2019

# Lakshadweep Environment Plan

Union Territory of Lakshadweep

**Department of Environment & Forest** 

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#### 1. Background:

The Hon'ble National Green Tribunal, New Delhi vide order dated 26/9/2019 in OA No.360/2018 filed by Shree Nath Sharma Vs. Union of India and Others directed all state/UT administration to prepare District Environment Plan on or before 15<sup>th</sup> December, 2019. The Central Pollution Control Board (CPCB), New Delhi prepared and placed model plan in the website to guide the state/UT in this direction as directed by the court.

The District Collector and District Magistrate, Union Territory of Lakshadweep constituted District committee on 5<sup>th</sup> December, 2019 with representatives from panchayats, Local Bodies, Regional officers, state PCB etc. vide direction of Hon'ble NGT in OA No.360 of 2018 (Notification attached as **Annexure 1**).

The District Committee convened its first meeting on 9<sup>th</sup> December, 2019 and decided to prepare and submit District Environment Plan on 15<sup>th</sup> December, 2019 to the Chief Secretary concerned. The copy of the minutes enclosed as **Annexure 2**.

#### 2. State profile on Environment

#### 2.1 Area & Location

Lakshadweep, the only atoll coral Island chains in India, is a group of 36 Islands that includes 12 atolls, 3 reefs, and 6 submerged sand banks in the open Indian Ocean. The islands have 4200 Sq.km lagoon area, 20000 Sq.km territorial water and 4 lakh sq.km exclusive economic zone. Union Territory of Lakshadweep is uni-district and has no Urban Local Bodies at Present. There are 10 inhabited Islands namely, Kavaratti, Agatti, Amini, Andrott, Kalpeni, Kadmat, Chetlat, Bitra, Minicoy, and Kiltan. Administratively, it is consider as single district with Kavaratti as the capital. Islands are geologically isolated between mainland and island and island and island. Geological Isolation, limited scope for development under Island Protection Zone Notification, 2011, small size and population pressure are the major

limitations in Islands. The inhabited islands geographic location, area and distance from mainland are shown in Table 2.1.

| Sl.No | Name of<br>Island | Geographic<br>Location                                 | Land Area<br>(Sq.Km) | Distance from mainland (Km) |
|-------|-------------------|--|----------------------|-----------------------------|
| 1     | Agatti            | Lat 10 <sup>o</sup> 51' N<br>Lon 72 <sup>o</sup> 11' E | 3.84                 | 495                         |
| 2     | Amini             | Lat 11º 07' N<br>Lon 72º 44' E                         | 2.60                 | 407                         |
| 3     | Andrott           | Lat 10º 49' N<br>Lon 73º 41' E                         | 4.90                 | 119                         |
| 4     | Bitra             | Lat 11º 36' N<br>Lon 72º 10' E                         | 0.1                  | 483                         |
| 5     | Chetlat           | Lat 11º 41' N<br>Lon 72º 43' E                         | 1.40                 | 432                         |
| 6     | Kadmat            | Kadmat Lat 11° 13' N<br>Lon 73° 39' E 3.20             | 3.20                 | 407                         |
| 7     | Kalpeni           | Lat 10°05' N<br>Lon 72°11' E                           | 2.79                 | 287                         |
| 8     | Kavaratti         | Lat 10 <sup>0</sup> 33' N<br>Lon 72 <sup>0</sup> 38' E | 4.22                 | 404                         |
| 9     | Kiltan            | Lat 11º 29' N<br>Lon 73º 04' E                         | 2.20                 | 394                         |
| 10    | Minicoy           | Lat 08 <sup>0</sup> 17' N<br>Lon 73 <sup>0</sup> 04' E | 4.80                 | 398                         |

Table.2.1: Geographic Location and Land area of Inhabited Islands
2.2 Panchayat Raj Institutions

There are no Muncipality in Lakshadweep and the local body set up is in the form of two tier panchayatiraj institutions. Under Panchayat Regulation Act, 1994, one District panchayat and ten (10) Village (Dweep) panchayats were constituted.

The District panchayat has 36 memers, 23 male and 13 female. out of 36 seats, 25 seats are filled by direct elections, 10 by way of ex-offico membership to the chair person of the Village (Dweep) Panchayats and one by way of ex-offfico member to the Member of Parliament representing Lakshadweep. The ten village (Dweep) panchayats have in all 85 members which include 55 seats for male and 30 seats for female. All these seats are filled in through direct elections, as per the constitutional requirments.

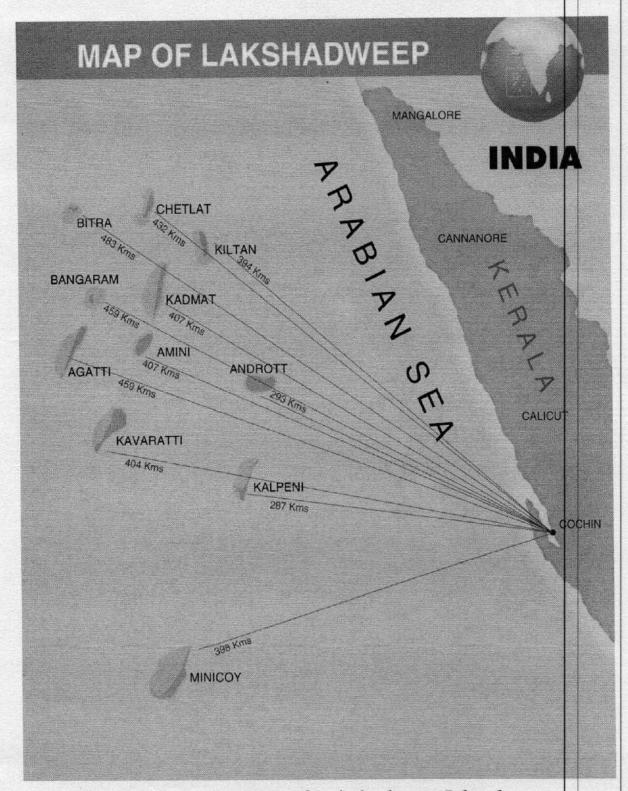


Fig 2.2: Location Map of Lakshadweep Islands.
2.3 Demography

Government of India declared indigenous population in Lakshadweep as Schedule Tribe in status considering socio economic backwardness and geographical isolation of the islands. The island have 32 sq.km land area with a population of 64, 429 as per 2011

census. The density of population is 2013 per sq.km is shown extremely high compared to 382/sq.km as national average. The average sex ratio is 947 females per thousand male. The present demographic profile of Lakshadweep is shown in Table 1.2 below and decadal population growth in graphical representation shown in Fig 2.3 below.

| Island    | Land area | Male  | Female | Total | Density/sq. |
|-----------|-----------|-------|--------|-------|-------------|
|           | (Sq.Km)   |       |        |       | km          |
| Agatti    | 3.84      | 3889  | 3671   | 7560  | 1969        |
| Amini     | 2.60      | 3818  | 3838   | 7656  | 2956        |
| Andrott   | 4.90      | 5506  | 5685   | 11191 | 2312        |
| Bitra     | 0.1       | 154   | 117    | 271   | 2710        |
| Chetlat   | 1.40      | 1173  | 1172   | 2345  | 2255        |
| Kadmat    | 3.20      | 2676  | 2713   | 5389  | 1727        |
| Kalpeni   | 2.79      | 2336  | 2082   | 4418  | 1584        |
| Kavaratti | 4.22      | 6177  | 5033   | 11210 | 2656        |
| Kiltan    | 2.20      | 2012  | 1933   | 3945  | 2420        |
| Minicoy   | 4.80      | 5365  | 5079   | 10444 | 2379        |
| Total     | 30.05     | 33106 | 31323  | 64429 |             |
| M-11 0    |           |       |        |       |             |

Table 2.3: Demographic Profile of Lakshadweep Islands
(Source: Census 2011)

## **Decadal Population Growth of Lakshadweep**

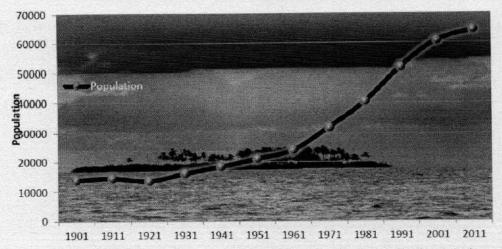


Table 2.3: Decadal population in Lakshadweep

#### 2.4 Soil

These islands were created due to weathering of corals into sand and their deposits. The soils are moderately deep to very deep (80-140 cm depth). The texture of the surface soil is sand in the west and turns to sandy loam in the east and throughout a transitional central zone with loamy sand texture. Subsoil is loamy sand or sand. Generally the clay content is below 10 per cent and sand, above 90 per cent. Soils are predominantly light textured and well drained. Clay content is generally less than 10 per cent and only in a few cases it may approach 20 per cent. Therefore soils are predominantly coarse textured, i.e., sand, loamy sand and sandy loam. Light texture provides high infiltration rate and recharging of ground water. In spite of high rainfall, most of the rainwater goes into in situ infiltration in these sandy soils. Since land is gently sloping and sandy with high infiltration, overall erosion is not a major issue except along the coastline owing to beating by the waves, apart from human interventions. Fortunately, most of the soils being sandy are well drained and can support good growth of plants and vegetation. This characteristic is important from the point of view of water logging, land use and biomass productivity. Out of the total flat land area of 2494 ha, 2107 ha (i.e., 85 per cent) is classified as excessively

drained, while the remaining is imperfectly drained in Lakshadweep. The permanent limitations of erosion, drainage and shallowness/gravelness are not very severe. In the mechanical composition of the soil, the maximum quantum is of coarse sand followed by fine sand and silt. Clay content is comparatively very little in the island soil and it is only found in the interior shallow belts. Calcite is the chief constituent of lime stone and is the main source of calcium in soil. The soil of Lakshadweep is poor, the top layer consisting chiefly of finely disintegrated coral, forming a white sandy layer with an admixture of vegetable humus. Typically the soil along the coasts of islands is sandy in nature where only coconut is grown. In the interior tracts with sandy loam soil, besides coconut, other crops like Bread fruit, Banana, Anonaceous fruits etc. are coming up well.

#### 2.5 Temperature and Humidity

The Lakshadweep has a tropical Warm humid climate with little variation in diurnal or seasonal temperature range. The atmospheric temperature in islands various from 28°C to 32°C, normally. South west monsoon experiencing high in all islands and brings most of the rain from May to September, every year. Average humidity in all Islands ranges between 78 to 80 %.

## 2.6 Hydrology

The hydro-geological environment of the islands is complex. Rainfall, averaging about 1600 mm annually is the sole source of groundwater recharge in these islands. Seepage water occurs a couple of metres below the land surface and replenished by the annual rainfall. Unlike the mainland seasonal or perennial streams, lakes, ponds or wetlands do not exist in Lakshadweep. Overall climate is of humid, tropical monsoon type. The topography is almost flat, soils are sandy, highly permeable and even local surface run-off

marks are not seen. The fresh groundwater resource of the tiny coral atolls of Lakshadweep, by and large, occurs as lenses floating in hydraulic continuity with sea water. The fresh water layers occurs in floating lens within a carbonate sand layer of 0.5 to 1.15 meter and the portable fresh water for the island is met from this horizon.

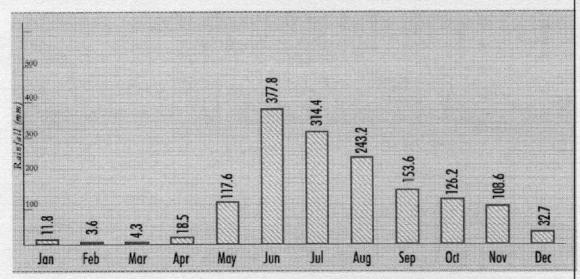


Fig 2.6: Monthly average Rainfall in Lakshadweep

#### 2.7 Land Use

Total geographical area of Lakshadweep as per 2011 census is 32.20 km<sup>2</sup>. Total cropped area is 25.10 sq.km<sup>2</sup> and area not for cultivation is 6.10 sq.km<sup>2</sup>. Kavaratti has the second highest population density next to Amini and thus there is tremendous pressure on the island. The census data indicates that number of household increased considerably during the last decade. The settlements are mostly on the northern parts of the islands where fresh ground water reserve is located.



Fig 2.7(a): Settlement in cluster form near Thirinikad, Kavaratti

The entire area of Lakshadweep is under coconut plantation. Laccadive ordinary, Laccadive small and Laccadive micro are some of the most prominent coconut varieties seen in the island. The agro climatic condition is best suited for coconut cultivation.



Fig 2.7(b): Coconut Garden, An aerial view of Kavaratti Island

Apart from coconut plantation, the natural vegetation of the islands includes Banana, Drumstick, Breadfruit; wild almond can be seen in the interior part of the island. The seashore of the islands are endowed with Scaviola, punna, screw pine, Thespecia etc.

#### 2.8 Houses

There are 4 types of distinct houses viz. kuchha, pucca, buildings/flats and shed are available in Lakshadweep. Kuchha houses are constructing using sand/pebbles stone with thatched/tile roof. Pucca houses are constructed using hollow bricks/stone with concrete roof. The buildings/flats consist of five or more family residing in the same building and shed are made up of coconut materials/wood with thatched roof. At present, 60% of the buildings are katcha houses, 30% are Pucca houses, 5% are flats and rest of items are shed.



Fig 2.8: Typical Katchha house at Kavaratti Island

In addition Government establishments, Hospitals, schools, industrial viz. Coir fiber unit, Desiccated coconut factory, government quarters for staff, shops, slaughter unit, fish markets etc. are also functioning in most of the islands.

### 2.9 Drinking water & sanitation

The only source of drinking water available in this territory is rainwater, which percolates down through the porous sandy soil and floats over the subsoil saline water. However, the entire water available in the floating sweet water lens cannot be extracted on account of technical problems in continuous and uncontrolled pumping. It is estimated that sufficient quantity of drinking water is available in the subsoil taking into account transportation, limitations of extraction of the ground water and so on. Water supply scheme has been introduced in all the islands in Lakshadweep, but the supply is partial in quantity. There is no village/ island in the group of Lakshadweep islands in the category of Not Covered (NC). All the inhabited islands are problem areas so far as the drinking water supply is concerned. The survey by NSS shows that 89% of the households do not have drainage facility which is the highest in the country. The pattern of latrine usage and dependence on unprotected well for drinking water indicate poor drinking water quality in the islands. A central team consisting of Advisor (TM), Department of Rural Development along with experts from Central Ground Water CESS CSMCRI Bavanager, NEERI Nagpur, Board. Thiruvananthapuram, after their visit to Lakshadweep, came to the conclusion that no single system or approach to provide water supply to Lakshadweep Islands would be sufficient due to typical geological and hydrogeological nature of these islands. They suggested tapping of ground water to the extent of its sustainable yield and supplement it with additional activities such as installation of Desalination Plants, Rain Water Harvesting etc.

Accordingly, the Water Supply scheme was modified to have a combination of ground water, Reverse Osmosis Desalination Plants

and rain water harvesting. In all islands water supply system is in existence partially. Island population generate considerable amount of sewage (50,000-1, 20,000 litre/day) that often finds its way to the shallow fresh water lens. According to tests conducted during 1991, in Kavaratti and Minicoy, a number of drinking water wells contained excessive nitrate concentration originating from septic tanks, and other human wastes. Almost 95 per cent of the households in Lakshadweep get drinking water from open wells and sources other than tap water supply, hand pump or tube well. Most of the drinking water sources like hand pumps, wells and ponds, were seen contaminated with bacteria. Around 98% of 126 samples tested showed a positive coliform count. With the quantum of sewage generation projected to be doubled by 2025, and in the absence of adequate interventions, the ground water column would be almost completely contaminated and will no longer be potable. The conventional method of sewerage and sewage treatment is not feasible because of the coral sandy strata, inadequacy of space, high water table and flat terrain. There is a need to urgently explore the possibility of setting up a pilot project on disposal of waste water in the inhabited islands of Lakshadweep to study its efficacy and reliability under the prevailing local conditions and its replicability in other islands of Lakshadweep.



Fig 2.9: LTTD Plant at Kavaratti Island

#### 2.10 Health

Major epidemics threatening the islands of Lakshadweep are waterborne diseases such as gastroenteritis and cholera. Malaria and pneumonia have also been reported in Lakshadweep. These diseases point towards the most widespread environmental problem namely, the lack of sanitation facilities posing grave risks to human health. Facilities are still rudimentary or entirely lacking. During cyclones and droughts, these constraints can cause havoc to the island population causing more damage than the disaster itself. Serious efforts are required to improve sanitation facilities. The population of Lakshadweep Island is prone to various water borne diseases such as Diarrhoea, Cholera, Gastroenteritis, Dysentery, Infective Hepatitis, Poliomyelitis, Malaria/Filaria and some of the skin diseases. Tele medicine facilities are available in 5 islands and are being extended with the help of ISRO to other islands. Ayush centres are being created in all the islands to spread Indian system of

medicines which is eco-friendly. Availability of well qualified medical personal on a sustained basis however continues to remain a challenge. The Administration has a provision of Medical Officer attached to a community health center on each of the inhabited island and a First-aid center at Bitra Island. Lakshadweep has no private hospitals. It is served by two Government hospitals, three Community Health Centers (CHCs), four Primary Health Centers (PHCs) and two First Aid Centers with total bed strength of 200 in 11 islands. The Directorate of Medical & Health Services has achieved 100 percent immunization targets in islands. The absence of a full proof sewage system remain a serious health issue as it leads to the prevalence of water borne diseases in islands. In terms of health indicators such as birth and death rates, infant mortality rate, maternal mortality rate and life expectancy at birth, the UTL stands ahead of the all India average. The details of the Human Development Index (HDI) of the UTL over the years are given below.

| Year | Birth | Death | Infant    | Maternal  | Still Birth |
|------|-------|-------|-----------|-----------|-------------|
|      | rate  | rate  | Mortality | Mortality | Rate        |
| 1997 | 20.40 | 5.05  | 38.80     | 0.84      |             |
| 1998 | 20.92 | 5.20  | 29.15     | 0.81      |             |
| 1999 | 19.70 | 3.83  | 20.21     | 0.84      | -           |
| 2000 | 21.38 | 3.98  | 25.70     |           |             |
| 2001 | 18.05 | 3.87  | 28.88     | 0.18      |             |
| 2002 | 17.60 | 3.15  | 25.54     | 0.91      | 14.95       |
| 2003 | 16.60 | 5.60  | 22.90     | 1.90      | 26.26       |
| 2004 | 14.73 | 3.50  | 20.29     | 0.19      | 25.30       |
| 2005 | 16.17 | 4.87  | 19.78     | Nil       | 34.06       |
| 2006 | 15.79 | 4.16  | 16.71     | Nil       | 23.59       |
| 2007 | 12.51 | 4.92  | 19.51     | 1.21      | 2.31        |
| 2008 | 11.61 | 4.97  | 14.08     | 2.56      | 11.52       |

| 2010 | 14.30 | 6.4 | 25 | NA | NA |
|------|-------|-----|----|----|----|
|      |       |     |    |    |    |

Table 2.10: Human Development Index of Lakshadweep (1997-2010)

### 2.11: Literacy and education

During the last 40 years great developments have taken place in the field of education in the UTL. Educational facilities are not available for higher studies in the island. By stages, educational institutions were established in all the islands. Every island except Bitra has a high school. The junior colleges are functioning in Kadmat and Andrott. Each of the inhabited islands has junior and senior basic schools, nursery schools and Madrassas. There are 64 schools and 3 university centres in 10 islands. There are 107 Anganwadi centres in 10 islands. For technical education, 10 more National Institute of Technologies (NITs) have been approved in the 11th Rive Year Plan and Goa NIT will cater to the needs of the UTL inter-alia with other UTs. Girls' education also has made tremendous progress. Out of the total enrolment in the schools 46.04% are girls. According to provisional figures of 2011 census, the UTL has recorded its overall literacy rate as 92.28 percent which is 5.58 percent higher than that was recorded during 2001. Highest literacy is one of the identities of Lakshadweep and accordingly the UTL elevated to second position in 2011 census ahead of Mizoram in terms of literacy rate from third position in 2001 among all the states and union Territories of the nation (next only to Kerala which has 93.91 percent literacy rate). This is well above the total literacy rate of the country at 74,04 percent.

| Particulars           | Unit         |
|-----------------------|--------------|
| Literates Person      | 52914 (nos)  |
| Literates Males       | 28249 (nos)  |
| Literates Females     | 24665 (nos.) |
| Literacy Rate Person  | 92.28 %      |
| Literacy Rate males   | 96.11 %      |
| Literacy Rate Females | 88.25 %      |

Table 2.11: Literate and Literacy rate in Lakshadweep

#### 3. Assessment of Current Situation and Gap Analysis

The Hon'ble NGT vide order dated 26.09.2019 in OA No.360/2019 identified 7 thematic areas for the improvement of environment quality in state/UT. The CPCB prepared and circulated all the seven thematic areas with model plan and the thematic area identified by CPCB is as detailed below.

#### A. Waste Management Plan

- (i) Solid Waste Management Plan
- (ii) Plastic Waste Management Plan
- (iii) C&D Waste Management Plan
- (iv) Biomedical Waste Management Plan
- (v) Hazardous Waste Management Plan
- (vi) E-Waste Management Plan
- B. Water Quality Management Plan
- C. Domestic Sewage Management Plan
- D. Industrial Waste Water Management Plan
- E. Air Quality Management Plan
- F. Mining Activity Management Plan
- G. Noise Pollution Management Plan

The current status of all the 7 thematic arears are detailed below.

### A. Waste Management Status

#### a. Solid Waste Management Status

| No | Action areas | Details of data requirement | Measurable Outcome |
|----|--------------|-----------------------------|--------------------|
|----|--------------|-----------------------------|--------------------|

| 1    | Name of ULB          | Lakshadweep is only one district                              | No ULB is existing in<br>Lakshadweep. 10 panchaya<br>existing               | at |
|------|----------------------|---|---|----|
| 2    | Population           |   | 64, 429 as per 2011 census  | ,  |
| SW1  | Report of inventor   | ry of total solid Waste Gene                                  | eration   |    |
| SW1a |                      | Total solid waste generation                                  | 35 MT/day   |    |
| SW1b |                      | Qty. of dry waste segregated                                  | 16.5 MT/day   |    |
| SW1c |                      | Qty. of wet waste segregated                                  | 15.79 MT/day  |    |
| SW1d |                      | Qty. of C&D waste segregated                                  | Not initiated   |    |
| SW1e |                      | Qty. of street<br>sweeping                                    | 2.21/day  |    |
| SW1f |                      | Qty, of drain slit  | Nil   |    |
| SW1g |                      | Qty. of domestic<br>hazardous waste                           | 0.5 MT/day  |    |
| SW1h |                      | Qty. of Other waste<br>(horticulture, sanitary<br>waste etc.) | Quantity not estimated  |    |
| SW1i |                      | No. of old dump site  | None  |    |
| SW1j |                      | No. of old dumpsite   | Not applicable  |    |
| SW1k |                      | No. of sanitary landfills                                     | None  |    |
| SW11 |                      | No. of wards  | 85 Nos.   |    |
| SW2  | Compliance by B      | ulk Waste Generators  |   |    |
| SW2a |                      | No. of BW generators  | Inventory not done  |    |
|      |                      | No. of onsite facilities for wet waste                        | 2 Nos. Aerobic composting<br>and 250 kg composting<br>machine at Kavaratti. | g  |
| SW3  | Compliance in se     | gregated waste SW collection                                  |   |    |
| SW3a | - Computation in the | Total generation  | 35 MT/day   |    |
| SW3b |                      | Wet Waste   | 18 MT/day   |    |
| SW3c |                      | Dry Waste   | 17 MT/day   |    |
| SW3d |                      | C& D Waste  | Collection not initiated  |    |
| SW4  | Waste Manageme       | ent Operations  |   |    |
| SW4a |                      | Door to Door<br>Collection                                    | 10% (only at Kavaratti)   |    |
| SW4b |                      | Mechanical Road<br>sweeping                                   | Not initiated   |    |
| SW4c |                      | Manual Sweeping   | 100%  |    |
| SW4d |                      | Segregated Waste transport                                    | 100%  |    |
| SW4e |                      | Digesters (Bio-<br>methanation)                               | Not initiated   |    |
| SW4f |                      | Composting operation  | 100 %   |    |
| SW4g |                      | MRF Operation   | MRF Used. The coconut I shredder, Plastic Shredder and Bio composting       |    |

|      |                       |   | machine is using in the station  | MRI  |
|------|-----------------------|---|--|------|
| SW4h | aff .                 | Use of Sanitary<br>Landfill                         | No Sanitary Landfill existing in Lakshadwee  | р    |
| SW4i |                       | Reclamation of old dumpsite                         | Not existing in<br>Lakshadweep   |      |
| SW4j |                       | Linkage it waste<br>energy<br>boilers/cement plants | Not initiated  |      |
| SW4k |                       | Linkage with Recyclers                              | Initiated  |      |
| SW4l |                       | Authorisation of Waste pickers                      | Not initiated  |      |
| SW4m |                       | Linkage with TSDF/CBMTF                             | Not initiated  |      |
| SW4n |                       | Involvement of NGO's                                | Not initiated  |      |
| SW4o |                       | Linkage with producers/Brand owners                 | Not initiated  |      |
| SW4p |                       | Authorisation of waste pickers                      | Not initiated  |      |
| SW4q |                       | Issuance of ID cards                                | Initiated (only extended 76 safai workers)   | d to |
| SW5  | Adequacy of infrastru |   |  |      |
| SW5a |                       | Waste collection trolleys                           | Total 340 required<br>45 available   |      |
| SW5b |                       | Mini collection trucks                              | Total 18 Nos. required 2 Nos. available  |      |
| SW5c |                       | Segregated Transport                                | Yes<br>100%, collecting from<br>community bins, Non-<br>biodegradable Waste of<br>except Kavaratti |      |
| SW5d |                       | Bulk Waste Trucks                                   | Require: NIL<br>Available: Nil   |      |
| SW5e |                       | Waste transfer points                               | Require: Nil Available: Nil, all islar are small in land mass                                      | nds  |
| SW5f |                       | Bio-methanation unit                                | Require: Nil<br>Available: Nil   |      |
| SW5h |                       | Composting unit                                     | Unit Require: 10 Nos (MT) Unit available: 1 (90 N  |      |
| SW5i |                       | Material Recovery facilities                        | Installed: 1 No<br>Total Require: 10 Nos   |      |
| SW5k |                       | Waste to Energy                                     | Require: 10 Nos. Available: 1 No, 9 incinerator are under installation and commissioning           |      |

| SW51 |                       | Waste to RDF                     | Require: Nil Available: Nil, All the sorte RDF are transporting to mainland considering the eco sensitivity of the region |    |
|------|-----------------------|----------------------------------|---|----|
| SW5m |                       | Sanitary Landfill                | Available: Nil<br>Require: Nil  |    |
| SW5n |                       | Capacity of Sanitary<br>Landfill | Not available   |    |
| SW5o |                       | Waste Deposit<br>Centres         | Available: 11 Nos.<br>Require: 19 Nos.  |    |
| SW5p |                       | Other facilities                 | 1. Vermi composting: 9 site   | ,_ |
| SW6  | Notification and impl | ementation of Bye Lav            | v — — — — — — — — — — — — — — — — — — —   |    |
| SW6a |                       | Notification of Bye<br>Laws      | Done  |    |
| SW6b |                       | Implementation of<br>Bye Laws    | In progress   |    |
| SW7  | Adequacy of financia  | al status of ULB                 |   |    |
| SW7a |                       | CAPEX required                   | Not required  |    |
| SW7b |                       | OPEX                             | Not required  |    |
| SW7c |                       | Adequacy of OPEX                 | No  |    |

# b. Plastic Waste Management Status

| No   | Action areas                                | Details of data requirement                               | Measurable<br>Outcome   |
|------|---|---|---|
| 1    | Name of ULB                                 | Lakshadweep is only one district                          | No ULB is<br>existing in<br>Lakshadweep. 10<br>panchayat existing |
| 2    | Population                                  |   | 64, 429 as per<br>2011 census                                     |
| PW1  | Inventory of Plastic V                      | Waste Generation  |   |
| PW1a |   | Estimated quantity of Plastic Waste generation            | 17 MT   |
| PW2  | Implementation of c                         | ollection   |   |
| PW2a |   | Door to Door Collection                                   | 100%  |
| PW2b |   | Segregated Waste collection                               | 100%  |
| PW2c |   | Plastic Waste collection at<br>Material Recovery Facility | 1 MRF used<br>9 islands plan is<br>under progress                 |
| PW2d |   | Authorisation of PW pickers                               | Not initiated   |
| PW2e |   | PW collection centres                                     | 10 Nos.<br>established, 100%                                      |
| PW3  | Establishment of Linkages with stakeholders |   |   |
| PW3a |   | Established linkages with PROs of producers               | Not established   |
| PW3b |   | Established linkages with NGO's                           | Not established   |

| PW4  | Availability of facilities for F   | Recycling or utilisation of  | f Plastic Waste  |
|------|--|--|--|
| PW4a | No. of plastic waste recyclers   |  | Nil  |
| PW4b | No.  | of Manufactures  | Nil  |
| PW4c | No.  | of Pyrolysis of plants   | Nil  |
| PW4d | Plas   | stic pyrolysis   | Nil  |
| PW4e | The state of the s | in road making   | Nil  |
| PW4f |  | processing in cement   | Nil  |
| W5   | Implementation of Plastic W  | aste Management Rule. 2  | 2016   |
| W5a  | Sea  | ling of Units producing<br>micron plastic                                | No units are existed   |
| W5b  |  | hibiting sale of carry<br>s <50 micron                                   | Prohibited   |
| W5c  | othe   | on Carry bags and<br>er single use plastics<br>fied by state<br>ernments | Partially implemented  |
| PW6  | Implementation of Extended Producer Responsibility (EPR) through producers/Brand owners  |  |  |
| PW6a | No.  | of producers<br>ociated with ULB's                                       | None, whereas,<br>Parle Pvt.Ltd<br>approached for<br>EPR and is under<br>process |
| PW6b | pro  | ancial support by<br>ducers/Brand Owners<br>JLB's                        | None   |
| PW6c | Am   | ount of PRO support  | Nil  |
| Pw6d | Infi<br>pro  | rastructure support by<br>ducers/Brand owners to<br>B's                  | Nil  |
| PW6e | esta<br>pro  | of collection centres<br>ablished by<br>ducers/Brand owners to<br>B's    | Nil  |

## c. C&D Waste Management Status

| No   | Action areas                                    | Details of data requirement      | Measurable<br>Outcome                                 |
|------|---|----------------------------------|---|
| 1    | Name of ULB                                     | Lakshadweep is only one district | No ULB is existing in Lakshadweep, panchayat existing |
| 2    | Population                                      |                                  | 64, 429 as per 201<br>census                          |
| CD1  | Inventory of C&D Waste generation               |                                  |   |
| CD1a |   | Estimated quantity               | Not estimated   |
| CD2  | Implement Scheme for permitting bulk generators |                                  |   |
| CD2a |   | Issuance of permission by ULB's  | Not initiated   |

| CD3  | Establishment of C&D Waste Deposition Centres                            |              |  |
|------|--|--------------|--|
| CD3a | Establishment of deposition points Yes, 1                                | 4 Nos        |  |
| CD3b | C&D deposition points Yes, 1   | 4 Nos.       |  |
| CD4  | Implementation of Bye Laws for C&D waste management                      |              |  |
| CD4a | Implementation of Bye Laws Not no  | otified      |  |
| CD4b | charges  | nitiated     |  |
| CD5  | Establishment of C&D waste recycling plant or linkage with such facility |              |  |
| CD5a | Establishment of C&D Waste recycling plant No fa                         | cility exist |  |
| CD5b | Capacity of CD waste recycling plant Not a                               | vailable     |  |

## d. Biomedical Waste Management Status

| No    | Action areas            | Details of data requirement          | Measurable<br>Outcome                                    |
|-------|-------------------------|--------------------------------------|--|
| 1     | Name of ULB             | Lakshadweep is only one district     | No ULB is existing in Lakshadweep. 10 panchayat existing |
| 2     | Population              |                                      | 64, 429 as per 2011<br>census                            |
| BMW1  | Inventory of Biomedical | Waste Generation                     |  |
| BMW1a |                         | Total no. of Bedded<br>Hospitals     | 10 Nos.  |
| BMW1b |                         | Total no. of non- bedded HCF's       | 6 Nos.   |
| BMW1c |                         | Total no. of clinics                 | 3 Nos.   |
| BMW1d |                         | No. of Veterinary<br>Hospitals       | 10 Nos.  |
| BMW1e |                         | Path labs                            | 8 Nos.   |
| BMW1f |                         | Dental Clinics                       | 10 Nos.  |
| BMW1g |                         | Blood Banks                          | Nil  |
| BMW1h |                         | Animal Houses                        | Nil  |
| BMW1i |                         | Bio Research Labs                    | Nil  |
| BMW1j |                         | Others                               | Nil  |
| BMW2  | Authorisation of HCF by |                                      |  |
| BMW2a |                         | Bedded HCFs                          | Nil  |
| BMW2b |                         | Non-Bedded HCF's                     | Nil  |
| BMW3  | Biomedical waste treatn | nent and disposal facilities (C      |  |
| BMW3a |                         | No of CBMWTFs                        | None   |
| BMW3b |                         | Linkage with CBMWTFs                 | No linkage   |
| BMW3c |                         | Capacity of CBMWTFs                  | Nil  |
| BMW3d |                         | Requirement of CBMWTFs               | Require  |
| BMW3e |                         | Captive disposal facilities of HCF's | None   |

| BMW4  | Compliance by CBMWTFs       |                              |                |
|-------|-----------------------------|------------------------------|----------------|
| BMW4a | Cor                         | npliance to standard         | Not applicable |
| BMW4b |                             | code tracking by F's/CBMWTFs | None           |
| BMW4c |                             | ly BM lifting by<br>MWTFs    | None           |
| BMW5  | Status of Compliance by Hea | Ith Care Facilities          |                |
| BMW5a |                             | segregation                  | partially      |
| BMW5b | Lin                         | kage with CBMWTFs            | None           |

# e. Hazardous Waste Management Status

| No   | Action areas                | Details of data requirement                                    | Measurable<br>Outcome  |
|------|-----------------------------|--|------------------------|
| HW1  | Inventory of Hazardou       | rdous Waste  |                        |
| HW1a |                             | No. of HW generating industry                                  | 46 Nos.                |
| HW1b |                             | Quantity of Hazardous waste                                    | 48 MT                  |
| HW1c |                             | Quantity of incinerate<br>Hazardous Waste                      | Nil                    |
| HW1d |                             | Quantity of landfiable<br>Hazardous Waste                      | 48 MT                  |
| HW2  | Contaminated site and       | l illegal industrial hazardous wa                              | aste dumpsite          |
| HW2a |                             | No. of HW dumpsite   | None                   |
| HW2b |                             | Probable contaminated site                                     | Not known              |
| HW3  | Authorisation by SPCBs/PCCs |  |                        |
| HW3a |                             | No. of Industry authorised                                     | None                   |
| HW3b |                             | Display Board of HW<br>Generation in front of the<br>Gate      | None                   |
| HW4  | Availability of Comm        | on Hazardous Waste TSDF  |                        |
| HW4a |                             | Common TSDF  | Exit : No<br>Sent : No |
| HW4b |                             | Industries linkage with TSDF                                   | None                   |
| HW5  | Linkage of ULBs in I        | District with common TSDF                                      |                        |
| HW5a |                             | ULBs linked to common<br>TSDFs for Domestic<br>Hazardous Waste | No                     |

## f. E-Waste Management Status

| No   | Action areas  | Details of data requirement                             | Measurable<br>Outcome |
|------|---|---|-----------------------|
| EW1  | Status of facilitating authorized collection of E-waste |   |                       |
| EW1a |   | Does the citizen are able to deposit or provide E-waste | No                    |

|      |                                  | igh toll-free numbers in istrict   |         |
|------|----------------------------------|--|---------|
| EW1b |                                  | ection centres established<br>LB in district                                     | 10 Nos. |
| EW1c | by pi                            | ection centres established<br>roducers or their PROs in<br>listrict              | None    |
| EW1d | with                             | s the district has linkage<br>authorized E-waste<br>clers/dismantler             | No      |
| EW1e |                                  | nber of authorized E-waste clers/dismantler                                      | None    |
| EW2  | Status of collection of E-waste  |  |         |
| EW2a | Autl                             | norizing E-waste collectors  | None    |
| EW2b | Invo                             | lvement of NGOs  | No      |
| EW2c | appr                             | s producers have<br>roached NGOs/informal<br>or for setting up collection<br>res | No      |
| EW2d | auth                             | s ULB have linkage with norized relers/dismantlers                               | No      |
| EW4  | Control E-waste related pollutio | n  |         |
| EW4a | disn                             | es informal trading,<br>nantling, and recycling of<br>vaste exist in district    | No      |
| EW4b |                                  | es the administration closed<br>gal E-waste recycling in the<br>rict             | No      |
| EW4c |                                  | of actions taken to close<br>gal trading or processing E-<br>ste                 | None    |
| EW5  | Creation of awareness on waste   | handling and disposal  |         |
| EW5a |                                  | es PROs/Producers conduct<br>el awareness campaign                               | No      |
| EW5b | con                              | es district administration<br>duct any district level<br>areness campaigns       | No      |

g. Water Quality Management Status

| . Wate | Action Areas                         | Details of Data<br>Requirement                                    | Measurable<br>Outcome  |
|--------|--------------------------------------|---|--|
| WQ1    | Inventory of water resources in o    | listricts   |  |
| WQla   |                                      | Reverse   | Not applicable   |
| WQ1b   |                                      | Length of Coastline   | 121.92 Km  |
| WQ1c   |                                      | Nalas/Drains<br>meeting Rivers                                    | No drains  |
| WQ1d   |                                      | Lakes/Ponds   | Not applicable   |
| WQ1e   |                                      | Total Quantity of sewage and industrial discharge in District     | Not applicable   |
| WQ2    | Control of Groundwater Water (       | Quality   |  |
| WQ2a   |                                      | Estimated number of bore-wells                                    | None   |
| WQ2b   |                                      | No of permissions given for extraction of groundwater             | None   |
| WQ2c   |                                      | Number of<br>groundwater<br>polluted areas                        | 3 Island viz. Agatti,<br>Amini and Kavaratt                                  |
| WQ2d   |                                      | Groundwater availability  | Not adequate in the Islands of Agatti, Amini & Kavaratti                     |
| WQ3    | Availability of Water Quality D      | ata   |  |
| WQ3a   |                                      | Creation of monitoring Cell                                       | Yes  |
| WQ3b   |                                      | Access to surface water and groundwater quality data at DM office | Not available  |
| WQ4    | Control of River side Activities     |   |  |
| WQ4a   |                                      | River side open defecation  | Not applicable. Whereas seashore open defecation is fully controlled         |
| WQ4b   |                                      | Dumping of SW on river banks                                      | Not applicable. However seashore dumping solid waste is partially controlled |
| WQ4c   |                                      | Control measures for idol immersion                               | Not applicable   |
| WQ5    | Control of Water Pollution in Rivers |   |  |
| WQ5a   |                                      | Percentage of untreated sewage                                    | Not applicable   |

| WQ5b |  | Monitoring of Action Plans for Rejuvenation of Rivers  | Not applicable  |
|------|--|--|---|
| WQ5c |  | No of directions<br>given to industries<br>for Discharge of<br>Untreated industrial<br>wastewater in last 12<br>months | Not applicable  |
| WQ6  | Awareness Activities                   |  |   |
| WQ6a |  | District level<br>campaign on<br>protection of water<br>quality  | 3 Nos.  |
| WQ6b | Oil Spill Disaster Contingency<br>Plan |  |   |
| WQ6a |  | Creation of District Oil Spill Crisis Management Group   | Not created   |
| WQ6b |  | Preparation District Oil Spill Disaster Contingency Plan   | Not prepared  |
| WQ7  | Protection of Flood Plans              |  |   |
| WQ7a |  | Encroachment of flood plains is regulated  | LCZMA is looking<br>after beach flood<br>plains under IPZ<br>notification 2011. |
| WQ8  | Rainwater Harvesting                   |  |   |
| WQ8a |  | Action plan for Rain water harvesting  | Implemented   |

h. Domestic Sewage Management Status

| No   | Action Areas               | Details of Data<br>Requirement   | Measurable<br>Outcome                                     |
|------|----------------------------|--|---|
| SM1  | Inventory of Sewage Manage | ement  |   |
| SM1a |                            | Total Quantity of<br>Sewage generated in<br>District from Class<br>II cities and above | UTL is rural area<br>and there is no class<br>IInd cities |
| SM1b |                            | No of Class-II towns and above   | Not applicable  |
| SM1c |                            | No of Class-I towns and above  | Not applicable  |
| SM1d |                            | No of towns needing STPs   | 10 Nos.   |
| SM1e |                            | No of towns STPs installed   | None  |
| SM1f |                            | Quantity of treated sewage flowing into  | Not applicable  |

|      | Rivers (directly or indirectly)  |   |
|------|--|---|
| SMlg | Quantity of untreated or partially treated sewage (directly or indirectly) | Not applicable                            |
| SM1h | Quantity of sewage flowing into lakes                                      | Not applicable                            |
| SM1i | No of industrial townships   | Not applicable                            |
| SM2  | Adequacy of Available Infrastructure for Sewage Treatment                  | ent                                       |
| SM2a | % sewage treated in STPs   | None                                      |
| SM2b | Total available Treatment Capacity   | Nil                                       |
| SM2c | Additional treatment capacity required                                     | 10 MLD                                    |
| SM3  | Adequacy of Sewerage Network   |   |
| SM3a | No of ULBs having partial underground sewerage network                     | No ULB, 10 Islands<br>no sewerage network |
| SM3b | No of towns not having sewerage network                                    | No towns                                  |
| SM3c | % population covered under sewerage network                                | None                                      |

i. Industrial Wastewater Management Status

| No    | Action Areas  | Details of Data<br>Requirement  | Measurable Outcome   |  |  |
|-------|---|---|--|--|--|
| IWW1  | Inventory of industrial wastewater Generation in District |   |  |  |  |
| IWW1a |   | No of Industries<br>discharging<br>wastewater                                   | 12 Nos, 9 Nos. coir<br>making factories,<br>1 caning factory and 2<br>Nos. coconut desiccatir<br>factory |  |  |
| IWW1b |   | Total Quantity of industrial wastewater generated                               | Not known  |  |  |
| IWW1c |   | Quantity of treated<br>IWW discharged<br>into Nalas/Rivers                      | Not known  |  |  |
| IWW1d |   | Quantity of un-<br>treated or partially<br>treated IWW<br>discharged into lakes | Not known  |  |  |
| IWW1e |   | Prominent Type of Industries  | Agro based Industries  |  |  |

| IWW1f | Common Effluent Treatment Facilities  | None      |  |  |  |
|-------|---|-----------|--|--|--|
| IWW2  | Status of compliance by Industries in treating wastewater   |           |  |  |  |
| IWW2a | No of Industries meeting Standards  | Not known |  |  |  |
| IWW2b | No of Industries not meeting discharge Standards  | Not known |  |  |  |
| IWW2c | No of complaints received or number of recurring complaints against industrial pollution in last 3 months | None      |  |  |  |
| IWW4  | Status of Action taken for not meeting discharge  | standards |  |  |  |
| IWW4a | No industries closed for exceeding standards in last 3 months   | None      |  |  |  |
| IWW4b | No of industries where Environmental Compensation was imposed By SPCBs                                    | None      |  |  |  |

j. Air Quality Management Status

| No   | Action Areas                | Details of Data<br>Requirement  | Measurable Outcome                  |
|------|-----------------------------|---|-------------------------------------|
| AQ1  | Availability of Air Quality |   | District                            |
| AQla |                             | Manual Air Quality<br>monitoring stations<br>of SPCBs/CPCB              | 2 Nos.                              |
| AQ1c |                             | Automatic<br>monitoring stations<br>Operated by<br>SPCB/CPCB            | None                                |
| AQ2  | Inventory of Air Pollution  | Sources   |                                     |
| AQ2a |                             | Identification of prominent air polluting sources                       | Natural dust and vehicles pollution |
| AQ2b |                             | No of Non-<br>Attainment Cities   | None                                |
| AQ2c |                             | Action Plans for non-attainment cities                                  | Not applicable                      |
| AQ3  | Availability of Air Quality |   | As Office                           |
| AQ3a |                             | Access to air quality<br>data from SPCBs &<br>CPCB through<br>Dashboard | Not available                       |
| AQ4  | Control of Industrial Air P |   |                                     |

| AQ4a | No of Industri<br>meeting Stand                               | None                               |  |
|------|---|------------------------------------|--|
| AQ4b | No of Industri<br>meeting disch<br>Standards                  |                                    |  |
| AQ5  | Control of Non-industrial Air Pollution so                    | urces                              |  |
| AQ5a | Control open<br>burning of Stu<br>during winter               | bble- Not applicable               |  |
| AQ5b | Control Open<br>burning of Wa<br>Nos of actions               |                                    |  |
| AQ5c | Control of for fires  | Not applicable                     |  |
| AQ5d | Vehicle pollut<br>check centres                               | None None                          |  |
| AQ5e | Dust Suppress<br>Vehicles                                     | None None                          |  |
| AQ6  | Development of Air Pollution complaint redressal system       |                                    |  |
| AQ6a | Mobile App/C<br>based air pollicomplaint red<br>system of SPC | Online ution ressing Not available |  |

k. Mining Activity Management Status

| No   | Action Areas                           | Details of Data<br>Requirement   | Measurable Outcome |  |  |
|------|--|--|--------------------|--|--|
| Mlla | Inventory of Mining in                 | Inventory of Mining in District  |                    |  |  |
| MIla |  | Type of Mining None Activity   |                    |  |  |
| MI1b |  | No of Mining licenses given in the District  None                          |                    |  |  |
| MI1c |  | Area covered under mining  | None               |  |  |
| MI1d |  | Area of District   | Not applicable     |  |  |
| MI1e |  | Sand Mining  | No                 |  |  |
| MI1f |  | Area of sand Mining Not applicable   |                    |  |  |
| MI2  | Compliance to Environmental Conditions |  |                    |  |  |
| MI2a |  | No of Mining areas meeting Environmental Clearance Conditions              |                    |  |  |
| MI2b |  | No of Mining areas meeting Consent Conditions of SPCBs/PCCs Not applicable |                    |  |  |
| MI3a | Mining related environ                 | mental Complaints  |                    |  |  |
| MI3b |  | No of pollution related complaints   | None               |  |  |

|      | against Mining Operations in l year                               | last 1 |  |
|------|---|--------|--|
| MI4  | Action against non-complying mining acti                          | vity   |  |
| MI4a | No of Mining operations suspended for violations to environmental | None   |  |
| MI4b | No od directio issued by SPC                                      | None   |  |

I. Noise Pollution Management Status

| No   | Action Areas                      | Details of Data<br>Requirement  | Measurable Outcome    |
|------|-----------------------------------|---|-----------------------|
| NP1  | Availability Monitoring           | equipment   |                       |
| NP1a |                                   | No. of noise<br>measuring devices<br>with district<br>administration                            | None                  |
| NP1b |                                   | No. of noise<br>measuring devices<br>with SPCBs   | None                  |
| NP2  | Capability to conduct nathorities | oise level monitoring by St   | ate agency / District |
| NP2a |                                   | Capability to<br>conduct noise level<br>monitoring by State<br>agency / District<br>authorities | Not available         |
| NP2  | Management of Noise               | elated complaints   |                       |
| NP2a |                                   | No of complaints<br>received on noise<br>pollution in last 1<br>year                            | None                  |
| NP2b |                                   | No of complaints redressed  | None                  |
| NP3  | Compliance to ambient             | noise standards   |                       |
| NP3a | Implementation of Ambient noise   |   | Occasional            |
| NP3b |                                   | Noise monitoring study in district  | Not carried out       |
| NP3c |                                   | Sign boards in towns and cities in silent zones   | Not installed         |

## 4. State Strategy under State Environment Plan

The Lakshadweep is unique in terms of small land area, high population density, inadequacy of infrastructure, over reliance on a few fragile natural resources, diminishing stock of fresh water resources, wide spread of vector bone diseases, etc. These along with prevailing economic and developmental challenges make the islands increasingly vulnerable to the existing and emerging risk of plastic and E waste pollution. The island Swatchh Abhiyan may be start with a "precautionary adaptation approach" which certainly lead to sustainable development, even in the absence of sanitation and health hazards, such strategies will be contribute to sustainable development, overall reduction in vulnerability, improved resilience in natural resource and communities. More specifically, the UTL has to identify Health and Hygiene along with Drinking water and sanitation response measures that include sustainable management of fresh water resources, prevention of coastal erosion and salt water intrusion, improve livelihood in fisheries and agriculture sector, promoting alternate livelihoods, putting in place of robust disaster management system, effective sweage disposal mechanisms etc.

## 5. Vision and Goal of State Environment plan 2020-2025

- a) Ensure the protection of public health and aesthetic beauty to surrounding environment.
- b) Utilized environmentally sound methods that comply zero waste management, potable water to all households, Domestic sewage management plan, etc., to conserve the pristine ecosystem in and around the islands.
- c) To adopt the best environmental practice in ecological waste & sanitation management to ensure the proper collection, transport, storage, segregation, treatment and disposal of integrated waste in Islands.
- d) Create plan setting the guidelines and target for the volume reduction of solid waste at source through composting, reuse, recycling and recovery.
- e) Provide bio toilets to all households in Lakshadweep and public places under the scheme.
- f) Enter into cooperation with State Governments / Expert Institutions / NGO's /SHG's in Awareness creation with implementation of the programme through education and awareness.
- g) Prevent contamination of available fresh ground water in Lakshadweep Island.
- h) To equip government officials/ Panchayat raj institutions and others through capacity building and training in relevant field.

## 6. Timeline Action Plan for the year 2020- 2025

| Sl.<br>No | Components | Implementing<br>Agency | Timeline<br>(Short Plan,<br>in months) | Budgetary<br>Requirement<br>(in Lakh) |
|-----------|------------|------------------------|--|---------------------------------------|
|-----------|------------|------------------------|--|---------------------------------------|



| A    | Waste Management Plan  |                         |            |        |  |
|------|--|-------------------------|------------|--------|--|
| (i)  | Solid Waste Management Plan  |                         |            |        |  |
| 1    | Inventory on Bulk waste<br>Generators in all Islands   | Environment & Forest    | 3 months   | 1.00   |  |
| 2    | Procurement and Distribution of twin bin for segregation of solid waste in all islands (10,500 pairs)  | Environment & Forest    | 3 months   | 70.00  |  |
| 3    | Disposal of Legacy Waste<br>through registered<br>recyclers (10 Lakh Cement<br>Bags)   | Environment & Forest    | 3 months   | 5.00   |  |
| 4    | Purchase of closed vehicle<br>for waste management (18<br>vehicles for all islands)  | Environment & Forest    | 3 months   | 270.00 |  |
| 5    | Purchase of equipment's/machineries (viz. coconut leaf/wood shredder, plastic bottle shredder, bio composting machine etc.) for the establishment of MRF facilities, total 100 machines) | Environment & Forest    | 3 months   | 560.00 |  |
| 6    | Purchase of incinerator for<br>the management of inert,<br>non-recyclable Waste in<br>all islands  | Environment & Forest    | 9 months   | 700.00 |  |
| 7    | Door to Door Collection of<br>Waste from remaining<br>islands except Kavaratti   | Environment & Forest    | 3 months   | 40.00  |  |
| 8    | Authorisation of Waste pickers in all Islands  | Environment & Forest    | 4 months   | 1.00   |  |
| 9    | Implementation of Solid<br>Waste Management<br>Byelaw, 2018  | Environment & Forest    | , 3 months | 20.00  |  |
| (ii) | Plastic Waste Managemen  |                         |            |        |  |
| 10   | Plastic Waste Management<br>Plan 2020-2025   | Environment &<br>Forest | 1 month    | 0.50   |  |
| 11   | Establishment of Linkages with PRO of producers  | Environment & Forest    | 3 months   | 1.00   |  |
| 12   | Availability of facilities<br>for recycling or utilisation<br>of plastic waste in co-<br>processing in cement kiln   | Environment & Forest    | 3 months   | 10.00  |  |
| 12   | Infrastructure support by<br>Brand Owners/Producers<br>to ULBs under EPR   | Environment & Forest    | 5 months   | 00.00  |  |



| (iii) | its 9 <sup>th</sup> meeting unanimousl<br>generated from islands are fi<br>the acute shortage of building<br>waste as resource rather than | y decided that the Cor<br>fully utilising for the future<br>for materials in islands. | nstruction and De<br>are construction we | molition was |
|-------|--|---|--|--------------|
| (iv)  | Biomedical Waste Manage  | ement   |  |              |
| 13    | Authorisation of HCF's by SPCBs/PCCs   | Directorate of<br>Medical & Health<br>Services  | 4 months                                 | 05.00        |
| 14    | Installation and commissioning of CBMWTFs (9 Nos.)   | Directorate of<br>Medical & Health<br>Services  | 9 months                                 | 900.00       |
| 15    | Purchase of colour bin for<br>the collection and<br>segregation of Biomedical<br>waste   | Directorate of<br>Medical & Health<br>Services  | 3 months                                 | 07.50        |
| 16    | Pre segregation of<br>Biomedical waste by<br>Health Care Facilities  | Directorate of<br>Medical & Health<br>Services  | 3 months                                 | 02.00        |
| 17    | Purchase of vehicles for<br>the transportation of BMW<br>(9 Nos.)  | Directorate of<br>Medical & Health<br>Services  | 3 months                                 | 117.00       |
| 18    | Service providers for Bio<br>Medical waste collection,<br>transportation and disposal<br>in CBMWTFs (50 trained<br>staff required)         | Directorate of<br>Medical & Health<br>Services  | 3 months                                 | 09.00        |
| v     | Hazardous Waste Manage   | ment  |  | San Commence |
| 19    | Identification of probable contaminated hazardous waste sites in Islands   | Director, S&T/M/s<br>LPCC   | 2 Months                                 | 01.00        |
| 20    | Authorization of hazardous waste dump site by LPCC   | Director, S&T/M/s<br>LPCC   | 3 months                                 | 00.00        |
| 22    | Establishment of common hazardous waste TSDF in Islands (10 sites shall be identified with 1500 Sq.m area by site)                         | Director, S&T/M/s<br>LPCC   | 12 months                                | 200.00       |
| 23    | Linkage of ULB in district with common TSDF  | Director, S&T/M/s<br>LPCC   | 12 months                                | 00.00        |
| vi    | E-Waste Management   |   |  |              |
| 24    | Establishment of toll-free<br>number for citizen services<br>under E-waste<br>Management   | Dept. of<br>Environment &<br>Forest   | 3 months                                 | 01.00        |
| 25    | Establishment of linkage with authorized E-waste recyclers/dismantler  | Dept. of<br>Environment &<br>Forest   | 5 months                                 | 05.00        |
| 26    | Inventory of E-waste in all inhabited Islands  | Director, S&T/M/s<br>LPCC   | 3 months                                 | 04.00        |



| 27 |  | Director, S&T/M/s<br>LPCC                   | 3 months            | 00.00         |
|----|--|---|---------------------|---------------|
| 28 | Creation of awareness on<br>E-waste handling and<br>disposal in all Islands        | Dept. of Information<br>Technology          | 2 months            | 10.00         |
| В  | Water Quality Managemen  | t   |                     |               |
| 29 | Control of dumping of solid waste in seashore in all Islands                       | Dept. of<br>Environment &<br>Forest         | 2 months            | 01.00         |
| 30 | District level campaign on protection of water quality/Island level awareness      | Dept. of LPWD                               | 3 months            | 07.00         |
| 31 | Preparation of oil spill disaster contingency plan                                 | ADM, Collectorate, Disaster Management Cell | 2 months            | 00.50         |
| 32 | Creation of district oil spill crisis management group                             | ADM, Collectorate, Disaster Management Cell | 1 month             | 00.00         |
| 33 | Protection of high tide area from encroachment                                     | Director, S&T/M/s<br>LCZMA                  | 11 months           | 01.00         |
| 34 | Action plan preparation<br>for rain water harvesting in<br>all Island              | Dept. of LPWD                               | 1 month             | 00.50         |
| C  | Domestic Sewage Manage   | ment Plan                                   |                     |               |
| 35 | Establishment of Septage<br>Treatment Plant (STP) in<br>all Islands                | Dept. of LPWD                               | 24 months           | 82.00         |
| D  | Industrial Waste Water N   | Sanagement Plan                             |                     |               |
| 36 | Inventory of industrial waste water generation in district                         | Dept. of Industries                         | 3 months            | 01.00         |
| 37 | Inventory of total quantity of waste water generation from Industry                | Dept. of Industries                         | 3 months            | 01.00         |
| 38 | Authorization of industries<br>from LPCC for the usage<br>of ETP in all 10 Islands | Agriculture/Dept. of Fisheries              | 3 months            | 00.00         |
| E  | Air Quality Management   | Plan  |                     |               |
| 39 | Publication of air quality data through website                                    | Director, S&T/M/s<br>LPCC                   | 3 months            | 01.00         |
| 40 | Islands (9 Nos. centres)   | Motor Vehicle<br>Department                 | 6 months            | 10.00         |
| 41 | Action on open burning in  | DC/DD OS III 202000-                        | 1 month             | 04.00         |
| F  | Mining Activity Manage the Islands   | ment Plan: No mining a                      | activities taking p | lace in any o |
|    | Noise Pollution Manager  |   |                     |               |



| 42 | Establishment of noise<br>measuring devises with<br>district administration (10<br>Nos. required) | Director, S&T/M/s<br>LPCC | 3 months | 02.00 |
|----|---|---------------------------|----------|-------|
| 43 | Awareness creations/capacity building to the officials/public                                     | Director, S&T/M/s<br>LPCC | 2 months | 05.00 |
| 44 | Display of sign board in all Islands in silent zones (20 Nos.)                                    | Director, S&T/M/s<br>LPCC | 3 months | 02.00 |

#### 7. Institutional Frame work

A two tier committee at district level and state level is created to monitor the State Environment Plan approved by State Leve Advisory Board in the minutes of meeting dated 17.12.2019 is as below.

# 7 (a): State Level Advisory Body for the monitoring of SEP

| Sl.No. | Designation  | Member                  |
|--------|--|-------------------------|
| 1      | The Advisor to Administrator   | Chairperson, Ex-officio |
| 2      | The Secretary, Environment & Forest  | Member, Ex-officio      |
| 3      | The Conservator of Forest  | Member, Ex-officio      |
| 4      | The President Cum Chief Counsellor, DP   | Member, Ex-officio      |
| 5      | The Chief Executive Officer, DP  | Member, Ex-officio      |
| 6      | The Additional District Magistrate, Kvt.   | Member, Ex-officio      |
| 7      | One representative from Ministry of Environment Forest & Climate Change, Govt. of India  Member, Ex-offici |                         |
| 8      | One representative from Ministry of Urban<br>Development, Govt. of India                                   | Member, Ex-officio      |
| 9 -    | One representative from Ministry of Rural<br>Development, Govt. of India                                   | Member, Ex-officio      |
| 10     | One representative from IIT, Chennai   | Member, Ex-officio      |
| 11     | One representative from, Central Pollution<br>Control Board  | Member, Ex-officio      |
| 12     | Three VDP Chairpersons on rotation   | Member                  |
| 13     | The Member Secretary, LPCC   | Member                  |
| 14     | The Superintending Engineer, LPWD  | Member                  |
| 15     | The Director, Dept. of Agriculture   | Member                  |
| 16     | The Director Labour & Employment Department  | Member                  |
| 17     | The Director, Industries Department  | Member                  |
| 18     | The Technical Assistant, Environment & Forest Department   | Member                  |
| 19     | Two Subject Experts to be nominated by the Administrator UTL   | Members                 |



## 7 (b) : District Level Monitoring Committee

| Sl.<br>No. | Designation   | Chairman/Member  |
|------------|---|------------------|
| 1          | The District Collector, UTLA                          | Chairman         |
| 2          | The PCC, District Panchayat, Kavaratti                | Member           |
| 3          | The Deputy Conservator of Forests                     | Member           |
| 4          | The Chairperson, VDP, Kavaratti                       | Member           |
| 5          | The Chairperson from 3 Islands on rotation basis      | Member's         |
| 6          | The Director, Directorate of Panchayat                | Member           |
| 7          | The Director, S&T/MS, LPCC, Kavaratti                 | Member           |
| 8          | The Director, Information Technology, Kavaratti       | Member           |
| 9          | The Director, Health Services, Kavaratti              | Member           |
| 10         | The SE, LPWD, Kavaratti                               | Member           |
| 11         | The Director, Industries, Kavaratti                   | Member           |
| 12         | The Deputy Chief Engineer, Harbour, Lakshadweep       | Member           |
| 13         | The RFO & Head (Environment Division), E&F, Kavaratti | Member Secretary |

In addition a monitoring cell set up in the Department of Environment & Forest to assist Advisor to Administrator for the implementation of State Environment Plan with following members is as below.

7(c): Monitoring Cell to Advisor to Administrator

| Sl. No. | Designation   | Member   |
|---------|---|----------|
| 1       | Dr. Sajeevan, Ex. Kerala Pollution Control Board Chairman and<br>Expert member State Level Monitoring Committee, UTLA,<br>Kavaratti |          |
| 2       | Dr. Hidayathulla, Consultant, Solid Waste Management, P&L Division, E&F, Kavaratti.   | Member   |
| 3       | Smt. Ameera Beegum C.P, Junior Consultant, Solid & Plastic Waste Management Rule, P&L Division, E&F, Kavaratti.                     | Member   |
| 4       | Smt. Beebi Asoora, A.P, Junior Consultant, Construction & Demolition Waste Management, P&L Division, E&F, Kavaratti.                | Member   |
| 5       | Shri. A.C. Abdul Jabbar, RFO & Head, P&L Division, E&F, Kavaratti.  | Convener |

The District Level Committee shall review the scheme twice in a month and the District Collector and District Magistrate brief the progress to the Chief Secretary concerned. The State Level Advisory Body conducting its meeting once in a month to monitor and evaluate the progress of the scheme implementation in Lakshadweep. The State Level Monitoring Committee attached to Advisor to Administrator assisting to frame strategy and policies require



to be adopted in different environmental management streams as per direction of CPCB and Hon'ble NGT in the matter.

## 8. Integrated State Environment Plan to State Budget

The State Environment Plan is prepared by adopting the guidelines published by Ministry of Environment, Forest & Climate Change, Ministry of Drinking Water & Sanitation, Ministry of Rural Development etc. in various thematic sectors viz. waste management plan, water quality treatment, industrial waste water discharge etc. The State Environment Plan is integrated in to the UTL planning and budgetary process so that the resource allocation for implementing the identified adaptation/mitigation measures can be in consonance with the overall development goals of the UTL. The subsequent implementation of the State Environment Plan requires strengthening/evolving supportive institutions, information, finance, technology and public support.

This is issued with the approval of Advisor to Administrator & Chairman, SLAB vide Diary No. ...... Dated 19.12.2019

(Damodhar A.T.,) IFS Secretary, Environment & Forests

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