

Joint Inspection Team (JIT) Report of National Horticulture Mission (NHM) in Union Territory of Lakshdweep



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Dates of Visit: - 05.05.2013 to 9.05.2013

General Observations and Recommendations:

- As per NHM achievements in Lakshdweep, 10 Nursery centres, 72 water resources and 40 shadenets were created during 2006-07 with the support of NHM. Further, 40 shadenets were created under NHM during 2007-08. However, as records pertaining to the location of these units were unavailable, NHM related activities could not be inspected.

The team visited some of the activities undertaken by the Department for the development of Horticulture utilizing UT funds..

- It appears that the UT of Lakshdweep has not availed any financial support from NHM from 2008-09 onwards.
- The Directorate of Agriculture, Lakshdweep does not have a dedicated unit for the development of Horticulture in the UT.
- During discussions with the departmental officers it was felt that substantial demand for subsidy for cultivation of Banana and Vegetables exists.
- The production of vegetables needs to be increased to meet the demand for local consumption.
- Small nurseries need to be established for vegetable seedlings and fruit planting material.
- Establishment of green houses for growing seedlings is required as well as Vermi compost units for organic farming.
- Non availability of land is the main constraint for area expansion under fruits and vegetables. Area availability in those islands which are not inhabited needs to be explored.
- Area available under coconut trees is being used for production of vegetables etc. Scope exists for bringing such areas under vegetable production.
- Some planting material for Banana and vegetables seedlings are being prepared in the departmental plots and given to the farmers.
- Pandal cultivation is being used for growing vegetables in some plots but on a very small scale.
- The size of the demonstration plots is very small varying from 100 sq. m. to 1 acre.
- In agricultural plan for next year there is a proposal for bringing some area under Banana, Guava, Sapota and Papaya fruits and also for vegetables like Pumpkin, Cucumber, Brinjal, Snake Gourd and Ash Gourd.

Introduction

Lakshadweep, formerly known as Laccadives are an archipelago of 36 exquisitely coral islands, with untouched beaches and verdant coconut groves, scattered off the Kerala coast in the Arabian Sea. Covering an area of 32 sq. km, Lakshadweep is the smallest union territory of India.

Out of 36 small islands, only ten are inhabited and they are Andrott, Amini, Agatti, Bitra, Chetlat, Kadmath, Kalpeni, Kavaratti, Kiltan and Minicoy. These islands form the smallest of the Union Territories of India and are the country's only coral islands. The main islands are Kavaratti, Minicoy and Amini. Kavaratti is the headquarters of these islands, while Bitra is the smallest of all, with a nominal population.

History

A very little information is available about the early history of Lakshadweep. It is generally believed that the first settlement on these islands was made by Cheraman Perumal, the last king of Kerala, who reached here owing to a shipwreck. However the historical record shows that, around the 7th century, a Muslim saint who was shipwrecked on the island of Amini converted the inhabitants here to Islam, despite initial opposition.

Although the sovereignty remained in the hands of the Hindu Raja of Chirakkal, it eventually passed to the Ali Raja of Cannanore (Kannur) in the 16th century, the only Muslim royal family of Kerala, and later, in 1783 to Tipu Sultan. Following the defeat of Tipu Sultan by the British, at Srirangapattanam in 1799, the islands were annexed by the East India Company. It remained with the British until Independence, when it was made a Union territory of the Indian Union on 1st November, 1956. The UT is administered by an Administrator (an IAS officer) appointed by the President of India.

Geography

India's smallest union territory Lakshadweep is an archipelago consisting of 12 atolls, three reefs and five submerged banks. It is a uni-district Union Territory with an area of 32 sq. km and is comprised of ten inhabited islands. The capital is Kavaratti and is also the principal town of the UT. It is some 220 to 440 Km away from the coastal city of Kochi in Kerala, in the Arabian Sea.

Climate

Lakshadweep has a tropical climate, with summer temperatures ranging from 35 degrees centigrade to 22 degrees centigrade, and winter temperature between 32 degrees to 20 degrees centigrade. Though the resort is open round the year, May to September is the ideal time to be on the islands.

During monsoons, ship-based tourism is closed but helicopter services are available. Some effect of the northeast monsoon is felt in October-November in the form of light transitory showers. Tropical clothes throughout the year are sufficient. A waterproof coat during October-November is useful.

Economy

Agriculture is the backbone of Lakshadweep's economy; the major products being coconut and coir. Coconut fibre extraction and conversion of its fibre products is the main industry in the islands. Most of the people are dependent on these industries for their livelihood.

The other major activity here is fishing. Immense potential for development in fisheries has resulted in the setting up of boat-building yards, canning and processing factories and adoption of mechanized fishing boats. The islands stand first in the country in per capita availability of fish. People of Lakshadweep are often commended for their honesty, and the absence of crime in the islands is laudable.

National Horticulture Mission in Lakshdweep

Physical and Financial Progress under NATIONAL HORTICULTURE MISSION for the year 2006-2007

(Rs. In lakhs)

Sr. No.	Component	Unit Ha/Nos	Target as per approved action plan		Target as per fund released		Achievements		Remarks / reason for shortfall or excess w.r.t. targets/ Reason for carry forward targets
			phy	fin	phy	fin	phy	fin	
1	2	3	4	5	6	7	8	9	10
1	Nursery center for seeds / planting material production	Nos	10	30	10	30	10	30	
2	Creation of water resources of community tanks / water harvesting structure / ponds	Nos	72	25	72	25	72	25	
3	Shadenet tunnels	Nos	40	1	40	1	40	1	
4	Human Resources Development- Farmers training at island	part	500	70	500	7	500	7	
	Total							63	

Physical and Financial Progress under NATIONAL HORTICULTURE MISSION for the year 2007-2008

(Rs. In lakhs)

Sr. No.	Component	Unit Ha/Nos	Target as per approved action plan		Target as per fund released		Achievements		Remarks / reason for shortfall or excess w.r.t. targets/ Reason for carry forward targets
			phy	fin	phy	fin	phy	fin	
1	2	3	4	5	6	7	8	9	10
1	Shadenet tunnels for green house	Sq.m	40	1.4	40	1.4	40	1.4	
2	Human Resources	Nos	1	3.5	1	3.5	1	3.5	

	Development-Farmers training at island								
3	Organic certification process	islands	10	25	10	25	10	25	
	Total			29.9		29.9		29.72	

Physical and Financial Progress under NATIONAL HORTICULTURE MISSION for the year 2008-2009

(Rs. In lakhs)

Sr. No.	Component	Unit Ha/No s	Target as per approved action plan		Target as per fund released		Achievements		Remarks / reason for shortfall or excess w.r.t. targets/ Reason for carry forward targets
			phy	fin	phy	fin	phy	fin	
1	2	3	4	5	6	7	8	9	10
1	Nil		Nil	Nil	Nil	Nil	Nil	Nil	No fund received

Physical and Financial Progress under NATIONAL HORTICULTURE MISSION for the year 2009-2010

(Rs. In lakhs)

Sr. No.	Component	Unit Ha/Nos	Target as per approved action plan		Target as per fund released		Achievements		Remarks / reason for shortfall or excess w.r.t. targets/ Reason for carry forward targets
			phy	fin	phy	fin	phy	fin	
1	2	3	4	5	6	7	8	9	10
1	Nil		Nil	Nil	Nil	Nil	Nil	Nil	No fund received

Physical and Financial Progress under NATIONAL HORTICULTURE MISSION for the year 2010-2011

(Rs. In lakhs)

Sr. No.	Component	Unit Ha/No s	Target as per approved action plan		Target as per fund released		Achievements		Remarks / reason for shortfall or excess w.r.t. targets/ Reason for carry forward targets
			phy	fin	phy	fin	phy	fin	
1	2	3	4	5	6	7	8	9	10

1	Nil		Nil	Nil	Nil	Nil	Nil	Nil	No fund received
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Physical and Financial Progress under NATIONAL HORTICULTURE MISSION for the year 2011-2012

(Rs. In lakhs)

Sr. No.	Component	Unit Ha/No s	Target as per approved action plan		Target as per fund released		Achievements		Remarks / reason for shortfall or excess w.r.t. targets/ Reason for carry forward targets
			phy	fin	phy	fin	phy	fin	
			4	5	6	7	8	9	10
1	Nil		Nil	Nil	Nil	Nil	Nil	Nil	No fund received

Physical and Financial Progress under NATIONAL HORTICULTURE MISSION for the year 2012-2013

(Rs. In lakhs)

Sr. No.	Component	Unit Ha/No s	Target as per approved action plan		Target as per fund released		Achievements		Remarks / reason for shortfall or excess w.r.t. targets/ Reason for carry forward targets
			phy	fin	phy	fin	phy	fin	
			4	5	6	7	8	9	10
1	Nil		Nil	Nil	Nil	Nil	Nil	Nil	No fund received

TOTAL AREA AND CLASSIFICATION OF AREA IN THE UT OF LAKSHADWEEP

(Hectare)

Year	District	Geographical area	Reporting area for land utilisation Statistics	Total area not available for cultivation	New sown area	Total cropped area	Area sown more than once	Total pulses	Total fruit
1	2	3	4	5	6	7	8	9	10
2000-01	Lakshadweep	3200	3100	435	2665	3102	437	20	179
2001-02	Lakshadweep	3200	3100	435	2665	3102	437	20	179
2002-03	Lakshadweep	3200	3100	435	2665	3102	437	20	179
2003-04	Lakshadweep	3200	3100	435	2665	3102	437	20	179
2004-05	Lakshadweep	3200	3100	435	2665	3102	437	20	179
2005-06	Lakshadweep	3200	3100	755	2345	3102	757	25	187
2006-07	Lakshadweep	3200	3100	755	2345	3043	698	25	187
2007-08	Lakshadweep	3200	3100	755	2345	3043	698	25	187
2008-09	Lakshadweep	3200	3100	755	2345	3043	698	25	187
2009-10	Lakshadweep	3200	3100	755	2345	3043	698	25	187
2010-11	Lakshadweep	3200	3100	991	2109	2909	800	28	192
2011-12	Lakshadweep	3200	3100	991	2109	2909	800	28	192

As per the NHM achievements in Lakshadweep, 10 Nursery centres, 72 water resources and 40 shadenets were created during 2006-07 with the support of NHM. Also, 40 shadenets were achieved under NHM during 2007-08. The records pertaining to the location of these units are not available or known to anybody in the department there. Accordingly, I could not be shown even a single activity pertaining to NHM there.

During 2008-09 and in all the subsequent years the physical and financial targets and achievements shown are nil.

Field Visit

I visited two islands namely: Agatti and Kavaratti. As indicated above, the location/records of the activities taken during 2006-07 and 2007-08 under NHM were not available, I visited the activities pertaining to Horticulture crops undertaken with their own funds. The brief profile of these islands, activities visited along with observations are given as below:

Agatti Island



Introduction

Agatti Island also known as **Agathy**, is a 5.6 km long island, situated on a coral atoll in the Union Territory of Lakshadweep, India. It is located about 459 km (285 mi) off Kochi in the mainland and 7 km to the southwest of Bangaram, the nearest island. Kavaratti, the closest inhabited island, lies 54 km to the SE and the uninhabited Suheli Par atoll 76 km to the south. Agatti's total land area is approximately 2.7 km² (1 sq mi). The small island of **Kalpitti** is located at the southern end on the same reef.

Population

Its population as per the last census was 5,667 and at present time its above 8,000 all of the inhabitants are of Muslim, religion which is said to have been brought by Arab traveller Ibn Batuta. Most people speak Malayalam and English. Agatti has its own 100 kW power house which uses fuel to generate electricity. There is a Sea Water Desalination unit which provides desalinated water to the islanders.

Access by sea requires a 24 hour journey by ship; flight time from Kochi is 75 minutes. Agatti Aerodrome is the only airport in Lakshadweep. Indian Airlines and Kingfisher Airlines operate daily ATR 42 and ATR 72 flights respectively from Kochi except Sunday.^[2] The Government has recently terminated Kingfisher Airlines flying permits, which means it is now not permitted to fly domestically or internationally.

List of Fields visited in Agatti Island:

1. Demonstration Plot-Near Kalledi,
2. Demonstration Plot near T.V. Station--i
3. Demonstration Plot near T.V. Station—ii
4. Demonstration Plot near T.V. Station---iii
5. Demonstration Plot near T.V. Station---iiii
6. Demonstration Plot near Payapalli

KAVARATTI ISLAND



Introduction

Kavaratti Malayalam is the capital of the Territory of Lakshadweep in India. Kavaratti is a census town as well as the name of the atoll upon which the town stands.

It is well known for its pristine white sand beaches and calm lagoons, which makes it a popular tourist destination.

Geography

The island of Kavaratti lies 360 km (190 nmi) off the coast of the state of Kerala at 10.57°N 72.62°E.^[1] It has an average elevation of 0 metres (0 feet).

The closest island is uninhabited Pitti islet, located 24 km (13 nmi) north of Kavaratti. The inhabited island of Agatti lies 54 km to the NW and the uninhabited Suheli Par 53 km to the SW.

Kochi is the closest major city on the Indian mainland at a distance of 404 km (218 nmi).

Climate

Kavaratti has a tropical monsoon climate. March to May are the hottest months of the year. The year-round temperature ranges between 25-35°C. Humidity range is 70-76%.^[2]

The monsoon rains usually start at the end of May and continue through early September. The island receives an average of 1600mm of rain during the year.

List of Fields visited in Kavaratti Island:

1. Centre for Vegetable collection from demonstration trials near staff canteen
2. Demonstration trial for vegetable and fruit production near staff canteen
3. Demonstration trial for vegetable and fruit production near children park
4. Demonstration trial for Banana and Papaya production near Planatorium
5. Demonstration trial – Beach Road
6. Herbal Garden near Jama Masjid
7. Demonstration plot near Ujra Mosque
8. Botanical Garden

Climate data for Kavaratti													
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Average high °C (°F)	30.2 (86.4)	30.4 (86.7)	31.1 (88)	31.8 (89.2)	31.3 (88.3)	30.4 (86.7)	29.8 (85.6)	29.7 (85.5)	29.8 (85.6)	30 (86)	30.3 (86.5)	30.3 (86.5)	30.43 (86.75)
Average low °C (°F)	22.7 (72.9)	23.1 (73.6)	24.3 (75.7)	25.5 (77.9)	25.8 (78.4)	25 (77)	24.6 (76.3)	24.7 (76.5)	24.6 (76.3)	24.3 (75.7)	23.6 (74.5)	23.2 (73.8)	24.28 (75.72)
Precipitation mm (inches)	27.4 (1.079)	25.4 (1)	19.8 (0.78)	72.5 (2.854)	212.8 (8.378)	261.3 (10.287)	250.9 (9.878)	202.4 (7.969)	181.9 (7.161)	183.1 (7.209)	133.0 (5.236)	94.8 (3.732)	1,665.3 (65.563)
<i>[citation needed]</i>													

Demographics

The 2009 population estimate for Kavaratti was 11,322 based on the 2001 census of India. The 2001 census had reported a population of 10,119.^[3] Males constitute 55% of the population and females 45%. Of the 1797 families on the island, the 2001 census reported 57 (about 3%) as being below the poverty line.

The 2001 census also reported a literacy rate of 88.6% for Kavaratti. This was an increase from 44.4% in 1971. The male literacy rate was 94.1%, while the female literacy was 81.66%.^[3] In Kavaratti, 12% of the population is under 6 years of age.

The most commonly spoken languages are Malayalam, Mahl and English.

Economy

Tourism is one of the primary industries on the island. The island has pristine white sand beaches, favored by tourists for sun bathing. The calm lagoons on Kavaratti island are ideal for water sports and swimming.

A number of hotels and resorts have been developed on Kavaratti in recent years. The waters around the coral atoll are rich in diverse marine life. The Kavaratti Aquarium has a rich collection of corals and a vast collection of tropical fish specimens.

The other major industries on the island are fisheries and agriculture. Coconut is the dominant crop on the island. With the ascent of tourism, the fishing industry has seen a major decline.

Observations made in Agatti and Kavaratti Islands:

The observations made in the two islands namely: Agatti and Kavaratti are same as the same concept of demonstration trials is being adopted in both the islands. The main observations are as below:

- These are very small pieces of land mostly taken on lease from the owners.
- Horticulture crops being grown are: brinjal, spinach, Banana, Drumstick, Pumpkin, Chillies, Snake Gourd, Cucumber, Beans, Ladyfinger, Ridge Gourd, Papaya, Watermelon etc. but in very small quantities.

- The produce from all the demonstration trials is collected every Tuesday and brought to the collection centre. From the collection centre the produce is sold in small packets.
- Seedlings in small quantities are also prepared in these demonstration trials and distributed free to the farmers.
- There is a need for establishing nursery for vegetable seedlings and fruit planting material.
- Need for green house for growing seedlings.
- Need to have Vermicompost units for organic farming.
- Some more area under Coconut trees is available for cultivation.
- The department pays rent @Rs.22/sq. m./year for the land taken on lease for the demonstration trials.
- In some trials pandal cultivation is also being used for growing vegetables but at a very small scale.
- There is a Herbal Garden near Jama Masjid in Kavaratty island ,wherein ,different herbal plants are being grown and locally some products like Nony jam, lemon grass and other products are being prepared and used for different diseases.