

# *REPORT ON VISIT TO KERALA DURING 29 JULY-02 AUGUST, 2014*



*Department of Agriculture & Cooperation  
Krishi Bhavan  
New Delhi*

## REPORT ON VISIT TO KERALA DURING 29.7.2014 TO 02.08.2014

Dr. Jose C. Samuel, Chief Consultant, visited districts of Kottayam, Pathanamthitta and Ernakulam in Kerala during 29.7.2014 to 2.8.2014 to review the progress under National Horticulture Mission (NHM), Rasthriya Krishi Vikas Yojana (RKVY) and Vegetable Initiative for Urban Clusters (VIUC) schemes.

### Review of activities in Kottayam District

Ms Lalima, Deputy Director of Agriculture (Hort.) accompanied during the field visit in Kottayam district.

Main horticulture crops being grown in Kottayam district are banana, pineapple, vegetables, rizomatic spices, pepper and cocoa. Substantial position of the district is under rubber plantation. There has been increasing interest in growing flowers in the district in recent years.

Area expansion (Fruits, flowers, spices), rejuvenation / replacement of senile plantation, creation of water resource, protected cultivation, creation of water resources, IPM/INM, Vermi composting, horticulture mechanization and HRD are some of the main activities taken up under NHM in Kottayam district. Area expansion of banana, protected cultivation, precision farming has been taken up with RKVY assistance. During 2013-14, an expenditure of Rs. 215.18 lakh was incurred under NHM in the district. Expenditure during 2014-15, till June, 2014 was Rs. 5.17 lakh. No activity on PHM and marketing has been taken up.

**Table 1: Area, production & productivity of Horticulture crops in Kottayam district**

Year	2004-05			2011-12			% Difference		
Name of the crop	Area (ha)	Prodn. (MT)	Pdctvty (T/ha)	Area (ha)	Prodn. (MT)	Pdctvty (T/ha)	Area	Prodn.	Pdctvty
Banana	3200	29867	9.33	2521	22138	8.78	-21.2	-25.9	-5.9
Pineapple	918	5567	6.06	1134	8439	7.44	23.5	51.6	22.7
Pepper	9828	2074	0.21	3336	1145	0.34	-66.1	-44.8	62.6
Ginger	198	595	3.01	110	286	2.60	-44.4	-51.9	-13.5
Turmeric	136	333	2.45	93	193	2.08	-31.6	-42.0	-15.2
<b>Total</b>	<b>14280.0</b>	<b>38436.0</b>	<b>2.69</b>	<b>7194</b>	<b>32201</b>	<b>4.48</b>	<b>-49.6</b>	<b>-16.2</b>	<b>66.3</b>

**Source:** SHM, Kerala

There has been decrease in area and production of almost all the crops covered under NHM in Kottayam district, except for pineapple. The data needs reconciliation.

## Observations in Kottayam District



Water harvesting tank constructed at St. Joseph College of Engineering & Technology, Choondacherry, Bharangyanam, Pala at a cost of Rs. 1.20 lakh. Subsidy assistance of Rs. 0.60 lakh was provided during 2012-13. Water from the tank is being used for irrigating the crops being grown under naturally ventilated green house (400 Sq.m). Crop is seen below. Collage has also constructed a vermi compost unit.



Total cost of the GH structure is Rs. 5.09 lakh and subsidy assistance of Rs. 2.80 lakh was provided. Cost of vermi compost unit is Rs. 60,000, for which 50% assistance was availed. This is also working as a demonstration unit for the engineering students of the college.



These heliconia flowers (Tropical red, sexy pink) are being cultivated by Mr. Saju Ignatious, Nadivelekutta, Eliwali, Kudanad, Pala Block by availing assistance under NHM during 2012-13. He was provided assistance @ Rs. 35 per plant for 1000 plants. Plants were purchased from a private firm at Chaladkudi.



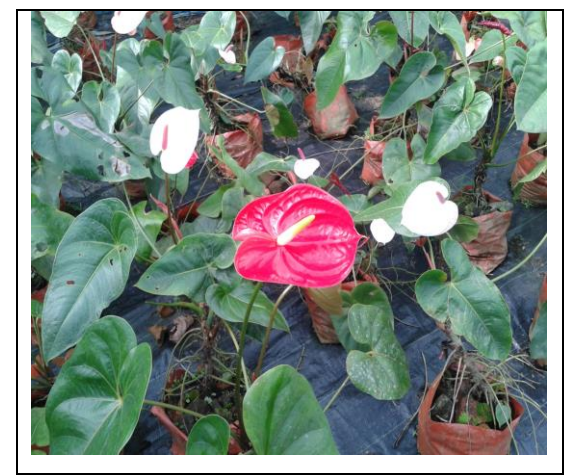
The cut flowers are packed in cardboard boxes and marketed in Delhi.



Mrs. Saju, is displaying the cheque of Rs. 51,000 received by Mr. Saju in appreciation of his efforts from Govt. of Gujarat.



Mr. Mathew Syriac, Neendoor has availed subsidy under NHM during 2012-13 for naturally ventilated green house (400 sq.m). Seven farmers in the area have formed a Neendoor Farmers Club and are taking up cultivation of vegetables in NV green house.



Mr. Paul Augustin, Puliked, Neendoor, has availed NHM subsidy during 2013-14 for constructing shade net house (1140 s. m) in which Anthurium was being cultivated. Flowers were being marketed through Eden Flora in Delhi market. He has used coconut husk for growing the anthuriums.

## Review of activities in Pathnamthitta District

Ms Annie Samuel, Deputy Director of Agriculture (Hort.) I/C accompanied during the field visits.

Main horticulture crops being cultivated in Pathanamthitta district are banana, pineapple, pepper and rizomatic spices. Significant area is under rubber plantation in the district. Farmers have shown keen interest in growing flowers in recent years.

Major activities undertaken under NHM in Pathamthitta district include area expansion (banana, pineapple, flowers, spices) rejuvenation / replanting of pepper gardens protected cultivation (hi-tech farming), INM/IPM, Organic farming (vermin compost) and Horticulture mechanization. Area expansion of TC banana, protected cultivation, precision farming and mushroom production unit was taken up under RKVY. An expenditure of Rs. 135.47 lakh was incurred during 2013-14 under NHM in the district. Vegetable development programme has also been implemented in the district.

**Table 2: Area, production & productivity of Horticulture crops in Pathanamthitta district**

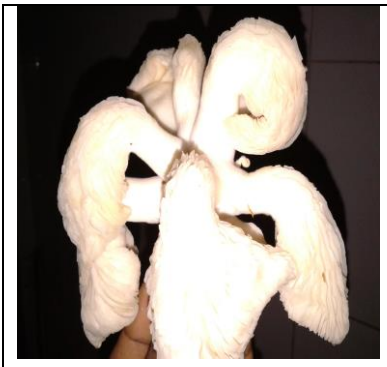
Year	2004-05			2011-12			% Difference		
Name of the crop	Area (ha)	Prodn. (MT)	Pdctvty (T/ha)	Area (ha)	Prodn. (MT)	Pdctvty (T/ha)	Area	Prodn.	Pdctvty
Banana	2483	17659	7.11	1694	15631	9.23	-31.8	-11.5	29.7
Pineapple	302	2049	6.78	197	1440	7.31	-34.8	-29.7	7.7
Pepper	5651	1328	0.24	1733	859	0.50	-69.3	-35.3	110.9
Ginger	526	1358	2.58	314	1009	3.21	-40.3	-25.7	24.5
Turmeric	126	234	1.86	91	189	2.08	-27.8	-19.2	11.8
<b>Total</b>	<b>9088.0</b>	<b>22628.0</b>	<b>2.49</b>	<b>4029</b>	<b>19128</b>	<b>4.75</b>	<b>-55.7</b>	<b>-15.5</b>	<b>90.7</b>

There has been reduction in area and production of all the horticulture crops taken up for development under NHM in the district. This needs to be looked into and reconciled.

## Observations in Pathanamthitta District



Mr. Jacob Thomas, Palathumkal, Kumplampoika P.O availed assistance under RKVY during 2011-12 for setting up a small mushroom production unit. He has undergone training from Regional Research Station of Kerala Agricultural University, Kumarakom. Now he is into commercial mushroom production.



Mushroom varieties like Sapidus, Florida, Pink Oyster, Milky are being produce by Mr. Jacob. The unit has been expanded on the terrace (1000 sq. ft.). Mushrooms are packed and sold in local market ranging from 150-200 grams, each costing Rs. 60.00. Sapidus and Pink are more expensive. An outlet has been provided at the Collectorate of Pathanamthitta, where the mushrooms are being sold as hot cake. Mrs. Thomas is also now fully involved in the mushroom enterprice.



Mr. Jacob Aiyeneth, Nariyapuram has gained expertise in bee keeping particularly Sting less Honey Bee (Dwarf Honey Bee) or Cheruthen Eecha (*Trigona iridipennis*). Honey from this species is said to have many medicinal properties.

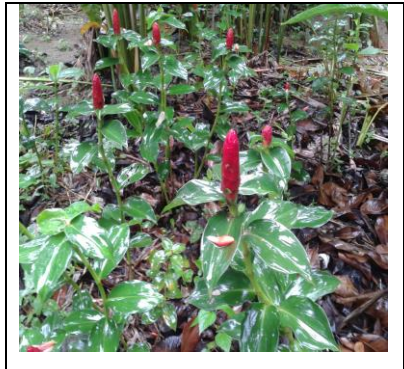


Mr. Rajshekran Nair, Kozekole Charinathil, Vayamuttam East PO has availed NHM subsidy during 2012-13 for constructing NV green house costing Rs. 5.75 lakh. Subsidy assistance of Rs. 2.84 lakh has been provided. Salad cucumber (KVK 45)

Okra (RK 516 F1 Hybrid) and Yard long beans (NS 620) have been taken up for cultivation. Seed were processed from Namdhari seeds, Pala.



The crop was found to be infested with pests, although he has tried plant protection measures. He mentioned that his first crop also had similar problem. He requested for assistance in solving the problem.



Mr. Johnson Mathew, Thekottil House, Kozhencherry East PO has availed assistance for growing cut flowers during 2012-13 covering 0.5 ha at his residence. Heliconia variety (Prince of Darkness, sexy pink) and exotic flower costus woodsonii-Red buttock Ginger are being grown. He is also cultivating flowers on the hill slopes covering an area of about eight acres, where he has constructed a water harvesting structure. He mentioned that many visitors are visiting his plot. Dry flowers made out of costus woodsonii flower is also fetching good price.

## Review of activities in Ernakulam District

Mrs. Valsa Augustine, Deputy Director of Agriculture (Hort.), Ernakulam accompanied during the field visits.

Main crops being grown in Ernakulam district are banana, pineapple, flowers, spices & Cocoa.

Activities taken up under NHM in the district include area expansion (banana, pineapple, flowers, spices), rejuvenation / replanting of cocoa, protected cultivation, INM/IPM, Organic farming (vermi compost), creation of water resources, Horticulture Mechanization and HRD. Hi-tech farming in naturally ventilated green house of 400 sq. m has been taken up. Under RKVY, activities such as area expansion of banana suckers, and Vegetable Initiative for Urban clusters have been taken up. Under Vegetable Development Programme, supply of grow bags was taken up with the involvement of Regional Agro Industrial Development Cooperative of Kerala Ltd. (RAIDCO) and Kerala Agro Industries Cooperation (KAICO). Roof top gardening has also been taken up for which District Agri Horti Society and POABS were involved.

**Table 3: Area, production & productivity of Horticulture crops in Ernakulam district**

Year	2004-05			2011-12			% Difference		
Name of the crop	Area (ha)	Prodn. (MT)	Pdctvty (T/ha)	Area (ha)	Prodn. (MT)	Pdctvty (T/ha)	Area	Prodn.	Pdctvty
Banana	6107	51869	8.49	5669	54435	9.60	-7.2	4.9	13.1
Pineapple	7439	67731	9.10	5563	57606	10.36	-25.2	-14.9	13.7
Pepper	6825	1014	0.15	2456	620	0.25	-64.0	-38.9	69.9
Ginger	259	800	3.09	198	680	3.43	-23.6	-15.0	11.2
Turmeric	484	947	1.96	319	1000	3.13	-34.1	5.6	60.2
<b>Total</b>	<b>21114.0</b>	<b>122361.0</b>	<b>5.80</b>	<b>14205</b>	<b>114341</b>	<b>8.05</b>	<b>-32.7</b>	<b>-6.6</b>	<b>38.9</b>

There has been reduction in area of all horticulture crops taken up for development under NHM in the district. This needs to be looked into and reconciled.

### Observations in Ernakulam District



Sunil Kumar, Medekkal House, Manjumel, Eloor tank up roof top cultivation of cow pea, okra, brinjal, chilli and tomato during 2013-14 in 25 grow bags under VIUC. They have already taken one harvest from the crops.



Mrs. Smita Ranjit, Vyneka, Cheruparamb and Mr. Krishnapilla, Rose Villa, Bhagavatipuram have also taken up cultivation of vegetables under VIUC. The vegetables were consumed by the family. Each grow bag could produce 2.5 kg of okra, 2 kg each of cow pea & brinjal, 3 kg of tomato and 1.5 kg of chilli.



Mr. Salu Paul, Perumathathu Parayil Maikkad PO, Nedumbassery availed assistance under NHM for constructing NV green house (400 Sq. m during 2012-13) at a cost of Rs. 4.45 lakh. Subsidy assistance of Rs. 2.805 lakh was provided. He is not only a progressive farmer but also a great foot ball fan.



Total area available with Mr. Paul is 4 acres. He has taken up cultivation of pineapple, chillies, drumstick.



View of plot of Mr. Sri Kumar Meliakal House, Mekad, who has taken up cultivation of pineapple in 2 ha during 2013-14 with NHM assistance. First instalment of Rs. 26,250 has been paid.

## SUMMARY OF OBSERVATIONS AND RECOMMENDATIONS

- Horticulture data relating to area, production and productivity being collected needs review and reconciliation, as the same does not reflect the impact of interventions under NHM in the districts. This assumes importance because the interventions have been mostly oriented towards enhancing production through area expansion. Considerable reduction in area has been noticed under pepper in all the three districts, which needs close review.
- Efforts being made in producing high value floriculture like heliconia, anthurium and other cut flowers, is a welcome sign. However, only make shift arrangements are being made by the farmers for packing and transporting the flowers. There is need to set up pack houses for this purpose. Mr. Saju Ignatious from Pala, Kottayam is interested in the same.
- There has been increase in coverage under protected cultivation in recent years. State Government is providing additional 25% subsidy under the scheme on 'Hi-tech farming', which could be one of the reasons for this. There is, however, need to strengthen the Extension machinery of State Horticulture Mission by training the Field Staff on all aspects of protected cultivation. The pest problem being faced by Mr. Rajshekran Nair, Kozekole Charinathil, Pathanamthitta, in green house cultivation need to be resolved.
- Participation of educational institutions like Engineering College at Kottayam in NHM activities is helping in generating awareness about importance of horticulture among the students and youths, which is worth appreciation and needs encouragement.
- Supply of grow bag kits for vegetables under VIUC is helping to supplement availability of vegetables in Ernakulam. Most of the households visited have taken the first crop and are looking for seed material for taking next crop. Local Krishi Bhavans need to be equipped for this purpose.
- There is need for promoting more private sector participation in creating infrastructure for post harvest management and marketing.
- Hortnet need to be operationalised in all the three districts visited.
- Constraint in mobility of field staff due to lack of transport facilities, particularly in Ernakulam district, need to be looked into and resolved.