

REPORT OF JOINT INSPECTION TEAM ON THEIR VISIT TO KERALA

DATE OF VISIT: 06 – 10 DECEMBER 2010



NATIONAL HORTICULTURE MISSION
MINISTRY OF AGRICULTURE
DEPARTMENT OF AGRICULTURE & COOPERATION

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Report of the Joint Inspection Team under the Leadership of Dr. Jose C. Samuel, Chief Consultant (NHM) which visited Kerala during 6-10 December, 2010 to review the progress under the National Horticulture Mission

The Joint Inspection Team (JIT) comprising of the following Members visited Kerala during 6-10 December, 2010 to review the progress under the National Horticulture Mission (NHM) in the State:

1. Dr. Jose C. Samuel, Chief Consultant (NHM), MOA, New Delhi
2. Shri Tamil Selvan, Director, Directorate of Arecanut & Spices Development
Kozhicode
3. Shri Venkatesh Hubballi, Director, Directorate of Cashew & Cocoa Development,
Kochi
4. Dr. M. Gvindan, Associate Dean College of Agriculture, Kerala Agricultural
University, Padannakkad P.O Kasargod
5. Shri B. Suresh, Joint Director of Agriculture, SHM, Kerala
6. Dr. T.N Vilasini, Project Director, ORARS, Kayamkulam
7. Dr. E.V Mathew, Prof. & PI, PFDC, Tavanur

Kozhicode District

On 6.12.2010, the Team visited the Indian Institute of Spices Research, Calicut and held discussions with Dr. Parthasarthy, Director, IISR. The IISR has taken up programme for development of nucleus stock of spices, particularly pepper through the Directorate of Arecanut & Spices Development, Calicut. During the discussions it emerged that most of the nucleus planting material is being planted by the farmers directly instead of its multiplication in the nurseries. This has resulted in shortage of pepper cuttings besides high cost being incurred by the farmers on using nucleus planting material.

It was pointed out that despite the intervention by a number of agencies for spices development in the country viz. IISR, Directorate of Spices, Spices Board and State Horticulture Missions, the area and production of spices has been registering a declining

trend. As per NHB statistics, the area under spices has decreased to 2.47 m ha during 2009-10 against 2.62 m ha in 2007-8. The corresponding production has declined to 4.02 m MT from 4.36 m.M.T. In Kerala the production of spices has declined from 1.6 lakh MT to 1.4 lakh MT whereas there has been no improvement in productivity. Dr. Partharsarthy mentioned that the decrease in price of some of the spices, particularly pepper, resulted in neglect by the farmers, which could be one of the reasons for decline in production. Director, DASD mentioned that the spice statistics is being reviewed for which a meeting has been convened by Advisor (Horti), DAC in January, 2011. The issue regarding production trend of spices is proposed to be discussed during this meeting to find out the solutions.

The JIT visited some of the green house and shade net structures set up by IISR for developing the nucleus stock of pepper. The team also visited the diagnostic lab for quality testing of the planting material. Since no NHM logos were displayed, it was advised that logo of NHM and display board need to be placed at the nursery / green house sites where NHM assistance has been provided.

The Team also visited the Exhibition room of IISR where various aspects of R&D on spices have been displayed.

The Team also visited the Spice nursery set up by the Directorate of Arecanut and Spice Development and observed that shade net structure has been set up for raising pepper cuttings. Director, DASD mentioned that there is good demand for pepper cuttings in Kerala.

Deputy Director of Agriculture (Hort.) provided information about the progress under NHM in the district. Till 2009-10, an expenditure of Rs. 681.95 lakh has been incurred on nursery development, area expansion, rejuvenation, IPM, organic farming and HRD activities. Outlay for 2010-11 is Rs. 315.20 lakh.

Glimpses of some of the activities visited is place on the next page.

GLIMPSES OF ACTIVITIES VISITED IN KOZICODE DISTRICT



Pepper nucleus planting material being produced at IISR



Polhy house constructed for raising nucleus stock



Pepper cutting raised by DASD



JIT with Director, IISR

The JIT visited Kasargod, Kannur and Pahtanamthitta Districts for conducting field inspections. Meetings were held with the District Collectors & Chairperson, District Mission Committee in each of these districts. Besides, a meeting was held with the Additional Chief Secretary & APC, Govt. of Kerala at Thiruvanthapuram of 10.12.2010 to brief him about the observations of JIT. A meeting was also held on 10.12.2010 to review the progress under NHM, Micro Irrigation and CDB schemes.

Visit to Kasargod District

The JIT covered Kasargod district on 7.12.2010. Shri T. Bhatt, Deputy Director of Agriculture (Hort) accompanied during the visit to different NHM sites. A meeting was also held with Shri Shiv Prasad, Principal Agriculture Officer, Kasargod District. During the meeting the PAO mentioned that there is a great demand for rejuvenation of arecanut by the farmers in the district. Hence, there is a need to include arecanut under rejuvenation programme.

Kasargod district lies in the northern tip of Kerala. The total area of the district is 1992 sq. kms. Main horticulture crop of the district is coconut followed by arecanut. Rubber is also being grown extensively. Cashew was one of the main crop of Kasargod district. Due to tough competition with rubber and attack of pests and diseases, the area under cashew has been declining.

The area, production and productivity of some of the major horticultural crops of Kasargod is given in the **Table 1**.

Table 1: Area production and productivity of major horticultural crops in Kasargod District during 2005-06 and 2008-09
Area in ha, production in MT, Productivity in MT/ha

Sl. No.	Crop	2005-06			2008-09			Difference (%)		
		Area	Prod.	Pvty.	Area	Prod.	Pvty.	Area	Prod.	Pvty.
1.	Banana	3305	24451	7.4	1030	23690	23.0	-68	-3	210
2.	Cashew	18068	17925	0.99	11667	11210	0.96	-35	-37	-3
3.	Pineapple	128	804	6.3	19	247	13	-85	-69	106
4.	Ginger	56	195	3.5	40	380	9.5	-28	95	171

Source: Mission Director, SHM, Kerala (APP 2010-11 and letter No. 325/SHM/08/175 dated 6.2.2010)

The activities taken up under NHM in the District include setting up of nurseries, area expansion (under mango, banana, pineapple, spices & cashew) rejuvenation of arecanut gardens, creation of water resources and HRD. The decrease in area and production, as provided in the statistical data need to be reviewed.

JIT visited the plot of Ms Rafia w/o Mr. Kunjamo, Vikas Nagar, Ednad village, Manjeshwaram Block who has availed assistance for area expansion under pineapple in 0.4 ha during 2010-11. Although she had applied for 1 ha, assistance was limited to 0.4 ha only due to limitation of funds. Kew variety of pineapple has been planted for which the planting material was procured from Vazakulam in Kottayam district. There was heavy weed infestation due to continuous rains. NHM logo was not displayed. Subsidy amount is yet to be disbursed to the beneficiary.

Shri Mohan Chandra in the same village has availed subsidy for area expansion under aonla during 2010-11. The planting material was procured from the Departmental Nursery, Palakkad. The farmer has installed sprinkler irrigation on his own. Subsidy amount is yet to be disbursed. Farmers in the area have adopted a unique way of water harnessing by constructing tunnels, which are about 1 km long, locally known as 'Surangam'. Water gets collected in the Surangam through spring action, which is used for irrigation purpose.

The plot of Shri Babu Thomas was inspected at Kedenj village at Berdala who has availed assistance for sprinkler irrigation in 0.8 ha of arecanut crop during 2009-10. An assistance of Rs. 6000/- has been paid to the beneficiary during 2009-10. It was observed that Shri Babu has also constructed a 'Surangam' for harnessing spring water for use in the irrigation system.

The Team called on Shri Annand Singh, District Collector of Kasargod District and Chairman of the District Mission Committee. He was appraised of the following observations of the JIT:

- Arrangement need to be made to supply good quality planting material to the farmers as they are sourcing the material from other districts.
- There is good scope for promoting organic farming, particularly for cashew, which need to be promoted.

- There is need to promote protected cultivation, as no progress has been achieved under the component in the district.
- Market infrastructure facilities for a cashew market was sanctioned for implementation by Peraludukkam Agriculture Marketing & Processing Cooperative Society during 2007-08 involving a total cost of Rs. 3.25 lakh. However, no progress has been achieved. It emerged that the society is yet to get the loan.
- No progress has been achieved under post harvest management in the district. Aggressive measures are needed through publicity and compaign.
- There was need to display the NHM logo all the sites where assistance has been provided.

The Team visited the College of Agriculture, Padannakhand, under the Kerala Agricultural University on 8.12.2010 to see the activities taken up with NHM assistance, where a model nursery for mango has been established during 2010-11 for which an amount of Rs. 18.00 lakh was released. The College has a good collection of germplasm of different mango varieties in its campus, which is being used for multiplication. Root stock is being raised for which mango stones are procured through tender. During May-June, 2010 about 1.5 lakh number of mango stones were procured. So far 6850 mango graft have been produced.

A small nursery for minor horticultural crops has also been established at the College for which an amount of Rs. 3.00 lakh has been released by the SHM Kerala during 2010-11. About 23500 numbers of grafts for sapota, guava, pomegranate, citrus etc. has been produced from the nursery.

An amount of Rs. 8.00 lakh has been provided during 2009-10 for strengthening a Tissue culture laboratory. So far, 17,200 TC banana plantlets have been produced. It was pointed out that the capacity of production should be enhanced for viable functioning of the lab. Assistance for spawn production for oyster mushroom was provided during 2007-08.

Glimpses of some of the activities visited is place on the next page.

GLIMPSES OF ACTIVITIES VISITED IN KASARGOD DISTRICT



Pineapple cultivation taken up by Mrs. Rafia W/o Sh. Kunjamoo at Vikash Nagar



Aonla cultivation taken up by Shri Mohan Chandra at Edanadu



Nursery and TC activities taken up by College of Agriculture, KAU, Padannakkad

Visit to Kannur District

The JIT visited Kannur district on 8.12.2010. Shri Ashok Kumar, Principal Agriculture Officer, Kannur and Shri A. Chandran, Deputy Director of Agriculture (Hort.) accompanied during the visit.

Kannur district has a total area of 2967.97 sq kms with 3 talukas and 129 villages. The main horticultural crops of the district are coconut, cashewnut, pepper, banana and vegetables. Details of area, production and productivity of the major horticultural crops in the district is given in **Table- 2**.

Table2: Area, Production & Productivity of Horticultural crops in Kannur District

Sl. No.	Crop	2005-06			2007-08			Difference (%)		
		Area	Prod.	Pvty.	Area	Prod.	Pvty.			
1.	Banana	6000	462	7.7	5000	27063	5.4	-17	-41	-30
2.	Pepper	22659	5473	0.24	1253	1865	0.15	-45	-66	-38
3.	Cashew	25066	2925.2	1.2	19366	25715	1.3	23	-12	8
8	Pineapple	255	1391	5.4	175	922	5.3	-31	-34	-2
5.	Turmeric	104	304	2.9	138	451	3.3	33	48	14
6.	Mango	11824	87261	7.4	7133	52641	7.4	-40	-43	-

Source: SHM, Kerala, as APP 2010-11

The activities taken up under NHM in Kannur District are setting up of nurseries, area expansion mango, pineapple, banana, flowers, spices, cashew & cocoa, rejuvenation, creation of water resources and HRD. However, there has been decrease in the area and production of most of the crops, which need to be reviewed. KVK, Kannur has been involved for HRD as well as INM/IPM infrastructure activities. An expenditure of Rs. 9.10 crore was incurred till 2009-10 in the district. The outlay for 2010-11 is Rs. 4.64 crore against which an expenditure of Rs. 0.79 crore has been incurred till November, 2010.

A visit was made to a pineapple cluster where about 20 ha of pineapple plantation (Kannara variety) has been taken up by four farmers during 2009-10. Planting was done in June, 2009. The planting material was procured from Vazakulam in Kottayam district.

At the time of visit, harvesting was under progress in some portion. The plots were well maintained.

A visit was made to the model nursery for cashew which was established during 2007-08 at an expenditure of Rs. 18.00 lakh at the District Agricultural Farm, Taliparamba. About 300 plants of cashew varieties of Dhana, Priyanka, Raghav, Damodar, Dhanasree and Sulabha have been maintained in the Sion bank. It was observed that the nursery area was infested with weeds and needed better upkeep to ensure availability of good quality planting material. The nursery is yet to be accredited by DCCD, Kochi.

A number of activities such as HRD (Gardeners Training), small nursery, Plant Health Clinic, and Mushroom spawn production unit have been taken up by KVK, Kannur since 2007-08 under NHM. The KVK has motivated Self Help Groups to run the spawn production unit on a cost sharing basis, which is functioning well. Under Gardeners Training one batch of 25 trainees was completed in September, 2010. Training for the 2nd batch commenced from October, 2010. As a part of the HRD activity, a green house, mist chamber and potting shed have been constructed. The trained youth have become self employed in landscaping, gardening and nursery activities. The KVK has bagged the pest KVK award for 2010.

As a part of the Plant Health Clinic, a touch screen Kiosk has been developed by the KVK for disseminating information about the control measures for different crops.

The Team visited a community tank constructed at Thimiri village during 2009-10 at an expenditure of Rs. 1.00 lakh. The tank has the shape of a well having a diameter of 20 ft with 12 ft depth.

After the field visit, discussions were held with Shri V.K Balkrishnan, District Collector and Chairman District Mission Committee, Kannur. He was apprised about the observations of the JIT with regard to better maintenance of nurseries and the need for setting up infrastructure for post harvest management and marketing.

Glimpses of some of the activities visited is place on the next page.

GLIMPSES OF ACTIVITIES VISITED IN KASARGOD DISTRICT (CONTD)



View of ' Surangam' an indigenous method of tapping spring water through tunnels



Community tank constructed at Badiadakar Village

Sprinkler irrigation in the plot of Shri Babu Thomas at Kedenj Village



JIT Members with Shri Anand Singh, District Collector, Kasargod

Visit to Pathanamthitta District

The JIT visited Pathanamthitta District on 9.12.2010. Shri Sam Mathew, Deputy Director of Agriculture (Hort.) Pathanamthitta accompanied during the field visits.

The total geographical area of Pathanamthitta district is 2687.50 sq km out of which the area under horticultural crops is 17,034 ha, mainly coconut, banana, pineapple, pepper and vegetables. The area production and productivity of major horticultural crops in the district is given in **Table 3**.

Table 3. Area production and productivity of Horticultural crops in Pathanamthitta District

Sl. No.	Crop	Area in ha, production in MT, Productivity in MT/ha								
		2005-06			2007-08			Difference (%)		
		Area	Prod.	Pvty.	Area	Prod.	Pvty.			
1.	Banana	4786	53282	11.1	4642	39747	8.6	-3	-25	-22
2.	Pineapple	301	1753	5.8	323	2104	6.5	7	20	12
3.	Ginger	632	1908	3.0	545	1777	3.3	-14	-7	10
4.	Turmeric	137	263	1.9	92	167	-1.8	-33	-36	-5
5.	Pepper	5529	1419	0.26	3934	1191	0.3	-29	-16	-15
6.	Cashew	1048	528	0.50	893	303	0.34	-15	-43	-32

Source: SHM, Kerala, AAP 2010-11.

The activities taken up under NHM since 2007-08 include establishment of nurseries, vegetable seed production, area expansion (pineapple, banana, spice, mango, flowers), rejuvenation, protected cultivation, organic farming, INM/IPM including IPM infrastructure and HRD activities. The decrease in area and production, however, needs to be reviewed.

The Team called on Mrs S. Lalithambika, District Collector and Chairperson, District Mission Committee, Pathanamthitta before proceeding to the field visits and apprised her about the need for holistic development of horticulture sector in the district duly ensuring an end to end approach, from quality planting material to marketing.

During the visit to CARD KVK, Dr. Robert, In charge KVK apprised that they have already conducted 4 training programmes for Gardeners. Five training programmes on Agro Processing and Value Addition for Fruits & Vegetables have been completed. Besides, three training programmes on indigenous processing methods in cocoa and its value added products have been completed.

A Tissue Culture lab was strengthened during 2008-09 with an assistance of Rs. 8.00 lakh. The lab is producing about 9000 banana plantlets which is being sold @ 15/- each. It was pointed out that the output needs to be enhanced to ensure viability of the TC lab.

A small nursery for minor horticulture crops has been established during 2009-10 with an assistance of Rs. 3.00 lakh. The nursery is producing planting material for aonla, papaya, lemon, mangosteen, rambutan, nutmeg etc. So far 34,440 plants have been produced.

A mushroom spawn production lab has been established during 2008-09 with an assistance of Rs. 3.00 lakh. The lab is functioning satisfactorily and so far 10 tonnes of spawn has been produced and sold.

Dr. Robert mentioned that projects for setting up sustainable mushroom production system for Pathanamthitta District has been sanctioned during 2010-11 with an outlay of Rs. 15.00 lakh. Another project on Small Scale Mobile Market for Locally Produced Fruits and Vegetables with its Processed and Value Added products has also been approved with an outlay of Rs. 8.00 lakh. Work on these projects is proposed to be initiated as soon as funds are released by the SHM, Kerala. He requested for releasing funds with 100% financial assistance as eligible for PSUs, particularly since CARD KVK is a ICAR funded KVK.

JIT visited the plot of Shri Koshy Kunju Abraham, at Evaviperoor who has taken up cultivation of TC banana in one ha during 2010-11. Planting was done on 17.10.2010 for which the planting material was procured from a TC Unit in Bangalore. He mentioned that it was difficult to get the planting material locally at the right time. Hence he had to resort to purchase from Bangalore. He has also adopted drip irrigation and is following organic farming methods.

The plot of Shri M.K Chacho, who has taken up rejuvenation of pepper in 0.6 ha during 2009-10 was visited. A visit was also made to the Sugarcane Seed Farm, Pandalam where vegetable seed production has been taken up for okra, bittergourd, snake, gourd, brinjal etc. Due to excess rain during the month of November there was water logging conditions in the farm area, which has affected the yield.

Glimpses of some of the activities visited is place on the next page.

GLIMPSES OF ACTIVITIES VISITED IN KANNUR DISTRICT



Activities at pineapple cluster of Shri Joshy George, Moonilavu



Model cashew nursery at Taliparamba, Kannur District

GLIMPSES OF ACTIVITIES VISITED IN KANNUR DISTRICT (CONTD.)

Activities at KVK, Kannur



Small nursery



Mushroom spawn production



Display Kiosk



Nursery Unit



JIT with Shri Balakrishnan, District Collector, Kannur

Meeting held on 10.12.2010 to review the progress of Central /Centrally Sponsored Schemes

A meeting was held on 10th December, 2010 to review the Central /Centrally Sponsored Schemes on Horticulture being implemented in Kerala. The following Officers were present:

1. Dr. Jose C.Samuel, Chief Consultant (NHM), MoA
2. Dr. K. Prathapan, Mission Director, SHM, Kerala, Trivandrum
3. Shri Tamil Selvan, Director, Directorate of Arecanut & Spices Dev., Calicut.
4. Dr. S. Pathummal Beevi, Prof. & Associate Director of Research, KAU, Trichur.
5. Shri Jacob Philip, State Agriculture Engineer (MI), Agir Deptt, Trivandrum.
6. Shri Gyana Devan, Deputy Director, Coconut Development Board, Trivandrum.

Despite much efforts, office of the National Bamboo Mission, Trivandrum could not be contacted. AD, NHB could not participate as he was out of station.

NHM

Dr. Jose C. Samuel, briefly highlighted the observations of the JIT during their field visits to different districts. He pointed out that despite substantial investments being made for the development of horticulture in Kerala through the NHM Scheme, the same is not getting reflected in the statistical data in terms of area, production and productivity. This is evident in the case of most of the crops. Moreover, the planting material for pepper is in short supply. The nucleus material being produced by IISR is being planted directly by the farmers without going into multiplication process through the nurseries. There is no mechanism for quality check of the planting material. Moreover, under the area expansion programme, farmers are getting the material on their own efforts, without any quality check for which subsidy is being released. There is also short supply of planting material for TC banana. Progress under infrastructure development projects such as TC lab, seed infrastructure is going on at a slow pace, which need to be accelerated. The progress of work on the construction of Centre for Perishable Cargo at Cochin International Airport need to be monitored closely. Besides, implementation of

the project for enhancing the volume of perishable horticultural produce in and around CIAL facility need to be pursued vigorously. Overall pace of implementation of the NHM Scheme in the State needs to be stepped up.

Dr. Prathapan, Mission Director responded that the progress of some of the infrastructure development work, particularly under the Kerala Agricultural University has been slow on account of the procedural delay by the Approval Committee of the University. The matter has been taken up with the Vice Chancellor for expediting the matter. The CPC project at CIAL is progressing satisfactory and an amount of Rs. 3.00 crore is being released to them shortly. He added that the volumes of perishable cargo through the CPC has increased with reference to previous years. He further mentioned that work on base line survey for horticulture census in the State has been initiated, which will help in streamlining the discrepancies in reporting of horticultural statistics. Project on protected cultivation of high value vegetables has been value vegetables has been formulated. The progress under Cashew development project through the State Cashew Development Agency is satisfactory. He, however, expressed his reservation about the quality of work being carried out by the Spices Board for the development of pepper in Idukki District.

Dr. Pathummal Beevi, Project & Associate Director of Research, KAU mentioned that the University has taken up 83 projects on planting material development, INM/IPM infrastructure, organic farming etc. of which 24 projects have been completed and 59 are ongoing at 36 locations in the State. A sum of Rs. 921.90 lakh has been provided by SHM, Kerala since 2006-07. She mentioned that the revenue being generated through the sale proceeds of nurseries is being deposited in the University, which is not available for subsequent running and maintenance of the nursery which is providing good support to the farmers. She added that the projects are located in different institutions under KAU and some times mobility becomes a problem to review the progress. cy.

GLIMPSES OF ACTIVITIES VISITED IN PATHANAMTHITTA DISTRICT

Activities at CARD, KVK



Information centre



Tissue culture lab



Nursery for minor horticultural crops



Primary processing through SHG



Vermi compost unit



Vegetable seed production

GLIMPSES OF ACTIVITIES VISITED IN PATHANAMTHITTA DISTRICT (CONTD)



TC Banana cultivation taken up by Shri Koshykunju, Eraviperoor



JIT with Mrs. Lalithambika, District Collector, Pathanamthitta

Micro Irrigation

Shri Jacob Philip, State Agriculture Engineer (MI) mentioned that practically no progress was achieved under the MI Scheme till 2009-10 due to high capital cost and low level of subsidy. However, during the current year, provision for subsidy on drip irrigation has been included under the State Food Security Mission (SFSM) for crops like coconut, arecanut, banana and vegetables. In conjunction with the SFSM, a total subsidy of 90% of the system cost will be available to the farmers. As a result, the MI Scheme has started gaining momentum in the State. He, further, added that the available unspent balance with the districts, except for the three districts covered under the PM's package viz. Kasargod, Wayanad and Pallakhad have been refunded to the GOI. Funds to the tune of Rs. 46.6 lakh is available with these three Districts, which will be utilized in conjunction with the SFSM. There is a demand of Rs. 58.00 lakh for Trivandrum, Quilon and Trichur districts for the current year, as they do not have any money with them to implement the Scheme.

Coconut Development Board

Shri Gyana Devan, Deputy Director, CDB highlighted the activities being taken up by the Board in Kerala. Under the programme on rejuvenation of senile coconut palm a sum of Rs. 57.50 lakh has been provided to the State Agriculture Department. During the 1st phase it is proposed to cover 35,000 ha covering 56 Panchayats in 9 Blocks. During the 2nd phases it is proposed to cover 109 Panchayats in 18 Blocks for which survey work on identification of palm trees has been started. However, due to Panchayat elections the progress was hindered. He added that it takes about 3 months to remove a coconut palm. A subsidy of Rs. 406.25 per tree is provided for the purpose. Besides, hybrid coconut seed production programme is being implemented on 50% cost sharing basis. Under the area expansion programme on outlay of Rs. 1.75 crore has been provided for covering 1720 ha during the year 2010-11. The achievement has been 150 ha, which is implemented through the State Agriculture Department.

Wrap up meeting with Additional Chief Secretary

The JIT called on Shri K. Jayakumar, Additional Chief Secretary, Govt. of Kerala on 10.12.2010. Based on the observations during the field visits the following issues were brought to his notice:

- Major focus in the State has been on area expansion under non perennial crops, wherein bulk of the expenditure has been incurred.
- There is a shortage of quality planting material, particularly for pepper.
- For the area expansion activities, the farmers are making their own arrangement for procuring the planting material and subsidy is disbursed on the basis of claim made by the farmers. SHM's intervention is needed to ensure production and availability of good quality planting material within a reasonable distance.
- Area expansion activities are being taken up in isolated pockets, which defies the concept of cluster approach.
- Pepper development programme through different agencies like SHM, Spices Board needs review and better coordination.
- Hi-tech interventions such as protected cultivation and fertigation needs to be promoted extensively.
- There is a good scope for promoting community tanks, particularly in Kasargod, Kannur and other districts, which needs to be promoted.
- The programme under beekeeping needs to be accelerated.
- Similarly, efforts under HRD need to be intensified for training of farmers.
- Permanent display boards with NHM logo needs to be displayed wherever NHM assistance has been provided. It would be useful to provide NHM data sheet to the NHM beneficiaries, which could be verified during field inspection.
- The pace of implementation of NHM Scheme in the State needs to be stepped up. Unspent balance to the tune of Rs. 8.6 crore is still lying with the SHM as on 31.10.2010.
- The programme for cashew development through State Agency for Cashew Development needs to be accelerated.

- SAU and KVKs are playing an active role in the implementation of NHM scheme in the State. The revenue being generated by them need to be ploughed back for sustaining the activities.
- More efforts are needed to bring in private players for taking up ventures under post harvest management.
- More efforts are needed for setting up markets, particularly wholesale/ Terminal market.

Shri Jayakumar mentioned that he has been reviewing the progress of the NHM activities regularly and financial powers have been vested with the Deputy Directors for accelerating the pace of implementation. He would review the matter again. With regard to bee keeping necessary action will be taken to engage a suitable agency who will be able to deliver in a better way. On NHM logo he suggested the need to develop a logo by engaging a suitable agency as being done by the private sector such as Airtel, Vodaphone etc.