



# ANNUAL REPORT

2018-19



DEPARTMENT OF ENVIRONMENT & FOREST  
Union Territory of Lakshadweep Administration



## **EDITORIAL TEAM**



## FOREWORD



# PREFACE





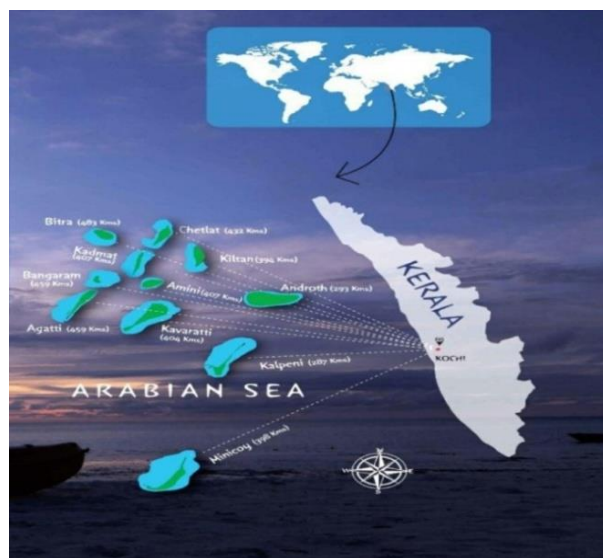
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## CHAPTER – 1

### INTRODUCTION

Lakshadweep, is an archipelago of group of 36 islands is known for its mesmerising sun-kissed beaches and lush green landscape. The name Lakshadweep in Malayalam and Sanskrit means ‘a hundred thousand islands. India’s smallest Union Territory Lakshadweep is consists of 4200 sq.kms of lagoon, rich in marine wealth, spread over an area of 32 sq.kms. It is a single district Union Territory and comprised of 12 atolls,



(Map of Lakshadweep Fig. 1.1)

three reefs, five submerged banks and ten inhabited islands. The inhabited islands are Agatti, Amini, Andrott, Bitra, Chetlath, Kalpeni, Kadmat, Kavaratti, Kiltan, Minicoy. The capital is Kavaratti and it is also the principal town of the UT. All Islands are 220 to 440 km away from the coastal city of Kochi in Kerala, in the emerald Arabian Sea. The natural landscapes, the sandy beaches, abundance of flora and fauna and the absence of a rushed lifestyle enhance the mystique of Lakshadweep. Lakshadweep has a tropical climate and it has an average temperature of 27° C – 32° C. The underwater view at Lakshadweep is kaleidoscopic and breath taking. The lagoon offers excellent potential for water sports like swimming, wind-surfing, diving, snorkelling, kayaking. Each Island is fringed by snow weight coral sands. The crystal-clear water and the abundant marine life enhance the beauty of these Islands. Against the vast expanse of the blue sea, the islands look like emeralds. The huge shallow calm lagoon on one side with wall like reef maid of marine live coral boulders blocks the incoming swells of the outer sea.

The whole Lakshadweep Islands are made up of coral formation under atoll category and have very unique and fragile eco-system. The aquatic realm is remarkable for the prolific reefs and the diversity of marine life. The marine biodiversity of the Islands is predominantly and directly related to the diversity of the coral reefs. Coral reefs are



decidedly more productive in primary and secondary levels of biomass formation than even an evergreen forest on land, protectors of coast lines and coastal populations. Coral reefs provide habitat, breeding ground, shelter, nesting place and niche for many protected species like coelenterate, holothurians, echinoderms, mollusks, sponges and marine turtles, mammals and many other fauna & flora. Many avian species also directly depend on inter tidal regions. Almost all the above-mentioned species are classified and biodiversity and economic value, coral reefs are facing an unlimited & very high stress of disturbance, pollutions, over fishing, tourism etc. besides the natural threats.

The Island territory is also beset with challenges which are unique to it. The tiny land mass, isolation from the mainland, difficulties in transport sector, lack of connectivity etc., are only some of the bottlenecks that come in the way of development. Each Island is an entity scattered in the is separated by very high seas with minimum distance of 55 km and above, which in itself is another hurdle as each Island had to be catered individually and singularly. Unlike any other coastal area or any other Islands, Lakshadweep Islands are surrounded by lagoons, which in turn are surrounded by coral reefs totaling to an area of 4,200 Sq.kms makes the Islands a large territory. Despite the impediments these Islands have territorial waters of 20,000 Sq.kms of exclusive economic zone which contribute more hurdle in surveillance for protection. Lakshadweep Islands have very unique and fragile eco-system. The continued existence and economy are directly involved in the survival of coral atolls and lagoons around it. The pristine natural beauty of the Islands stands to be a candidate for the tourist destination and other exploitation. The existing conditions in the Islands are fast changing. The coming years are sure to see more complex problems. The Islands must be prepared to face and deal with problems like wildlife crimes, over exploitations, unsustainable fishing, pollutions unemployment, sanitation, disturbance to the fragile ecology and many more. It is high time to protect and conserve these fragile and most dedicate ecosystems by all means.



Scenic view of the beauty of the Island (Fig. 1.2)



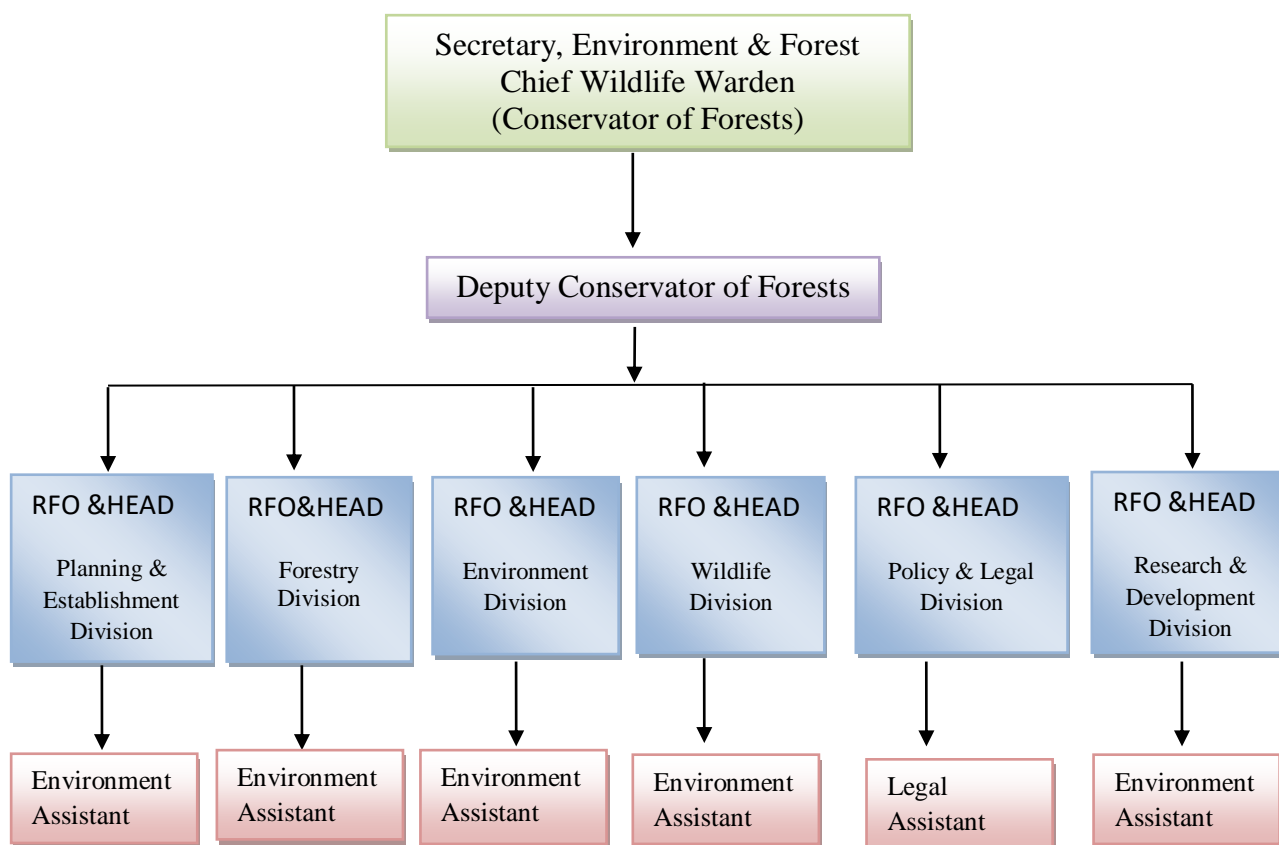
Scenic view of the beauty of the Island (Fig. 1.3)



## CHAPTER – 2

### DEPARTMENT OF ENVIRONMENT AND FOREST

The Department of Environment & Forest, under U.T of Lakshadweep Administration was bifurcated in the year 1999. Before that it was functioning with the Department of Science & Technology. During the year 2018, a total of 6 Divisions were created in the department, for the convenience of the better administration and management, with a view to protect and conserve natural resources of Forest & Environment. The following is the Organizational chart of the Department.





## **Roles and Functions of Various Divisions**

### **1. RFO &Head (Planning& Establishment Division)**

- All office establishments
- Swatch Bharat
- Reports furnish to PS&T and GAP related with IDA, HAMC, Parliamentary committee Lok Sabha/Rajya Sabha parliamentary Questions etc.
- Reply of pending audit paras of the department
- Annual plan
- Annual Budget
- To appoint in as CPIO under RTI

### **2. RFO &Head (Forestry Division)**

- Engagement of Forest Guard and Foresters
- NMPB
- LMPB

### **3. RFO &Head (Environment Division)**

- Implementation of blanket polythene ban in islands.
- Plantation
- Training Programmes
- Social Ecology/Environment
- Workshops
- International OZONE Day Celebration

### **4. RFO&Head (Wildlife Division)**

- All Wildlife related activities
- Management of Pitti Bird Sanctuary
- Protection of Marine Wildlife
- Wildlife week Celebration



#### **5. RFO & Head (Policy and Legal Division)**

- All legal correspondences
- Policy & strategy related with ecology and environment
- Pollution Control Activities
- EIA
- Coastal zone management plans
- Preparation of climate change Action plan
- Auction of boat
- Auction of Conservator of Forest's Car
- SLAB / State Monitoring Cell/ STP

#### **6. RFO & Head (Research and Development Division)**

- Climate change adaptation fund management
- Environmental Information System (ENVIS)
- Lakshadweep Coral Reef Monitoring Network (LCRMN)
- Long Term Coral Reef Monitoring Program (ZSI)
- Integrated Island Management Plan Projects
- Vulnerability Assessment & Development of Adaptation Strategies for Climate Impact (VACCIN)
- Wildlife Project formulation
- Other Project Proposals.

#### **Unit Offices in the Islands: -**

Department has unit offices in all the 10 inhabited Islands, namely Agatti, Amini, Andrott, Chetlat, Kadamatt, Kalpeni, Kavaratti, Kiltan, Minicoy and Bitra. At present RFO/Environment Assistants are heading each unit offices and co-ordinating all the activities of Island level. The department will recruit Safai Karmacharis to all islands, for the smooth functioning of the departmental offices in the island.



## **CHAPTER - 3**

### **ACHIEVEMENTS UNDER PLANNING & ESTABLISHMENT DIVISION**

The Department of Environment & Forest is responsible for protection and conservation of fragile ecosystem, biodiversity and natural resources in the islands. The Department also responsible for execution of Wildlife Protection Act, Environment Protection Act, Biodiversity Act, Coastal Zone Management Rules, Pollution Control Rules, Waste Management Rules, etc. At present the Department have the hierarchy of Conservator of Forest as Head of Department, One Deputy Conservator of Forest belongs to Indian Forest Service, 6 Range Forest Officers, 3 Boat drivers, 6 Boat lascars, 1 Lower Divisional Clerk & 1 Multi Skilled Employee. The department has already re-designated the post of Environment Warden as Range Forest Officer.

In order to strengthen the frontline staff and establishment in the Department, the Ministry of Environment, Forest and Climate Change have created 57 posts including Assistant Conservator of Forest – 3 Nos., Range Forest Officer - 3 Nos., Forester – 14 Nos., Forest Guard- 31 Nos., Superintendent-1 No., Accountant-1 No., Stenographer – 1 No., Upper Divisional Clerk- 1 No., Car Driver – 2 No., vide order No. 10-3/2009-FE (Vol-I) Dated.25.04.2018.

The Department will fill the sanctioned strength of 14 Forester & 31 Forest Guard within the short span of time and also will sent them for basic training at Karnataka State Forest Training Institute (KSFTI, Gungaragatti, Dharwad).The Department is awaiting the clearance from the MOEF&CC for filling up of the vacancy of Assistant Conservator of Forest and Range Forest Officers. The department conducted mock measurements for departmental staffs as a part of recruitment of Forest Guard and Forester as shown in the figures below.





Department staffs conducting mock measurements (Figures 3.1 – 3.2)



Fig.3.2



The glimpses of recruitment rally for Forester & Forest Guard Conducted by the department (Fig.3.3)



Instructions to the candidates (recruitment of Forest Guard & Forester) after physical measurement Fig.3.4



### 3.4 Allocation of Fund and the Details of Expenditure: -

The major mandate of the Establishment & Planning Division is to look after the Human Resource Development & Planning & expenditure related works. The amount expended against the allocated budget in the year 2018-2019 is as follows as shown in the Figures 3.4.1 & 3.4.2 below.

Department of Environment & Forest Expenditure Statement 2018-2019				
Major Head	Object Head	Nomenclature	Fund Allotted (in lakhs)	Expenditure (in lakhs)
3435	14	Rent, Rates & Taxes	1000.000	958.940
3435	31	GIA	30000.000	29709.000
3435	50	Other Charges	35000.000	32905.092
3435	01	Salary	13800.000	13815.273
3435	02	Wages	2700.000	2536.000
3435	06	Medical Treatment	300.000	94.098
3435	11	Domestic Travel Expenses	2500.000	2477.648
3435	13	Office Expense	1700.000	1889.057
Total- Swachhata Action Plan			20000.000	19709.000
Total-Research & Ecological Regeneration			16500.000	15671.139
5425	51	Motor Vehicle	2500.000	2465.999
2406	01	Salary	6000.000	5600.900
2406	06	Medical Treatment	100.000	0.000
2406	11	Domestic Travel Expense	100.000	70.786
2406	50	Other Charges	11000.000	10446.082
2406	31	GIA	12000.000	12000.000
Total-Direction & Administration			17200.000	16117.768
Total-Assistance to Gram Panchayat			12000.000	12000.000
Total			118700.000	114968.975

Fig: 3.4.1

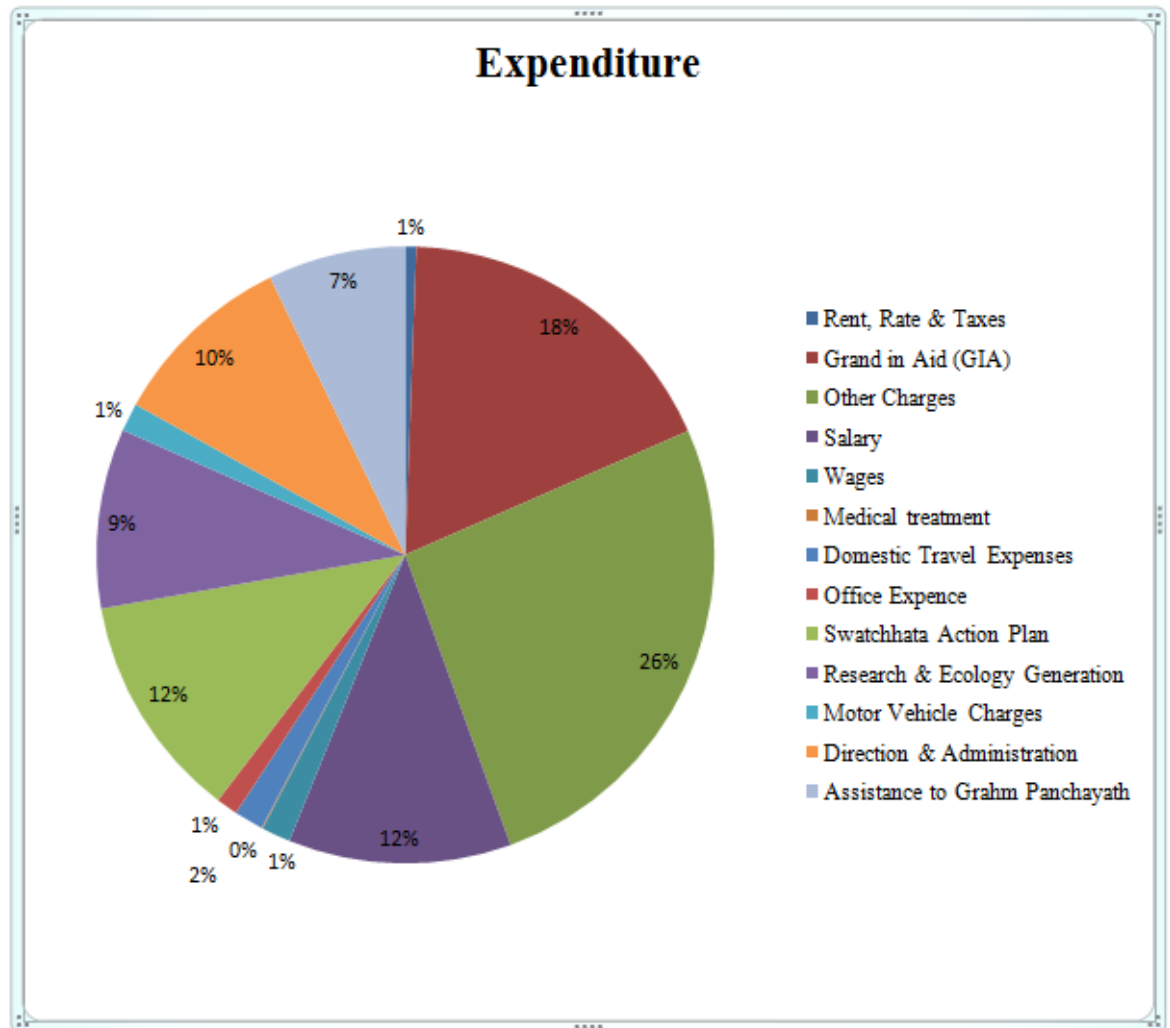


Fig: 3.4.2





As the first time in the history of the department one delegate participated in the All India Forest Sports Meet conducted during November 2018. Dr. K. Syed Ali represented U.T. Administration in the events like table tennis and caroms conducted at Raipur capital of Chhattisgarh. The organizing committee and the Minister of Sports congratulated the Lakshadweep Administration for participation in the event.



Dr. K Syed Ali represented U.T. of Lakshadweep events like table tennis and caroms conducted at Raipur capital of Chhattisgarh Fig.3.5



Dr. K Syed Ali playing carroms Fig.3.5.1



## CHAPTER - 4

### ACHIEVEMENTS UNDER WILDLIFE DIVISION

#### 4.1. International Conference on STAPCOR (Status and Protection of Coral Reef)

##### 4.1.1 Reminiscence

At the 31st General Meeting (November 2016 in Paris, France), the International Coral Reef Initiative (ICRI) declared 2018 as the third International Year of the Reef for the purpose of:

- ✚ strengthen awareness globally about the value of, and threats to, coral reefs and associated ecosystems;
- ✚ promote partnerships between governments, the private sector, academia and civil society on the management of coral reefs;
- ✚ identify and implement effective management strategies for conservation, increased resiliency and sustainable use of these ecosystems and promoting best practices; and
- ✚ share information on best practices in relation to sustainable coral reef management.

It is a real fact that - Coral reefs – the hotbeds of marine life, livelihoods and coastal defence are taking a huge battering, especially from overfishing and climate change. It is the life line of these islands. The economy of the islands is also directly proportional to the status of this biodiversity hotspot. Therefore, it is our duty to participate in the IYOR 2018

The International Year of the Reef 2018 is a worldwide campaign to raise awareness about the value and importance of coral reefs and threats to their sustainability, and to motivate people to take action to protect them.

The year 1997 was declared the first International Year of the Reef (IYOR), in response to the increasing threats on coral reefs and associated ecosystems, such as mangroves and sea grasses around the world. Based on this Lakshadweep Administration hosted the first

International seminar  
named STAPCOR-98.  
This was a very





successful event. Recognizing that, ten years later, there continued to be an urgent need to increase awareness and understanding of coral reefs, and to further conserve and manage valuable coral reefs and associated ecosystems, the International Coral Reef Initiative designated 2008 as the second International Year of the Reef, IYOR 2008. In this year also Lakshadweep Administration hosted a similar International seminar named STAPCOR-2008.

The burning issues of Green House and Global Warming along with ELNINO and NANINO effect the coral reefs internationally during 1996-97 that lead to the foundation of STAPCOR during the year 1998 at Kadmath Island of Lakshadweep. The coral bleaching due to temperature rise was the major threat during the period. The coral and marine experts of all over the world in the meeting taken decision to carry out International conference once in every 10 years to revive the status and progress of coral reefs all over the world for the better management of coral reefs with economic prosperity to the stakeholders around the reef. The second STAPCOR was also carried out in the same venue during 2008 with special emphasis to economic prosperity of the stakeholders around the islands.

#### **4.1.2 STAPCOR-2018**

The International Conference on Status and Protection of Coral Reefs (STAPCOR, 2018) was held at Bangaram Island, Union Territory of Lakshadweep, India on 22nd to 24th October, 2018. Theme for the STAPCOR-2018, was 'REEF FOR LIFE' The Department of Environment & Forest, Union Territory of Lakshadweep Administration with the technical support of Zoological Survey of India and under the guidance of Ministry of Environment, Forest & Climate Change conducted this mega event at the coral paradise in Arabian sea. The Focal theme was to converting solid marine scientific knowledge to adequate policies and strategies for the effective conservation and management of coral reefs for the very existence of the islands.

The three days conference was conducted at Bangaram Island. The Island is uninhabited, bewitchingly beautiful surrounded by a shallow lagoon enclosed by coral reef. It offers unpolluted atmosphere, crystal clear water, blue lagoon and sparkling coral reefs to visitors and researchers.





Dr. Harsh Vardhan, the Hon'ble Union Minister for Environment, Forest and climate Change was the Chief Guest during the inaugural program. Shri Farooq Khan, Hon'ble Administrator, Union Territory of Lakshadweep Administration was presiding over the inauguration program, Shri M.S. Negi, Additional Director General of Forest and was accompanied the Hon'ble Minister during the inauguration. The entire team was headed by Shri. Damodhar A.T., IFS, Secretary, Environment & Forest and Chief Wildlife Warden, Union Territory of Lakshadweep Administration. More than 77 foreign/Indian delegates including student delegates participated in the International conference STAPCOR – 2018 as shown in the figures below. (fig:4.1.2.1 – fig: 4.1.2.14).



**Dignitaries entering in to the Function 'STAPCOR-2018' Fig.4.1.2.1**



**Dignitaries entering in to the Function 'STAPCOR-2018' Fig.4.1.2.3**





Inaugral Function Fig: 4.1.2.3



Speech of Shri.Damodhar A.T., IFS, Secretary (E&F) Fig: 4.1.2.4



Entering in to the Venue Fig: 4.1.2.5



Speech Fig: 4.1.2.6



Delegates attending the function Fig: 4.1.2.7



Delegates attending the function Fig: 4.1.2.8





Honouring the Chief Guest Fig: 4.1.2.9



Dignitaries on the Dias attending the function Fig: 4.1.2.10



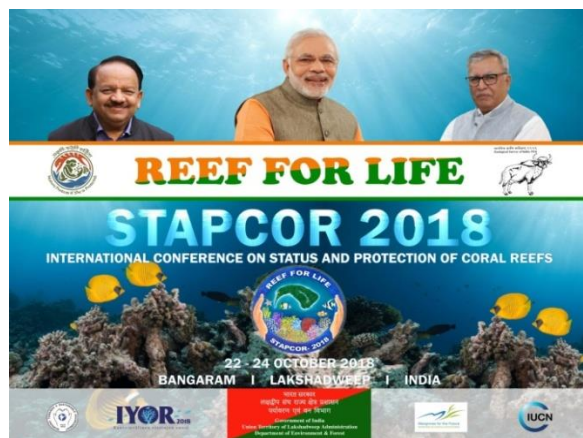
Closing ceremony of the function – Photo Session Fig: 4.1.2.11



Closing ceremony of the function – Photo Session Fig:4.1.2.12



Scuba Diving of Dignitaries Fig: 4.1.2.13



Poster of STAPCOR 2018 Fig: 4.1.2.14



### **4.1.3 Thematic Sessions: -**

#### **(a) Coral Reefs: -**

Global Scenario: past, present and the future

#### **(b) Paper Presentations: -**

Region-wise reporting on coral reefs in the Indian ocean.

#### **(c) Coral Reef Biodiversity: -**

[Mapping of biodiversity, taxonomy-merging conventional and molecular techniques, cryptic species and species boundaries]

#### **(d) Coral Reef Conservation Research: -**

Potential tools, tools adopted, outcomes, and future ideas [understanding resilience, connectivity, conserving genetic diversity, sustaining functional capacity, Active restoration]

#### **(e) Coral Reefs: Value addition through peoples' participation**

[Citizen science –tourism benefits, resources usage, community-based management]

#### **(f) Science-based Policy Frameworks and Management Intervention for Coral Reef Conservation**

### **4.1.4 Actions taken to support our environment**

As part of the celebrations of coral reefs worldwide, in STAPCOR-2018 everyone encouraged to consider actions they could take to reduce the impacts of warming ocean temperatures and broader climate change effects on reef ecosystems.

Everyone — regardless of where they live — can help look after the environment, which will ultimately help the reefs.

Here's some ways you can pledge your support as shown in figures below: -



➤ **Reduce electricity use (Fig 4.1.4.1)**



Turn off power at the wall when not in use and use energy efficient appliances and LED light fittings

➤ **Stop using single-use coffee cups and straws (Fig 4.1.4.2)**



Bring your own reusable coffee cups and say no to single-use straws

➤ **Reduce use of plastic (Fig 4.1.4.3)**



Practice a waste audit to see how much plastic you're using and where you can minimise it, for example take reusable containers for your lunch, reusable shopping bags, or purchase bulk foods





#### 4.1.5 International Bio-Diversity Day Celebration



The Wildlife Division Department of Environment and Forests was initiated to celebrate the International Day for Biological diversity in a befitting manner at Parayawaran Bhawan, Kavaratti, as shown in the figure below.



Dignitaries attending International Day for Biological Diversity Fig. 4.1.5.1

Celebration of International Day for Biological Diversity commemorates the world earth summit and the treaty of The Convention on Biological Diversity in 1993. We were also one of the signatories in the convention. The 2018 International Day for Biological Diversity (IDB) will mark the 25th anniversary of the entry into force of the Convention on Biological Diversity (CBD) and highlight progress made in the achievement of its objectives at the national and global levels. The theme of the Day was: Celebrating 25 Years of Action for Biodiversity. Biodiversity is the living fabric of our planet connected to each ecosystem. These resources are delivering the various ecological services to the stakeholders. It underpins human



wellbeing in the present and in the future, and its rapid decline threatens nature and people alike. Celebration of these days remembering us to halt biodiversity loss by understanding, appreciating, safeguarding and using biodiversity sustainably.



The celebration was inaugurated by Shri. Farooq Khan, Hon'ble Administrator Union Territory of Lakshadweep. During his speech he specified the importance of various ecosystems which harbours uncountable biodiversity in it. Throughout his speech, he alarmed the approach of the present generation to the pristine marine environment. He emphasized that, it is not far to wipe out the entire marine biodiversity, if we make a waste dump yard of our fragile lagoons. He addressed the students present during the celebration and informed them that all are the future generation of this planet and all the living resources are belonging to our wellbeing. Therefore, preservation of the biodiversity in general, behavioural change, cleanliness practice etc should be our prime duty. It is also our responsibility that to hand over all these precious natural gifts to their next generation without any further loss. During the meeting Shri. B. Hassan, President cum Chief Counsellor and Shri. T. Abdul Kader, Chairperson VDP were the guest of honours. Shri Vijendra Singh Rawat, IAS, Collector felicitated the function. Shri Vivek Pandey, IAS, Adviser to the Administrator presided over the function and Shri. Damodhar. AT, IFS., Secretary Environment and Forests deliberated a brief keynote address.

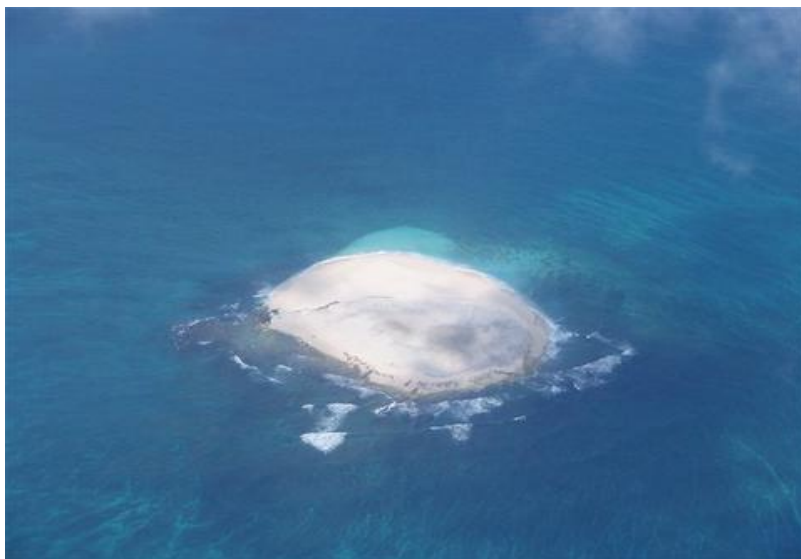
During the celebration Hon'ble Administrator honoured the three Biodiversity Ambassadors. The 1st one was Shri Nidhin Valsan, IPS, who had successfully led the team of swimmers in "6km end to end swimming expedition" on 21st January, 2018 for creation of awareness and importance of Swachh Lakshadweep Abhiyan in conserving Marine Biodiversity. The 2nd one was Kumari Haseena Beegum Vadakku PuthiyaPura, Kavaratti, for her exemplary innovation in traditional medicinal practitioner and also for his involvement in preservation of indigenous knowledge of traditional medicinal treatment by producing noni fruit juice and jam. The 3rd one was Shri P. Syed Shaik Koya, Environment Warden for his tireless work and exemplary contribution in order to conserve medicinal plants resources and documentation of traditional medicinal practices knowledge of Lakshadweep Islands.



The main attraction of the programme was the presents of Shri S. Prabakaran, IFS, an All India Forest Service Officer who is the first Indian Forest Service Officer who conquered Mount Everest of Greater Himalaya. He shared his greatest memories of Mountaineering to reach the top of Himalaya. He described various types of Mountain ecosystem in brief. The spell of his speech took the audience a real feeling of conquering the Himalaya. All the audience were eagerly listening the adventurous situations above 8000m from the seal level. His speech opened to a new world to the audience.

All the Secretaries, various Department Heads, Local People and ITI Students were participated in the function. The function began with the welcome address of the Shri. C.N. Abdul Raheem, Environment Warden and Shri. Sayed Shaik Koya, Environment Warden expressed the vote of thanks. The function ended with the National Anthem sang by the ITI Students.

#### **4.1.6 Management of Pitti Bird Sanctuary (Figure 4.1.6.1)**



Pitti Island is an uninhabited barren reef with a sandbank with thousands of pelagic birds nesting on it. The island is mostly made up of broken coral that has been pounded to rough sand like consistency with large boulders and loose stones. The island is a low plateau rising 2 m above msl at

high tide with sloping beaches and steep hard rocks all around. The island was formed by the accumulation of coral sand in the form of a sandbank with the action of the wind waves and currents. Pitti Island, a natural bird sanctuary is the only protected area of Lakshadweep archipelago. Due to importance of these sensitive nature and rare fragile pelagic bird habitat and on the basis of the congregation of nesting sea birds, Pitti Island is declared as the Bird Sanctuary under the provisions of Wildlife (Protection) Act 1972. Pitti is the breeding ground for four species of terns: Sooty Tern (*Sterna fuscata*), Great Crested Tern (*Sterna bergii*), Bridled Tern (*Sterna anaethetus*) and Brown Noddy (*Anousstolidus*). This island is of great



importance as breeding colonies of pelagic birds are rare in the Indian territory. Pitti lies in between Kavaratti (24km northwest from Kavaratti), Agatti (37km east from Agatti) and Amini (43km southwest from Amini). The management of Pitti bird sanctuary mainly includes the removal of drifted plastic waste and ensuring protection mainly during breeding season. Frequent patrolling by the monitoring staff and also frequent removal of drifted plastic are being carried out at Pitti to ensure the better protection.

#### **4.1.7 Renotification of Pitti Bird Sanctuary: -**

Pitti Bird Sanctuary was notified as per notification F.No.7/13/92 – E&F dated 21.12.2001 published in Extra Ordinary Gazette Vol XXXVII No 59. According to this notification Pitti Island is described with only one point of geo reference of coordinates  $10^{\circ} 47'$  North Latitude and  $72^{\circ} 32'$  East Longitude. As per this notification only a point is described without boundaries. Since boundaries are not described properly, the restricted entry of unauthorized persons cannot be challenged and adversely affecting the protection and enforcement activities in the sanctuary. Therefore Lakshadweep Administration issued new notification 25th January, 2019 is defining the boundary of Pitti Bird Sanctuary making 2 nautical miles radius circle around the Pitti Island since the seascape around Pitti Island having the adequate ecological, faunal, geo morphological, natural and zoological significance and also to have proper boundary of 40 square kilometer seascape around the Pitti island is also equally important for the purpose of protecting, propagating and developing wildlife in its environment, as shown in the figures below.





भारत सरकार / GOVT. OF INDIA  
लक्षद्वीप प्रशासन / LAKSHADWEEP ADMINISTRATION  
(पर्यावरण एवं वन विभाग) / (Department of Environment & Forest)  
कवारत्ती द्वीप - Kavaratti Island - 682555

एफ नं। 7/13/92 - ई एंड एफ

दिनांक: 25.01.2019

**NOTIFICATION**

Whereas Lakshadweep Administration, after the proclamation of the Collector-cum-Development Commissioner of Lakshadweep that no person have any claim of right in the Pitti Bird Island situated about 24 km of North West of Kavaratti Island declared as Pitti Bird Sanctuary as per notification F.No.7/13/92 – E&F dated 21.12.2001 published in Extra Ordinary Gazette Vol XXXVII No 59, Wednesday 6<sup>th</sup> February 2002 for the purpose of protecting, propagating and developing wildlife.

And whereas, in continuation with the notification F.No.7/13/92 – E&F dated 21.12.2001 the seascape around Pitti Island having the adequate ecological, faunal, geo morphological, natural and zoological significance and also to have proper boundary of 40 square kilometer seascape around the Pitti island is also equally important for the purpose of protecting, propagating and developing wildlife in its environment.

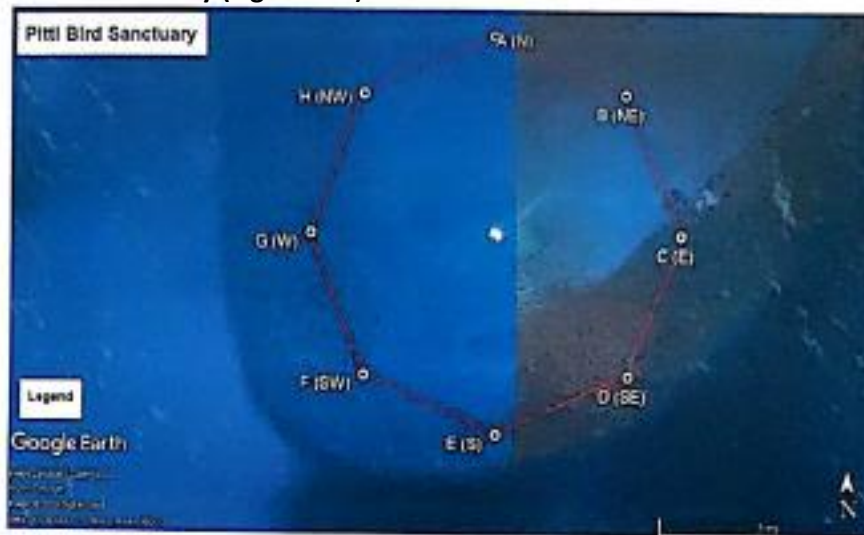
Now therefore in exercise of the powers conferred by the Section 18 (1) read with the Section 26A of the Wildlife (Protection) Act, 1972, the Lakshadweep Administration hereby declare the boundaries for the Pitti Bird Sanctuary, constitute the area 40 square kilometer seascape around the Pitti island situated within the Geo co-ordinates North (10°48'32.34"N & 72°32'03.65"E), Northeast (10°47'56.46"N & 72°33'30.14"E), East (10°46'30.76"N & 72°34'05.63"E), Southeast (10°45'05.71"N & 72°33'30.14"E), South (10°44'30.30"N & 72°32'03.65"E), Southwest (10°45'05.71"N & 72°30'37.22"E), West (10°46'30.76"N & 72°30'02.15"E) and Northwest (10°47'56.46"N & 72°30'37.22"E) specified below also the "Pitti Bird Sanctuary" for the purpose of protecting, propagating and developing wildlife its environment.

- A. Boundary Perimeter 22.87 Km (12.5 Nm)  
B. Area 40. Sq Km

Notification dated 25.01.2019 (Fig. 4.1.7.1)



C. Map of Pitti Bird Sanctuary (Fig.4.1.7.2)



D. Boundaries

Edge point	Side	Distance from Pitti (Nautical miles)	Direction from Pitti (Compass degree)	Latitude (N)	Longitude (E)
A	North	2	0°	10° 48'32.34"	72° 32'03.65"
B	North East	2	45°	10° 47'56.46"	72° 33'30.14"
C	East	2	90°	10° 46'30.76"	72° 34'05.63"
D	South East	2	135°	10° 45'05.71"	72° 33'30.14"
E	South	2	180°	10° 44'30.30"	72° 32'03.65"
F	South West	2	225°	10° 45'05.71"	72° 30'37.22"
G	West	2	270°	10° 46'30.76"	72° 30'02.15"
H	North West	2	315°	10° 47'56.46"	72° 30'37.22"

(Farooq Khan)  
Administrator

Boundaries of Pitti Bird Sanctuary (Fig. 4.1.7.3)



#### 4.1.8 Management Plan for Pitti Bird Sanctuary:-



Pitti Bird Sanctuary (Fig. 4.1.8.1)

Till this date, Department did not have any management plan for the Pitti Bird Sanctuary. The Department is already proposed to make a proper Management Plan for the Pitti Bird Sanctuary with the Bombay Natural History Society (BNHS) and also strategy for monitoring the birds in the Pitti along with the other sandbanks in the virgin reefs. This will help in achieving the following objectives:

- Bring out a proper management plan for the Pitti Bird Sanctuary.
- Protection and conservation of biodiversity, with special emphasis on avifauna.
- To facilitate and promote scientific research on wild fauna for providing technical input to wildlife management practices.
- To conduct awareness generation amongst the people surrounding the sanctuary.
- To reduce the people's dependency on the PA.
- To complete preservation and development of faunal biodiversity of the Lakshadweep area with special reference to the migration and congregation of birds in other uninhabited reefs and sandbanks.
- Maintain the ecosystems functions.





BNHS agreed and initial survey had been completed. The Department is projecting funds for the preparation of a proper Management Plan for Pitti Bird Sanctuary in this APO which will be completed by the BNHS within one year.

#### 4.1.9 Cleaning Campaign at Pitti Bird Sanctuary: → Fig. 4.1.9.1



Wildlife Team with Additional Principle Chief Conservator of Forest (Southern Region) Ministry of Environment and Forest New Delhi visited Pitti Bird Sanctuary on 24.02.2019 and another visit was made by the Wildlife team along with Chief Wildlife Warden, Senior Superintendent of Police, DANICS officers and Administrative Officials on 10.03.2019 for cleaning campaign and Monitoring. The team had inspected the whole area completely and they found around 800 Birds and about 80 Eggs in the island. And also found the footprints of Turtle towards the South-East part of the Island. Number of plastic bottles mainly concentrated near the Eastern part of seashore area; some are scattered all over the sea base. Bottles are pooled (800 kg) and brought back for disposal. A Fishing line was found tangled with wings of some birds that was removed and cleaned by the team. By 5.30 PM the team returned from the Sanctuary and reached back. They have discussed the importance of various aspects of turtle monitoring, various aspects of Environment protection, as shown in the Figures below.



### Cleaning Campaign at Pitti Bird Sanctuary by the Officials of the UTLA

Fig. 4.1.9.2



Fig. 4.1.9.3



### **Workshop on Sustainable Conservation And Management Of Mangroves And Behavioral Change Communication For Sanitation And Hygiene at Kalpeni & Minicoy Islands, Lakshadweep:-**

#### **4.1.10 Kalpeni Island.**

The programme was organized at the Tourist Hut at Koomel area and inaugurated by Shri. Damodhar A.T., IFS, Secretary Environment & Forest, U.T of Lakshadweep. In his inaugural address highlighted the importance of mangroves and associated species in the ecosystem and its service to the nature. Shri. T.T. Mohammed Abdul Latheef, Chairperson, VDP, Kalpeni in his presidential address assured all sort of help to the department for implementing the schemes and programmes at Kalpeni Island and suggested to carry out the plantation work in the Kommalam area. Shri. Mohammed Koya, Sub Divisional Officer Kalpeni in his keynote address explained the benefit of mangroves in disaster mitigation process. Shri. U.P, Haris, TGT, GSBS, Kalpeni, Shri. K. K Vajid Khan, VDP, Member, Shri. U.P, Hamsa, Vice Chairperson, VDP Kalpeni were delivered the felicitations. The Power point presentations on various topics on Role of Mangroves in Environment Protection by Dr. K. Syed Ali, Environment Warden, Role of Mangroves in disasters by Shri. Anwar Sadath, TGT, DR. KKMK GSSS and Role of women in Mangroves conservation by Smt. Ameera Beegum C.P, Environment Assistant was carried out in different sections. A detailed discussion was carried out and clarified the doubts of participants on mangroves and its importance in nature





conservation and disaster mitigations. During evening the participants were taken to the field of Kommalam area, where the mangrove plantations are available. Shri. Damodhar A.T., IFS, Secretary Environment & Forest and Dr. K. Syed Ali, Environment Warden explained the detailed-on mangroves, propagation and its role on disaster and ecosystem services to the participants. In the field as part of the Plastic ban, 2 numbers of cloth bags were distributed to all the participants and taken a collective decision to use the supplied cloth bags instead of plastic bags. Shri. M.P. Riyaz, Programme Officer, ENVIS, Kavaratti delivered the welcome speech and Smt. Saifunnesa, Environment Assistant delivered the vote of thanks. Large number of participants of District Panchayat, Village Dweep Panchayat members, Officials, NGOs, Self Help Group and publics were participated in the workshop, as shown in the figures below.



Inaugral Function of Workshop (Fig. 4.1.10.1)



Distribution of Cloth Bags (Fig.4.1.10.2)



Shri. Damodhar A.T., IFS, Secretary (E & F), delivering speech (Fig. 4.1.10.3)



Inaugural Function of Workshop (Fig. 4.1.10.4)

#### 4.1.11 Minicoy Island

The programme was organized at the Rangamanch Minicoy on 14th November 2018 and inaugurated by Shri. Asker Ali, IAS, Deputy Collector Minicoy. In his inaugural address narrated the importance of sanitation and hygiene and need for the mangrove conservation. and its uses to the nature. Shri. B. Hassan, President cum Chief Councillor, District Panchayat in his presidential address explained the importance of Mangroves available in the Minicoy southern end and advised the peoples of Minicoy to protect the existing plants. Earlier Dr. K. Syed Ali, Range Forest Officer in his keynote address explained the various species of Mangrove available at Minicoy and its benefits for disaster mitigation process. Shri. Husain Manikfan Village Dweep Panchayat Chairperson and Shri. Hassan Village Dweep Panchayat Members





are proposed the felicitations. The Power point presentations on various topics and detailed discussions on Know Your Island by Dr. K. Syed Ali, Range Forest Officer, Mangrove Conservation by Shri. Ibrahim G, Plant Protection Assistant, Minicoy, Importance of Sanitation and Hygiene by Dr. Hameera K, Medical Officer, Minicoy, Role of Youths in Biodiversity Conservation by Shri. F.G. Mohammed, Rtd Information Assistant cum Photographer, Importance of Plants in Island Ecosystem by Shri Asif V, Plant Protection Assistant, Agatti and Future Prospective of Mangrove Plantations at Minicoy by Dr. K. Syed Ali, Range Forest Officer. On 15th evening the participants were taken to the mangrove areas at Thundi southern end of the Minicoy Island and the experts were cleared all the doubts. On detailed discussion the students showed their interest to learn more about the mangroves and importance of the plants in the present climate change scenario and need for a Nature club in school. The workshop kits are distributed in the cloth bags to all the participants and taken a collective decision to use the supplied cloth bags instead of plastic bags. Dr. K. Syed Ali, Range Forest Officer delivered the welcome speech and Smt. Rubeena K.G, Environment Assistant delivered the vote of thanks. Large number of participants of District Panchayat, Village Dweep Panchayat members, Officials, NGOs, SGHs, Students and publics were participated in the workshop, as shown in the figures below.



Participants at Mangrove areas at Thundi Southern end of Minicoy (Fig. 4.1.11.1)





Participants at Mangrove areas at Thundi Southern end of Minicoy (Fig. 4.1.11.2)



Mangrove areas at Thundi Southern end of Minicoy (Fig. 4.1.11.3)



Participants at Mangrove areas at Thundi Southern end of Minicoy (Fig. 4.1.11.4)

#### 4.1.12 Biodiversity Park at Kavaratti Island: -

The Hon'ble Administrator Shri. Farooq Khan laid Foundation stone of Dr. APJ. Abdul Kalam Memorial Marine Biodiversity park at Kavaratti Island on 22nd February 2019 in the presence of Guest Shri. K.P. Singh, IFS, Additional Principal Chief Conservator of Forest Ministry of Environment, Forest and Climate Change, and other dignitaries and people, as shown in the figures below.



The Hon'ble Administrator Shri.Farooq Khan laying Foundation stone of Dr.APJ.Abdul Kalam Memorial Marine Biodiversity Park at Kavaratti Island (Fig. 4.1.12.1)





Shri. Damodhar A.T., IFS Secretary (E & F) delivering the Speech (Fig. 4.1.12.2)



Dignitaries attending the function (Fig. 4.1.12.3)



## CHAPTER - 5

### ACHIEVEMENTS UNDER ENVIRONMENT DIVISION

Population explosion, coupled with improved life style of people, results in increased generation of solid wastes in islands. The major part of the waste is non-biodegradable waste. Disposal of these waste in islands are very difficult and most commonly see that people usually thrown the waste either to the vacant land or to the lagoon / seashore during night. This has become the root cause for major health issues & also for environment pollution. Above all, these practices destroy the beauty of our seashores and lagoons and become a nuisance to the tourists who visits here. Considering these matters, the Administration, U.T. of Lakshadweep has implemented the Polythene/ Plastic ban in Lakshadweep under Sanitation & Conservancy Bye Law, 1998 of Panchayat Regulation, 1994 and prohibited the import and or use of polythene and plastic materials for packing and carrying of consumer goods in the whole of the Union Territory of Lakshadweep with effected from 01.08.1998. The Department of Environment and Forest is the implementing agency to monitor the plastic ban in Lakshadweep.

#### 5.1 Phases of Implementation: -

The Single use plastic bags have several particularly objectionable environmental negatives. The lightweight, single use plastic bags are carried by the wind to litter the landscape. They get entangled in bushes, trees, and fences. They show up as litter in wells and ponds, and entangle marine life. They end up in ocean, where they are ingested by fish, birds, corals and all marine ecosystems. In addition, scientific studies have not been able to show that chemicals used in the manufacture of plastics are safe for humans, and indicate the need to decrease the exposure to these chemicals. Particles derived from the decomposition of plastic waste can enter the food chain of living organisms and extremely harmful to public health and safety of the people through it may sound innocuous.

Lakshadweep islands are beautiful and small in size with limited carrying capacity. A large quantity of this material is, often, consigned to open sea by way of its disposal. As a consequence, it will go into the lagoon area and sea and choke to death the coral and marine life. In Lakshadweep the uses of single use plastic had immensely increased in all the respects in spite of the ban to use in Lakshadweep Islands.



Considering the above seriousness and consequence. The Administration of U.T. of Lakshadweep prohibited import and or use of polythene and plastic materials for packing and carrying of consumer goods in the whole of the U.T of Lakshadweep with effected from 01.08.1998 as per Lakshadweep Sanitation and Conservancy Bye law 1998.

The Administration formed a State Level Committee under the Chairman ship of Collector and Secretary Environment & Forests as Co- Chairman to see the implementation of this Bye Law in the whole of Lakshadweep. Island level committee also constituted under the Chairman ship of respective Deputy Collectors /Sub Divisional Officers in all the islands to implement and enforce the ban of Plastic carry bags in their respective islands. Many awareness materials had been issued to all the households along with the appeal of Chairman and Co- Chairman to aware and educate local people about the harmful effects of disposal of one-time use plastic bags/ materials on Environment. The Committee periodically visits all the shops and ensures compliance of this Byelaw. The details of the constitution of the committee are as follows: -

#### The Lakshadweep State Level Committee

- |    |                                  |                    |
|----|----------------------------------|--------------------|
| 1. | Collector                        | - Chairman         |
| 2. | Secretary Environment and Forest | - Co-Chairman      |
| 3. | President cum Chief counsellor   | - Member           |
| 4. | Superintendent of Police         | - Member           |
| 5. | Chief Executive Officer (DP)     | -Member            |
| 6. | Conservator of Forest            | - Member           |
| 7. | Technical Assistant              | - Member Secretary |

#### The Island Level Committee

- |    |  |                   |
|----|--|-------------------|
| 1. | Deputy Collector/ Sub Divisional Officer | - Chairman        |
| 2. | Chairperson VDP                          | - Member          |
| 3. | Executive Officer VDP                    | -Member           |
| 4. | Health Inspector                         | -Member           |
| 5. | Station House Officer                    | -Member           |
| 6. | Environment Warden                       | -Member Secretary |





In this respect, the Department of Environment and Forest has been directed the proper instructions to all DCs/SDOs/RFOs/EAs/Fieldsman to strictly enforce the banning of Plastic/ Polythene bags in all their respected Islands. As per the circular of District Collector and Chairman (LSLC) dated 14.07.2018 & 19.07.2018, the SDOs/DCs of all islands shall submit action taken report on enforcement of plastic ban in fortnightly from the concerned island. Accordingly, all islands were started the initiative on blanket polythene ban.

The island level committee periodically inspected all the shops and ensures compliance of this Byelaw. The Fortnightly report from all Islands has been properly compiled and submitted to competent authority.

**Compiled Report of Polythene/ Plastic Ban at Various Island During the Period of July 2018-February2019, as shown in the statement below (Fig.5.1.1)**

Sl. No	Island	No. of inspection conducted during the period									No. of awareness campaign conducted								
		JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	Total	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	Total
1	Agatti	30	0	11	0	15	12	10	14	92	0	0	4	0	2	3	2	0	9
2	Amini	0	1	60	50	20	17	38	25	211	0	4	2	2	0	0	1	0	9
3	Andrott	25	10	29	8	16	11	10	30	193	12	7	9	2	2	6	6	12	42
4	Bitra	0	2	2	0	2	2	0	2	8	0	3	1	0	1	0	0	0	4
5	Chetlat	2	0	0	1	2	10	12	6	31	0	1	1	1	0	0	0	0	3
6	Kadmat	20	32	24	10	30	13	10	25	164	3	6	6	3	1	3	3	3	24
7	Kiltan	12	5	8	0	17	25	25	12	104	1	3	2	2	3	1	2	1	11
8	Kavarati	40	23	35	20	25	18	25	18	204	0	2	2	1	8	2	2	0	21
9	Kalpeni	17	27	47	40	10	68	63	27	299	4	3	4	2	3	3	3	4	19



After the compiling of plastic ban report from all islands during the period of July 2018 to March 2019, it has been observed that the entire island was conducting the periodical monitoring and inspection.

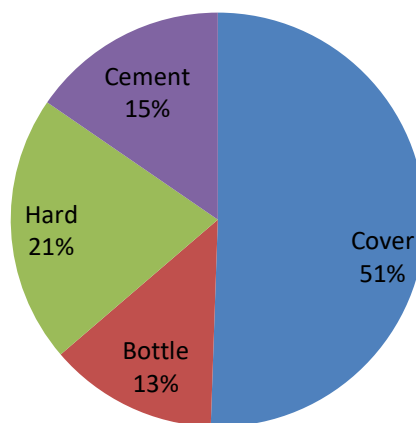
- a. The authorised officials in charge of the department have inspected 204 establishment including hotels/shops/other commercial institutions. 21 number of awareness campaign conducted during the period. Beat plastic pollution campaign and Swachatha Hi Seva awareness programs has been the major awareness campaigns.
- b. The Bitra Island has only two shops, the report from Bitra shows that these two shops are not providing the Poythene or plastic. We can achieve the mission plastic free island from Bitra.
- c. The authorised officials of Kalpeni, Kadmat, Amini and Androth Island are also conducting the inspection and awareness programs.
- d. As per our direction the concerned panchayat members has participated in the monitoring and inspection programmes in every island.
- e. There is no intervention or issues have been reported till the date.
- f. As a part of plastic ban the department transporting the plastic materials to mainland for recycling. The collection details are detailed below as shown in the following figures.



### Collection Details of plastic materials @ Kavaratti During April 2018 to March 2019 (Fig. 5.1.2)

Month	Total waste bins collected	Plastics Items in Kg				
		Cover	Bottle	Hard	Cement	Total
Apr-18	1632	1408.5	784.3	1020.8	925.95	5771.55
May-18	1329	1277.5	831	1500.5	1221.3	6159.3
Jun-18	1245	1552.6	543.8	784.85	446.7	4572.95
Jul-18	1569	1735.95	548.55	1023.2	823.95	5700.65
Aug-18	1680	13074.5	512.25	847.65	757.37	16871.77
Sep-18	nil	1277.5	831	1500.5	1221.3	4830.3
Oct-18	970	1165.55	405.55	688.55	833.75	4063.4
Nov-18	1637	2485	952	1542	930	7546
Dec-18	1538	1203.1	566.6	763.1	566.4	4637.2
Jan-19	1980	693.7	315.5	486.5	315.1	3790.8
Feb-19	1284	629.3	370.7	494.9	181.5	2960.4
Mar-19	1095	1132.5	540.1	758.8	204.1	3730.5
<b>Total</b>	<b>15959</b>	<b>27635.7</b>	<b>7201.35</b>	<b>11411.35</b>	<b>8427.42</b>	<b>70634.82</b>

### Percentage of NBD waste Materials Collected



Polythene covers are the most common plastic materials which is more than 50% of the annual collection of plastic at Lakshadweep (Fig.5.1.3)



## 5.2 Achievements: -

- As a part of educating the general public, the Department installed Signboards in all the islands regarding the plastic ban and consequences of plastics.
- After the strict implementation of the plastic ban, the SPORTS (Lakshadweep Tourism) has issued the complete ban of plastic bottled water in the ships and their functions which have conducted by SPORTS.
- Also, the Secretary of Education strictly instructed and issued the order to discontinue the import/ purchase/ use of plastic water to any of their official functions in the islands.
- There is no single use plastic materials are available in Bitra Island. Bitra Island is near to achieving the 1st single use plastic free island among the UT of Lakshadweep.
- Flex and banners are banned in an around the island and to make the clean and plastic free environment.
- The Department conducted an International Conference on Status and Protection of Coral Reefs (STAPCOR – 2018) from 22nd to 24th October 2018 at Bangaram Island without using any single use plastic. The conference completely followed the green protocol.
- Department has distributed cloth bags to all the households of Lakshadweep Islands to replace the use of plastic one-time use carry bags as a first step of the behavioral changes.
- Department is conducting Pitti cleaning program in every month and collected plastic bottles from Pitti and disposed in CGD. More than 200kg of plastic bottles collected from the beaches of Pitti bird sanctuary
- The Kavaratti Island level committee was found the banned plastic carry bags from Hasbala Store, Kavaratti while inspection. The shop license was cancelled due to the above reason.
- The Department has been transported 173.38 Metric Tons of non-biodegradable resource materials for recycling to the Swachh recovery center at Kochi.
- The action plans related with the ban on plastics are shown in the following figures.





Common Sign Board fixed at all Islands (Fig.5.2.1)



Common Sign Board fixed at all Islands (Fig.5.2.2)



Sign Board fixed at all Islands (Fig.5.2.3)





Sign Board fixed at entry of Kavaratti Island (Fig.5.2.4)

### 3.1 Cleaning program at Pitti Island Bird Sanctuary as shown in the Figures below.



Fig. 5.3.1



Fig. 5.3.2



More than 100kg of Plastic Materials were collected during the cleaning of Pitti (Fig.5.3.3)





Monitoring and Inspection – Island Level plastic ban Monitoring Team

Inspecting Shops (Fig. 5.3.4)



Announcement of Plastic Ban (Fig.5.3.5)



Beat plastic pollution campaign and Cleaning Programme as a part of World Environment Day (Fig.5.3.6 & Fig. 5.3.7)

#### Transportation of non-biodegradable materials to mainland for recycling



Plastic materials (Fig. 5.3.8)



Safely packed non-biodegradable materials (Fig. 5.3.9)



Loading to the Cargo Ship (Figures 5.3.10 & 5.3.11)

## 5.4 WAY FORWARD

- It is to enforce the huge penalty against the shop owners those who selling the banned plastic carry bags in their shops
- Weekly inspection in all shops/restaurant shall continue.
- The Department is near to the final stage for implementing an Integrated Solid Waste Management Project at Kavaratti. The pilot project to start house to house collection of Bio Degradable Waste collection and to distribute waste bin to all households and Blue bins for all public areas for the collection of plastic like non-biodegradable materials. The project approved for total outlay Rs.42.38 Lakh. Initial phase will be taken place at Ward No.11 and 12 at Kavaratti Island.
- In every month cleaning program will conduct in all uninhabited island of Lakshadweep
- The Department decided to place blue bins at beach areas of the entire Island for collecting the plastic materials.
- The Proposal for procuring plastic crushing machine is under process.
- This year also to continue the procurement and distribution of cloth bags to all the households of Lakshadweep Islands in order to replace the use of plastic one-time use carry bags as a first step of the behavioral changes.
- Department will engage staff for regular beach cleaning.
- The department will conduct awareness campaigns/programs for the public with the help of expert team.





- The title on “MY SHOPPING MY BAG” campaign will conduct in all over the islands to switch over to paper cloth bag while shopping.

The indiscriminate disposal of plastic has become a major threat to the environment; in the absence of public support it is impractical and undesirable to impose a blanket plastic ban on the use of plastic all over the Lakshadweep Islands. As a part of this, the department will continue the training and workshops for the awareness of public. Also, will continue the cloth bag to the household in entire Island. Therefore, we should unite together to combat single-use plastic pollution. The nine reasons to refuse single-use plastic are shown as below. (Fig.5.4.1)



## 9 REASONS TO REFUSE SINGLE-USE PLASTIC



1 Made from fossil fuels



2 Huge carbon footprint



3 Will still be here in hundreds of years



4 Only a tiny percentage is recycled



5 Leaches toxins into food & drink



6 Causes hormone disruption & cancers



7 Pollutes our oceans



8 Kills marine animals and birds



9 Enters our food chain

LESS  
PLASTIC.

[WWW.LESSPLASTIC.CO.UK](http://WWW.LESSPLASTIC.CO.UK)



## CHAPTER - 6

### ACHIEVEMENTS UNDER FORESTRY DIVISION

Rapid development is taking place in the islands of Lakshadweep. These developments often give room for concern. The changing demographic pattern and life style, infrastructural developments, various types of pollutions coupled with resource harvest from the reefs at more than sustenance levels have created very high stress in the very existence of islands. Any unscientific activity will adversely affect the very existence of this pristine ecology.

In view of the importance of keeping this pristine fragile ecology & ecosystem in existence, priority should be given for protecting and conserving it. Achieving these objectives, Department of Environment & Forests implementing two major sectors namely, Ecology & Environment & Forestry & Wildlife.

- **Social Forestry:** The major portion of island land mass is covered by the coconut plantations. 99% of the land is belongs to the local stakeholder. These mono crops had a greater green cover rather than the forest cover. There is not much scope on various types of a forestation programmes. However, Lakshadweep has its own indigenous seashore plantations. These seashore plantations are adequately protecting the beaches from the natural erosions. These plants are also helping as windbreaker. In many parts, these plants are eroded. Now these plants required to rejuvenate to create a thick green belt along the shoreline. Social Forestry is aims to rejuvenation and rising of littoral and indigenous vegetation at beach and roadside. This one of the most important schemes to combat climate change. This scheme is envisaged for the conservation of medicinal plants and indigenous seashore plantation.

#### 6.1 Celebration of Lakshadweep Vanamahotsava

Vanamahotsava is a festival of tree planting to create massive awareness among the public for forest conservation and tree planting. Tree planting during the festival serves various purposes such as providing alternatives fuel, increasing production of food resources, providing food for cattle, offering shade and decorative landscapes, reducing drought and helping to prevent soil erosion, etc.



The conservation of biodiversity is essential for the quality of environment and human survival. Lakshadweep islands are unique in many ways, fragile and vulnerable to global changes. Due to increase in population pressure and fast developments, many of the plant communities are extinct from the islands. Only in the few uninhabited islands representing remnant natural vegetation. As far as this union territory is concerned, it is very vital importance to rejuvenate the littoral and indigenous plantation programmes on the vulnerable sea shore/road sides' area, which in all respect required for the very existence of island and maintain the ecological balance.

Keeping in view of the above objectives, the Department of Environment & Forests have formulated a Scheme "Social Forestry" aimed to rejuvenate and raising littoral and indigenous vegetation at beaches and road sides. It will help to increase tree cover, minimize humidity/temperature, combat climate change and enhance the aesthetic beauty of the island.

In order to enlighten the plantation programme in Lakshadweep, it is proposed to conduct Vanamahotsava in all islands starting from 2018 and will continue in every year.

## **6.2 Island Level Vanamahotsava celebration**

In each Island Vanamahotsava may be conducted during the month of August in every year under the leadership of Deputy Collector/ Sub Divisional Officers of the concerned island to create awareness about importance of tree plantation. They may select a particular area or institution every year for plantation with indigenous seedlings like Phalalam (*Ficus bengalensis*), Neem (*Azadirachta indica*), DeepamThekku (*Cordia subcordata*), Kandalam (*Ochrosia aoppositifolia*), Moloka (*Morinda citrifolia*), etc. The Representatives of DP/VDP, NGOs, HODs, students, etc. may be involved in the programme. The Range Forest Officer/Officer in Charge of the department at the island will provide technical support for the event.

## **6.3 U.T.Level Lakshadweep Vanamahotsava**

It is proposed to conduct a U.T level Vanamahotsava every year during the month of August by involving all the top dignitaries, NGO's, Political representatives, Students, in order to create massive awareness about the importance of tree planting and its nurturing. Every year one institution in any of the Island will be selected for celebration of Lakshadweep U.T level Vanamahotsava.





#### 6.4 Lakshadweep Vanamahotsava 2018

The Department of Environment & Forest conducted State Level Inauguration of Tree Plantation Programme (Vanmahotsav-2018) in connection with 150th birth anniversary of Mahatma Gandhiji on 02.10.18 at No.12 Coast Guard District Lakshadweep. In addition, the Department was proposed to conduct Vanamahotsav in all other island during the financial year of 2018-2019.

Shri. Frooq Khan, Hon'ble Administrator Inaugurated the function. Administrator planted the neem and other dignitaries and students from ITI planted fruit saplings and plants like Ficus, Thespesia in and around the Coast Guard campus. It is the massive beginning of programme.

Vanmahotsava is a festival of tree planting to create massive awareness among the public for plant conservation and tree planting. Tree planting during the festival serves various purposes such as providing alternatives fuel, increasing production of food resources, providing food for cattle, offering shade and decorative landscapes, reducing drought and helping to prevent soil erosion, etc.

No. 12 Coast Guard District Lakshadweep arranged refreshment for the participants, displayed banners in the premises of Coast Guard Campus. The plantation of tree and all other activities related with Vanamahotsav are shown in the following figures.



Chief Guest on Stage (Fig. 6.4.1)



Hon'ble Administrator planted the Neem (*Azadirachta indica*) (Fig.6.4.2)



(Shri. Damodhar.A.T.,IFS planted Phalalam (*Ficus bengalensis*) (Fig.6.4.3)





Related Photos Of Vanmahotsav- 2018 (Fig 6.4.4)

Vanamahotsav- Fig.6.4.5



Vanamahotsav - Fig. 6.4.6

Vanamahotsav -Fig.6.4.7



## Chapter-VII

### ACHIEVEMENTS UNDER RESEARCH & DEVELOPMENT DIVISION

The scheme for research and development has been initiated for promoting and initiating need based environmental research in the priority areas and other need-based areas. An institutional mechanism for coordinating the research under this has already been set up in Environment Department. The projects are invited from competent organizations including various research institutions and sponsored by the Department.

#### 7.1 Mitigating Man-Turtle Conflict

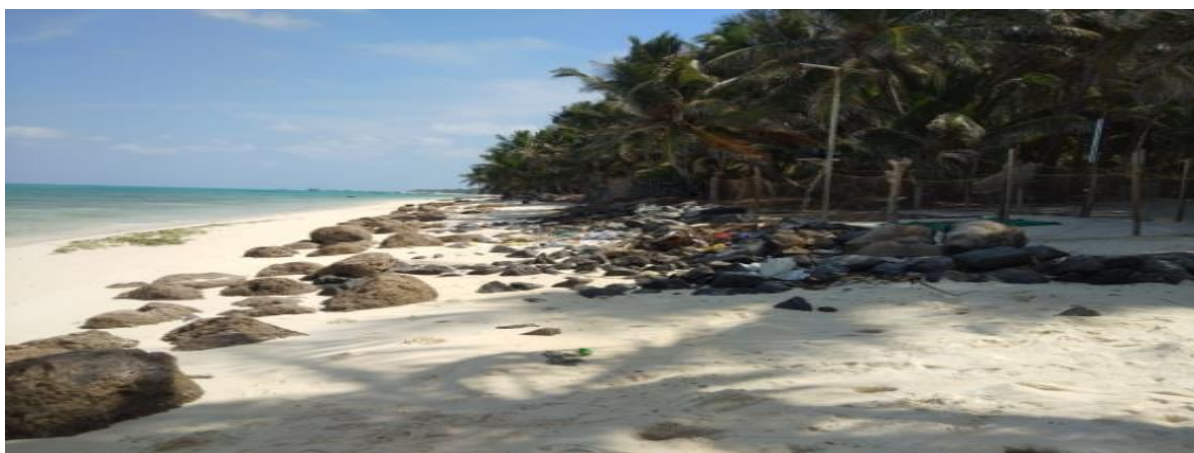
##### Report on Monitoring of Turtle and Its Habitat at Kavaratti Island

Lakshadweep is known for its healthy flora and fauna. Four of seven marine turtles found in the world is seen in Lakshadweep waters which include Olive Ridley, (*Lepidochelys olivacea*), Hawksbill (*Eretmochelys imbricata*), Green turtle (*Chelonia mydas*), Leatherback (*Dermochelys coriacea*). Due to the poorly planned coastal development and incidental capture or By-catch there is great loss and degradation of nesting beaches and foraging habitats which results in huge decrease in the number of turtles among the Islands. Artificial lighting on the beach discourages female sea turtles from nesting. The problem of soil erosion in beach is through beach nourishment. Re-nourishment is allowed to proceed during nesting season.

Turtles often get confused plastic bags with jelly fish and are consumed accidentally which cause severe effects on them. In Kavaratti Beaches due to the dumping of plastic wastes and other waste materials, it became very difficult for turtles to come on beaches for nesting.

In this case, a detailed monitoring should be undertaken. For this a project named “Mitigating Man-Turtle conflict in Lakshadweep” is being set up. Under this project three were taken as monitoring staff and three different regions of Kavaratti were assigned to each for monitoring. They are monitoring around 90 points. The main parts are shown in the following figures.





At the Western side of Power House some plastic bottles and bags dumped here and there (Fig.7.1.1)



Harbour Beach seem to be a good spot for nesting as it was covered with white sand and was quite clean (Fig.7.1.2)



Near the Check post Beaches were covered with stones and filled with coconut wastes, which may act as an obstacle for turtle nesting (Fig.7.1.3)



**Aliyar Masjid beach side is completely filled with black rocks and public bottles, bags and no white sand (Fig.7.1.4)**



**Main jetty to Tourist Hut the beach seem to be clean but Mass Tuna processing was hindering turtles from nesting at this area (Fig.7.1.5)**



**Tourist hut beach area was well cleaned and maintained and was good for nesting. Sports Night duty staff reported he used to see one or two turtles every day (Fig.7.1.6)**



## 7.2 KADAL KATHAKAL – STORIES OF THE SEA

**Environment and Forest Department, Kavaratti, UT of Lakshadweep With  
Nature Conservation Foundation, Mysore**

### **Lakshadweep Archipelago**

Lakshadweep is a tropical archipelago consisting of 36 Islands with an area of 32. sq.km. It is the smallest Union Territory in India comprises of 12 atolls, 3 reefs, 5 sub merged banks and 10 inhabited Islands. Even though small in land territory, the Lakshadweep Islands consists of 4200 sq.km. lagoon, 20000 sq.km. territorial water with 0.4 million sq.m Exclusive Economic Zone. Kavaratti is the capital of the Union Territory and is 220 -440km away from the coastal city of Cochin in Kerala in the emerald Arabian sea. The natural landscapes, sandy beaches, abundance of flora and fauna and the absence of rushed life style enhance the mystique of Lakshadweep.

### **Turtles in Lakshadweep**

According to previous studies and senses surveys, mainly 3 species of Turtles are seen in Lakshadweep waters – The Green Turtle (*chelonian mydas*), the Hawksbill (*Eretmochelys imbricate*) and olive Ridley (*lipidochelysolivacea*) – commonly occur and nest in Lakshadweep Islands and the rare leatherback (*dermochelyscoriacea*) is occasionally met with by fisherman rarely does it come ashore to nest.

Among the inhabited and uninhabited Islands, nesting mainly occurs in substantial numbers only on four islands – Suhali Valiyakara, Suhali Cheriyakara, Thinnakara and Bangaram.

### **Threats for Turtles in Lakshadweep**

In spite of protective legislation, Turtles are actively hunted on all islands. Green Turtles and to a lesser extent, Ridley are valued for their fat, hawksbills for their shells, leatherbacks when encountered are avidly harpooned. Its fat, like those of other species is used to waterproof the joints of country boards.

Suhali Valiyakara Islands is evidently the most important Turtle rookery in Lakshadweep. According to the studies of previous history there is a huge decrease in turtle population in





Lakshadweep Island over the years. The turtle – Man Conflict is growing day by day for sharing resources and space for their existence.

Recognizing the results of previous studies, there continued to be an urgent need to increase the awareness and understanding of Marine Turtles and to further conserve and mitigate the conflict between man and turtle. In this regard the department initiated a project titled “Mitigating Man - Turtle Conflict in Lakshadweep Islands” to conserve the turtle species.

### **Objective of Exhibition**

Awareness programs play a key role in turtle conservation. This exhibition mainly focused on the ecological importance of marine turtles in the ocean’s ecosystem and the urgency to safeguard their habitat while reducing existing threats. We can make a significant behavioral change in the community if we could make them conscious about the turtle’s ecological value. Despite existing laws and regulations to protect threatened sea turtles, awareness – raising is a much effective component of the overall strategy to protect species.

During the exhibition many of the local people expressed their growing knowledge about sea turtles and appreciation for the programme. Through educating and involving communities we can make a good change towards the appreciation of sea turtles and their conservation.

In April 2019, the Environment and Forest Department, Kavaratti, UT of Lakshadweep and Nature Conservation Foundation, Mysore organized and conducted exhibitions, in Amini and Kadmath Islands, under the title “Kadal Kathakal – Stories of the Sea”. The exhibitions were held as pilot exhibition under the project ‘Mitigating Man-Turtle Conflict’. Kadal Kathakal focused on celebrating the biodiversity of Lakshadweep and calling for local conservation. These exhibitions will act as the first step in generating pride towards the incredible diversity of Lakshadweep and encouraging greater understanding and empathy towards nature.

### **Inauguration**

The exhibition started on 16th April with an inauguration ceremony in the Library Conference Hall at the first ward Amini. Sajida B (Environment Assistant) from the unit office of Environment and Forest Department in Amini Island gave a welcome address, followed by





felicitation by Smt. Hairunnisa AK Chairperson, VDP. The inaugural address was given by the SDO Amini Island, Mr. Nizammuddin Koya. He spoke about the importance of the sea for island life, and highlighted that it is important for all of us to know more about the sea. He congratulated the department and NCF for taking this initiative to bring our scientific knowledge of sea for island life to the community. After this, Stella James (Researcher NCF) introduced about Nature Conservation Foundation, and Kevin George (Researcher NCF) gave a brief about the project, Beegum Safna Ecotourism Guide, Environment and Forest Department Kavaratti gave the vote of thanks. Exhibition was continued to the next day for the people from all other wards of Amini Island. The figures are shown as below.



Fig.7.2.1



Fig.7.2.2

In Kadmat, the inauguration of the Exhibition was on 20th morning, with a welcome address by Ajeesa Noor Project Assistant, Environment and Forest Department followed by felicitation and speech given by Shri. CheriyaKoya Sub-Judge Amini Court. The inaugural address was given by Shri. Moosa, Sub Divisional Officer Kadmath Island. He spoke about the need for more programs dedicated to widening the knowledge of the community regarding biodiversity. Stella James along with Kevin George introduced NCF and gave a brief about the project. Begum Safna (Ecotourism Guide) ended the program with a vote of thanks. Exhibition continued till the next day for the people from all other wards of kadmat Island. The figures are shown as below.



Fig.7.2.3



Fig.7.2.4

## Exhibition details

Kadal Kathakal is an interactive exhibition with educational games etc as detailed below: -

### 1. Stall Name/Concept: Sharing stories – reflections on three questions

1.1 Game Details: Participants were asked to write and post their thoughts on 3 questions: -

- a. My unforgettable memory of the sea.
- b. The sea creature I like and why.
- c. What I like most about my island

1.2 Learning Expectation: To make the exhibition more personal and relevant to their lives.

### 2. Stall Name/Concept: Match the corals.

2.1 Game Details: Participants have to identify cards with coral photographs to their appropriate shape. 5 shapes in which corals grow were given – Arborescent, Corymbose, Tabular, Massive and Foliose.

2.2. Learning Expectation: To understand that there are different types of coral that grow in different shapes and serve different functions.



### 3. Stall Name/Concept: Puzzle – fish functions

3.1 Game Details: Participants have to put together a jigsaw puzzle showing a coral and a few different kinds of creatures that serve different functions.

3.2 Learning Expectation: Participants have to put together a jigsaw puzzle showing a coral and a few different kinds of creatures that serve different functions. The figures are shown as below.



Fig.3.2.1



Fig.3.2.2

### 4. Stall Name/Concept: Who Eats Who

4.1 Game Details: A card game to understand trophic levels. Each player is given half of a set of cards with photos of fish categorized as – Predator; Herbivore; Invertivore; Corallivore; Invertebrate; Algae and Coral. Each player puts down one card. Whichever card is higher on the trophic level wins the round. The player with the highest number of cards wins the game

4.2 Learning Expectation: To understand trophic levels. The figures are shown as below.



Fig.4.2.1



Fig.4.2.2



## **5. Stall Name/Concept: Quiz**

5.1 Game Details: We asked 4 questions with 4 options each. Players have to give the correct answer. The questions are –

5.1.1 Which is the oldest island in Lakshadweep?

- b. Amini
- c. Bitra
- d. Suheli
- e. Bangaram

5.1.2. Which of these sea creatures harms corals?

- a. Grouper
- b. Jack
- c. Sea cucumber
- d. Sea urchins

5.1.3. Which of these is the fastest growing coral type?

- a. Massive
- b. Corymbose
- c. Arborescent
- d. Foliose

5.1.4. Which of these fish is born female and then changes sex to male?

- a. Grouper
- b. Butterfly fish
- c. Surgeon fish
- d. Damsel fish

**5.1.5** Learning Expectation: General Knowledge about biodiversity in Lakshadweep.





## **6. Stall Name/Concept: 60 seconds**

**6.1 Game Details:** An easy game where participants have to write down the names of as many fish as they can in 60 seconds (Introduced in Kadmath)

**6.2 Learning Expectation:** To understand the fish biodiversity in Lakshadweep.

## **7. Stall Name/Concept: Video**

**7.1 Game Details:** Two videos were shown –

1. An animation on the lifecycle of fish; and
2. An underwater video of grouper aggregation in Bitra taken by the NCF team

**7.2 Learning Expectation:** Understanding that sustainable fishing should take into consideration two aspects – the time to maturity of each fish (replacement rate); and the spawning times of fish. The figures are shown below.



**Fig.7.2.1**



**Fig.7.2.2**



## **8. Stall Name/Concept: Feedback**

8.1 Game Details: Participants were asked to give feedback on 5 metrics

What I liked;

What I didn't like;

What I wish was also there;

Today I learned;

Why I came to the exhibition

Learning Expectation: To understand the opinion of participants about the exhibition.

## **9. Stall Name/Concept: Registration**

9.1 Game Details: To register for further programs

## **10. Community Response**

Approximately 150 people came to the exhibition from each ward in Amini, and more than 120 people in Kadmath. Participants were from across a varied age range – children in basic school to senior citizens. There was also a wide distribution of both men and women who came for the exhibition. Some people who saw the exhibition, especially children, came back with friends and family, by spreading the word of the exhibition. The department is still analyzing the feedback responses, for preparing a detailed report soon. However, the response overviewed so far has generally been positive.

## **7.3 Report on Rapid Response Team Operations**

On 1st July 2019, Morning 6:30 AM Turtle Monitoring Staff Saddam Hussain A.P. reported that one Male Hawksbill Turtle weighing about 45kg was found to be dead and is floating in the lagoon area behind Lakshadweep House. Immediately Dr. Sabeer and other Turtle Monitoring Staffs moved to the site. Environment Assistant Wildlife Division Mr. Ameen Issath was directed to take photographs for the documentation. Dr. Gafoor, Wildlife Expert was also informed for further examination. The formal information was passed to Range Forest Officer (WL) and Conservator of Forests.



Turtle Monitoring Staffs went to the sea to take the turtle on to the land. Being the reason that the site where turtle found was blocked with tetrapod's, lifting the body to the land was difficult, so they swam around 100-120 m through the sea along with the turtle and it was taken to the land for further examination. The turtle seems to have about 90cm length and 69cm breadth. The turtle was found to be grave; its carapace was broken and viscera was sagging out. Shri. Abdul Jabbar, RFO (WL) prepared the Mahasarand and the body was handed over to Dr. Sabeer, Veterinary Assistant Surgeon for post-mortem. Kum. Raseena Beegum, Livestock Assistant, recorded the measurements of the body and done necessary procedures to take the body for post-mortem. Dr. Sabeer and Dr. Gafoor conducted detailed examination of the body and carried out the post-mortem. After the post-mortem the body was disposed by making a pit on the beach. The detailed report of post-mortem will be submitted after further medical procedures. The figures are shown as below.



**Dead Turtle stranded at the northern beach of Kavaratti Island (Fig.7.3.1)**





Dr.Sabeer and Dr.Gafoor conducted detailed examination of the body for post-mortem (Fig.7.3.2)



Fig.7.3.3



## **CHAPTER – VIII**

### **LAKSHADWEEP MEDICINAL PLANTS BOARD AND NATIONAL MEDICINAL PLANTS BOARD**

#### **8.1 Annual Achievement of the Sector NMPB and LMPB**

The National Medicinal Plants Board nucleus center independently established under the Department of Environment and Forest is in the year of 2016-17. From 2001 onwards National Medicinal Plants Board, New Delhi provided financial assistance to the Lakshadweep Medicinal Plants Board for the conservation and maintenance of medicinal plants in Lakshadweep. The objectives of the nucleus center were set up infrastructure and man power under central sector scheme “national Mission on medicinal plants. The NMPB nucleus center, is the Central scheme for the “Conservation Development and Sustainable Management of Medicinal Plants”. After the establishment of NMPB nucleus center, the medicinal plants conservation sector of Lakshadweep has really strengthened.

The NMPB, New Delhi released the Grant in Aid of Rs. 15 lakhs (Rupees fifteen lakhs) only for the maintenance of Nucleus Centre for the year 2014 -15 to NMPB nucleus center, Kavaratti under the Department of Environment & Forests, U.T. of Lakshadweep. Also, for the smooth functioning, the Nucleus Centre, NMPB, Kavaratti has appointed 3 staffs Junior Consultant, Office Assistant and Messenger in the year of 2016. The establishment the Nucleus Centre, NMPB, Kavaratti has been achieved several developments in the conservation, awareness and research sector of Lakshadweep medicinal plants. An amount of Rs: 15 Lakhs was completely utilized and applied for an amount of Rs: 25 lakhs. Accordingly, NMPB has approved 22.60 lakhs and released 5.65 lakhs only to the NMPB Nucleus Centre, during the year 2018-19. An amount of Rs: 5.65 Lakhs was completely utilized for meeting the remuneration of the NMPB staffs. No other activities have carried out under Nucleus Centre, NMPB during the year 2018-19 due to the scarcity of fund.

The Lakshadweep Medicinal Plants Board has received an amount of Rs: 10Lakhs as grant in aid from the Department. these 10 lakhs with balance amount in LMPB account, LMPB has provided GIA (Grant in Aid) to the Kavaratti unit for Rs: 8.99 Lakhs, Rs: 4.75 Lakhs to Agatti unit and Rs: 5.45 Lakhs to Androth Island. Accordingly, LMPB Kavaratti has completely utilized the released amount for the conservation of medicinal plant in



Lakshadweep Medicinal Plants Garden and Interpretation Centre, Kavaratti and applied for another 10 lakhs rupees during the year 2018-19. LMPB Androth and Agatti Islands, 98% of released fund were utilized.

## **8.2 Major achievements of NMPB Nucleus center, Kavaratti at a glance:**

### **1. Staff Strengthening:**

As part of strengthening the NMPB activities, Nucleus center, NMPB has appointed three contractual staffs based on all codal formalities. Accordingly, the three staffs are working under Nucleus Centre, NMPB as detailed below

- Consultant
- Office Assistant
- Messenger

## **8.3 Research & Development activities: -**

Smt. Thasleena Beegum, Consultant of NMPB nucleus center prepared and submitted a study report in the topic on “Ethno botanical and other Indigenous knowledge of medicinal plants among the local people of Lakshadweep Islands “.She also presented relevant papers in the National, State and Island level seminars and workshops related with the topics on conservation and utilization of medicinal plants conducted at KFRI, Peechi, Thrissur, Kavaratti, and other islands. In this regard, she has attended National Interaction meeting of Healers and Researchers of Traditional systems of Medicine and presented a paper on “Ethnobotanical and other Indigenous Knowledge of medicinal Plants among the inhabitants of Lakshadweep Islands (Union Territory India)”, as shown in the following figures.



**Fig.8.3.1**



**Fig.8.3.2**





#### 8.4 Awareness Programmes: -

The NMPB nucleus center with the collaboration of nucleus center, NMPB Department of Environment & Forests and KFRI, Peechi, Kerala has organized two State level Stakeholders workshops at Kavaratti in the year of 2018.



Fig.8.4.1



Fig.8.4.2



Fig.8.4.3



Fig.8.4.4





The workshop conducted during the period of second week of March 2018 at Kavaratti and also conducted a field trip to Suhali island. Smt. Thasleena was the main organizer of the programme. She has involved all her duties in very systematic and appreciable. Almost all famous traditional practitioners from different Islands were participated in the workshops. All healers, selected students, teachers and elected members were actively participated in these two workshops, as shown in the above figures.

### 8.5 Island Level Workshops: -

With the association of Department of Environment & Forest, and the NMPB nucleus center has organized two Workshops of Medicinal plants and Traditional practitioners related on “Conservation of Medicinal Plants Resources of Lakshadweep Islands “ are conducted at Androth & Agatti Islands during the period of second week and third week of March 2018. In this connection field trips also conducted. It was the first time traditional practitioners related workshops conducted at Androth & Agatti. There were 200 participants who participated in the above said workshops. The available most important resource persons from Lakshadweep have been taken classes related with different kinds of topics regarding conservation of Medicinal plants and value of traditional healers.

These two Seminars were organized by Shri. P. Syed Shaik Koya, Range Forest Officer and Smt. A.P. Thasleena Beegum, Consultant, NMPB, Nucleus Centre. This was the first seminar in Medicinal plants related in the case of Androth and Agatti, as shown in the figures below.



Fig.8.5.1



Fig.8.5.2



Fig.8.5.3



Fig.8.5.4

### **8.6 Purchasing & Distribution of Books: -**

The Nucleus Centre, NMPB has purchased hundreds of important medicinal plants related books and it was distributed to Kavaratti, Androth and Agatti Islands. The feed Backs received from different Islanders were very positive and so many local peoples, Teachers and students were came to the office of the Department of Environment & Forest and referred the books.

### **8.7 Participation in Exhibition: -**

The Consultant, NMPB has prepared and submitted an important medicinal plants species and related information about the submitted species for the exhibition programme conducted in the last year by Ayush Department, Lakshadweep administration and it was very helpful to identify the importance of medicinal plants in Lakshadweep for visitors.

### **8.8 Involvements of Lakshadweep Medicinal Plants Garden: -**

The staffs of NMPB nucleus center also very actively involving the establishment process of Lakshadweep Medicinal Plants garden and Interpretation Centre at Kavaratti with Department of Environment & Forest staffs at Kavaratti. The very beautiful layout for the garden prepared by Consultant, nucleus Centre, NMPB. And she is looking the cultivation and developments of the garden.



## 8.9 Conducting of Field trips:

As part of the stakeholder's workshop conducted at Kavaratti during the March 2018, a field trip has conducted to the uninhabited Island Suhali. The stakeholders with resource persons, scientists from NMPB, KFRI and Conservator of Forests were visited Suhali Valliyakara and Cheriyaakara and identified the details of all available plants and the other related details of important medicinal plants, as shown in the figures below.



Fig 8.9.1



Fig.8.9.2



Fig.8.9.3

## 8.10 Achievements of Lakshadweep Medicinal Plants Garden

The Lakshadweep Medicinal Plants Garden and Interpretation Centre has established under LMPB for the conservation and maintenance of rare, endangered medicinal plants in Lakshadweep. In future, it will be very useful for students, researchers, publics, traditional healers etc. for understanding the use of medicinal plants, identification purpose, traditional practices etc. As per our layout, around 150 plant species will be conserved in the Garden and now 50 Nos species cultivated in the garden and sign board for identification also placed for available species. Around 50 important species imported from Kerala for the species diversity. The cultivation of maximum available species is now under progress. The Official Inauguration





of Lakshadweep Medicinal Plants Garden and Interpretation Centre was on 5th June, 2019. For the garden, 30 Nos of information boards and sign boards for every species is also placed. The last week of February, 2018 the students of Govt Girls senior secondary school were visited the garden. As part of strengthening the garden 2 nos of compost pit were taken. The related figures are shown as below.



**Fig.8.10.1**



**Fig.8.10.2**



**Fig.8.10.3**



**Fig.8.10.4**





## CHAPTER – IX

### ENVIS

#### 9.1 ENVIS Centre

ENVIS Centre, Lakshadweep have started functioning under the department of Environment & Forests on the theme “Status of Environment and Related Issues”. Centre had recruited three staffs under the project.

The activities of ENVIS Centre include collecting, storing, compiling, publishing and dissemination of information regarding “Status of Environment & Related Issues. The data collection is aimed mainly at collecting secondary data available with various departments, institutions and organizations.

Activities in broad:

- Collection of Secondary Data from various sources such as government departments, institutions, universities, organizations, research bodies etc.
- Storing and compiling of collected data for various purposes like report making, statistics generation, assessment etc.
- Preparation and publishing of reports, newsletters, leaflets, calendars etc.
- Publishing of reports and datasets through ENVIS website.
- Organizing awareness activities in environmental conservation, wildlife protection, plastic ban, sanitation, health, hygiene, etc.

##### 9.1.1 Program Overview

“Behavioural Change Communication for Sanitation & Hygiene in Lakshadweep” is the exclusive communication program organized by ENVIS Centre Lakshadweep, at Kalpeni Island on 30.04.2018. Hon’ble Administrator Shri. Farooq Khan, formally inaugurated the cleaning program. Shri. Damodhar A.T., IFS, Conservator of Forests and Director ENVIS, Dr. K Sayed Ali, R.F.O, Shri. Riyaz M.P. Program Officer, officials from various departments and public people were participated in the program, as shown in the figures below.



Shri. Frooq Khan, Hon'ble Administrator, UT of Lakshadweep inaugurates the cleaning function at Kalpeni Island (Fig.9.1.1.1)



Shri. Damodhar A.T., IFS talking about the need and importance of Sanitation in the cleaning function at Kalpeni Island (Fig.9.1.1.2)

## 9.1.2 Participatory Cleaning Program

The program was started at 7:00am near Mifthahul Huda (South) Madrassa, Kalpeni. All the staff from all departments, H.O.Ds were present. Shri. Riyaz M.P. Program Officer and Smt. Ameera Beegum. C.P. Environment Assistant jointly coordinated the cleaning program by team coordination.





Officials and publics united for cleaning (Fig.9.1.2.1)



Closing Ceremony (Fig.9.1.2.2)





### 9.1.3 Seminar Session

The seminar session was conducted in Govt. Tourist Hut at Kalpeni Island at 10:00am. Shri. Damodhar A.T., IFS, Conservator of Forests and Director ENVIS delivered a speech on Sanitation & Hygiene. Shri. B.Hassan, President cum Chief Councillor delivered felicitation. Hon'ble Administrator.



Shri. Damodhar A.T., IFS, Conservator of Forests and Director ENVIS speaks to the audience in the seminar session(Fig.9.1.3.1)



Shri. Frooq Khan, Hon'ble Administrator, UTL talks to the audience (Fig.9.1.3.2)





Glimpse of the Session (Fig.9.1.3.3)



Glimpse of the Session (Fig.9.1.3.4)



#### **9.1.4 CAPACITY BUILDING PROGRAM ON**

- Coral reef Monitoring Program
- Empowering Local Community
- Scuba Diving Training

#### **9.1.5 Program Overview**

The ENVIS Centre Lakshadweep has conducted capacity building program on Coral Reef Monitoring, Local Community and Scuba Diving Training on 14 November 2017 at Department of Environment & Forest, Kavaratti. Shri. C.N. Abdul Raheem, Coordinator ENVIS has welcomed the guests and participants to the program. Shri. Damodhar A.T., IFS, Director ENVIS has inaugurated the program and given a nice speech on importance of marine life conservation.



Shri. Damodhar A.T., IFS, Director ENVIS has issued the course material to the participants where the first copy is handed over to Shri.TipuSulthan MM, Information Officer, ENVIS Centre (9.1.5.1)





In photo from left: Shri. C.N. Abdul Raheem, R.F.O, Coordinator ENVIS, Shri. Damodhar A.T., IFS, Director ENVIS, Dr. K Syed Ali, R.F.O, Shri. K.P. Mohammed R.F.O (Fig.9.1.5.2)

### 9.1.6 Training Program | Theory Session



Shri. C.N. Abdul Raheem, (R.F.O, Coordinator ENVIS) has conducted theory sessions of Scuba Diving course especially aimed in marine life monitoring conservation. The session was conducted at ParyavaranBhavan, Kavaratti (Fig.9.1.6.1)



### 9.1.7 Training Program | Practical Session

The practical sessions of Scuba Diving course were conducted in the lagoon of Kavaratti Island. 18 trainees were attended the program. Shri. C.N. Abdul Raheem, ENVIS Coordinator is also the Instructor for Scuba Dive Training. The session covered equipment orientation, scuba gears(accessories) management, basic skills under water, breathing techniques, buddy system, emergency response, underwater navigation etc.



Photo: Shri. C.N. Abdul Raheem, R.F.O, Coordinator ENVIS, briefing before conducting dive in Lagoon of Kavaratti Island (Fig.9.1.7.1)

### 9.1.8 Training Program | Empowering Local Community

The program aimed at empowerment of local community in marine life conservation by scuba dive training. The technically skilled manpower must be available in the region accordingly the timely activities of conservation programs can be conducted smoothly.



Fig.9.1.8.1



The staff from ENVIS Centre also participated in training program where it will be useful for the marine related activities of ENVIS Centre. Later ENVIS Centre has decided to conduct a massive training program for the un-employed youth in scuba diving which can enable a sustainable livelihood from both marine life conservation and marine eco-tourism (Fig.9.1.8.1)

Good feedbacks received for the program from the participants because the participants learnt highly technical course which gives International Diving License to the candidates who successfully completed the course.





## **CHAPTER – X**

### **ACHIEVEMENTS UNDER POLICY AND LEGAL DIVISION**

As a part of strengthening of the Division, the department will recruit experts for the implementation and formulation of the various laws, act and rules, regulations, policies guidelines etc. In addition to that, then the division can take timely actions within the stipulated period on the basis of the directions of the Hon'ble Court, Ministry etc. Presently, the bye laws for better administration as follows: -

- Lakshadweep Gazette notification F. No 17.02.1996 ST&E dated 17.07.1998 of sanitation conservancy bye law
- Circular F.No.66/2/2016 E&F dated 22.06.2018 regarding enforcing the ban of plastic carry bags in Lakshadweep.
- DO Letter of District Collector & Chairman (LSLC) DO.No.64/2/2016 E&F dated 16.07.2018 regarding blanket polythene ban and submission of fortnightly reports.
- DO Letter of District Collector & Chairman (LSLC) DO.No.64/2/2016 E&F dated 17.07.2018 issued to Superintendent of Police regarding polythene ban and also to impose/ensure complete ban on plastic carry bags transported from mainland to island with a direction to submit fortnightly reports.
- Solid Waste Management and Sanitation Conservancy bye law, 2018 notified on 18th July 2018.
- Circular of Conservator of Forests F.No.66/16/2018 E&F dated 21.12.2018 regarding ban of plastic flex banners
- Notification F.No.66/33/2019 E&F (P&L) dated 25.01.2019 regarding banning of single use plastic dated 25.01.2019 with effect from 26.01.2019
- Order of Nodal officer, MCC & Sec. E&F F.No.16/29/2019 dated 12.03.2019 regarding restriction on use of plastic during electioneering.

The division will also look after the various activities related with Special Task Force (STP), State Level Monitoring Committee, State Level Advisory Board (SLAB) etc, Coastal Zone Management Plans, Climate Change Action Plans, Matters related with Pollution Control, Integrated Solid Waste Management, Environment Impact Assessment, Environment Clearances etc.



## **CHAPTER XI**

### **CONCLUSION**

Ecosystem services are the systems and processes through which natural ecosystems and species sustain human life. In the present scenario, the department is mainly focusing on the sustainable development for a better tomorrow. As a part of this, the main objective of the department is to ensure a 'Clean Green Island'. The department will take initiatives for the preservation of Corals and Lagoons, implementation of integrated waste management system and will conduct awareness/training programs for a better future. The department will implement the prevailing act and laws and also will apply the same in its letter and spirit on time.

The 1st National Conference on Marine Turtle Conservation will be scheduled during first week of December, 2019 which will draw attention to the concerns of fishing communities, from across India, within the conservation paradigm and will address how conservation issues can be approached by enhancing the livelihoods of communities that depend on the resources and the environments also utilised by the turtles. In this context, discussions will focus on research and conservation management programs for turtles while keeping community needs in mind as well as enhancing the conservation and management of these species. The Wildlife Week was celebrated between 2<sup>nd</sup> October 8<sup>th</sup> October. The aim is to preserve animal life in India. Throughout the week events and campaigns were organized to create awareness among the people about animal life and encourage them to save large number of marine wildlife such as Dolphins, Whales, Marine Turtles etc. by not killing them for food and other purposes.

The department has also planned provide the facility of door-to-door garbage collection to the people. Under Swachh Bharat Mission launched by Prime Minister Narendra Modi, the department has started a scheme for collecting garbage from every house in all wards in Kavaratti Island. The solid waste referred to as household waste, consists of everyday items like glass, plastics, metals, textiles, organics, and paper discarded by the modern society. The solid waste processing equipment's also will be procured for the above purposes such as



compost machine, shredder etc. The incinerator also will install as a part of waste treatment process.

It is expected that, this compendium will be an overall review about the Department of Environment and Forest for future purposes.

The long-Term Coral Reef Monitoring Program project undertaken by the ZSI is expected to continue with top priority and importance. In addition to that the Project such as Long Term Monitoring and Conservation of Marine Mammals and the Human Turtle conflict Management Project will also be initiated in coming years under the Wildlife Research and Development Division.

In addition to all these, the infrastructure development for the department has also been planned in a large scale. Parayawaran Bhavan Building is expected to complete within 6 months and inaugurated subsequently. The recruitment of Frontline staff including Forester and Forest Guard will be completed and the all will be trained from a forest training Institute. The Policy and Legal Division also will be strengthened by recruiting Legal Assistants. Further the Environment Division will be strengthened by appointing the consultants under various waste management's and the sanitation schemes will also be strengthened by appointing the Safai Karmacharis, Safai Assessors and Safai Supervisors on contract basis.