capacity of TC unit, which was set up in 1995-96, is inadequate, there is scope for strengthening the TC Lab with NHM assistance.
5. Area expansion programmes need to be supported with creation of infrastructure for post harvest management.