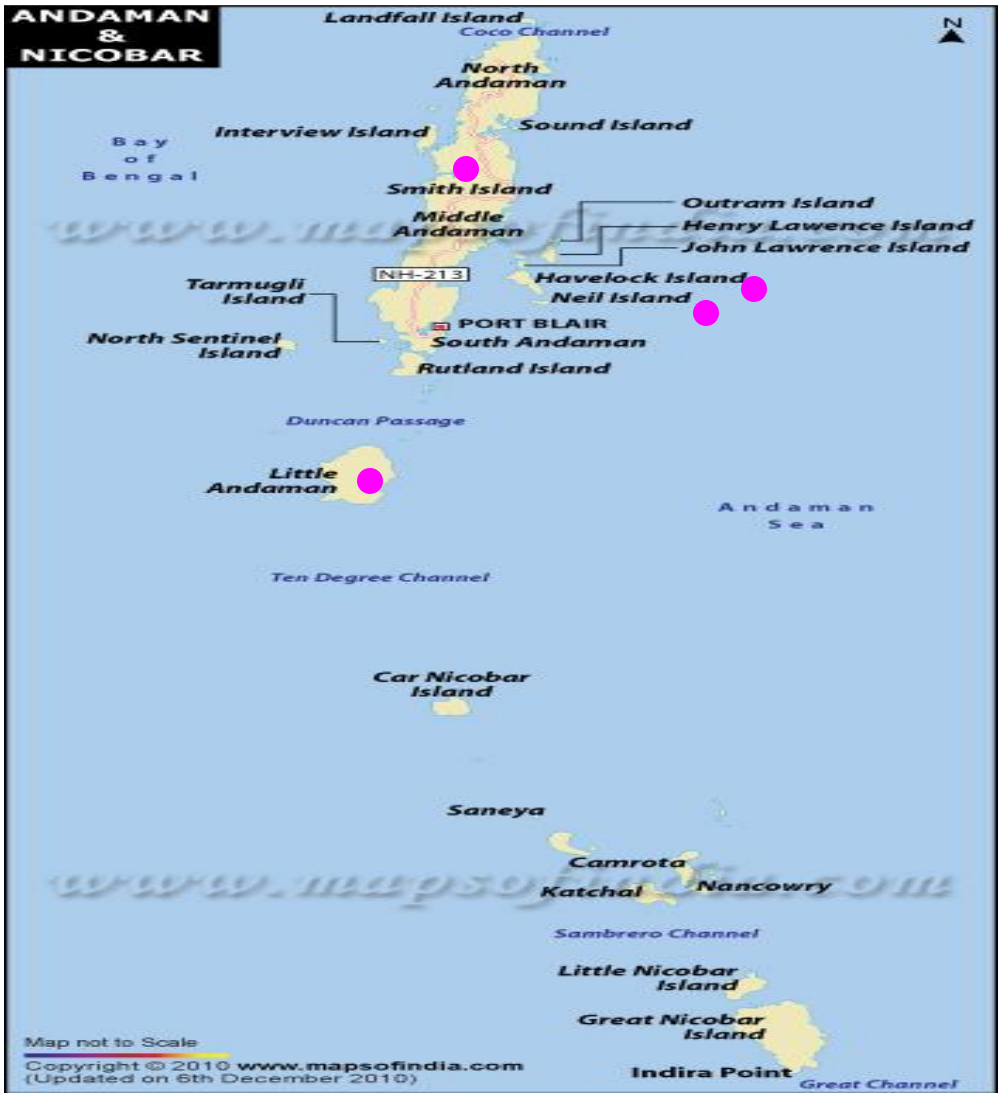
Report of the Joint Inspection Team which visited Andaman & Nicobar Islands during January, 18 to 24th 2012 to review National Horticulture Mission Programmes



Places visited by JIT:- 1. South, Middle & North Andaman 2. Neil Island, 3. Havelock Island 4. Little Andaman

National Horticulture Mission

Ministry of Agriculture

Department of Agriculture & Cooperation

Krishi Bhawan, New Delhi-110001

TABLE OF CONTENTS

Observations

- Subsidy for turmeric and ginger for land holding less than 0.5 ha. should be considered and the cost norms needs to be revised.
- To reduce toxicity in vegetables, Organic farming and IPM may be augmented under NHM.
- The structure of Hi-tech Green House appears to be faulty. The provision for natural ventilation does not exist in the present erected structure by Radico Co. As a result temperature goes high in Green House, hence, cultivation of tomatoes, cole crops, coriander etc. is not possible. Radico may be instructed for modification in consultation with CARI.
- To overcome the problem of shortage of labour, convergence of NHM with MNREGA is required as practiced in Keralapuram area.
- There is good potential for sapota cultivation in Island as it is high paying crop. It needs to be encouraged.
- Similarly, potential for mushroom exists in the land. Spawn production, compost and cultivation unit could be extended under NHM programme.
- Bio-control lab under INM/IPM components is a need of the day. At least one unit may be established for production of bio-agents/ biopesticides.
- Potential for beekeeping exists in the Island. It needs focus since at few places, resource person are available. NBB may take up the publicity/workshops/ training to popularize the programme in a big way.
- Mulching may be encouraged in vegetables / pineapple.
- Farmers are not paying full attention to their fields, they need motivation. After plantation, they go to MNREGA for work.
- Sigatoka is universal problem in Banana plantations in Island. Apart from this, Bunchy top has also been noticed in Neil & Havelock Islands.
- Boron deficiency has been observed in Papaya and guava. Application of boron has been suggested around the trees.
- Stem bleeding of coconut, bud rot in Arecanut, mealy bug and anthracnose in guava has also been noticed. Control of pests is required.
- Fruit fly in melon, pumpkin, and leaf minor are major problems in Neil Island. They need to be addressed suitably.
- Invariably, farmers are growing TC banana/ local cultivar. To utilize the banana waste, establishment of vermi composts units are suggested.

- Training of officials is suggested to handle protected cultivation related problems.
- Quantum of coconut needs to be increased for setting up of coconut processing units. The capacity of processing unit established in little Andaman is under utilized for want of quantum.
- Approved varieties of Marigold may be recommended to the Island beneficiaries.
- Boards displaying NHM logo at the sites of beneficiaries are recommended.
- The programme of Micro Irrigation has not been taken up so far neither in vegetable nor in fruit crops , needs popularization.
- The work relating to construction of vermi compost units is hampered due to non availability of sand which comes under the jurisdiction of Forest Department.
- Port Blair, Havelock and Neil islands can be considered for inclusion under National Vegetable Initiative programme.
- It has been observed that coconut planted 10 years back by CDB and oil palm by Forest Department is not fruiting well. Immediate attention is needed to make them to fruit.
- Periodic visit of officials on the sites of beneficiaries are recommended for imparting technical knowhow / support.
- Agriculture land is being diverted to non-agriculture due to rise in Tourism Industry in the Islands. By and by, the paddy land is being diverted to horticulture. It needs development of agri-hort-forestry based tourism.
- People are interested more in Arecanut plantation. They may be motivated for coconut based farming system.
- In little Andaman, certain farmers are ready to supply planting material of ginger/ turmeric for area expansion under NHM.
- NHM programme could not be implemented in Harminder Bay due to non-cooperation of settlers and non-availability of proper land records.
- HVADA has proposed for revision of subsidy pattern under various components being implemented under NHM namely, protected cultivation, construction of cold storage units, micro irrigation projects, laying out demonstration plots in coconut garden for all Zones varying from 65% to 80%. A proposal in this regard had received which need to be considered.
- The farmers are adopting inter cropping practices in the fruit orchards and promoting vegetables, spices cultivation as an inter crop which is praise worthy.

- Farmers need training in organic farming related practices and awareness about plant protection measures. Imparting training to the farmers on pest management is necessary.

Actionable Issues

1. There is a tremendous scope to produce planting material of cashew at Govt. Nurseries.. All nurseries should be made fully functional to produce planting and vegetable seedlings for holistic development of horticulture in A & N Islands.
2. Banana cultivation is very common but its productivity is very low due to local land races being cultivated. Thrust may be given for T.C banana to get maximum production and to avoid bunchy top disease problem.
3. Indiscriminate use of Toxic pesticide by vegetable growers for short term profit was noticed. To overcome with this problem, IPM programmes need to be augmented and to establish bio control units with Govt. / Public / Private public partnership (PPP) mode to avoid pesticide load in vegetables.
4. Non availability of sand for construction of vermi compost unit in Island, needs special intervention.
5. There is a constant need to control pests/ disease by application of IPM technology to enhance the productivity of crops and also avoid abuse of chemical pesticides in Islands.
6. Bee keepers are facing sale related problems due to non cooperation by the forest department, it needs, immediate attention to resolve the issue.
7. Farmers are not aware about the latest technologies like canopy management, rejuvenation and protected cultivation related technology. Thematic campaign field level workshop, training, seminar, exhibition and exposure visits within and outside State is needed frequently.
8. Field functionaries need special training and exposure visits to main land and Port Blair for growing high value vegetables/ flowers under protected cultivation, IPM/INM and micro-irrigation and orchard related technology.
9. Plantation crops related machinery for pre harvest and post harvest aspect, need special attention.
10. Display boards with NHM logo needs to be placed on the sites developed with NHM assistance.

Report of the Joint Inspection Team on its visit to Andaman & Nicobar Islands during 18-24 January, 2012 to review the progress under the National Horticulture Mission

The Joint Inspection Team (JIT) comprising Dr. Om Prakash, Chief Consultant, National Horticulture Mission and Shri P.S. Kohli, Senior Resource Person, National Horticulture Mission visited Andaman & Nicobar Islands during 18-24 January, 2012 to review the progress under National Horticulture Mission programme in the Union Territory. Dr. K.M Shankaran, Senior Scientist, Central Agriculture Research Institute (CARI), Port Blair joined the Team. Shri Anaut Ram, Assistant Director (Agriculture) coordinated the visit of the Team in South Andaman.. Shri Ramesh Kumar, Assistant Director (Agriculture) coordinated in North Andaman while Shri R.Y. Singh, Assistant Director (Agriculture) coordinated the visit in Mayabundar. Shri P.S. Prasad, Assistant Director (Agriculture) in Rangat and Mrs C. Desouza, Assistant Director (HVA) coordinated in Little Andaman. A wrap up meeting held with Dr. M. A. Salam, Director, High Value Agriculture Development Agency (HVADA), Union Territory of Andaman & Nicobar Islands on 24th January, 2012.

Introduction

Andaman and Nicobar Island is a chain of 572 Island stretched from North to Southern located about 1200 km of mainland on longitude 93^0-94^0 East ant latitude 6^0 –17^0 north. Out of the 572 islands & islets, 38 islands are inhabited and 8 islands are covered under various settlement programme. In term of livelihood, about 50% of the UT population is directly dependent of Agriculture & Allied Activities. The total land being used for agriculture is relatively small due to paucity of non-forested land and numerous competing infrastructural demands. Thus, only about 6% of the non-forested land i.e. about 50,000 ha is being used for agriculture purposes of which 10561 ha is under field crops and 29774 ha is under plantation crops. Devastating Tsunami of December, 2004 has further damaged permanently about 9% (4206 ha) of pre-Tsunami Agriculture Land. Half of the agriculture land is used for coconut plantation, 10% is for areca nut and 20% for Fruits, Vegetables and Root Crops and 20% is for Paddy Cultivation. Due to land limitation high value and low volume agriculture has to be encouraged to increases productivity and make horticulture commercially viable.

Total Geographical Area : 8249 sq. km
Area under Forest cover: 7,171 sq. km
Area under Agriculture: 50,000 ha
No. of Farmers -14525
No. of land holdings -10410
Average holding size -2.46 ha
Total population (2011 Census): 3,79,944
Main occupation of the people: Agriculture, Animal Husbandry, Fisheries, Tourism related activities and services
Average Rainy days: 154
Agro climatic zone: 1
Relative Average Humidity: 80%.

Horticulture Status of A & N Island

Islands enjoys tropical & humid climate and receive rainfall of nearly 3000 mm commencing from May-January and receive both Southwest and Northwest monsoon. The average mean temperature varies from 23o C to 32o C with to 70- 90% humidity. Topography is undulating and climate is congenial for plantation crops like coconut, areca nut and Horticulture crops like tropical fruits and spices. Though plantation crops like coconut, areca nut and cashew are the plantation crops grown in the Island, coconut is the major crop grown in 20927 ha followed by areca nut (4046.44) and cashew nut (568.50 ha). All these are yielding far below the expectations due to low input management and also due old age of plantations and senility. Despite repeated efforts to develop horticulture there has been no tangible impact in term of increase in productivity and income generated by farmers. The productivity of the most of the horticulture crops is however low, mainly due to inadequate awareness of hi-tech intervention & primitive methods of cultivation being practiced by the local population.

Agriculture in Andaman & Nicobar Islands

Department of Agriculture was established in 1945 to develop Agriculture in these Islands in a systematic and scientific manner. After the blanket ban on clearance of further forest, land trust was diverted from area expansion to intensive agriculture practices in the existing areas. Out of the total geographical area of 8249 sq. km. area under agricultural activities is only 50,000 ha of which 10561 ha is under field crops and 29774 ha is under plantation crops. Due to Tsunami which occurred on 26th December, 2004, extensive damage was caused to agricultural land. About 4206 ha of agriculture land is under permanent submergence since than which has dramatically decreased the area available under agriculture/horticulture.

The major responsibilities of the Department are to provide extension support to improve the production in a sustainable manner and ensure timely supply of quality inputs like seeds, fertilizers, plant protection chemicals and other implements. The farmers are also assisted to develop the agriculture field through soil and water conservation measures. The irrigation requirements are assessed and supported through minor irrigation schemes.

Coconut Mission

The coconut mission was launched in January, 2009 at Car Nicobar. The goal of the mission is to increase the productivity and to utilize inter spaces by adopting inter cropping with spices, fruits, vegetables and tuber crops and to promote value addition of coconut to generate skill development. Under the Mission, demonstration plots were laid by adopting full package of technology in coconut garden in an area of 300 ha covering 15 villages in Car Nicobar. Pollination support through beekeeping has been augmented by multiplying 85 bee colonies which has gained popularity among the farmers. Under integrated nutrient, pest and disease management (IPM and INM), 1500 nos. of Pheromone trap for Rhinoceros beetle with 3000 nos. of Lure and 1000 nos. of rodent trap has been distributed to the farmers. To maintain the soil fertility and biological activity within the system, 450 mt. of neem oil cake was supplied to the farmers and for proper composting and regular supply of earth worms, 2 nos of vermihatcheries has been established in the departmental farms under RKVY. To create water sources, 3 R.C.C. ring wells has been constructed in the farmers field and 12 R.C.C. ring wells will be constructed by the end of March 2012. For timely harvesting of nuts, farm climbing device and coconut dehuskers were supplied to farmers through RKVY. At present the

productivity has increased to 49 nuts per palm from 22 nuts in Car Nicobar. Efforts have been initiated for organic certification of 9028 ha of area at Car Nicobar. Taking into consideration the success, subsequent Coconut Mission at Teressa Island was launched in December 2011 to improve the productivity of coconut.

Vegetable Mission

The plan of action includes establishing demonstration plots on vegetable and fruits cultivation, protected cultivation of vegetable in poly house at Departmental Multipurpose Farm for demonstration purpose, distribution of kits containing vegetable seeds and fruits saplings, establishment of spawn production unit at MP for, Car Nicobar and mushroom demonstration unit in each of 15 villages. The programme will be implemented by pooling resources from existing schemes of the Department of Agriculture like RKVY, ATMA, dovetailing with MGNREGEA for labour components. The goal of the programme is to popularize vegetable and fruits in the dietary habit of people, to increase the area, production and productivity of vegetables and fruits and ultimately improvement in health of the local population. The vegetable mission will be launched shortly at Car Nicobar.

Potential of Horticulture

The agro-climatic conditions of these islands are congenial for the horticulture crops like Fruits, Spices and Flowers. The Islands being the biodiversity rich one are the veritable treasure house of valuable medicinal aromatic and dye herbs, trees & shrubs. There is good scope for the production of tropical fruits like Mangosteen, Durian, Rambutan, Grapefruit, Pomelo & Longan which has high export potential. High Value Agriculture programme is tailored for these islands for boosting productivity of various horticulture crops. All the schemes have been formulated based on the guidelines of National Horticulture Mission, National Horticulture Board and Coconut Development Board. The estimated costs of all components are higher in the Andaman & Nicobar Islands as compared to the mainland condition hence the subsidy as per the existing pattern is not sufficient. The island being away from the mainland, transportation of various input creation of infrastructure for protected cultivation etc increases the cost estimate many folds and developing such structures within the estimated cost given in the guidelines is not possible. Considering the higher cost index of Andaman & Nicobar Islands, scheme needs to be formulated considering the Andaman condition.

Coconut

Coconut is considered as the only remunerative crop of the islands. The main economy of the people directly depends on the fortunes of the crop. Hence ant disturbances in the coconut sector would affect the well being of the coconut farming community. In 1979-80 the area under coconut in the island was 20787 ha with a production of 67.29 million nuts. During the period of last two decades the area has been increased to 24746 ha production to 87.5 million nuts and the productivity is 3536 nuts per ha.

Cashew Nut

Cashew Nut is grown in 568.50 ha with a production of 86 t and productivity level of 150 kg / ha / year. The present performance is not encouraging to go for area expansion. The reasons for such low performance should be carefully analyzed. While climatic conditions seems to be adequate, a research study should be taken up in a systematic way making use of available high yield varieties / hybrids or wait for 2 or 3 years to assess the performance of present study for a period of five years and then popularizing will be advisable. While bringing plantation materials from mail land internal quarantine should be strictly followed in order prevention of any entry of new pests and diseases.

Black Pepper

Pepper being a vegetatively propagated perennial, the major bottle neck is damage caused by nematode Radopholus similis, fungus Phytopthora capsici and the pest pollu. Resistant/ tolerant varieties like IISR Pournami, IISR Shakthi and IISR Thevam are available for cultivation. This coupled with retention of good quality parameters will help in producing high quality black pepper with less usage of pesticides and fungicides. High production technologies in black pepper resulted in substantial increase in yield. This with the knowledge of geographical region, in which high quality market driven organic pepper can be grown, will help India in retaining its position in pepper trade.

Ginger

The most important indigenous cultivators like Maran, Himachal, Wynad Local, Nadia, BajPai, Kuruppampadi and other popular exotic cultivar Rio-de-janerio, and high yielding varieties like IISR Varada, IISR Mahima and IISR Rejatha may be popularized for increasing productivity. Mahima is also resistant to root knot nematode. Other improved varieties of ginger are Suprabha, Suruchi, Suravi (released by OUAT Pottangi, Orissa) and Himgiri (released by DYSPUHF, solan, Himachal Pradesh). Varieties suited for different end use such as oil varieties suited to different kinds of processing are also available. These varieties have very high export potential as India has 50% share in oil and Oleoresins trade in world market.

Turmeric

IISR, Kozhikode has released high yielding and high quality (5.5-6.0% curcumin) turmeric varieties viz. IISR Prabha, IISR Pratibha, IISR Kedaram & IISR Alleppey Supreme. Kanthi, Sobha, Sona and Varna are the improved varieties if turmeric from Kerala Agriculture University, Trissur, Kerala and suranjana a new variety released for West Bengal by the BCKV, Kalyani are also suitable for adoption in A & N Islands as the agro climatic conditions are similar to these region.

SWOT ANALYSIS

Strength

- Congenial agro climatic condition for the cultivation of various horticultural crops.
- Large scope of rainwater harvesting.
- Consumption of chemical fertilizer and pesticides is very low.

- Treasure house of medicinal & aromatic plants.
- Proximity of South East Asian countries, for International market.
- Scope for Silviculture/Agro forestry.
- Govt. plantations with the department for production of planting materials.
- Presence of CARI / KVK in the Union Territory.

Weakness

- Remoteness and scattered nature of the islands & poor connectivity.
- Non-availability of organized marketing and processing facilities.
- Lack of perennial water resource.
- Natural calamities, erratic rainfall.
- Prevalence of pest & diseases due to conducive weather condition.
- Fluctuating price trends of farm produce.
- High labour cost.
- Undulating land topography.

Opportunity

- Potential for organic farming and export of value added organic products.
- Potential for commercializing High Value Crops, indigenous medicinal & aromatic plants & extraction of essential oils.
- Potential for multiple cropping mixed farming in the existing coconut /Arecanut garden as multitier cropping systems.
- Potential for promotion of mushroom cultivation and apiculture.
- Strengthening of post harvest infrastructure facilities & establishment of processing, marketing infrastructures and storages.
- Scope for Silviculture/Agro forestry.
- To attract and retain educated youth in agriculture related activities.
- To increase competitiveness of commodities.
- Employment generation through non-farm activities.

Threat

- Uncertain weather condition leading to disruption of ferry services and communication.
- Lack of storage facility and market facility.
- Reluctance of the youths to take up farm activities.
- Occurrence of pest & diseases.
- Fluctuating price trends of farm produce.

Objectives

The present need is to commercialize horticulture and make it export oriented. An end-to-end approach comprising of technology dissemination from Sowing-Harvest-Post Harvest technology-Market-consumer linkage needs to be established.

The Main Objectives Are

1. To provide holistic growth of horticulture sector through technology promotion, extension, post harvest management, processing & marketing.
2. To enhance productivity.
3. To establish convergence & synergy among all on-going horticulture programme
4. To create opportunity for employment generation and income support to farmers.

Strategies

1. Enhance productivity through hi-tech and protected farming.
2. Ensure holistic approach covering production, post harvest management, processing and marketing.
3. Value addition through marketing of bio products and organic produces.

Major development activities after Tsunami

- To rehabilitate/restore/reclaim the damages caused to agriculture land and crops during tsunami of 2004, Rajeev Gandhi Rehabilitation Package (RGRP) was sanctioned by Govt. of India for a period of two years (2005-07) and accordingly Tsunami Rehabilitation Programme (TRP) was introduced. Under the programme a total of 3862 ha of affected area have been reclaimed out of the total affected area of 8069 ha. In addition about 1471.68 ha unaffected area is also been targeted to be covered in lieu of the submerged area in Nicobar District.
- Under TRP, multiple cropping with intercropping along with fruits and vegetables have been introduced in the entire post tsunami new coconut plantation.
- Under TRP, 2300 pump set, 55 power tillers and 6324 sets of farm implements have been distributed to the farmers free of cost. 498 ponds, 613 ring wells and 36 check dams have been constructed.
- To stop ingress of sea water in the low line paddy areas, construction of 6 nos. strong, stable dykes with sluice gates have been entrusted to APWD which on completion will reclaim saline affected land and benefit farmers.
- To make agriculture a vibrant industry and to provide income support to farmers, Agriculture Department is focusing on intensive and diversified cultivation through High Value Agriculture Programme (HVADA). Under the programme, Department is implementing schemes of National Horticulture Mission (NHM), National Horticulture Board (NHB) and Coconut Development Board (CDB).
- Rashtriya Krishi Vikas Yojna (RKVY) implemented in these islands with a view to bring sustain our development in agriculture and allied sectors. For promotion of organic farming under RKVY, 1448 vermi/organic compost units have been constructed in farmer field. For regular supply of earth worms to the farmers, 32 vermi hatcheries are established in departmental farms.
- Cashew Scion Bank of elite varieties established in 25 ha of land at Diglipur which will supply 10,000 cashew soft wood grafts annually to the farmers.
- Seed Testing Laboratory was established at Seed Multiplication Farm, Sippighat under RKVY.
- Farmers are encouraged to adopt organic cultivation by disseminating the knowledge on organic farming through various trainings, demonstration and farm schools under ATMA and RKVY.

- To harness the Information Communication Technology in the knowledge skill economic and social empowerment of rural families 10 numbers of Rural Knowledge Centers (RKC's) were established in various Zones under the department.

NHM interventions in Andaman & Nicobar Islands

The National Horticulture Mission (NHM) is being implemented from 2006-07 for holistic development of horticulture sector, duly ensuring horizontal and vertical linkages, with the active participation of all the stakeholders. The thrust of the Mission is on area based regionally differentiated cluster approach for development of horticultural crops, having comparative advantage.

The programme is implemented by Directorate of Agriculture through High Value Agriculture Development Agency in South, North, Middle, Little Andaman and Nicobar Islands. The focus crops identified under the programme include Banana, Mango, Spices, flowers and medicinal plants.

Major activities being undertaken in the project are production and distribution of planting material, area expansion, rejuvenation of old and senile orchards, protected cultivation, IPM/INM, organic farming, pollination support through bee-keeping, development of post harvest management & marketing infrastructures and human resource development.

Physical Progress

Under the mission, during 2006-07 and 2011-12, 10 model nurseries, 16 small nurseries have been established for production of quality planting material, an area of 871 ha has been covered under various horticultural crops including 290 ha under perennial fruits, 130 ha under non-perennial fruits, 93 ha under flowers, 176 ha under spices, 1 ha under aromatic plants, 181 ha under plantation crops. Old and senile orchards have been rejuvenated in 150 ha. An area of 23 ha has been covered under protected cultivation. Promotion of IPM has been taken up in 200 ha and 190 ha have been covered under adoption of organic farming component. Under HRD component, 32 farmers have been trained and 35 exposure visits of the farmers have been conducted. Under the component of pollination support through beekeeping, 1902 colonies with hives have been distributed and 150 equipments including honey extractors etc. have been provided. Technology dissemination through demonstration / front line demonstration has been taken up on 9 farmer's field. 3 State level and 6 district level seminars/workshops/horticulture show/honey festival etc. have been conducted.

Financial Progress

Year-wise details of Outlay, Funds Released and Expenditure under NHM in Andaman & Nicobar

(Rs. in Lakh)

Year	Outlay	Releases	Expenditure
2005-06	0	0	
2006-07	172.07	85.00	4.18
2007-08	0	0	10.77
2008-09	0	0	70.04
2009-10	435.72	200.00	118.04
2010-11	340.00	152.00	201.42
2011-12	400.00	200.00	94.22

Component wise details of Progress under NHM in Andaman & Nicobar

Components	Unit	Physical	Financial	Percentage Expenditure to Total Expenditure
		Achmt.	Achmt.	
Nursery	No.			
Model		10	68.68	13.77
Small		16	62.47	12.53
Area Expansion	Ha.			0.00
Fruits Perennial		290	47.14	9.45
Fruits Non Perennial		130	36.1	7.24
Flowers		93	22.63	4.54
Spices		176	21.23	4.26
Aromatic & Medicinal		0.6	0.09	0.02
Plantation crops		181	25.47	5.11
Total		**870.6**	**152.66**	30.61
Rejuvenation	Ha.	150	19.35	3.88
Creation of water resources	No.	0	0	0.00
Protected Cultivation	Ha.	23	75.38	15.12
Promotion of IPM	Ha.	200	2	0.40
Adoption of Organic Farming	Ha.	190	18.96	3.80
Vermi compost unit	No.			0.00
Human Resource Development (HRD)	No.	66	36.69	7.36
Training of farmers		32	28.33	5.68
Exposure visit of farmers		35	8.24	1.65
Training /study tour of technical staff		2	3.05	0.61
Pollination support through beekeeping	No.	2052	24.85	4.98
Horticulture Mechanization	No.	2	26.21	5.26
Technology Dissemination	(Project)	9	44.99	9.02
Seminars/conferences/Hort. Shows	No.	9	15.5	3.11

Financial achievement of high value agriculture in Andaman and Nicobar Islands from 2005-06 to 2011-12

(Rs. in lakh)

Funding Agency	Funds received	Funds Utilization							
		2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (upto Dec.,2011)	Total
NHM	637.00		4.18	10.78	70.04	153.14	235.60	113.10	586.83
NHB	24.50			7.72	16.79				24.50
CDB	315.43	1.22	2.30	20.02	59.72	105.99	78.34	30.93	298.51
RR	183.78						90.45	73.17	163.62
Total	1160.71	1.22	6.47	38.51	146.54	259.13	404.39	217.20	1073.46

Financial Achievement for the year 2010-11 (W.E.F. APRIL, 2011 UPTO December, 2011) under the CDB Schemes of High Value Agriculture in a A & N Islands

S. No.	Particulars	Target		Fund Released 2011-12	Physical Achm.		Financial Achm.	Remarks
		Physical	Financial (Rs. in lakh)		Area (Ha)	No. of Beneficiary	Financial Achievement (Rs. in lakh)	Remarks
A.	**Coconut Development Board Schemes:**							
1.	**Demonstration Plots in Coconut Gardens (Integrated Farming for Productivity Improvement)**							
i)	Demonstration Plots Adopting full package of technologies for 1st year.	200	35.00	4.375	10	11	1.75	
ii)	Demonstration Plots Adopting full package of technologies for 2nd year.	138	24.15	17.50	138	211	24.15	
2.	**Production of Organic Manure/ Vermi compost in cultivator's field**							
i)	Production of organic manure/ vermin-compost in cultivators/ fields	25	5.00	1.00	5 Nos	05	1.00	
3.	**Establishment of Seed garden for production DX T hybrid Seedlings**							
i)	Production of Dx T hybrid seed nuts by Department of	Project based	6.00		-	-	-	

	Agriculture in Departmental Farm, Hutbay at Little Andman							
4.	**Supply of CDB Model or any improved Copra Dryer for processing of Copra**							
i)	Supply of Copra Dryer-CDB Model or any improved copra dryer.	20	2.00		1 no.	1	0.10	
	Total of A		**72.15**	**22.875**		**228**	**27.00**	
i)	Cutting and removal of disease affected / Senile Coconut Palm (2011-12)	8000 nos	40.00	25.00	533	-	2.665	
ii)	Rejuvenation of Coconut Gardens							
	1st installment (2011-12)	800 ha	60.0	37.50	500 ha	664	37.50	
	2nd installment (2010-11)	440 ha	33.0	33.00	440 ha	450	33.0	
iii)	Replanting with coconut seedlings	4000 nos	0.80	1.00	-	-	-	
	Total B		**133.80**	**96.50**		**1590**	**73.165**	
	Total of A + B		**205.95**	**119.375**		**2120**	**100.165**	

Monthly Progress Report of HVDA Schemes in Respect of Little Andaman Upto the Month of December, 2011

NHM Schemes

Sl No.	**Name of the Scheme**	**Target (in Ha.)**	**Achievement**
1.	Establishment of Hi-Tech Model Small Nursery	Nil	Nil
2.	Area Expansion of Perennial Fruit	10 Ha.	Nil
3.	Area Expansion of Non- Perennial Fruit	06 Ha.	2.49 Ha.
4.	Area Expansion of Flowers	4.5 Ha.	Nil.
5.	Area Expansion of Black Pepper	30 Ha.	5.21 Ha.
6.	Area Expansion of Clove	Nil	Nil
7.	Area Expansion of Cinnamon	Nil	Nil
8.	Area Expansion of Ginger	05 Ha.	3.35 Ha.
9.	Area Expansion of Turmeric	01 Ha.	0.25
10.	**Protected Cultivation**		
	Green House Structured	0.05 Ha.	Nil
	Shade net House	0.20 Ha.	Nil.
	Plastic Tunnel	0.10 Ha.	Nil.
	Poly house vegetable cultivation	0.05 Ha.	Nil.
11.	**Pollination support through Bee-Keeping**		
	Honey Bee Colonies	30 Nos	09 Nos
	Hives	30 Nos	20 Nos

	Equipment including honey extractor, food grade container, net etc.	10 Nos.	05
	Training of farmers outside state	02 Nos.	Nil
	Exposure visit of farmers outside the State	10 Nos	05
	Training of farmers outside State	02 Nos.	Nil
	Exposure visit of farmers outside the state	10 Nos.	03
	Technology Awareness Programmes	01 No.	Nil

CDB Schemes

Sl No.	Name of the Scheme	Target (in Ha.)	Achievement
1.	Demonstration Plots of Coconut Garden 1st year	10 ha.	10.2 Ha.
2.	Demonstration Plots of Coconut Garden 2nd year	28 Ha.	238 Ha.
3.	Cutting & Removal of Disease affected / Senile Coconut Palms	500 Nos.	Nil
4.	Rejuvenation of Coconut Garden	50 Ha. 1ST year	Nil
5	Rejuvenation of Coconut Garden	45 Ha. 2nd year	Nil
6.	Replanting with Coconut seedlings	450 Nos	450 Nos.
7.	Organic Manure Production Unit	01 No.	01 No.
7.	Supply of Copra Drier	02 Nos	Nil
8.	Area Expansion of Coconut Garden under CDB	-	1.3 Ha.

Statement showing the details of Planting Material for implementation of National Horticulture Mission Programme in Andaman & Nicobar Islands

S. No.	Name of Planting Material	Variety	Requirement 2011-12 (in nos./kg.)	Production/ availability of planting material	Procure-ment from mainland	Remarks
A.	**Fruits Plants**					
1	T.C. Banana	G-9, Nendran, Red, Robusta	100000	0	100000	Plantlets in net pot brought from the mainland nurseries (Tamil Nadu, hardening process done in the departmental nursery and grown up plant lets distributed to the farmers.

2	Banana Suckers	Cheena, Champa, Amritsagar and other local varieties	90000	90000	0	Planting material in rasied in departmental nurseries
3	Pineapple suckers	Giant Kew	300000	230000	70000	Raised at departmental farm, Jirkatang and balance quantity procured from the accredited nursery at Tamil Nadu
4	Papaya Seedlings	Local	15000	15000	0	Raised in the farmers field and departmental nurseries
5	Mango graft	A/P, AA Baiganpalli	1500	0	1500	Procured from accredited nurseries of Tamil Nadu
6	Sapota graft	Cricket ball, Kallipatti	8000	0	8000	
7	Guava layer	Allahabad, Safeda, Red flesh	5100	0	5100	
8	Lime layer	Kazgi etc.	5000	0	5000	Procured from accredited nurseries of Tamil Nadu
9	Orange budded	Coorg	3000	0	3000	
10	Mausmi budded	Sathugudi	3000	0	3000	
11	Minor Fruits (Rambutan, Durian, Ber, Jamun, Custard apple etc.)		1500	0	1500	
B	**Plantation Crops**					
1	Coconut Seedlings	Andaman ordinary/dwarf varieties	25000	0	25000	Raised in the departmental nurseries.
2	Aracanut seedlings	Mangla	200000	0	200000	
3	Cashew graft	VR-1, -3,4,7 Ullal-3	30000	0	30000	Procured from accredited nurseries of Tamil Nadu
C	**Spices**					
1	**Tree spices**					

A.	Clove seedlings		3000	3000	0	Seedlings and planting material raised in the departmental nurseries at Sippighat, Haddu, Jirktang, Manarghat, at South Andaman district, Panchwati, Nimbudara and Keralapuram farms at N&M Andaman and departmental nurseries at Nicobar district supported by NHM
B	Cinnamon Seedlings		10000	10000	0	
c	Nutmug seedlings		2500	2500	0	
d	Black pepper rooted cutting	P-1,2	225000	225000	0	
2	**Rhizomatic Spices**					
A.	Ginger	Nadia	80000 Kg	80000 Kg		Raised by the farmers (buy back arrangements made)
B	Turmeric		36000 Kg	36001 Kg		
C	**Flower Plants**					
1	Gladiolus corms		35000	0	35000	Procured from the mainland. Raising of planting material in process at the floriculture unit at OHF, Sippighat supported by NHM.
	Tube Rose Corms		140000	0	140000	
	Anthurium		30000	0	30000	
	Gerbera		40000	0	40000	
	Orchid		20000	0	20000	
	Heliconia		10000	0	10000	
	Ornamental Plants		2000	0	2000	Raised in the departmental nurseries and distributed to farmers.
	Seasonal flowering plants		100000	0	100000	
D	**Vegetable Seedlings**		100000	0	100000	

Sale / distribution of Planting Material

The selling price of the planting material raised in the departmental farms are fixed by the administration and are being sold in the departmental sub depots situated at the agriculture extension circles in the villages. Also, to fulfill the balance requirement,

with planting material are procured from the accredited nurseries at mainland by following the codal formalities.

The planting material of fruits, spices and flowers are also distributed to various islands through road and sea and the transportation cost is borne by the department.

Seed production for vegetables, spices and aromatic plants

The Department of Agriculture is already maintaining two Seed multiplication farms at Chouldari, South Andaman and Nimbudara, North Andaman district in which quality seed of vegetables are produced. The Departmental nurseries situated in South, North and Middle district produce quality planting material of spices.

NHM support is also provided to private sectors i.e. M/s Priyambika Nursery at Sippighat, South Andaman and M/s Susan Roses Nursery, Garacharma, South Andaman. These farms produce planting material of flower plants and dragon fruit and sell to the farmers on demand.

Progress under the Scheme of High Value Agriculture, 2006-07 to 2011-12-Coconut Development Board

S. no.	Particulars	Total			
		Targets		Achievement	
		Phy.	Fin.	Phy.	Fin.
1	Renewal and replanting of Coconut Palm (Nos.)	18146.1	261.76	3128.1	69.35
2	Demonstration plot adopting full package of technology (Ha)	1060	194.25	779.28	134.18
3	Production of organic manure/vermi compost in cultivators field (Nos.)	240	44	96	13.73
4	Establishment of mother garden for producing DXT hybrids seed nuts (Project Based)	0	18	0	0
5	Supply of copra dryer- CDB-Model or any improve copra dryer (Nos.)	390	39	5	0.5
6	Setting up of Integrated Coconut Processing Complex (Project based)	0	80	0	0
7	Cutting and removal of disease affected / senile coconut palms (ha.)	16600	110	533	2.67
8	Replanting with coconut seedlings	9000	1.8	0	0

Year wise number of beneficiaries

Year	National Horticulture Mission	Coconut Development Board
2007-08	213	260
2008-09	1137	366
2009-10	1532	786
2010-11	3107	2120
2011-12	113	227

Progress under the Scheme of High Value Agriculture, 2006-07 to 2011-12-Coconut Development Board

S. No.	Particulars	Total			
		Target		Achievement	
		Physical	Financial	Physical	Financial
1.	Development of Commercial Horticulture Crops through production and post harvest management	2..00 Vanilla Cultivation	0	0	5.187
2.	Capital Investment subsidy for construction/ expansion / modernization of Technology development and transfer of promotion for horticulture.		41.29	0	24.54

Details of the Poly House Constructed in Andaman and Nicobar Islands under National Horticulture Mission Scheme

S. No.	Name of Place	Area of Green House/ Poly house	No. of poly house	Amount (Rs. In lakhs)
	Year-2007-08			
1.	Farmers field	350 Sqmt	1	0.4375
	Year-2008-09			
1.	OHF, Sippighat	680 Sqmt	1	9.56
2.	OHF, Sippighat	400 Sqmt.	1	5.62
3.	Progeny Farm Miletilak	400 Sqmt.	1	4.17
4.	MP Farm Kamorta	320 Sqmt.	1	4.80
5.	Surabi (NGO)	500 Sqmt.	1	5.75
6.	Farmers field	1500 Sqmt.	5	1.90
	Year- 2009-10			
1.	Departmental Farms	2700 Sqmt.	9	40.395

2.	Farmer's Field	20000 Sqmt.	50	9.60
	Year 2010-11			
1.	Farmer's Field (Low cost Poly houses)	14300 Sqmt.	76	30.94
2.	Farmer's Field (Hi-tech Poly houses)	2700 Sqmt.	9	44.99
	Total		**155**	**158.1625**

Area and Production of Major Crops after Tsunami

Crops	**2005-06**		**2006-07**		**2007-08**	
	Area	**Production**	**Area**	**Production**	**Area**	**Production**
Coconut	20927	78.46	21416.09	88.96	21636	80.64
Arecanut	4046.44	3058.46	4056	5839.3	4066	5692.4
Paddy	7685.47	17255.36	7776.17	21535.26	7333.75	21864
Pulses	430.05	279.85	726.2	400.04	2093.34	1369.34
Oilseeds	53.55	34.2	59.92	36.38	87.93	72.26
Vegetables	3668.9	25682.3	3803.58	30000	3951.6	30823.26
Fruits	2925.2	19528.36	2950	22511	2955	22456.6

Area in Ha.

Production in MT

Coconut Production in million nuts

Crops	**2008-09**		**2009-10**		**2010-11**	
	Area	**Production**	**Area**	**Production**	**Area**	**Production**
Coconut	21689	81.9	21760.22	84.97	21768	95
Arecanut	4147.5	5720.5	4152.5	5200	4152	5800
Paddy	7900	22100.1	8139.85	24907.01	8390	23916
Pulses	2119.47	1153.57	2971.09	1744.56	2610	1154.5
Oilseeds	102.59	65	110.8	69.8	94.3	51.9
Vegetables	4598.66	30199.7	5200	41500	5150	31300
Fruits	3005	24941.51	3118.51	26767.67	3160	28772

Area and Production of Horticulture Crops

Area in Ha.

Production in MT

Crops	Area and Production of Horticulture Crops					
	2008-09		2009-10		2010-11	
	Area	Production	Area	Production	Area	Production
Fruits						
Mango	240.4	1899.16	286.64	2558.2	290	2175
Banana	1589.64	15419.47	1596.3	14872.95	1610	16910
Citus						
Lime/Lemon	200	1180	220.61	1110.36	222	1116
Masambi	28	159.27	32	120	33	126
Orange	24.42	150	24	104	26	98
Total Citrus	**252.42**	**1489.27**	**276.61**	**1334.36**	**281**	**1340**
Guava	40	280	40	390	42	395
Papaya	375.45	2386.55	311.55	2104.29	315	2200
Pineapple	150.18	1063.29	224.71	608.42	230	680
Pomegranate	12	26	12	48	15	50
Sapota	126.2	995.75	156.4	2914.6	160	2950
Custard apple	10	60	10	80	12	82
Others	200.71	1247.04	191.8	1761.85	193	1900
Total	**914.54**	**6058.63**	**946.46**	**7907.16**	**967**	**8257**
Vegetable						
Tomato	130	1259	129.2	1200	125	1080
Brinjal	380	2456	430.2	3652	420	2600
Cabbage	190	1204	202.2	2162	195	1220
Cauliflower	275	2005	287.5	2375	280	1450
Okra	475	3027	525.2	3219	520	3100
Tapioca	221.29	2113.69	274.65	2120	278	2150
Sweet Potato	118.56	711.24	161.9	912.02	163	923
Bitter gourd	472	1300	522.4	2062	500	1350
Bottle guard	150	1390	146.69	1352	145	1250
Cucumber	200	1141	193.7	1016	200	980
Radish	240	2141	284.1	3121	280	1800
Muskmelon	85	355	86.7	494	80	320
Watermelon	8	75	9.5	95	12	90
Others	2001.66	13921	2392.11	20847	2405	16150
Total	**4946.51**	**33098.93**	**5646.05**	**44627.02**	**5603**	**34463**
Flowers						
Jasmine	1.99	11.98	1.75	10.55	1.9	11.45
Marigold	6.57	94.38	6.4	91.9	6.85	98.36
Rose	3.8	37.24	3.65	35.77	3.5	34.3
Others	21.84	191.56	20.4	191.9	21.35	185.17
Total Flowers	**34.2**	**335.16**	**32.2**	**330.12**	**33.6**	**329.28**
Plantation Crops						
Cashewnut	1051.2	360.8	1077.85	332.13	1100	310

Arecanut	4147.5	5720.5	4152.5	5200	4152	5800
Coconut (m/nuts)	21689.69	81.9	21760.22	84.97	21768	95
Spices						
Pepper	613.83	35.57	600.4	58.31	600	120
Ginger	199.08	1524.55	210	1575	211	1850
Turmeric	82.5	381.14	83.5	384.1	80	482
Cinnamon/Tejpata	149.31	30.49	150	30.6	150	30
Nutmug (nos.)	66.36	5.86	69.4	5.23	70	5.25
Clove	165.9	4.38	155.9	4.82	156	5
Total	**1276.98**	**1981.99**	**1269.2**	**2058.06**	**1267**	**2492.25**

Car Nicobar Coconut mission

The mission adopts a synergetic approach by bringing the isolated efforts being put forth by different Govt. agencies like Dept. of Agriculture, NHM., NHB, CDB, CARI, RKVY, NABARD, NAFED, EHL and Industries under different programmes to increase the productivity of coconut and its allied processing activities under one umbrella and its implementation on mission mode. The goal of the mission is to improve the Quality of the life of the people solely dependent on coconut for their livelihood by improving the coconut productivity from the present annual yield of 22 to 60 nuts per palm, to ensure the up-liftment of soci-economic status of tribal farmers.

Achievement (2010-11)

- 750 farmers participated in the 15 awareness programme conducted on coconut cultivation and its processing .
- For productivity improvement of coconut, laid out demonstration plots in 30 ha area and established 24 organic manure production units.
- For Post Harvest Management, 45 nos, of Copra Drying unit of 300 nut capacity and 3 Demonstration units with the 1000 nuts capacity per dryer installed at Car Nicobar.
- 500 Nos of coconut dehuskers and 1200 Nos crow bar for coconut dehusking distributed to farmers.
- 25 Honey Bee Colonies established in the farmers field.
- Altogether 300 Tukhets consisting of 3941 Tribal farmers benefited by the implementation of Car Nicobar Coconut Mission.

Visit to Central Agricultural Research Institute (CARI), Port Blair

Indian Council of Agricultural Research (ICAR) established Central Agricultural Research Institute at Port Blair in 1978 with a mandate to provide a research base to improve the productivity of important Agri- Horticulture, livestock and fisheries of Andaman & Nicobar Islands through adaptive and basic research for attaining economic self sufficiency, to develop appropriate plans for conservation of natural resources and their sustainable use, first line transfer of technology and training to the relevant State Departments etc.

The salient research achievements include develop technology for crop diversification in low land areas, screened varieties of tomato resistant against bacterial wilt , development of soil map for Andaman districts, plantation based multi storey cropping system with spices as intercrop components, suitable integrated farming system models for different farming situations, generation of information on mangrove by biodiversity and ecology. The vision of CARI includes reorientation of agricultural production system to provide local level food security to meet the demand of perishable products viz. milk, egg, meat, fish, fruits, vegetables and flowers with specific reference to demand of booming tourism industry, conversion of spices cultivation in an organic farming, data base on disease monitoring and forecasting system, proper rain water management technology to create micro level water resources to increase irrigated area to a significant level. The thrust is being given to conservation and management of natural resources, development of technology for water resource development through rain water management and its efficient utilization for diverse cropping system, production technology for vegetable crops for increasing productivity, improving the varietals productivity of plantation and horticultural crop based systems through intercropping of spices, vegetables, fodder etc. as well as irrigation from rain water harvesting system, high value agriculture with special reference to vegetables and protected cultivation of high value crop, minimizing post harvest losses and maximizing value through appropriate technological intervention, production technology for inputs and their optimal utilization in organic farming, transfer of technology and socio economic impact analysis, identification of appropriate technological options for rehabilitation of tsunami affected farming community etc.

Joint Inspection Team had a meeting with Dr. S.K. Ambast, Director, CARI on 18th January, 2012. During the discussion, the problem of extensive use of pesticide in vegetable in Island was highlighted. The establishment of INM/IPM infrastructure viz. bio-control lab, disease forecasting unit, leaf tissue analysis lab and plant health clinic under NHM was recommended. Dr Ambast mentioned that steps would be taken to establish the IPM infrastructure except disease forecasting unit which is not feasible due to frequent change in weather conditions. It was pointed out that only numerical methods can be used for disease forecasting.

Field visits of Joint Inspection Team

Joint Inspection Team visited Calicut, South Andaman on 18th January, 2012. Shri Anaut Ram, Assistant Director (Agriculture) coordinated the field visit. The programme of area expansion of TC Banana, perennial fruits, floriculture and spices were covered. The details of the beneficiaries covered during the visit are annexed.

S. N.	Name of the Beneficiary	Address	Crop	Year of Plantation	Area in Hect.	Nos. planted	Nos. survived as on date of inspection	%age of survival	Observations/ Remarks
1	Shri P.Pachai Muthu	Post office Calicut	Area Expansion, TC Banana, sapota, Marigold, Tuberose , Gladiolus, Gerbera and jasmine	2011-12	2	TC Banan-250, Sapota-30, Marigold seed, Tuberose-1750 , Gladiolus - 2000, Gerbera -270	TC Banana - 246 and Sapota-29	98% and 96%	Subsidy of Rs. 4800/- has been paid by cheque, source of irrigation is bore- well, maintained well, late plantation of marigold, beekeeping recommended, NHM logo not displayed.
2	Shri P.Pachai Muthu	Post office Calicut	Protected cultivation, shadenet (100 sqm)/plastic tunnel Gerbera, bittergourd , marigold, anthurium	2010-11	2				Well maintained, gerbera flowers still in flowering, local marketing, NHM logo not displayed.
3	Shri R. Arulandu	Village Bimlitan, South Andaman	TC Banana, sapota, Mausami, Guava, pepper, ginger	2009-10	1.32	TC Banana-250(G9), Sapota-30, Mausambi-30(Coorg), Guava-30, Pepper-440, gladiolus	TC Banana-245(G9), Sapota-29, Mausambi-29(Coorg), Guava-29,	98%, 93%, 93%, 93%	Subsidy of Rs. 4800/- paid on 30.7.2010 and Rs.2000 on 16.10.2011 by cheque, borewell, 1beehive given, well maintain, drip, pack house for, coconut recommended, NHM logo not displayed
4	Shri R. Arulandu	Village Bimlitan, South Andaman	Protected cultivation, shadenet (2x100 sqm)/ plastic tunnel ,Gerbera, Amaranthus, spinach, coriander,	2010-11	1.32				Well maintain, gerbera still flowering, subsidy of Rs. 15400/- paid by cheque. Local marketing, Yellow variety of gladiolus and tested variety of marigold recommended, Model farmer-demonstration site of other farmer. Late plantation of gerbera , drying platform and storage for coconut under NHM recommended. Shortage of labour for weeding and hoeing, NHM logo not displayed
5	Shri A. Swamy	N. Bimlitan	TC Banana, Lemon, Mausami, Black Pepper, Cloves,	2010-11 and 2011-12	2	TC banan-1000 (G9), Lemon (Kazgi)-60, Mausami-30,	TC banan-1000, Lemon-50, Mausami-28, black pepper-660,	TC banan-100%, Lemon-83%, Mausami-	Source: - Agriculture Dept. well maintained, Arecanut, clove as intercrops, subsidy

			ginger			black pepper (P1)-1100, clove-120	clove-60	93%, black pepper-60%, clove-50%	paid by cheque, borewell. In banana, Sigatoka observed and spray of Propaconazol and drip recommended, NHM logo not displayed.
6	Shrimati Pushpa rani Mondal	Sippighat, S. Andaman	Private nursery, Ornamental plants,	2010-11	200 sq. m.				Subsidy of Rs. 1.50 lakh availed. Nursery needs further extension, well maintained. NHM logo not displayed

Joint Inspection Team visited Diglipur, North Andaman on 19th January, 2012. Shri Ramesh Kumar, Assistant Director (Agriculture) coordinated the visit. It was mentioned that there exists the potential for cinnamon, black pepper vegetables and beekeeping in Diglipur. The farmers want subsidy for processing of turmeric for which they would be tied with ATMA. Due to shortage of labour the field required weeding and pruning. The programmes of area expansion of Cashew, Mango, Sapota, Clove, TC Banana & Banana Sucker, Turmeric, Black Pepper spices were covered. The details of the beneficiaries covered during the visit are annexed.

S. N	Name of the Beneficiary	Address	Crop	Year of Planta-tion	Area in Hect.	Nos. planted	Nos. survived as on date of inspection	%age of survival	Observations/ Remarks
1	Shrimati Gouri Biswas	Kalipur, Diglipur	Cashew graft, Minor fruits, mango A.A., clove, black pepper, ginger, turmeric	2008-09	2	Cashew graft-200, Minor fruits-26, mango A.A.-20, clove-27,		90%	An amount of Rs. 14738/- as subsidy in 2009 and Rs. 5625/- in 2010 was paid by cheque, pond, not well maintained, bacterial, Algae was observed in cashew / mango plantation. Copper oxychloride spray was recommended, no marketing problem for ginger and turmeric but for TC banana marketing problem exists. Vermi compost unit recommended, NHM logo not displayed
2	Shri Haren Sarkar	Durgapur, Diglipur	Cashew, TC banana, turmeric, citrus, pineapple,	2008-09	1.70	200		80%	Subsidy of Rs. 14100/- in 2009 and Rs. 4500/- in 2010 paid by cheque, pruning , weeding , diseases lichen red rust, leave minor was observed in plantations, NHM logo not displayed
3	Shrimati S. Lalitthamma	Karlapuram, Diglipur	Cashew, sapota, Banana sucker, black pepper, clove, nutmeg	2009-10	1.6	Cashew-100, sapota-300, Banana sucker-650, black pepper-220			Well irrigation, subsidy of Rs. 15225/- paid by cheque, vermi compost by RKVY, land development and cashew plantation-with MNREGA/NHM, well

									maintained, NHM logo not displayed
4	Multipurpose farm	Kerala puram, Diglipur	Green House (300 sq. m.) Tomato, cucumber, cauliflower, capsicum, and leafy vegetables	2010-11 and 2011-12	7				Shadenet and poly house from NHM, Vermi hatchery unit from RKVY, It is a training centre for protected cultivation in tomato, wilt was noticed Pseudomonas was recommended, in cucumber leaf minor was noticed, NHM logo not displayed
5	Shri M. Sreekumar	Keralapurm Diglipur	Non-perennial , Banana Sucker, Marigold	2007-08	1.27	800			Subsidy of Rs. 6750/- paid by cheque, pond, well maintained. Tested variety of marigold was recommended, but slow in growing, NHM logo not displayed
6	Shri Parimal paul	Madhupur vill. Diglipur	Beekeeping-10 farmers	2010-11					1 beehive with colony each was provided to 10 farmers in the area, Shri paul multiplied 1 hive into 7 hives and distributed the colonies to other 9 farmers. More Exposure needed. NHM logo not displayed
7	Shri Nirmal Biswas	Madhupur vill. Diglipur	TC Banana, Banana sucker, ginger, turmeric and black pepper	2008-09	4.01	TC Banana-260, Banana sucker-350, ginger-500, turmeric -500 and black pepper-5218			The case for subsidy is being processed. Proposal for green house pending, innovative farmer, beekeeping and plantation of seasonal flowers recommended, NHM logo not displayed
8	Shri Jagdish Debnath	Sitanagar , Diglipur	TC Banana, Cashew, black pepper	2010-11	4	TC Banana-310, Cashew-100, black pepper-220		80%	Subsidy of Rs. 9557/- paid by cheque, vermi compost unit, removal of extra suckers, control of sigatoka recommended, NHM logo not displayed
9	Cashew SCION bank	Kalighat, Diglipur	Cashew	2010-11	10				It is spice demonstration on farm, Plants have been procured from Puttur, convergence of NHM , ATMA and RKVY is needed, More mortality rate of plants observed, Drip in other fruits and plantation crop to be installed, from next year no imports of cashew plants, NHM logo not displayed

Joint Inspection Team visited Mayabunder, North Andaman on 20th January, 2012. Shri R.Y.Singh, Assistant Director (Agriculture) coordinated the visit. It was mentioned that there exists the potential for cashew plantation in Mayabunder. An area

of 150 ha. is being planned to bring under the plantation of cashew. The details of the beneficiaries covered during the visit are annexed.

S. N	Name of the Beneficiary	Address	Crop	Year of Plantation	Area in Hect.	Nos. planted	Nos. survived as on date of inspection	%age of survival	Observations/ Remarks
1	Sh. A.F. Kandulana	Tugapur, Mayabunder	Perennial Fruit – Sapota (Kalipati)	2011-12	2.42	100	80	80%	Subsidy due. Plants procured from Agriculture Department. Weeding, punning, Vermi-compost unit, gap filling , inter – cropping recommended . NHM logo not displayed ,
2	Sh. Maninder Haldar	Tugapur, Mayabunder	Non-perennial Fruit – TC Banana (G-9)	2011-12	4.05	950	940	95%	Subsidy due. Plants procured from Agriculture Department, Sigatoka observed, Vermi-compost unit needed, Drip, inter cropping of water melon, removal of extra suckers recommended, NHM logo not displayed.
3	Seed Multiplication Farm,	Nimbudera, Mayabunder	Protected Cultivation – Hitech Green House (300 Sq. mtr.) Cauliflower, Capsicum, Leafy vegetables, chilli, Vegetable seedlings	2010	26.06	Cauliflower - 120 sq. mtr., Capsicum – 60 sq. mtr., Leafy vegetables – 60 sq.mtr, chilli – 30 sq.mtr., Vegetable seedling – 30 sq.mtr.			1 additional ploy house from RKVY, leaf borer, curling, leaf spots in capsicum, fruit fly in tomato, pumpkin observed. using Baculure for fruit fly. NHM logo not displayed
4	Sh. Brijinder Lall Das	Parasnagar, Mayabunder	Perennial fruits – Lime, orange, Sapota	2010-11	2.15	Lime - 30, orange - 30, Sapota - 30		80%	Subsidy due, 1000 pepper cutting provided by Deptt., pond, well maintained, laying out and demonstration of coconut by CDB in 0.3 ha., arecanut waste recommended for vermi compost unit. Citrus is not recommended in paddy field. NHM logo not displayed
5	Sh. Brijinder Lal Das	Parasnagar, Mayabunder	Spices, inter cropping of black pepper in Arecanut	2009-10	2.15	110		95%	Pepper cuttings provided by Agri department, Subsidy of Rs.756 and Rs.225 paid as 1st and 2nd installments. vermi compost unit under RKVY, input supplied for organic farming, well maintained. NHM logo not displayed

Joint Inspection Team visited Rangat, North Andaman on 20th January, 2012. Shri P.S. Prasad, Assistant Director (Agriculture) coordinated the field visit. The details of the beneficiaries covered during the visit are annexed.

S. N	Name of the Beneficiary	Address	Crop	Year of Plantat-ion	Area in Hect.	Nos. planted	Nos. survived as on date of inspection	%age of survi-val	Observations/ Remarks

1	Sh. R.K. Nair	Dharampur, Rangat	Non – perennial fruit and spices – TC Banana suckers and Black Pepper	2011-12	1.68	TC Banana - 750 and Black Pepper - 650		100%	Plants self raised and purchased. Organic compost pit from CDB, Vermi compost unit from RKVY. Lichen in pepper and Sigatoka in banana observed. Weeding/ Training of pepper needed Farmer needs exposure visit / training. NHM logo not displayed Subsidy due, plantation of coconut recommended.
2	Sh R. Sasi Pillai	Dharmapur, Rangat	Non – perennial fruit – Banana (Nendran)	2011-12	2.74	Banana 250 Orange-30 (Coorg)	250	100%	Self purchased from Diglipur, subsidy due, , lay out demonstration for coconut under CDB, organic pit from CDB, 1st plantation of banana ruined due to cyclone and replanted. Interculture operation needed. Heavy Sigatoka in Banana noticed, no flowering in orange due to excessive rains, NHM logo not displayed
3	Government Coconut Farm	Chitrakoot, Rangat	Beekeeping						18 hives, Bee breeding and supply to other farmers, NHM logo not displayed
4	Sh. Sunil Vaidhya	Nimbutala, Rangat	Beekeeping	2010-11	1 hive				Resource Person for beekeeping, Multiply colonies and supply to other farmers, subsidy yet to be disbursed. NHM logo not displayed
5	Sh. P. Tigga	Atazig, Rangat	Protected cultivation and Beekeeping	2011-12	Poly House and 1 Beehive	Capsicum, Palak and tomato,			Scarcity of water in plants, Poly house damaged due to cyclone hit and is rebuild, wilt in tomato, training to farmer for plantation and seed treatment under poly house cultivation recommended. blue colour boxes for beehive recommended instead of black. NHM logo not displayed
6	Government Farm	Jarkatang	Protected cultivation 2Green Houses (300 sq.mtr. each), shadenet, and Mulching, Beekeeping	2009-10 and 2010-11	Spices, vegetables , 30 hives with colonies				Multiplication of planting material of spices, mulching in pineapple plantation in 2ha. , Multiplication of bee colonies and 44 distributed to other farmers. Vermi

									hatchery from RKVY and distribution of clove pepper, cinnamon and nutmeg, plants. NHM logo not displayed

Joint Inspection Team visited Havlock Island, South Andaman on 21st January, 2012. Shri Yusuf, Agriculture Field Assistant coordinated the field visit. The programme of NHM has been initiated in 2011-12. Beneficiaries have been identified and the records are being scrutinized. The details of the beneficiaries covered during the visit are annexed.

S. N	Name of the Beneficiary	Address	Crop	Year of Planta -tion	Area in Hect.	Nos. planted	Nos. survived as on date of inspection	%age of survival	Observations/ Remarks
1	Sh. Ganesh Das	Gobindnagar	Non-Perennial= TC Banana	1011-12	0.125	Cavendish - 200 Cheenia local - 150	198	99%	Subsidy of Rs. 2500 is due. Interculture, operation needed, Sigatoka and bunchy top diseases observed, Farmer needs expertise. NHM logo not displayed
2	Sh. Anil Roy	Gobindnagar	vegetables			Cauliflower, Knol Khol, snake / bitter gourd, Poi, cucumber			Private Person not covered under any programme but Veg, seeds provided by Deptt. , Borer and leaf minor noticed in cauliflower. Poly tunnel and FLD recommended.
3	Sh. Deepak Mandal	Gobindnagar	vegetables	2011-12	5 acre	Bhindi, bottle gourd, coriander, bitter gourd			Private Person not covered under any programme, Veg, seeds & fertilizers provided by Deptt. , Power tiller needed, Poly tunnel, drip and vermi compost unit recommended.
4	Sh. Parimal Shil	Shyam Nagar	Non perennial fruit- Banana sucker (Local)	2011-12	0.24	Cheena local - 600	585	97%	Listed for NHM, Bunchy top, sigatoka observed. Drip recommended. NHM logo not displayed
5	Sh. Rampada Mahaladar	Shyam Nagar	Non perennial fruit- Banana sucker (Local	2011-12	0.19	Cheena, Champa- 310	307	99%	Plants supplied by the Department, Vermi compost unit from RKVY completed, earthworms would be supplied by NGO.
6	Sh.Chitraj	Kalapathar	Coconut	2009-10	2				Records not available, Plantation under CDB programme, ,subsidy of Rs. 2720 paid
7	Sh. Mahadev	Kalapathar	Coconut	2009-10	2				Records not available, Plantation under CDB programme, ,subsidy of Rs. 2720 paid
8	Sh. Shambu Roy	Kalapathar	Coconut	2009-10	2				Records not available, Plantation under CDB

									programme, ,subsidy of Rs. 2080 paid
9	Smt. Anjali	Kalapathar	Vegetables	2010-11	2	Tomato, cabbage, bitter gourd, brinjal, chilly, coriander, beans			Awarded for tomato production in 2010-11. Needs motivation, own water pump, Drip, poly house, vermin compost unit and motor recommended. Brinjal, tomato and cabbage needed spray to control pests, Coconut plantation done by CDB in 2011-12

Joint Inspection Team visited Neil Island, South Andaman on 22nd January, 2012. Shri S.K. Chakravarty, Junior Agriculture Assistant coordinated the field visit. It was mentioned that out of 65 vermi compost projects, only 27 have been completed for want of sand which is under forest department. The details of the beneficiaries covered during the visit are annexed.

S. N	**Name of the Beneficiary**	**Address**	**Crop**	**Year of Plantat-ion**	**Area in Hect.**	**Nos. planted**	**Nos. survived as on date of inspection**	**%age of survival**	**Observations/ Remarks**
1	Shri Adhir Malik	Ram Nagar	Rejuvenation-CDB-Coconut	2010-11	1.93	195			Upkeep is Well maintained, subsidy of Rs. 4500/- disbursed by cheque, inputs provided by CDB. NHM logo not displayed.
2	Smt. Rajubala Roy	Ram Nagar	Protected Cultivation-Hi-tech , green house (300 sq m), leafy vegetables and chilli	2010-11	2				Vegetables worth Rs. 65000/- sold last year. Coriander and tomato not fruiting in green house, leaf curl in chilli, wilt / borer in brinjal, poly tunnel and natural ventilation in green house recommended. NHM logo not displayed.
3	Shri Nepal Das	Sitapur	Protected Cultivation-Hi-tech , green house (300 sq m), leafy vegetables and chilli	2010-11	2				Vegetables worth Rs. 15000/- sold last year. Coriander and tomato not fruiting in green house, Amranthus and spinach are profitable, poly tunnel and natural ventilation in green house recommended. Plantation of broccoli and celery recommended. NHM logo not displayed.
4	Smt. Shanti Rani Das	Bharatpur	Protected Cultivation-Hi-tech , green house (300 sq m), leafy vegetables and chilli	2010-11	2				Vegetables worth Rs. 20000/- sold last year. Coriander and tomato not fruiting in green house, vermi compost unit and heat tolerant varieties of tomato recommended, NHM logo not displayed.
5	Shri Narender Das	Laxmanpur	Protected	2010-11	2				Vegetables worth Rs.

		(Tango Resort)	Cultivation- Hi-tech , green house (300 sq m), leafy vegetables , radish , onion , capsicum and chilli						8000/- sold last year. Growing spinach profitable while radish unprofitable, Coriander and tomato not fruiting in green house, NHM logo not displayed.
6	Shri Prafulla Bawali	Ram Nagar	Protected Cultivation- Hi-tech , green house (300 sq m), leafy vegetables , radish , onion , capsicum , brinjal, Amaranthus and chilli	2010-11	2				Vegetables worth Rs. 60000/- sold last year. Marketing to Port Blair, not getting remunerative prices because of middle man, vermi compost unit from RKVY, No flowering in tomato, coriander, heat resistant variety of tomato needed, one more poly house needed and also sapota saplings, NHM logo not displayed.

Joint Inspection Team visited Little Andaman Island, on 23rd January, 2012. Mrs. C. Dasouza, Assistant Director (HVA) and Shri Prashant, Agriculture Officer coordinated the field visit. It was mentioned that there is a potential to establish coconut processing industry provided the quantum of coconut is raised. The potential also exists for mushroom cultivation and Bee keeping. Farmers are usually interested in Arecanut plantation. Paddy land is being gradually converted into horticulture land. The details of the beneficiaries covered during the visit are annexed.

S. N	Name of the Beneficiary	Address	Crop	Year of Plantation	Area in Hect.	Nos. planted	Nos. survived as on date of inspection	%age of survival	Observations/ Remarks
1	Shri Anima Mondal	Rabindra Nagar, L/Andaman	TC banana (G9), Coconut and Arecanut, ginger / turmeric as intercrop	2011-12	2	1000	1000	100%	Subsidy due. Planting material supplied by department of agriculture, organic manure production tank from CDB, healthy plants but Sigatoka and leaf spots in banana leaves, Budrot in Arecanut needs replacement of plants, market problem for ginger. Beneficiary ready to supply ginger planting material to other NHM beneficiary, banana and other farm waste was recommended to have vermi compost unit to produce more organic manure. Poly house for vegetables was recommended. NHM logo not displayed.
2	Shri Khagen Mondal	Rama Krishna Pur	Pollination Support through Beekeeping,	2010-11		18 beehives with colonies			Inputs viz. honey extractor , food grade container, net etc. provided by department of agriculture and subsidy of Rs. 15675/- paid by cheque, local

									marketing done, Resource Person for training of beekeepers under ATM is available, 85Liter of honey extracted and sold @ Rs. 500/- per liter, harassment by Department of Forest for selling honey. Intervention from NBB is suggested. NHM logo not displayed.
3	Shri Kamlesh Mazumdar	Rama Krishna Pur	Pollination Support through Beekeeping,	2010-11		30 beehives with colonies			As above. Mechanism to remove wax from honey recommended.
4	Shri Basu dev Biswas	Rabindra Nagar	TC Banana-G9, coconut, Arecanut	2010-11	2.02	500	500	100%	Subsidy of Rs. 4625/- paid by cheque, intercropping of pineapple (1500) , healthy plants well maintained, labour problem, removal of multiple suckers recommended. A mild Sigatoka in banana leaves noticed, vermi compost units recommended. NHM logo not displayed.
5	Shri Sunil Mazumdar	Rabindra Nagar	Perennial fruits, guava (KG), coconut and Arecanut	2009-10	2	1000	1000	100%	Subsidy of Rs. 5625/- paid by cheque, planting material from department of agriculture, marketing local, intercropping in Arecanut pepper (1100 cuttings) , labour problem. In guava pruning and canopy management, removal of offshoots, nutrient deficiency observed, Anthracnose noticed, Boron and copper oxychloride spray recommended. NHM logo not displayed.
6	Shri Subodh Chandra	Rama Krishna Pur	CDB- organic manure production unit	2009-10					Laying of demonstration by CDB, subsidy of Rs. 20000/- released other crops were Arecanut, coconut, for area expansion of spices namely pepper will be covered under NHM during 2012-13, NHM logo not displayed.
7	Cluster-Plantation of Coconut	Harbinder Bay	Replanting of coconut	2010-11	1.5 ha	450			Inputs supplied by CDB in the cluster of Nicobari tribals, good fruiting but no maintenance due to non-cooperation of Nicobari tribal farmers and availability of their land records, hence NHM programme could not be implemented in this area.

Highlights of Meeting with Director, High Value Agriculture Development Agency (HVADA), Union Territory of Andaman & Nicobar Islands

A wrap up meeting held with Dr. M. A. Salam, Director, High Value Agriculture Development Agency (HVADA), Union Territory of Andaman & Nicobar Islands on 24th January, 2012.. Based on the observations during the field visit, the following important issues were discussed:-

- Extensive use of pesticides by the vegetable growing farmers for short term profits was highlighted. It was mentioned that Bio control labs may be established for production of bio agents and encourage organic farming.
- It was mentioned that there was short fall in establishment of small nurseries. Director, HVADA, mentioned that people do not take much interest to take up the scheme and they need motivation.
- The planting material of spices and perennial fruits are produced in Government nurseries.
- Keeping in view the potential for sapota plantation, it was suggested that farmers may be encouraged for the same as it is the high paying crop.
- During the discussion, non-availability of quality planting material of mango was highlighted. The Planting Material of Mango, Sapota, Cashewnut, TC Banana are being outsource. It was suggested that tested varieties of these fruit crops may be imported from other States and further multiplied.
- Use of plastic i.e. to encourage the farmers for setting up of green houses under protected cultivation component was suggested. It was also pointed out that there is a need to conduct the training of Officials to handle protected cultivation related problems.
- Faulty structure of Hi-tech green house was highlighted. It was suggested that matter may be taken up with the M/s Radico Co. to provide the provisions for natural ventilation in the structures so that the plantation of tomatoes, vegetables and coriander may be taken up. Mulching under pineapple plantation may be encouraged.
- It was pointed out that potential for beekeeping exists in the Island. It needs focus since at few places, resource person are available. NBB may take up the publicity/workshops/training to popularize the programme. Bee keepers are facing problem in respect of selling honey in the market due to harassment by the

Department of Forest. It was suggested that certificates may be issued to the beneficiaries allowing them to sell their products.

- Having potential for vegetables, Director, HVADA mentioned that Port Blair, Havloc and Neil Islands may be considered under National Vegetable Initiative Programme.
- Potential for mushroom exists in Island. Farmers may be encouraged for it.
- The work relating to construction of vermi compost units is covered under RKVY due to competitive cost norms. It was pointed out that allocation of vermi compost units is provided by the panchayat in the villages and so far 27 projects out of 65 have been completed for want of sand which comes under jurisdiction of Department of Forests. It was suggested that matter for supplying of sand to beneficiaries for agriculture developmental work may be taken up with Department of Forest.
- Farmers be motivated for coconut based farming system instead of Arecanut plantation.
- Farmers are not interested in taking up of Micro Irrigation Programme. A need has been felt to implement micro irrigation programme for banana and other fruits plantations. It was mentioned that cost norms for drip and sprinkler needs to be revised.
- Shortage of availability of labour was discussed. It was suggested that programme needs convergence with MNREGA.
- Periodic visit of Officials to the sites of beneficiaries was suggested for technical knowhow/support
- The activities under taken by the National Horticulture Board in the Island was discussed. It was highlighted that no funds has been released after 2004-05 for technology dissemination/transfer of technology.
- During field visit, boards displaying NHM logo and activities under taken were not found on beneficiaries' sites. Boards displaying NHM logo at the sites of the beneficiaries are recommended
- It was mentioned that unspent balance of Rs. 1.71 crore was available with HVADA. Director pointed out that balance amount would be exhausted within short period and having committed expenditure.

- Director, HVADA proposed for release of second installment of Rs. 1 crore for project based activities / protected cultivation. It was also proposed that the first installment of funds of 75% may be released to Union Territory instead of 50%.
- Impact evaluation of the programme by the independent institution was discussed. It was highlighted that the task has been assigned to Extension Education Institute, Hyderabad and the report is expected by middle of February 2012.
- Subsidy for turmeric and ginger for land holding less than 0.5 ha. should be considered and the cost norms needs to be revised..
- Director, HVADA mentioned that a proposal for enhancement of subsidy pattern of certain components namely, protected cultivation, construction of cold storage units, micro irrigation project, laying out demonstration plots in coconut garden for all Zones varying from 65% to 80% has been forwarded for favorable consideration of NHM taking into consideration of topography of the Island, transportation cost etc. resulting in much higher beneficiary contribution as compared to mainland. This forbids the entrepreneurs for taking up ventures in the Island.

Highlights of Meeting with Secretary, High Value Agriculture Development Agency (HVADA), Union Territory of Andaman & Nicobar Islands

- In meeting with the Secretary, problem relating to non availability of sand for construction of vermi compost unit in Island was highlighted. A request was made that matter may be taken up with Department of Forest for supply of sand for developmental work. It was pointed out that importing sand from mainland give rise to increase in cost of construction of vermi compost units.
- Harassment of beekeepers by the Department of Forest for selling honey in the market was discussed in the meeting. It was agreed to issue certificates to the beekeepers allowing them to sell their product.
- For producing bio agents, establishment of bio control unit was discussed. Secretary agreed for the proposal for its establishment for use of Department in the initial stage.
- Secretary enquired about the plantation of kinnow in the Island. It was pointed out that there is no possibility of such plantation because of unfavorable weather conditions.

Tour Programme for the visit of Joint Inspection Team from 18th January 2012 to 25th January 2012 to review the implementation of the National Horticulture Programme and other programme of Horticulture Development in A & N Islands

Sl. No.	Date	Programme
1.	18.01.2012	Reaching Port Blair at 735 Hrs and meeting with the Representative of State Horticulture Mission at 10.30 am onwards. Visit to beneficiaries field at Beodnabad, Burmanallah & Chidyatapu of South Andaman zone.
2.	19.01.2012	Proceed to Diglipur for inspection of beneficiaries field and halt at Mayabunder.
3.	20.01.2012	Visit to beneficiaries' field at Mayabunder and Rangat and proceed to Baratang and return to Port Blair and field visits to South Andaman zone.
4.	21.01.2012	Proceed to Neil Island for inspection of beneficiaries' field at Neil Island and return to Port Blair & Halt.
5.	22.01.2012	Visit to Havelock Island for inspection of beneficiaries' field and halt at Port Blair.
6.	23.01.2012	Proceed to Little Andaman Island for inspection of beneficiaries' field and Halt.
7.	24.01.2012	Return to Port Blair and discussion with the Director and Secretary, Agriculture about visit.
8.	25.01.2012	Return back to New Delhi at 08:45 am by flight AI550/438.

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AEP of ginger / Turmeric in Diglipur

Turmeric after harvest

Leaf miner in citrus

Citrus leaf miner at Diglipur

Marigold cultivation in Keralapuram

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Bee hive at Mayabander

AEP of banana

Protected cultivation of cauliflower atGovt. Farm Nimbodera

Banana cigatoka

Protected cultivation of capsicum

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Fruit fly trap in cucurbits

AEP of black pepper

Algal spots in Black pepper

Sugarcane cultivation

Mealy bug in brinjal

Vermi compost units

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ITK- Farmer preparing box for rearing, Bees (Trigona sp) at Jarkatang


Low cost poly house | Wilt problem in tomato under poly house


Spices multiplication at Govt. farm Kalighat

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Mulching in pine apple at Kalighat

Cultivation of Sward bean

Knolkhal cultivation in Havlock Island

Bunchy top and leaf spots in banana in Havlock Island

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Poi and Raddi's cultivation in Havlock Island

Borer damage cabbage

Local banana bunch for sale

Progressive farmers Cultivating tomato in Havlock Island

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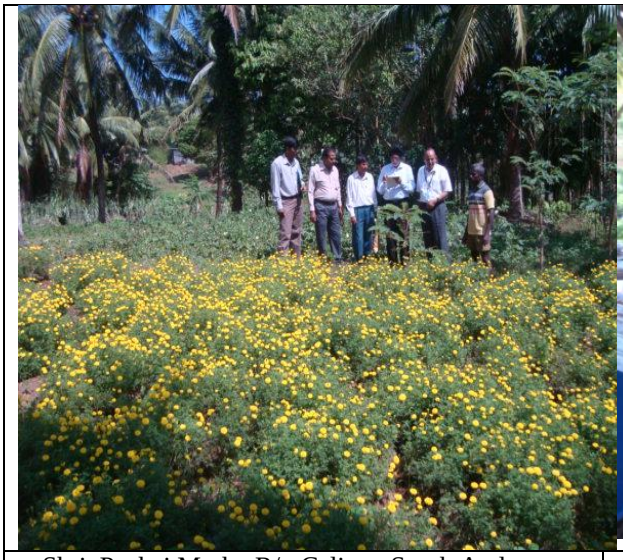

Shri. Pachai Muthu R/o Calicut, South Andaman

Shri. Pachai Muthu R/O Calicut, South Andaman, Bee Keeping

Shri. Arulandu R/O New Bimblitan, S. Andaman, Protected Cultivation

Shri. A. Arockia Swamy R/O New Bimblitan, S.Andaaman (AEP)

Organic Farm, Sippighat

Shri. Prakash Chandra Madhu R/O Bharatpur, Neil Island S. Andaman, T.C. Banana

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Smti. Shanti Rani Das R/O Bharatpur, Neil Island, S. Andaman, Protected / open Cultivation of vegetables

Shri. Satish Mallick R/O Ram Nagar, Neil Island, S. Andaman, CDB Scheme

Shri. Ranjit Gosh R/O Ram Nagar, Neil Island, S. Andaman, Organic Farming

Prafulla Malakkar R/O Ram Nagar, Neil Island, S. Andaman, Vermicompost Tank

Shri. Nepal Das R/O Ram Nagar, Neil Island, S. Andaman, Protected Cultivation

Smti. Raju Bala Roy R/O Ram Nagar, Neil Island, S. Andaman, Organic Farming

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Smti. Raju Bala Roy, R/O Ram Nagar, Neil Island, S. Andaman, Protected Cultivation

Smti. Raju Bala Roy R/O Ram Nagar, Neil Island, S. Andaman, Organic Farming

Shri. Prafulla Bawali R/O Ram Nagar, Neil Island, S. Andaman, Local Mango

Shri. Prafulla Bawali, R/O Ram Nagar, Neil Island, S. Andaman, Protected Cultivation

Drying of arecanut at L. Andaman

Pollination support at L. Andaman