

CHAPTER I

Introduction

1.1. Lakshadweep - Profile

Lakshadweep, formerly known as Laccadives are an archipelago of 26 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

Out of 26 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. Far from the chaos of mundane world, as we know it, they represent a rather magical realm of existence. Each island is densely covered with coconut palms, and serenely set in a sea, the waters of which range from palest aquamarine and turquoise, to deepest sapphire and lapis lazuli. About 93 percent of the people in Lakshadweep are Shafi School Muslims of the Sunni sect, and they speak Malayalam, except in Minicoy where they speak Mahal. The table no.1.1 provides a summary of the profile of Lakshadweep.

Table.1.1: Profile of Lakshadweep as on 2001 Census

<i>Sl.No.</i>	<i>Category</i>	Lakshadweep
1	Total Population	60650
2	Male	31131
3	Female	29519
4	Children (under 6 Years)	9091
5	Area in KM2	2255
6	Density per KM2	1895
7	Sex ratio	948

8	Percent schedule tribe population	94.51
9	Workforce	15354
10	Employed	19.31
11	Semi employed	6.01
12	Unemployed	11764
13	Occupational distribution	
14	Total Literacy	86.66
15	Male literacy	92.53
16	Female Literacy	80.47
17	Infant mortality rate(1000infants)	16.71

Source : Census of India 2001

Though Lakshadweep is the smallest in the whole of the country in terms of the area it is one of the largest in terms of the economic zones and territorial waters. The Exclusive economic zone comes to around 4,00,000 square kilometers. This makes the island very much important from the economic point of view. The near by port are Calicut (346 Km), Cochin (404 km) and Mangalore (352 km). Airport of Lakshadweep is located in Agatti. The over all area profile of Lakshadweep is given in the table no. 1.2

Table:1.2: Area Profile of Lakshadweep

<i>Particulars</i>	<i>Number</i>	<i>Particulars</i>	<i>Numbers</i>
Number of Households	9,993	Average Household Size(per Household)	6.0
Population-Total	60,650	Proportion of Urban Population (%)	44.5
Population-Rural	33683	Sex Ratio	948
Population-Urban	26967	Sex Ratio(0-6 Year)	959
Population(0-6Years)	9,091	Sex Ratio (SC)	0
SC Population	0	Sex Ratio (ST)	1003
ST Population	57,321	Proportion of SC (%)	0
Literates	44,683	Proportion of ST (%)	95.0
Illiterates	15,967	Literacy Rate (%)	87.0
Total Workers	15,354	Work Participation Rate (%)	25.0
Main Worker	11,710	% of Main Workers	19.0

Marginal Worker	3,644	% of Marginal Worker	6.0
Non Worker	45,296	% of non Workers	75.0
CL (Main+Marginal)	0	Proportion of CL (%)	0
AI (Main+Marginal)	0	Proportion of AI (%)	0
HHI (Main+Marginal)	902	Proportion of HHI (%)	6.0
OW (Main+Marginal)	14,452	Proportion of OW (%)	94.0

Source: Census of India 2001

1.3. Governance Structure & Decentralized Governance

The union territory is administered by an Administrator appointed Ministry of Home Affairs, Govt. of India. Lakshadweep is under the jurisdiction of the High Court of Kerala at Ernakulam. The Territory also elects one member to the Lok Sabha. The Panchayat Raj system is implemented in the islands. There are Village Dweep (island) Panchayats (VDPs) and District Panchayat; each Village Dweep Panchayat has its own elected chairperson.

The entire Lakshadweep Island is classified as rural and so there is no local urban government but only Panchayat Raj institutions in a two tier structure. The entire union territory comes under one district. There is one district Panchayat in the whole of the territory and 10 Village Dweep Panchayats, one for each of the inhabited island. Many of the functions have been transferred to these local governments. The local governments are empowered to accept taxes but are not very efficient in mobilizing taxes at the local level by the local governments. Panchayats are closer to the people since many of the Village Dweep Panchayats are smaller in size and function like a small unit unlike the same in the rest of the country.

The members of the Village Dweep Panchayats and District Panchayat are directly elected. The Chairperson of the Village Dweep Panchayats shall be members of the District Panchayat by virtue of their position as Chair person. The Panchayat are responsible for discharging their functions as provided in the Lakshadweep Panchayat Regulation 1994 and schedule III & IV of the said Regulations. The table no.1.3 suggests the status of the local governance in Lakshadweep and the number of elected representatives in the local governments of the island. The greater public citizens accountability of the public institutions make the island more unique which too is an outcome of the small size of the island. The public accountability and the seriousness in the

development interest of the island administration make the development trend in the island entirely unique compared to that of the other parts of the country.

Table: 1.3: Local Governance Structure

<i>Particulars</i>	<i>Village (Dweep) Panchayats</i>	<i>District Panchayat</i>
Number of Panchayats	10	1
Total Panchayat Member	86	25
Women	33	9
Women Chair Person	4	0

Source : Directorate to Panchayat, Lakshadweep Administration, Kavaratti

1.4. Poverty Profile - Lakshadweep

Over the past few decades the poverty ratio of the country has declined to a range of 41 percent. Lakshadweep instead has marked a decline in the tune of 63 percent. Planning commission has set a benchmark for the level of personal expenditure that shall enable the individuals to satisfy a certain minimum consumption level. The proportion of population that is not able to have the minimum required level is defined as the poor. The table no. 1.4 suggests the poverty ratio of the various states in 1999-2000 year.

Table: 1.4: Population Below poverty Line 1999-2000

<i>State/UT</i>	<i>1983 -84</i>		<i>1999-2000</i>	
	No of Persons (in lakh)	%	No of Persons (in lakh)	%
A&N Islands	1.11	52.13	0.82	20.99
Chandigarh	1.19	23.79	0.51	5.75
D&N Haveli	0.18	15.67	0.33	17.14
Daman & Diu	NA	NA	0.06	4.44
Delhi	18.39	26.22	11.49	8.23
Pondichery	3.28	50.06	2.41	21.67
Lakshadweep	0.19	42.36	0.11	15.6
All India	3228.97	44.48	2602.50	26.10

The percentage of people below poverty line declined from 42.36 percent in 1983 to 15.6 percent in 2000 which mark over a 50 percent reduction. However in terms of the real number of people below poverty line, Lakshadweep had a lot to do. Over 11000 people are below poverty line which

comes to around 15 percent of the total population. Since the island is too small and even less than the size of a standard district a planned effort could significantly transform the poverty situation. The MGNREGA perspective plan in Lakshadweep has the potential in this direction. Compared to the national poverty level Lakshadweep has been better successful in reducing the poverty ratio.

1.5. The Demographic Growth Trends

The demographic trend suggests a growth in the population of the islands. The population of the whole of the islands is even less than the population of a district in the country. The population was around 40,000 in 1981 which has grown to 60,650 in 2001 marking a growth of 51 percent over two decades. While the male population has shown 52 percent growth the female population suggests only 48 percent which is also lower compared to the over all population growth rate of 20 years between 1981 and 2001. The table no.1.6.

Table.1.6: Demographic Growth – Trends

<i>Particulars</i>	<i>1981</i>	<i>1991</i>	<i>2001</i>	<i>Percentage Growth -1991-2001</i>
Male	20377	26618	31131	16.95
Female	19872	25089	29519	17.65
Total	40249	51707	60650	17.29

Source: Census of India 2001

1.6.1. Island wise Demographic Trend

The demographic trend across the various islands suggests different level of growth. Over the last 10 years between 1991 and 2001 Kadmat island shown the highest rate of population which is roughly 34 percent which is far above the islands total population growth rate over the decade. The highly populated islands like Minicoy, Andrott, Kavaratti etc has not shown any such trend of population growth. However, as per the table no. 1.7 the trend in population growth rate in most of the islands has been below the over all growth of the district.

Table.1.7: Decennial Growth – Island wise

<i>Island</i>	<i>Population Census</i>		% Decennial Growth
	1991	2001	
Minicoy	8320	9495	14.12
Kalpeni	4084	4321	5.80
Andrott	9122	10727	17.59
Agatti	5670	7009	23.62
Bangaram	61	65	6.56
Kavaratti	8677	10119	16.62
Amini	6447	7353	14.05
Kadmat	3985	5334	33.85
Kittan	3065	3669	19.71
Chetlat	2051	2291	11.70
Bitra	225	267	18.67
Total	51707	60650	17.30

Source: Basic Statistics 2007, Directorate of Planning and Statistics, Lakshadweep.

There are a number of uninhabited islands with in the union territory which has significant economic importance. At present the uninhabited islands are not used on a larger scale for economic activities. Using of these areas could be used for various economically important activities which can generate employment as well as income to the island economy. The MGNREGA perspective plan of the Lakshadweep has been prepared by keeping this in mind. The table no.1.8 suggests the name and area of the uninhabited islands. There is a total of 1.65 Sq.Km of area which is not inhabited but could be used for economic activities.

Table. 1.8: Name and Area of Uninhabited Islands

<i>Sl. No</i>	<i>Name of the Uninhabited Island</i>	Area in Sq.Km
1	Viringili	0.02
2	Cheriyam	0.46
3	Kodithala	0.27 ha
4	Thilakkam (i)	

5	Thilakkam (ii)	0.02
6	Thilakkam (iii)	
7	Pitti (i)	0.02
8	Pitti (ii)	0.01
9	Tinnakara	0.42
10	Parali (i)	0.02
11	Parali (ii)	0.02
12	Parali (iii)	0.01
13	Kalpitti	0.07
14	Suheli Valiyakara	0.29
15	Suheli Cheriyakara	0.28
16	Pitti (Birds island)	0.01
Total		1.65

Source : Basic statistics, 2007, Directorate of Planning and Statistics, Lakshadweep Administration, Kavaratti

1.6.2. Amenities Available in the islands

Amenities are very important indicator of the quality of life. To ensure human development basic amenities and infrastructure services are very important. Education, health and other important services play a critical role in ensuring better human development. The table no.1.9 suggests the amenities available in the islands as per the 2001 census.

Table.1.9: Important Amenities available in Lakshadweep

<i>Amenity</i>	<i>Number of Village</i>
Drinking Water Facilities	8
Safe Drinking Water	8
Electricity	8
Primary School	7
Middle School	6
Secondary or Sr. Secondary School	8
College	0
Medical Facility	7
PHC	4
PHC Sub Centre	7
P&T Services	7

Source: Census of India 2001

1.7. Density of Population

Lakshadweep is one of the densely populated territories in India. Among the states Kerala is the most highly dense state. High density makes the governments more responsible in its responsibility to provide the basic minimum amenities for living. High density also often results in higher commercial use of land and high pressure on the land use. Compared to the 1951 census and the 2001 census the union territory has shown tremendous growth in terms of its population density. The table no. 1.11 suggests that the density of population has grown tremendously. Almost all the islands have over 2000 population per Sq Km. Kavarati, Bitra and Amini has the highest density among the other islands.

Table.1.11: Density of Population

<i>Island</i>	<i>1951</i>		<i>2001</i>	
	Census	Rank	Census	Rank
Minicoy	839	4	2173	8
Kalpeni	1140	2	1895	9
Andrott	810	5	2216	6
Agatti	731	7	2586	4
Bangaram	-	-	112	11
Kavaratti	682	8	2788	2
Amini	1259	1	2839	1
Kadmat	541	9	1710	10
Kittan	775	6	2251	5
Chetlat	911	3	2203	7
Bitra	460	10	2670	3

Source: Basic Statistics 2007, Directorate of Planning and Statistics, Lakshadweep

1.8. Natural Resources Base

Despite the smallness in terms of area lakshdeep islands has lot of natural and other resources like notable territorial water around 20,000 sq.km and exclusive economic zones spread around 4,00000 Sq km, which make the islands strategically very important for the whole country. The flora and fauna of the Lakshadeep have survived the vagaries of times and nature including the Tsunami in 2004. The flora of the islands include Banana, *Vazha*,(Musaparadisiaca), *Colocassia*, *Chambu* (*Colocassia antiquarum*) *Drumstic moringakkai* (*Moringa Oleifera*) , *Bread Fruit*, *Chakka*

(*Artocarpus incisa*) *wild almond* (*Terminalia Catappa*) which are grown extensively. Some of the shrub jungles plant like *Kanni* (*Scaevolakeeningil*), *Punna*, (*Calaphylluminophyllum*), *Chavok* (*Casurina equisetifolia*), *Cheerani* (*Thespesia Populnea*) are unevenly grown throughout the islands. Coconut, *Thenga* (*Cocos nucifera*) is the only crop of economic importance in Lakshadweep.

1.9.1. Rain Fall Trend

The islands are characterized by adequate rain fall. The two rain fall measurement regions Minicoy and Amini, however, recorded less than the normal rains in majority of the years. In 2004, however Amini island recorded rain fall of over 3000 mms. In the Minicoy island there was above normal rainfall in 2006. Since agriculture is one of the livelihood sources, adequate rains could make the sector more remunerative and income earning. The tables no. 1.12 summarize the rainfall and temperature trend of Lakshadweep over the past four years.

Table. 1.12: Rain Fall in the Islands

Year	Actual (in MMS)		Normal (in MMS)	
	Minicoy	Amini	Minicoy	Amini
2003	1620.0	1496.8	1644.0	1504.9
2004	1550.3	3089.4	1644.6	1504.9
2005	1400.2	1388.2	1644.6	1504.8
2006	1803.7	1645.0	1644.6	1504.8

Source: Basic Statistics 2007, Directorate of Planning and statistics, Lakshadweep

1.9.2. Temperature in Lakshadweep

Temperature in Lakshadweep also varies from month to month. However, more or less the temperature remained stable with out munches of extremes. The maximum temperature recorded in 2006 is 33.9 and this was in Amini island. The minimum temperature was 23.00. The stable temperature is the best for agro production and other farming and this is however not efficiently exploited by the island economy. Alternative agricultural production and inter cropping and multiple cropping practices could be thought of as a means to improve agricultural productivity, employment avenues and income earning of the farmers. While preparing the perspective plan of MGNREGA

under land development, the rainfall and temperature of the island has been considered seriously. The table no.1.13 explains this in nutshell.

Table.1.13: Temperature Level in 2006

<i>Month</i>	<i>Maximum</i>		<i>Minimum</i>	
	Minicoy	Amini	Minicoy	Amini
January	30.7	32.0	24.1	23.9
February	31.9	32.5	23.6	23.1
March	32.4	33.3	26.0	25.4
April	33.5	33.9	26.9	26.4
May	32.4	32.9	25.9	26.4
June	31.6	30.7	25.3	25.2
July	31.5	30.3	25.4	26.0
August	31.7	30.7	25.2	25.7
September	30.7	29.6	24.7	24.4
October	31.10	31.1	24.3	24.9
November	31.1	31.3	24.4	24.4
December	31.9	32.1	24.7	23.0

Source: Basic Statistics 2007, Directorate of Planning and Statistics, Lakshadweep

1.10. Flora and Fauna of Lakshadweep

The socio economic transformation and development of the small islands is featured by a number of challenges and are quite different from the others parts of the country. The inbuilt natural beauty and the potential for tourism made many of the islands the best locations for tourists making tourist industry is economically important sector. The small population size and the cost of provision of administrative and development services often is a challenge for the administration and block in the growth process of the islands. The recent climatic changes and the growing climatic vulnerability made the tourism industry too much vulnerable in many islands and this greatly impacted the tourism sector as well as even other economically important peripheral sectors. More over the outbreak of Tsunami and other disasters significantly impacted the small island economies and the tourism industry. Small island economies in the world include the sovereign independent counties such as Singapore, Mauritius or Maldives into islands that are apart of the mainland country such

as Hawaai, Tasmania, Lakshadweep, or Andamans. It is important to examine the different types of vulnerabilities that these two categories of their island economies face and plan strategically tourism the vulnerabilities. The proposals under the perspective plan of MGNREGA has been considered and prepared for protecting the fragile eco system and the flora & fauna of the islands.

1.11. Banking Practices - Trend

As in other parts of the country the system of giving and taking loans has been one of the usual practices in availing financial access in Lakshadweep too. However, it was never an important economic activity. Since the economic activities in the island like coconut require little investment the demand for money has been quite less in terms of investment needs. The credit needs therefore has been entirely to meet the expenses of various social functions like marriage, festivals etc. The earliest form of indigenous form of banking was private money lending and the money lending was done interest free since the majority of the families were Muslims. However, there were also inbuilt social arrangements to mobilize money like BELICHORU (Money Feast). If a person wants some money for any celebrations he invites people for a feast. Everyone who participates in the feast brings their contribution in cash or in rice. The contribution made by each of the visitor is recorded and the one who receive the money is bound to return the contribution whenever a similar necessity arises for his friends or relatives. Kuri / Chit Funds were also two other forms of money lending. However the modern banking services have started with the introduction of primary credit societies and now a number of scheduled and private banks work in the islands. All the islands have coastal networks and facilities with six sub post offices and three extra department sub post offices and one branch office. The service of the post offices are being used for releasing the wages of the MGNREGA works.

2.1. Agriculture Sector

Agriculture is one among the economically important sectors with coconut as the lead crop. This sector functions as an important livelihood source for the people in the island. However, the lead crop coconut is not efficiently used and post harvest processing of coconut could probably provide alternative employment to many along with fetching better prices to the coconut. There is also a hidden potential for practicing intercropping and multi cropping which could not only increase the productivity of land but could influence income level of the people. Lakshadweep is India's largest

producer of coconuts. About 2,598 hectares are under coconut cultivation and the productivity per hectare is 22,310.

2.2. Land Utilisation Pattern

Table. 1.17: Land Utilization Statistics (in Hectors)

<i>Particulars</i>	<i>2002-03</i>	<i>2003-04</i>	<i>2004-05</i>	<i>2005-06</i>	<i>2006-07</i>	<i>2007-08</i>
Total Geographical Area	3200	3200	3200	3228	3220	3220
Area not available for cultivation	625	621	625	630	650	650
Total Cropped Area	3980	2579	2575	2598	2570	2598
Net zone area	2575	2579	2575	2598	2570	-
Area zone more than once	1405	1401	1405	1560	1565	1565
Ratio of Net zone area to Total Geographical Area	80.46	80.59	80.46	80.48	79.81	

Source: Basic Statistics 2007

The table no. 1.17 suggests that the total cropped area has declined from 3980 hectares in 2002-03 to 2598 in 2007-08. Along with that the net zone areas also have shown a decline that is from 80.46 to 79.81 in 2006-07. Intercropping is also practiced though on a small land holding. The main intercrops are Banana, papaya and other vegetables used in the islands. The MGNREGA perspective plan makes an attempt to increase the productivity, cropped area and ratio of net zone area to total geographical area. The table no.1.18 shows the production as well as the area used for intercropping.

Table No.1.18: Inter Cropping – Area and Production

Crop	Area	Production
Banana	231	628 MT
Papaya	190	570 MT
Vegetables	299	6483MT

Source: Directorate of Planning and Statistics, Kavarathi.

2.3. Fisheries Sector

Fishery resources are concern, Lakshadweep is situated in an advantageous position in Arabian Sea of west coast of India. The islands are scattered in sea miles away from one another. Southern most island Minicoy situated west to Thiruvananthapuram and northern most territory Manjal par situated west to Batkal of Karnataka state. Total atoll area of Lakshadweep is 4,232 Sq. Kms which include reefs and submerged banks. It has an area of large territorial waters. Exclusive

Economic Zone (EEZ) around Lakshadweep is approximately 46 percent of total EEZ of west coast of India. Inhabitants of Lakshadweep are sea farers and many of them traditionally depend on fish for their livelihood. The waters around Lakshadweep are rich with fishery resources. At present a small fishing industry has been developed in Lakshadweep. There has been a steady growth of fish production, which once stood at 500 tonnes during 1950s crossed 12,000 tonnes in recent years. However compared to fishery potential of this area, present yield is only about 10 percentage. The main fishery in Lakshadweep is tuna. Main variety of tuna caught in Lakshadweep is Skip jack. The pelagic tuna Skipjack is caught by Pole and line method with 25 to 40 feet size wooden open type boats. About 350 such boats are operating in different islands for fishing. About 80 percent of fish caught in Lakshadweep is tuna. About 1350 tonnes of Masmeen is produced in Lakshadweep annually.

There are 11 fish landing islands (10 inhabited islands and one uninhabited islands) in Lakshadweep. The islanders do fishing mainly for livelihood. For construction of boats, they have to bring boat building materials like wood etc from mainland by paying high freight charges. All the materials have to be transported from mainland which is time consuming and expensive. The islanders are skilled in construction of fishing vessels. But financial assistance is required to make them construct more fishing units to exploit more fishery resources available in the area. As reef areas are rich for fishery resources, islanders traditionally use country crafts with oars and sails for propulsion for doing fishing in the vicinity areas.

At present fish is caught from 3 areas a) in the vicinity areas of inhabited islands and uninhabited islands like Suhali b) from reef areas like Baliapani, Cheriapani and Perumul par and c) from banks like Elikalpeni, Manjal par, Mankunnu etc. which are far away from inhabited islands. The projects under MGNREGA envisage increasing fish production in Lakshadweep by making infrastructure facilities and providing employment opportunities for fishermen in monsoon season where fishing is not possible. It also suggests convergence between RKVY and MGNREGA.

Table No.1.19: Basic Statistics of Fisheries Sector

Items	2003-04	04-05	05-06	06-07	07-08
Persons engaged in fishing (number)	8060	6710	7020	8140	9860
Mechanised boats available (number)	508	508	494	586	566
OBM fitted crafts (number)	244	246	246	371	410
Country crafts (number)	198	190	180	1318	1290
Fish landings (in tonnes)	10030	10512	11035	11751	11400
Value (Rs. in lakhs)	2006	2102	2207	2350	2850
Fish products exported (in tonnes)	1245	1317	1345	1280	1350
Tuna catch out of total landings (in tones)	8149	8232	8828	8660	8874

Source: Department of Fisheries, Lakshadweep Administration, Kavaratti

2.4. Industrial Background of the Lakshadweep

The industrialization process has been much slow compared to other location in the country and this gave heavy pressure on agriculture and fisheries the two lead economic sectors in the island.

The table no. 1.19 suggests that in 2007 there are only few industries registered.

Table.1.19: Small Scale Industries in 2007-08

Industry Type	Number of Units
Permanent Registered	5
Provisionally Registered	1
Total	6

Source: Lakshadweep Key Indicators 2008, Directorate of Planning and Statistics, Kavaratti