

PROGRESS IN RESPECT OF NGT ORDER DATED 16.01.2019

Compliance to Solid Waste Management Rules 2016

1. As envisaged in Rule 11 (a), the UTL Administration in consultation with various stakeholders viz. Panchayat raj institutions, Self Help Groups, Non Governmental Organizations, Government departments, natives etc., had prepared and approved “*Swachh Lakshadweep Abhiyan*” – a policy and strategy document in line with national guidelines on *Swachh Bharat Mission* (SBM) of the Ministry of Urban Developments and Solid Waste Management Rules, 2016. These Rules were endorsed and published in the official website of the Administration on 24th December, 2014 the said policy documents are also in line with the National policy on Solid Waste Management and National Urban Policy of the Ministry of Urban Developments, Government of India. The “*Swachh Lakshadweep Abhiyan*” developed 8 visions / goals under its strategies and the same is enlisted as below:
 - (i) Ensure the protection of public health and aesthetic beauty of surrounding environment.
 - (ii) Utilize environmentally sound methods that minimize waste generation and conserve and recover resources from the waste.
 - (iii) To adopt the best environmental practices in ecological waste & sanitation management to ensure the proper collection, transportation, storage, segregation, treatment and disposal of solid wastes in Islands.
 - (iv) Create plans, guidelines and targets for the reduction of volume of solid wastes at source through composting, reuse, recycling and recovery.
 - (v) Provide bio toilets to all households in Lakshadweep and public places under the scheme.
 - (vi) Enter into cooperation with State Governments / Expert Institutions / NGO’s /SHG’s in awareness creation with implementation of the program through education and awareness.

(vii) Prevent contamination of available fresh ground water in Lakshadweep Island.

(viii) To equip government officials/ Panchayat raj institutions and other stake holders through capacity building and training in relevant field.

2. **Action plan for Solid Waste Management:** In pursuance of an Order dated 22nd December, 2016 of the Hon'ble National Green Tribunal, the UTL Administration has prepared an "Action plan for solid waste management for Lakshadweep" under the policies, strategies and Solid waste Management Rules, 2016. Forty four Waste Assessment Workers and 330 sweepers are working under the Schemes 'Sanitation, Health and Hygiene' and "Non Biodegradable Waste Collection and Scientific Disposal". The scheme is implemented through the casual laborers sponsored by the respective Village Dweep Panchayats and is under the supervision of the office of Department of Environment & Forest of the concerned Island.
3. It is submitted that 4 key visions/goals enumerated above *viz.*, provision of sanitary toilet and prevention of contamination of ground water in Lakshadweep, polythene free Lakshadweep, biodegradable waste collection & management at household level and generating awareness among all stakeholders and sensitizing them; were implemented through the policy document "Action Plan on Swachh Lakshadweep Abhiyan" (APSLA). The remaining goals will be implemented in the future action plan.
4. The UTL is considered as a consumer state and all essential commodities are reaching through Cochin, Calicut and Mangalore port except fish and coconut. The Coconut by products are the major waste (97%) in the waste stream. The coconut by products are used for domestic fuel consumption except Kavaratti, Minicoy, Kadmat and Agatti islands where LPG has been introduced by the Government, recently. The major biodegradable waste from domestic households includes left out garbage peels, rice, fish waste etc. and are managed by the households in its generation site through backyard poultry, gardening compost and by rearing cattle and sheep in their house itself. The

following steps are taken by the UTLA for the management of Bio Degradable waste in the territory as below.

Quantity of non-bio degradable (NBD) and biodegradable waste (BD) waste collected in various islands during the year 2018-19

Sl.No.	Name of Island	Quantity of NBD waste and BD wastes collected in various islands (Kgs)	
		NBD waste	BD waste
1	Agatti	23247	10975
2	Amini	13124	68817
3	Bitra	85701	0
4	Andrott	1765	113190
5	Chetlat	6587	6484
6	Kadmat	68757	46000
7	Kalpeni	15340.71	76639.5
8	Kavaratti	125791.6	49547
9	Kiltan	58415.5	38950
10	Minicoy	32762	34459
Total		431490.81	445061.5
Annual total in tons		431.49	445.06
Average Waste generation per day in tons		1.18	1.21

- 5. Identification and Management of Prime important, important and least important localities in islands:** The department of Environment & Forest identified all the Prime important, important and least important localities with the help of local panchayat raj institutions as per the guidelines drawn by the department during the year 2014-15. The department also recruited and posted 374 sanitation workers on contract basis for the management of the identified areas through sweeping, collection, segregation and scientific disposal of the bio degradable waste. All the sweeping waste are presently handing over to Agriculture department for composting in all islands.
- 6. Implementation of Open Defecation Free (ODF) in Islands:** A total 11,147 households are available in Lakshadweep as per ODF survey during the year 2014. A total of 11,134 household have individual toilets in islands. UTLA provide toilets to 132 household during the year 2017-18. The left out 13

households are using shared toilets due to non-availability of land in the islands. The UTLA provided 262 toilets to temple/mosque under CSR fund received from Kochi and Bombay Shipyard Limited during the year 2018-19.

7. As mandated by Rule 11 (d) of the SWM Rules, for ensuring proper implementation of the Policy, the UTLA had made two tier institutional frameworks under the APSLA to monitor the activities initiated for Solid Waste Management.
 - a) State Level Committee under the Chairmanship of Secretary, Environment & Forest, UTLA and
 - b) Island Level Committee under the Chairmanship of Deputy Collector / Sub Divisional Officer of respective Island. (page 57 to 59 APSLA)
8. Pursuant to Rule 15(e), the UTL has notified **Solid Waste Management and Sanitation Conservancy Bye-Law 2018** under the Solid Waste Management Rules, 2016 and has published the same. The department has incorporated all the requisite and necessary provisions viz., user charges, prohibitions, sanitation zone, power to issue direction, penalty for the contravention of the bye-law, cognizance of offence etc. and the same is under implementation. Copy of the Bye law is **Annexure- R1**
9. **Allocation of Budget:** During the financial year 2018-19, the UTLA established a new scheme *Swachh Lakshadweep Abhiyan* by merging two earlier schemes which were operational in the Islands viz., ‘Sanitation Health & Hygiene’ and ‘Non-Biodegradable Waste Collection & Disposal’. The new scheme consists of 18 components and an amount of Rs. 7.45 crore was allotted for each of the component under the UTL budget, 2019-20.
10. Further, the UTLA had prepared and endorsed the Integrated Island Management Plan (IIMP) through the Ministry of Environment & Forests, Government of India, New Delhi under Island Protection Zone Notification, 2011. The IIMP identifies and recommends setting up solid waste processing and disposal facilities for each inhabited islands. The islands are scattered from one another and no land fill is existing in any of the islands. Regarding

stipulations under various sub clauses of Rule 11 regarding recognition and empowerment of waste pickers, the UTL do not have organized or informal sector of waste collectors, waste pickers in any of the Islands.

- 11.** In compliance to Rule 11(f) and (h) regarding identification of site for disposal facilities, the department of Environment & Forests has 10 Central Garbage Depository (CGD) sites and 9 incinerator sites (except in Bitra Island) for collection, segregation and incineration of solid wastes generated in the Islands. A total of 15250 sqm area is ear marked as Central Garbage Depository collectively in all the Islands in addition to incinerator sites. No buffer zone for the solid waste processing and disposal facilities are required as per Sub section (1) of Section-11 of Solid Waste Management Rule, 2016. The UTL has ensured 100% source segregation of Non Biodegradable waste.
- 12.** The department is collecting non-biodegradable wastes from bins placed at designated points in each ward. A total of 4686 community bins are placed by the department of E&F for the collection of non-biodegradable wastes from all the Islands. All other biodegradable wastes generated in household level are disposed by the stakeholders in the generation points itself. Noncommercial establishments / malls are present in Lakshadweep.
- 13.** Regarding waste segregation and sorting of recyclable materials as provided in rule 15(h), UTL is recognized as an Industrial Free Zone by the Government of India. The casual labourers engaged by the department segregate the non-biodegradable wastes collected from the Islands, every day. There does not arise a need for secondary storage spaces for storing the recyclable materials. The recyclable materials are transported to Cochin through mechanized barges as per the memorandum of understanding between Cochin Corporation and UTL Administration. A total of 4,36,955 Kg of recycle materials were transported to the mainland in 19 barges operated from Island to mainland during the year 2017-2018 The department has sufficient space and facilities (CGD's) to sort the recyclable materials from other non-biodegradable waste in each Island.

14. Regarding the duties of Rule 15(i) and 15(j), it is submitted that the UTL do not have separate domestic waste hazardous centers at present. The land areas in islands are minimal and the quantity of domestic hazardous waste generation is negligible in each island. In any case the State Level Advisory Board (SLAB) in their first meeting decided to set up Domestic Waste Hazardous depository center within the Central garbage Depository available for department in each island.

Compliance of Plastic Waste Management Rules 2016

15. Non-biodegradable wastes (mainly plastic) generated are collected by the Department of Environment & Forests by providing bins at site specific locations. A total of 4686 community bins are provided by the department. The wastes so collected are transported to Central Garbage Depository (CGD) maintained in each island. The Non-biodegradable wastes are then segregated by the labourers. The department facilitates transportation of recyclable materials derived from waste materials to mainland for reuse. The residual materials at CGDs, which are non-recyclable and non-incinerating, are used for filling up base for new constructions in the Islands. In accordance Bye-Law 4 of Lakshadweep Sanitation and Conservancy Bye-Law 1998, the Administrator, UTL prohibited import and or use of polythene and plastic materials for packing and carrying of consumer goods in the whole of UTL. In the UTL, there are no plastic manufacture units.

16. **Collection, Segregation, Transportation and incineration of NBDW at Islands:** The UTL started management of Non-bio degradable waste from the year 1998 onwards, considering the immense threat and paucity to the eco sensitive region around the islands. The non- bio degradable waste such as glass, polythene, plastic etc. are regularly managed by the UTLA by placing community bins in appropriate localities. A total of 4686 community bins are provided by the department and the island wise details are shown below.

NON BIO DEGRADABLE WASTE BIN AVAILABILITY IN ISLANDS

Island	Geographical Area (sq.km)	Total Population	No. of Households	Waste bin placed in each island
Minicoy	4.39	10444	2200	586
Kalpeni	2.79	4418	815	248
Andrott	4.84	11191	1944	1020
Agatti	3.84	7560	1212	231
Kavaratti	4.22	11210	2485	1578
Amini	2.59	7656	1035	325
Kadmat	3.12	5389	985	285
Kiltan	1.63	3945	741	220
Chetlat	1.04	2345	626	139
Bitra	0.10	271	27	50
Total	28.56	64429	12070	4686

17. **Availability of Incinerator:** The plastic wastes so collected are transported to Central Garbage Depository with incinerator maintained in each Island except Bitra Island. The plastic waste collected from waste bins are segregated at incinerator site. The status of incinerator site in each island are shown below.

DETAILS OF INCINERATOR'S IN ISLANDS WITH CGD FOR NBDW SORTING & DISINTEGRATION

Sl. No	Name of Island	Survey No	Area of Land (sq.m)	Property
1	Amini	44/8	250	On lease
2	Agatti	145/2	500	Government
3	Andrott	581/1 Part	400	Government
4	Chetlat	180/6	300	On lease
5	Kadmat	7/13A and 14 A	400	Government
6	Kalpeni	31/12	375	On lease
7	Kiltan	205/20	780	On lease
8	Kavaratti	972	1200	On lease
9	Minicoy	7/2A	1000	Government
10	Bitra	Nil	Nil	Nil

18. The department made facilitates for the transportation of recyclable materials derived from waste materials to mainland for reuse. The pickup carry bags/polythene packets are incinerated by the department in the incinerator installed by UTL in 9 islands. The residual materials at CGDs, which are non-

recyclable and non-incinerating, are used for filling up base for new constructions in the Islands. The quantity of recyclable waste materials transported to mainland during the year 2017-18 and 2018-19 are shown below.

Quantity of recyclable waste materials transported to mainland (Swacch Recovery Center, Kochi) during the year 2017-18 and 2018-19

Sl.No.	Name of Island	Quantity of items segregated wastes transported for recycling (Kgs)	
		2017-18	2018-19
1	Agatti	41119	17720
2	Amini	56347	26330
3	Andrott	45319	12090
4	Chetlat	11367	5900
5	Kadmat	27960	12250
6	Kalpeni	45112	67000
7	Kavaratti	181197	25370
8	Kiltan	21726	5210
9	Minicoy	6808	1510
Total		436955	173380

19. Regulatory Framework under Plastic Waste (Management) Rule in

UTLA: The following Bye laws, Notifications, Guidelines etc. are prepared and implemented by the UTL since 1998 onwards.

- (i) Sanitation and Conservancy Bye law, 1998 under Panchayat Regulation Act, 1998 (**Annexure R2**).
- (ii) Notification of the Constitution of State level monitoring committee under PWM Bye Law, 2016 (**Annexure R3**)
- (iii) Notification to ban 14 items single use plastic under plastic waste (Management) Rule, 2016 (**Annexure R4**)

20. Status of Industrial Units under Plastic Waste Management Rule, 2016:

The UTL declared as Industrial Free Zone by the Government of India. No plastic manufacturing units are working in the territory. The non-biodegradable waste include plastic are reaching from local use and almost all waste collected and disposing through the system instituted by the government. In addition the cement bags reaching through transportation of

construction materials are taken care by Lakshadweep Public Works department in government sector.

21. Recent initiatives under plastic elimination programme in UTL: The department of Environment & Forest with the collaboration of Khadi & Village Industries produced 5000 cloth bags and distributed among locals during the year 2014-15 with a aim to reduce plastic carry bags use in islands. The department continued the programme in 2016-17 by giving 3 Nos. cotton bags to all 12000 households in islands. The department introduced the scheme “paper making unit by giving full subsidy” to the locals during the year 2018-19. However, beneficiaries could not be selected due to non-availability of appropriate technology suitable to islands. The Central Sector scheme “Turtle conservation of UTLA” also encourage paper making unit by giving Rs.50000 subsidy to the beneficiaries.

22. Monitoring and evaluation of Plastic Waste Management in UTL: The UTL Administration has made two tier system for the monitoring of the Plastic waste in Lakshadweep. The State level body is chaired by respective Secretary from Department of Environment & Forest and the Island level is under the control of Deputy Collector/SDO’s concerned. The patrolling/task force consists of Range Forest Officer, Police, Revenue authorities and panchayat Executive officer in each island. The Final Bye law under Solid Waste Management Rule, 2016 empowered both panchayat raj and administration to impose penalty who contravene the bye law under the rule. Provision is also made to impose user fees to the stakeholder in the Bye Law. The Island Level Monitoring Committee periodically conducts patrolling and submits monthly reports to the Nodal Department.

Compliance of Bio Medical Waste Management Rules 2016

23. All the Health Care Facilities (HCF) are directly control of UTL Administration. Total Bed strength in Lakshadweep islands is 250. Details of the HCFs in Lakshadweep is as follows:

Name of the Island/Block	No. of HCFs				
	Sub Centre	Primary Health Centre	Community Health Centre	Sub District Hospital	District Hospital
Agatti	2	1	0	1	0
Amini	2	0	1	0	0
Androth	2	0	1	0	0
Bitra	1	0	0	0	0
Chetlath	1	1	0	0	0
Kadmath	1	0	1	0	0
Kalpeni	1	1	0	0	0
Kavaratti	2	0	0	0	1
Kiltan	1	1	0	0	0
Minicoy	2	0	0	1	0
Total	15	4	3	2	1
Total Bed Strength	NIL	40 (10x4)	90 (30x3)	70 (50 Agatti + 20 Minicoy)	50

24. For better and professional approach in the management of Bio Medical Wastes in the Lakshadweep islands, the Department of Medical Health Services a meeting was conducted to evolve a detailed proposal for implementation of the BMW Management Rules, 2016 in association with IMAGE (Project of IMA-Kerala for the scientific handling and management of bio medical waste). The UTL Administration requested IMAGE to prepare Detailed Project Report for Bio Medical Waste Management. As per the BMW Rule, 2016 an Advisory Committee was constituted under the Chairmanship of Secretary Health Services, UTL vide office order dated. 28.06.2017 is **Annexed- R5.**

25. **Biomedical Waste Management Action Plan for Lakshadweep**-The Department of Health Services has prepared the Management Action Plan under Bio- Medical Waste Management Rule, 2016 and submitted to the Central Pollution Control Board vide letter dated. 18.04.2019 is **Annexed as R6.**

Awareness and Capacity Building Programmes

26. The department of Environment & Forest have conducted capacity building for 374 Sanitation workers (Panchayat Labourers) for the proper collection,

segregation, transportation and incineration of waste during the year 2014-15. Funds are allocated and conducting Wildlife exposure tours regularly once in a year to school children/ NGO's /SHG's to mainland to see and understand different waste management/wildlife areas from the remote locality. Recently the department selected Swachh Ambassadors from all the schools for the awareness creation and popularisation under plastic waste in each island. The capacity building to Swachh Ambassador's will be conducted in the ongoing vacation at schools in islands. The department also conducting different awareness generation programme in connection with Swachh Bharat mission, Swachh Sarvekshan, World Environment Day, Wildlife week etc. in all islands. The major awareness programs were organised during the Swachhata-hi-seva fortnightly campaigns during 16th September, 2017 to 2nd October, 2017 and 17th September, 2018 to 2nd October, 2018 in all the islands by involving people from all walks of life under the theme **Reduce, Reuse and Recycle plastic**. Further as part of IEC campaign the following activities are undertaken:-

- a) **Shramadhan Activities under Swachh Lakshadweep Abhiyan:** The Union Territory Administration regularly conducting Shramadhan Activities once in six months with the involvement of all Government officials, schools, NGO's and other stakeholders and continuing since 2014 without break. This has helped the administration to keep all the available land to keep clean and neat all over the years.
- b) **Cleaning of Government office premises in first Saturday of every month:** The UTL conducting cleaning shramadhan with the participation of government officials in first Saturday of every month since 2014 onwards. The voluntary work help the UTL to achieve 100 % sanitation and Hygiene in government offices along with depicting cleaning messages to all stakeholders in islands.
- c) **Educational Institutional Cleaning under Swachh Lakshadweep Abhiyan:** The UTL regularly conducting educational institutional

cleaning on 1st Friday of every month in all school premises since 2014 onwards. School teachers, students and non-teaching staff are the participants in the shramadhan. It helps to develop a habit of cleaning and it's important is growing year by year. The more participation of local people in shramadhan activities can be taken as positive sign in this direction.

d) Activities under Eco Clubs under Swachh Lakshadweep Abhiyan:

The department of Environment & Forest established eco club units in all schools in islands under Swachh Lakshadweep Abhiyan during the year 2014 and conducting awareness creation, plantation and community based capacity building through students under Swachh Bharat initiatives. The prolonged interaction and capacity building help to aware the public on the importance of cleaning to maintain health and hygiene in large.

Future Plans:

27. The UTL decided to make “Plastic Free Lakshadweep” during the financial year 2019-20 by providing alternate to locals through subsidy, technology interventions and strict imposition of rules and regulation in force. The non-availability of separate department with expertise in integrated waste management rule is the major constraint of the Administration. In addition non-availability of appropriate technology in island condition, transportation of machineries from mainland to island, non-availability of competent Supplier/Tenderer for the work etc. are the major hurdles to implements the integrated waste management in true spirit. The diaper, cement bags and tube lights are shown to be increasing quantity and appropriate technology and action plan is under way for effective management of the waste.

SI No	Future Plans	Time line
1	Set up modern incinerators in all the islands	Before 31 st Dec 2019
2	Integrated solid waste management program-household waste collection of Biodegradable and kitchen waste- pilot project to be implemented in Kavaratti.	Before 31 st Oct 2019
3	Establishment of Sewage treatment plant at various	31 st March 2020

	Islands	
3	Procurement of smart vehicles for collection of solid waste	Before 31 st Dec 2019
4	Transportation of non biodegradable resource materials for recycling to Swacha Recovery Center, Kochi.	Continuous process
5	Procurement of composting machines for Kavaratti Island	31 st March 2020
6	Implementation of Biomedical Waste Management Action Plan in Lakshadweep.	Before 31 st December, 2019.
7	Implementation of Single Use plastic free Lakshadweep	Before 31 st Dec 2019
8	Engagement of 455 contractual Safai Karamcharies, Safai Assessors and Safai Supervisors	Recruitment in process to be completed before 30 th June, 2019.

Status of functioning of Committees constituted by NGT order:

28. With respect to the Order of Hon'ble National Green Tribunal dated 16.01.2019, a State Level Committee was formed and copy of the same is already annexed herewith as **Annexure R7**. First meeting of State Level Committee was held at Ernakulum, Kerala on 04.03.2019 discussed the matter in details and copy of the minutes of the same already annexed herewith as **Annexure-R8**.