

असाधारण
EXTRAORDINARY

Daman 12th September, 2018, 21 Bhadra 1940 (Saka)

सं. : 12
No.

सरकारी राजपत्र
OFFICIAL GAZETTE



भारत सरकार
Government of India

संघ प्रदेश दमण एवं दीव प्रशासन

U.T. ADMINISTRATION OF DAMAN & DIU

प्राधिकरण द्वारा प्रकाशित
PUBLISHED BY AUTHORITY

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Office of the Deputy Secretary,
Department of Urban Development,
Daman.

Dated : 12th September, 2018.

NOTIFICATION

The administrator of U.T. of Daman & Diu is pleased to notify "Daman and Diu Waste Management and Sanitation Policy" under rule 11(1) of solid waste management rules 2016 notified by ministry of environment forest and climate change new delhi.

By order and in the name of the
Administrator of Daman & Diu

Sd/-
(Vaibhav Rikhari)
Deputy Secretary Urban Development
U. T. of Daman & Diu

1. ABBREVIATIONS

UDA	Urban Development Authority
BSUP	Basic Services to Urban Poor
CAA	Constitutional Amendment Act
C&D	Construction and Demolition
CBO	Community Based Organization
CEPT	Centre for Environment Planning and Technology University
CPCB	Central Pollution Control Board
CPHEEO	Central Public Health and Environmental Engineering Organization
CSP	City Sanitation Plan
CSR	Corporate Social Responsibility
CSTF	City Sanitation Task Force
CT	Community Toilets
DEWATS	Decentralized Wastewater Treatment Systems
DP	Development Plan
DPR	Detailed Project Report
ESI	Environmental Sanitation Institute
EWS	Economically Weaker Sections
FC	Finance Commission
GoI	Government of India
PCB	Pollution Control Board
IDSMT	Integrated Development of Small and Medium Towns
IEC	Information Education and Communication
IFFCO	Indian Farmers Fertilizer Co-operative Limited
IHHL	Individual Household Latrines
ILCS	Integrated Low Cost Sanitation Scheme
IT	Information Technology
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
KPI	Key Performance Indicators
M&E	Monitoring and Evaluation
MGSM	Mahatma Gandhi Swachhata Mission
MIS	Management Information Systems
MLD	Million Litres per Day

Daman & Diu waste management and sanitation policy 2018

MoEF	Ministry of Environment and Forests
MoUD	Ministry of Urban Development
MSW	Municipal Solid Waste
NARC	National Advisory and Review Committee
NBA	Nirmal Bharat Abhiyaan
NGO	Non-Governmental Organization
NULM	National Urban Livelihood Mission
NUSP	National Urban Sanitation Policy
O&M	Operation and Maintenance
OD	Open Defecation
ODF	Open Defecation Free
OSS	On-site Sanitation System
PAS	Performance Assessment Systems
PGRS	Public Grievance Redressal System
PPP	Public Private Partnership
PT	Public Toilets
SBM	Swachh Bharat Mission
SDG	Sustainable Development Goals
SEWA	Self Employed Women's Association
SHG	Self Help Groups
SJMMSVY	Swarnim Jayanti Mukhya Mantri Shehri Vikas Yojana
SLAB	State Level Advisory Body
SLB	Service Level Benchmark
SLNA	State Level Nodal Agency
SMUS	State Mission for SBM
SOP	Standard Operating Procedure
STP	Sewage Treatment Plant
SULM	State Urban Livelihood Mission
SWD	Storm Water Drainage
TP	Town Planning Scheme
UIDSSMT	Urban Infrastructure Development Scheme for Small and Medium Towns
UIG	Urban Infrastructure and Governance
ULB	Urban Local Body

EXTRAORDINARY No. : 12

DATED : 12TH SEPTEMBER, 2018.

Daman & Diu waste management and sanitation policy 2018

UNICEF	United Nations Children's Fund
W&S	Water and Sanitation
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

2. Preface

The Sustainable Development Goals that build upon the Millennium Development Goals have laid down 17 Sustainable Development Goals (SDG) and 169 targets by the year 2030. Universal access to clean water and sanitation is one of these goals and aims to ensure universal access to safe and affordable drinking water by 2030 by investing in adequate infrastructure, provision of sanitation facilities and encourage hygiene at every level.

The Union Territory of Daman & Diu has drafted "Daman and Diu Waste Management and Sanitation Policy" as per the frame work of National Urban Sanitation Policy and Solid Waste Management Rules, 2016. The policy document defines the goals and the guiding principles on which the policy is based and the strategies that need to be followed by the urban and rural local bodies for achieving each goal of the policy.

Suggestions received from different agencies like Municipalities, Panchayats, Pollution Control Committee, Industry/hotel associations and Non Government Organizations were incorporated in the policy document. The policy is evolved after consultation with these stakeholders, therefore safeguards that the views of all find place in the document.

3. Introduction

The United Nations launched the Millennium Development Goals (MDGs) in 2000. The MDGs had 8 development goals and it enjoins upon the signatory nations to achieve 17 goals to transform the world. One of the 17 goals is to ensure access to water and Sanitation for all by 2030. This targeted mission supported by a world organization has put sanitation and water access in the limelight.

Inadequate sanitation means much more than just inconvenience. It costs lives, dignity and productivity. In India, approximately 400,000 to 500,000 children below five years of age die due to diarrhea annually (UNICEF, n.d.). India accounts for 90 percent of the total population in South East Asia who defecate in the open and 59 percent of the total world population that defecates in the open (UNICEF, 2014). In urban India, nearly 12 percent or 95 lakh households do not have access to toilet facilities and hence defecate in the open (Census 2011). The situation is better than rural India where 11 crore households (67.3 percent) defecate in the open. The consequences of open defecation are grave leading to child deaths, contamination of water sources, continuation of manual scavenging and aggravating conditions of poverty. Water Aid (2007) in a study found out that every one dollar on sanitation saves at least nine dollars in health, education and economic development. Hence investing in the improvement of sanitation facilities and access to the same has a multiplier effect on a number of sectors including health, education, safety and ultimately economy of the nation.

As per the Constitution, 'water' and 'sanitation' are classified as state subjects. 'Water' is included in Entry 17 under the List II i.e. the State List of Seventh Schedule. 'Sanitation' is a subject matter included in Entry 6 of the State List as established through Article 246 of Constitution of India.

The Ministry of Environment and Forests (MoEF), GoI enacted the Municipal Solid Waste (Management and Handling) Rules in 2000 that prescribed duties of the State for solid waste management. The Ministry of Urban Development (MoUD), GoI launched the **National Urban Sanitation Policy (NUSP)** in 2008, with an aim of transforming India into a community driven, totally sanitized, healthy and livable cities and towns. **It is also regarded as one of the first and concrete steps towards a holistic development of sanitary conditions in our cities.**

NUSP recognizes that sanitation is a state subject with respect to providing policy direction and funds for large capital investments, whereas the ULBs would be responsible for ensuring efficient delivery systems. NUSP provides guidelines for preparation of state sanitation strategies as well as for city sanitation plans.

Daman & Diu waste management and sanitation policy 2018

The following components have been suggested to be included in state sanitation strategies:

- Clear assignment of institutional responsibilities at state and city levels.
- Setting standards for environment, health, sanitation processes, service delivery, etc.
- States will devolve funding to ULBs, set tariffs, devise targets for subsidies to poor households, and emphasize introduction of user charges for financial sustainability.
- States will launch awards for best performing cities
- To reach the un-served and urban poor, states will resolve tenure, space and affordability constraints. Provision of basic sanitation will be delinked from land tenure. At least 20% of the funds under the sanitation sector will be used on the urban poor. States may consider cross subsidizing the urban poor in collection of O & M charges.
- States to issue guidelines to support cities in community and participatory approach to community sanitation, rational planning.
- States to make explicit directions with regards to the final accountability of ULBs in service delivery, and accountability of other parastatals, as well as NGOs, CBOs, etc. working in sanitation sector to be accountable to the ULBs.
- Identify agencies that will train state-level, ULB personnel and orient elected representatives. This is also in line with the fact that ULBs will have to develop capacity based on GoI and State government schemes.

The latest policy intervention in the urban sanitation has come with the launch of the **Swachh Bharat Mission (SBM)** in 2014. The Swachh Bharat Mission in urban and rural areas is focused on building individual toilets, community toilets and solid waste management and on public awareness.

The stated objectives of the Swachh Bharat Mission (SBM) Urban are:

- Elimination of open defecation
- Eradication of manual scavenging
- Modern and Scientific Municipal Solid Waste Management
- To effect behavioral change regarding healthy sanitation practices
- Generate awareness about sanitation and its linkage with public health
- Capacity Augmentation for ULBs and panchayats
- To create an enabling environment for private sector participation in Capex (capital expenditure) and Opex (operation and maintenance)

Daman & Diu waste management and sanitation policy 2018

The Union Territory of Daman and Diu comprises of two districts namely Daman and Diu. Both Districts are situated on western coast of India at a distance of about 700 kms. Daman is the Head Quarter of UT of Daman and Diu which is located on main land near southern portion of Gujarat State. Diu is an island near Una in Gujarat State. The total geographical are of Daman and Diu is 112 sq. km where more than 2,50,000 people resides.

Daman district is a coastal district situated about 178 km north of Mumbai and is surrounded by Valsad District of Gujarat State in North, East and South. Its length from the extreme north to south measures 11 kms and width from east to west, measures 8 kms. The altitude is 12 meters above the sea level. Daman Ganga River flowing from Nasik passes through middle of Daman District dividing it into two parts named Moti Daman and Nani Daman.

Diu District is an island which is joined with Una District of Gujarat State by two bridges over a sea creek. Its length from the extreme north and south, measures 4.6 kms and width from east to west measures 13.8 kms. The altitude is 6 meters above sea level. The topography is generally plain and the hillocks attain maximum height of 30 meters.

The Union Territory of Daman and Diu is a tourist destination and an industrial hub because of which there is a significant migrant and floating population.

Urban area of UT of Daman and Diu consists of two municipal councils named Daman Municipal Council and Diu Municipal Council having 15 and 13 wards respectively. Similarly, the rural areas consist of 11 village panchayats in Daman and 4 in Diu.

About Swachh Bharat Mission in UT of Daman & Diu

Government of India launched the Swachh Bharat Mission (SBM) with a vision to realize the dream of Mahatma Gandhi that all cities, towns and villages should become clean, have fully functional liquid management system leading to improved health. The people living in cities, towns and villages should get clean living environment.

Ministry of Urban Development and Ministry of Drinking Water and Sanitation are the implementing agencies of the Swachh Bharat Mission (SBM) in urban and rural India. SBM emanates from the vision of the Government for ensuring hygiene, waste management, and sanitation across the country and aims for a Clean India under a collaborative framework of multiple stakeholders. As one of the key mission objectives is to develop modern and scientific solid waste (SW) practices, the ministries intend to support various states and cities in undertaking such projects through providing financial assistance and capacity building support.

Daman & Diu waste management and sanitation policy 2018

UT of Daman and Diu is working enthusiastically to realize the dream of Mahatma Gandhi. In both urban and rural areas SBM is being implemented with due diligence.

As per census 2011, there are 89,929 households in U.T. of Daman n Diu. The waste management activities are to be carried out in ULBs and panchayats in adherence with the provisions of the Municipal Solid Waste (Management and Handling) Rules, 2016 ("MSW Rules") as amended from time to time.

Approximately 105 Tons of solid waste is generated in UT of Daman and Diu on daily basis. This waste consists of both biodegradable waste and non-biodegradable waste. It is a responsibility of respective ULBs and panchayats to collect, segregate, process and properly dispose this waste in a scientific manner.

Need for the Daman & Diu waste management and Sanitation Policy

In order to achieve the goals of SBM and for effective implementation of Solid Waste Management Rules in the territory, there is a need to have a Solid Waste Management and Sanitation policy for Daman and Diu. The policy shall serve as a guiding document to urban/rural local bodies and line departments to prepare and implement their city sanitation plans, service level improvement plans, and achieve the goals under the SBM.

Defining 'Sanitation'

The World Health Organization defines sanitation which generally '*refers to the provision of facilities and services for the safe disposal of human urine and faeces*'. It includes '*maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal*'.

The Ministry of Urban Development (MoUD), GoI in the National Urban Sanitation Policy(2008) defines sanitation as '*the safe management of human excreta, including its safe confinement, treatment, disposal and associated hygiene-related practices*'.

The UT of Daman & Diu adopts a wider definition of Sanitation as " **the safe management and disposal of human excreta (urine and faeces) and solid waste generated in all areas including industrial areas within jurisdiction of urban and rural local bodies. Focused attention shall be given for the safe management at each stage viz. containment, collection, transportation, treatment, disposal and reuse at each stage of the value chains to generate revenue from the waste**"

Daman & Diu waste management and sanitation policy 2018

Applicability of the policy

The policy is applicable to the area under the jurisdiction of statutory urban local bodies (ULBs) and village panchayats in the U.T of Daman & Diu and covers the following sectors.

- ✓ Toilets
- ✓ Solid Waste
- ✓ Liquid waste
- ✓ Storm Water

This policy shall acknowledge and ensure the duties of functionaries of urban and rural local bodies. Within the territory and ULB, this policy has to be adopted by various departments like education, health, tourism, housing, town and country planning and urban development department for compliance.

Vision

The Union Territory of Daman and Diu endeavors “to make its urban local bodies and village panchayats open defecation free and zero waste by producing wealth out of waste, in a sustainable manner with a special focus on integration of waste pickers, rag pickers, and scrap dealers in the cycle of Solid Waste Management”.

Guiding Principles

Daman and Diu Waste Management and Sanitation policy is based on the following guiding principles that are grounded in recognition of achieving *safe sanitation across the value chain*, ascertaining *environmental and financial sustainability, transparency and inclusivity*.

1. **Improvements across the value chain of sanitation facilities are crucial to achieve all goals to the Fullest:** Focusing only on the provision of toilet facilities is not adequate, waste must be first captured and stored to avoid any contact with people or contamination of the environment, it must be extracted, transported, treated and disposed safely and potentially be reused. Similarly, in solid waste management, ensuring efficient waste collection is not adequate, solid waste must be transported, treated, disposed safely and potentially be reused.
2. **All infrastructure, systems and policies designed should be to accommodate the needs of all stakeholders:** Gender specific needs to be imbibed in every stage of designing especially in designing of toilets, locating sanitation facilities, creating communication and

Daman & Diu waste management and sanitation policy 2018

awareness strategies, monitoring mechanisms, occupational involvement in solid waste management, etc. Apart from women, needs of differently-abled and children also needs to be considered.

3. **All efforts will be designed in an environmentally and financially sustainable manner:** For ensuring financial sustainability, the life cycle approach that includes considerations of capital expenditure and operations expenditure will be embedded in all strategies.
4. **Selection of appropriate technologies, systems and processes** will be based on population size and geographical location to ensure that these do not adversely affect the local environment.
5. **Participatory Approach:** ULBs and panchayats should involve all stakeholders at all levels, in the decision-making and implementation process.
6. **Open Access to information:** All information with respect to sanitation will be made available by ULBs and Village Panchayats on public domain for citizens.
7. **Knowledge sharing:** It is important to learn from each other and opportunities for sharing of knowledge between stakeholders will be encouraged and promoted.
8. **Sanitation as livelihood means:** A large number of people depend for their livelihoods on the sanitation sector. This policy acknowledges the work of such people and believes in giving dignity to such people. However, at the same time the policy believes that certain manual jobs, violating human rights need to be abolished.

Convergence with Other Policies

The provisions of this Policy are aligned with the provisions made under:

- i. Daman & Diu Municipalities (Amendment) Regulation, 2018
- ii. The Goa, Daman and Diu Town and Country Planning Act 1974
- iii. Daman Municipal Council Solid Waste Management and Handling Byelaws, 2018
- iv. Diu Municipal Council Solid Waste Management and Handling Byelaws, 2018
- v. Building and Other Construction Workers Act, 1996
- vi. National Urban Sanitation Policy, 2006
- vii. Hazardous and other wastes (Management and Transboundary Movement) Rules, 2016
- viii. The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013
- ix. CPHEEO Guidelines, 2013
- x. National Policy on Faecal Sludge and Septage Management (FSSM), 2017

Daman & Diu waste management and sanitation policy 2018

- xi. Swachh Bharat Urban and rural Guidelines, 2014
- xii. Guidelines for 'Open Defecation Free Towns' under the Mahatma
- xiii. Gandhi Swachhata Mission, 2015
- xiv. Solid Waste Management Rules, 2016
- xv. Construction and Demolition Waste Management Rules, 2016
- xvi. Plastic Waste Management and Handling Rules, 2016
- xvii. Bio-medical Waste Management Rules, 2016
- xviii. E-waste (Management) Rules, 2016
- xix. Batteries (Management and Handling) Rules, 2001

Any amendments or revisions in the above Acts and Policies shall reflect in the Daman and Diu Waste Management and Sanitation Policy too.

4. Sanitation Goals

In order to realize the vision statement, the following nine goals have been laid down. Each of these goals highlights an aspect to be achieved in the urban and rural sanitation sector and lays down strategies and guidelines for urban and rural local bodies to follow:

Goal 1: All residents of UT of Daman and Diu shall have access to safe, hygienic, affordable and user-friendly toilets, backed with a system that provides safe storage, conveyance and disposal to ensure that no one defecates in the open.

Goal 2: All waste water generated in the Local Bodies shall be treated as per norms for safe disposal.

Goal 3: Union Territory of Daman and Diu shall become 'zero waste territory'

Goal 4: Manual scavenging shall be completely eradicated from the Union Territory of Daman and Diu.

Goal 5: All Local Bodies shall have 100 percent coverage of storm water drainage system.

Goal 6: All Local Bodies shall have data (spatial and non-spatial) related to all water supply and sanitation services and should make it available on public domain through a robust management information systems (MIS).

Goal 7: All Local Bodies shall implement targeted awareness campaigns on linkages between sanitation, environment and health.

Goal 8: All water bodies of UT of Daman and Diu shall be free of solid and liquid waste

Goal 9: All Local Bodies shall designate land in the development plan/ local area plan for sanitation related infrastructure facilities.

Goal 1: All Residents of UT of Daman and Diu shall have access to safe, hygienic, affordable and user-friendly toilets, backed with a system that ensures safe storage, conveyance and disposal to ensure that no one defecates in the open.

Daman and Diu Waste Management policy aims at achieving open defecation free ULBs and villages by giving access to and use of safe and hygienic sanitation facilities to all urban and rural dwellers. It promotes the access to households with safe sanitation facilities, including proper disposal arrangements.

Accordingly, the sub goals for maintaining an open defecation free Union Territory of Daman and Diu are as follows:

SubGoals

- i. ULBs and Village Panchayats shall maintain 100 percent coverage through provision of individual/public/community toilets.
- ii. ULBs and Village panchayats shall have well maintained public toilets at all public places including bus stand, market, commercial areas and other important places.
- iii. ULBs and Village Panchayats shall provide adequate and well-maintained toilets at construction sites (wherever permanent toilets are not possible mobile/ temporary toilets may be used)
- iv. Adequate and well-maintained toilets shall be made available in all government buildings.

Current Situation

The target for constructing individual toilets set by Swachh Bharat Mission (Urban) and Swachh Bharat Mission (Rural) for UT of Daman and Diu was 675 and 3003 respectively. Union Territory has already achieved 100 percent physical target and as a result Union Territory of Daman and Diu has already been declared an ODF territory. Although 20% of the toilets are insanitary, that is, they are not connected to the sewerage system or a safe on-site disposal system.

Strategies

ULBs and Village Panchayats should adhere and follow the strategies to achieve the above stated goal.

- a. **Delinking provision of sanitation facilities and land tenure:** The process of construction of toilets shall be in no way linked to the land tenure where the toilet is to be provided. Having a toilet is one of the most basic right of every individual.
- b. **Preference to individual toilets:** As far as possible, the urban local bodies and village panchayats shall strive to provide individual toilets to households that currently do not have access. Only in special cases where there are constraints of space availability, community/common toilets will be provided. Community toilets will be located within the vicinity of the settlement. These can be provided for both urban and rural households residing in slum-like areas, authorized/ un-authorized colonies and urban villages and who either do not have an individual toilet or have an insanitary toilet. The locations of the community/common toilets must be such that it is accessible to the users throughout the year. The size and the number of seats of the toilet block should be adequate keeping the member

Daman & Diu waste management and sanitation policy 2018

of individuals in the community.

- c. ***Provision of adequate public toilets:*** UT of Daman and Diu is a territory that attracts tourists from all over the country and abroad. Therefore, ULBs/Village Panchayats shall ensure adequate public toilets in all public places that attract floating population including but not limited to bus stands, market, commercial places, beaches, gardens, play grounds, exhibition grounds, chowks, markets, transit nodes, streets, highways with appropriate gender considerations (number of seats, design and operations).
- d. ***Provision of Temporary toilets at construction sites, special events and for homeless:*** ULBs and Village Panchayats shall ensure that there is adequate number of temporary toilets at all construction sites of the ULBs/ Village Panchayats, other government organization, private or non-government organization. The ULBs/ Village Panchayats shall monitor provision of such toilets as part of the building plan permission process.
- e. All ***temporary accommodation*** (such as night shelters) for migrants and the homeless shall have adequate provision for toilets either on the premises or have access to a public toilet nearby.
- f. ***Revival of dysfunctional community and public toilets:*** ULBs and Village Panchayats shall refurbish existing dilapidated and dysfunctional public toilets and construct new ones wherever required. ULBs/village panchayats shall conduct a primary survey (and periodically update it) on the number of dysfunctional public toilets within its jurisdiction before approving new constructions.
- g. ***Focus on O&M of public/community toilets:*** ULBs and Village Panchayats shall ensure well maintained community and public toilets and shall have an O&M strategy at the outset while planning new facilities or up gradation of existing facilities by engaging private contractors/ NGOs for the same. ULBs/Village Panchayats shall develop a robust framework for daily monitoring of O&M of these facilities by including the public grievance redressal system to enable citizens to lodge complaints.
- h. ***Making O&M of public toilets self-sustainable:*** ULBs and Village Panchayats will try to monetize operation and maintenance of public toilets so that it can become self-sustainable by levying charges for advertisement, pay and use etc.
- i. ***Use of technology:*** ULBs and Village Panchayats shall ensure that all the public toilets are located on google toilet locator for the convenience of tourists and floating population. A mobile application shall be developed to make it more convenient and user friendly.
- j. ***Conversion of existing insanitary to sanitary toilets:*** ULBs and Village Panchayats should conduct a survey to identify such insanitary toilets having no safe disposable system and convert them into appropriate safe disposal systems through an on-site or a sewerage system.

Daman & Diu waste management and sanitation policy 2018

k. Community Engagement: ULBs and Village Panchayats shall ensure meaningful community engagement at various stages of the decision making, implementation and monitoring. The women SHGs operating in the under NRLM could be consulted for meaningful engagement of the community.

l. Skill development: Availability of adequately skilled human resources such as contractors, masons, plumbers for maintaining ODF in ULBs and villages is a big barrier and shall try to provide these skills under Rashtriya Kaushal Vikas Yojana. Entrepreneurship development programme with focus on financial assistance to individuals/ groups of urban and rural poor for setting up gainful self- employment ventures shall be organized on a regular basis.

m. Selection of appropriate technology for on-site systems: In areas that are not yet connected to a centralized sewer network, several criteria such as the geographical location, ground water levels, space availability, cultural habits and availability of skilled human resources shall decide an appropriate on- site system. These could range from a twin-pit system to septic tank connected to a soak pit or new sanitation technologies such as bio-digesters etc. ULBs and village panchayats shall consider these factors and consult with the beneficiaries to arrive at the most appropriate and cost effective technology solution. ULBs and village panchayats shall display models/ pictures for the beneficiaries to view and choose from.

n. Financing options: ULBs and Village Panchayats may use ODF funds from Government of India and UT of Daman and Diu for construction of IHHL, community and public toilets. In case of any gap ULBs and village panchayats shall look for alternative funding sources like Corporate Social Responsibility (CSR) funds, Public Private Partnerships, Social Impact Investors and micro-finance institutions to augment their financial capacities for O&M and sustain their IEC activities.

o. Roles and responsibilities: Toilet construction is the key responsibility of ULBs and village panchayats. Public Works Department may also help in creating sewerage infrastructure. For ensuring safe faecal sludge management systems both ULBs and village panchayats shall either provide an on-call service and/or empanel private agencies engaged in faecal sludge management. ULBs and Village Panchayats must ensure that all the safety and hygiene SOPs are being followed in this regard.

p. Maintaining ODF Status of the territory: The ULBs and Village Panchayats shall strive at maintaining ODF status of territory by providing access to safe and hygienic sanitation facilities arrangements (including safe disposal systems) for all urban and rural dwellers.

Though the territory has already achieved ODF status, ULBs and Village Panchayats shall ensure access of 100% dwellers to toilets through provision of individual/ public/ community toilets in a sustainable way and ensure 100 percent coverage in terms of safe disposal system.

q. Monitoring and sustaining of ODF status: To sustain an ODF status, a strong monitoring strategy shall be designed by both urban and rural areas. All public, community and government building toilets shall be brought under daily monitoring routine. Both ULBs and village panchayats shall ensure compliance of all buildings with the building regulations including construction of adequate sanitary toilets with proper sewerage connection or suitable on-site sanitation system. ULBs and Village Panchayats will put in place a monitoring system to track new settlements without toilet facilities, if any.

ULBs typically conduct property tax surveys every four to five years and they shall use this survey as an opportunity to identify buildings without individual toilets. Village panchayat will also conduct a survey like this for timely monitoring. Also, building plan permission shall be given only if all the new constructions that are approved have toilets.

Goal 2: All waste water generated in the Local Bodies shall be treated as per CPHEEO/MoEF & CC norms for safe disposal

All the ULBs and Village Panchayats shall ensure that all waste water generated in the city is safely collected, conveyed, treated, disposed and potentially reused in accordance to the guiding principle of making improvements across the value chain. This applies to both centralized sewer systems as well as on-site systems.

Existing situation

In UT of Daman and Diu sewerage system is yet to be made operational. In Daman more than 4000 households shall be connected to sewerage system once a sewerage treatment plant of 4.21 *MLD* becomes operational. Diu has also started with its sewerage project and all the households shall be connected to the sewerage system. In other areas decentralized septage management shall be operationalized.

Strategy

- a. **Collect Baseline data:** All ULBs and Village Panchayats shall conduct a survey to ascertain the disposal mechanism of all existing toilets that are not connected to sewerage systems viz.
 - i. Toilets not connected to any disposal system.

Daman & Diu waste management and sanitation policy 2018

- ii. Single pit system
 - iii. Twin pit system
 - iv. Septic tank connected to a soak pit
 - v. Septic tank with a discharge in open/closed storm water drains/ waterbodies and
 - vi. Other on-site sanitation system like DEWATS, bio toilets,etc.
- b. ULBs shall provide a sewer connection to all its residents. Panchayats should provide a site specific on site sanitation system.
- c. ULBs shall ensure that the sewerage collected through this network must be treated and disposed as per the CPHEEO norms and Environment (Protection) Amendment Rules,2017.
- d. Village Panchayats shall ensure that on-site sanitation systems as per CPHEEO/MoEF & CC norms have to be put in place in areas not served by sewerage network.
- e. ULBs and Village Panchayats shall ensure conversion of insanitary disposal of waste-water to a sanitary system on a priority basis.ULBs and panchayats shall evaluate the existing septic tank designs for compliance to standards and ensure that the house owners convert the insanitary septic tanks to sanitary system.
- f. ULBs and Village Panchayats shall provide fecal sludge management services including suitable sludge treatment, wherever needed. ULBs andVillagePanchayats shall either have their own fecal management system or empanel private agencies providing fecal sludge management services. ULBs and Village Panchayats shall also ensure that all on-site systems are cleaned/ emptied once in two or three years as per CPHEEO norms. ULBs and Village Panchayats shall also ensure that private agencies treat and dispose the sludge as per CPHEEO norms.
- g. ULBs and Village Panchayats shall reuse their treated domestic waste water as per CPHEEO norms.
- h. *Waste water from small Industrial units:* ULBs and Village Panchayats with the help of Pollution Control Committee (PCC) shall ensure that industrial units do not discharge any industrial effluents or any other wastewater to the public sewer before necessary treatment as prescribed and permitted byPCC.
- i. *Waste water from large commercial and residential properties:* ULBs and Village Panchayats shall prescribe minimum size of commercial and residential properties that required mandatorily construct an on-site packaged treatment unit to treat liquid waste with necessary approvals. ULBs and Village Panchayats shall encourage to prescribe minimum size of commercial or residential properties that need to provide dual plumbing system for

Daman & Diu waste management and sanitation policy 2018

grey water to be re-used for flushing/ landscaping and other non- potable uses.

- j. **Roles and Responsibility:** ULBs, Village Panchayats and PWD shall work in close coordination and lay sewerage infrastructure in the territory of Daman and Diu.
- k. **Selection of appropriate technology:** The ULBs and Village Panchayats shall choose a cost-effective technology that is appropriate for the quantum of wastewater generated, and does not necessitate requirement of skilled human resources or energy.
- l. **Financing options:** The ULBs and village Panchayats shall strive towards achieving 100 percent cost recovery. The ULBs and village panchayats shall follow the advisory on tariff structure for urban water supply and sewerage services issued by the MoUD. Both ULBs and Village Panchayats shall seek funding under existing schemes, missions and programmes of GoI and UT of Daman and Diu.
- m. **Information, Education and Communication:** The ULBs and Village Panchayats shall design appropriate IEC materials and campaigns to promote adoption of proper design and construction of on- site systems, safe methods of desludging and transportation. The ULBs and Village Panchayats may involve external agencies like NGOs, CBOs, and technical agencies to help in accomplishment of this goal.
- n. **Public Grievance Redressal:** A dedicated helpline shall be setup by ULBs and Village Panchayats to provide support to the residents on all aspects of sanitation including handling services requests for faecal sludge management.
- o. **Record Keeping:** ULBs and Village Panchayats shall issue standard formats to the empaneled agencies for maintaining the records of fecal sludge management. This shall include, but not restricted to, the name of the customer, area details, date for desludging, date of completion, type of septic tank, quantity desludged, user charge collected, next date of desludging and name of STP/Sludge Treatment Plant in which sludge is transferred along with necessary stamps and signatures. This data shall be maintained by the ULB and village panchayats through a computerized MIS platform.
- p. **Capacity Building:** The ULBs and village panchayats shall collaborate with educational and technical agencies for training of their own staff as well as service providers. The contractors, masons and suppliers of septic tanks and pits shall be educated about the new technologies, designs and methods of construction. The operators of collection and transportation, shall be trained on use of standard operating procedures (SOP). The employees should be encouraged to undertake professional courses and SBM's e- courses to enhance the knowledge, skills and capabilities.

Goal 3: Union Territory of Daman and Diu shall become Zero Waste Territory

The solid waste management is the responsibility of ULBs and Village Panchayats. The Solid Waste Management Rules, 2016, Plastic Waste Management Rules, 2016 and Construction and Demolition (C&D) Waste Rules, 2016 issued by the Ministry of Environment, Forests and Climate Change, Government of India, under the Environment (Protection) Act, 1986, define the procedures for ULBs and Village Panchayats to undertake solid waste, plastic waste and construction and demolition waste management and process to be followed for collection, segregation, storage, transportation, processing and disposal of solid waste and construction and demolition waste generated within their jurisdiction. The ULBs and Village Panchayats shall comply the directions and oblige the duties as stated in SWM Rules, 2016.

SubGoals

- i. *100% door to door collection and segregation of solid waste*
- ii. *Further segregation of dry waste into 12 categories of wastes which can be recycled/reused*
- iii. *100% solid waste treatment and/ or processing*
 - o *100% centralized and decentralized processing of bio degradable waste at ward/ zone/panchayat level*
 - o *100% recycling and/ or processing of non-bio-degradable waste*

Existing Situation

The UT of Daman and Diu generates about 105 ton of solid waste per day of which more than 50% of it is wet waste. Currently 100% door to door collection is operational in urban areas of UT of Daman and Diu. Both the ULBs have also started segregation of waste at source in some of the wards. More than 80% of bulk generators viz. Hoteliers, restaurants are segregating and processing their wet waste and a compost farm is established in Daman. Apart from this about 60% of dry waste is also being reused/recycled through an informal network of scrap dealers and rag pickers. UT of Daman and Diu does not have any scientific landfill site.

Strategy

The primary strategy for improving management of solid waste is to imbibe the principle of **3R : Reduce – Reuse – Recycle** by improving the quality of services across the value-chain. ULBs and Village Panchayats need to introduce appropriate and time-tested strategies that encourage reducing waste generation at source, reuse and recovery of waste.

- a. **Ensuring 100% segregation of solid waste at source:** All waste generators shall segregate and safely store the waste generated by them in three separate streams, namely bio-degradable, nonbio-degradable and domestic hazardous waste and hand over the segregated waste to municipal workers, waste collectors and authorized rag pickers.
- b. **Ensuring 100% door to door collection of solid waste:** All ULBs and Village Panchayats shall cover all waste generators through door to door collection. The strategy mandates that no waste shall be thrown on the streets, footpaths, open spaces, drains or water bodies. The waste is to be stored at the source of waste generation in bins/bags. ULBs and Village Panchayats shall collect waste directly from the generators in their respective jurisdiction and transport it to the processing site. ULBs and Village Panchayat shall facilitate formation of Self Help Groups, provide identity cards and encourage integration in SWM including door to door collection of waste.
- c. **Evolving collection mechanisms for different generators:** ULBs and Village Panchayats shall develop micro-plans for efficient collection of waste from all types of generators within their jurisdictions. ULBs and Village Panchayats shall define separate collection mechanism for covering large housing complexes apartments & housing societies, individual houses and slum like areas. Larger vehicles like Auto tippers/ compactors are more suited for collection in areas like housing societies / housing complexes while pushcarts/ tricycles are more appropriate to cover slum like areas and congested localities. Suitable arrangements shall be made by the ULB and Village Panchayat as per the area requirements. The ULBs and Village Panchayats shall ensure that adequate waste collection and storage facilities are available on street-sides, near market places, commercial areas, and other such places of attraction.
- d. **Separate collection & management of Waste from bulk generators:** All hotels, bars and restaurants shall ensure decentralized or centralized processing of solid waste by themselves. All resident welfare and market associations, gated colonies and institutions shall ensure segregation of waste at source, facilitate collection of segregated waste and handover the recyclable material to either the authorized waste pickers/waste collectors or authorized recyclers. The bio- degradable waste from all bulk waste generators including

Daman & Diu waste management and sanitation policy 2018

vegetable, fruit, flower, meat, poultry and fish market shall be collected on day to day basis, processed, treated and disposed-of through composting or bio-methanation within the premises as far as possible. In case of event organizers holding large scale events of more than 100 persons, the ULB and Village Panchayat shall be informed about the event at least three working days in advance. Such persons or organizers shall ensure segregation at source and hand over it to waste collectors or agencies specified by the ULB and Village Panchayat. All street vendors shall keep suitable containers for storage of waste generated during their course of activity such as food waste, disposable plates, cups, cans, leftover food, vegetables, fruits, etc. and shall deposit the waste at waste storage depot, container or vehicle as notified by the ULB/ Village Panchayats.

- e. Promote the 3R principle of 'Reduce-Reuse-Recycle' for municipal solid waste:* Wherever possible, ULBs and Village Panchayats shall establish ward/zone level processing units thereby minimizing the cost of transportation of waste to a centralized location for processing or disposal. All ULBs and Village Panchayats shall set up composting units and the compost so produced may be sold or used in gardens/parks and open green spaces. The ULBs and Village Panchayat shall focus on reducing the amount of waste that reaches the land-fill sites.
- f. Mainstreaming informal waste pickers and waste dealers (Kabadi wallas) into the city's SWM system:* ULBs and Village Panchayats shall ensure mainstreaming of waste pickers by formally engaging them in door to door collection and waste sorting and/or ensure that outsourced service providers also employ waste pickers and provide them safe work environment. This will help in poverty alleviation and generating sustained livelihood for workers.
- g. Land reservation in statutory plans (including development plans, TP schemes):* Provision of solid waste management utilities/ facilities such as secondary collection bins, sorting centres, centralized/ decentralised processing units/C&D waste management, etc. shall be made in all statutory plans. The building bye laws of both ULBs and Development Control Rules of Village Panchayats must include all large complexes to provide for a separate space for placing of such collection bins and ensure that this space is accessible for collection of waste by workers and waste collectors of ULBs and Village Panchayats.
- h. Tax and User charges:* Both ULBs have prescribed a user fee for door to door collection of solid waste. Village Panchayat shall also evolve such mechanism. ULBs/ Village Panchayats may provide tax/ user charges discounts to residential societies which undertake local waste processing. ULBs should also implement polluters pay principle for bulk generators and fines and penalties are already notified by both ULBs. Village

Daman & Diu waste management and sanitation policy 2018

Panchayats shall also adopt similar approach for levying a fee on bulk generators.

- i. Management of E-waste:* As per the E-waste (Management) Rules, 2016 the role of the ULBs and Village Panchayats in management of E-waste is limited to the extent of orphan products collection and channelization to authorized dismantler or recycler. The ULBs and Village Panchayatsshall create awareness among the manufacturer, producer, bulk consumer, collection centres, dealers, e-retailer, refurbisher, dismantler and recycler involved in manufacture, sale, transfer, purchase, collection, storage and processing of e-waste or electrical and electronic equipment.
- j. Management of Bio-medical waste:* The ULBs and Village Panchayats shall ensure that bio-medical waste does not get mixed with solid waste. It will be the responsibility of institutions producing bio medical waste to dispose it off safely.
- k. Street Sweeping:* The ULBs and Village Panchayats shall ensure that all the roads are regularly swept and the waste collected from sweeping is transported and segregated at designated sites. The ULBs and panchayats shall put in place the street sweeping regime and the roads in commercial areas may be swept on daily basis and collect the waste separately. ULBs and Village Panchayats shall assess feasibility of deploying mechanical sweepers and undertaking night cleaning in arterial and main roads where there is heavy traffic and which are crowded during the daytime. The ULBs and Village Panchayats shall ensure that their employees or persons appointed by the agency providing the outsourced service are provided with proper equipment viz. hand carts and safety gear such as gum boots, hand gloves, masks, etc. The ULBs and Village Panchayats shall direct street sweepers to not to burn tree leaves collected from street sweeping and store them separately and send it to composting unit.
- l. Provision of litter bins:* The ULBs and Village Panchayats shall ensure that litter bins are provided at crowded public places for citizens to get rid of waste conveniently. These litter bins can only be used by the general public, commuters and is strictly not to be used by the commercial shops, residences on the street or by the street sweeping employees and persons to dump the waste collected.
- m. IEC Campaigns:* The ULBs and Village Panchayats shall undertake extensive IEC with all citizens to educate them on 3Rs and zero waste principles and inform them about their role to achieve this goal. This includes segregation at source, use of dustbins, treating waste at source by composting at household/ residential society level,etc. and dissemination of the best practices in Solid Waste Management.
- n. Storm water drain cleaning:* The ULBs and Village Panchayats shall ensure that storm water drainage is cleaned regularly to avoid any stagnation of water, which causes many

health issues to citizen residing nearby.

- o. Cleaning of shrubs/grass:* Growth of grasses, weeds and other vegetation are very common in urban and rural areas due to heavy rainfall. The ULBs and Village Panchayats shall ensure that grass cutting activities will be taken up from time to time to maintain the roads, streets and open spaces neat and clean.
- p. Selection of Technologies:* The ULBs and Village Panchayats shall consider the social, environmental and financial aspects while choosing a technology for processing of wastes. The waste generated in the territory is not huge and therefore composting may be a better option for processing of bio degradable waste. Also convergence approach shall be adopted in composting. Departments like forest and agriculture shall utilize the compost so generated in their plantation programmes.
- q. Landfills:* To achieve “zero waste” territory status, ideally no waste should be disposed in the landfills. However, in some case, inert waste which may not have any further use may be disposed at a local or regional pooled landfill site. The ULBs and Village panchayats shall undertake construction, operations and maintenance of sanitary landfill on their own or any other agency as per SWM Rules 2016. The ULBs and village panchayats shall not dispose any other waste, apart from inert waste, in the land fill or any other site in the adjoining villages or sub-urban areas. Non-recyclable waste having calorific value of 1,500 kcl or more shall not be disposed of on landfills and shall only be utilized for generating energy either or through refuse derived fuel or by giving away as feed stock for preparing refuse derived fuel. Wastes with high calorific value shall be used for co-processing in cement and thermal power plants. In absence of the potential for biomining and bioremediation of dump sites it shall be scientifically capped to prevent the damage to the environment.
- r. Financial Sustainability:* The ULBs and Village Panchayats shall opt for financially sustainable implementation mechanisms while engaging private sector for service delivery. The ULBs and Village Panchayats shall develop a robust framework for monitoring the performance of the private contractors and adopt performance based payment mechanism. The ULBs and Village Panchayats with funding support from the SBM and through state programs shall establish infrastructure and procure equipment for collection, segregation and treatment of waste. The ULBs and Village Panchayats shall make adequate budgetary provision for capital investment as well as O&M of SWM services.
- s. Capacity Building:* The ULBs and Village Panchayats shall organize capacity building and also outreach programmes for all stakeholders including residents on SWM from time to time. The ULBs and Village Panchayats shall encourage their staff and employees to

Daman & Diu waste management and sanitation policy 2018

undergo SBM's e-courses. Trainings shall also be given to waste pickers and other agencies working on Solid Waste Disposal and Management.

- t. Plastic waste:* The ULBs and Village Panchayats shall develop infrastructure for segregation, collection, storage transportation, processing and disposal of plastic waste either on its own or by engaging external agencies and shall encourage the reuse/recycling of plastic waste.

Goal 4: Eradication of Manual Scavenging from the UT of Daman and Diu

It has been observed that despite having appropriate legal framework, progress towards elimination of manual scavenging has shown limited success. The ULBs and Village Panchayats shall take adequate measures to eradicate insanitary latrines & manual scavenging through provision of adequate and sanitary toilets.

Strategy

It is essential that all the strategies of achieving the Goal 1: 'Open Defecation Free Cities and Villages' are implemented by all the ULBs and Village Panchayats. Those strategies are a pre-requisite towards eradication of manual scavenging in ULBs & Village Panchayats and take appropriate preventive measures to prevent its occurrence. The ULBs and Village Panchayats shall abide with the following strategies to address the potential areas where manual scavenging may occur:

a. Addressing manual cleaning of open defecation spots

- Daman and Diu have already been declared ODF but in future if any OD spot is found, it must be ensured that all the OD spots are cleaned through mechanized means only and shall conform to provision of the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013'.

The ULBs and Village Panchayats shall have a mechanism to regularly monitor OD spots to ensure that there is no re-lapse of the practice and that people use toilets.

- The ULBs and Village Panchayats should continue to campaign use of toilets by all members of all the households.
- All the construction sites shall be monitored to ensure that adequate temporary facilities are provided with in accordance with the provisions of the Building and Other Construction Workers Act, 1996'.

Daman & Diu waste management and sanitation policy 2018

- The ULBs and Village Panchayats must ensure adequacy and accessibility of public toilets.

b. Manual cleaning of insanitary latrines

- As mandated under goal 1, all insanitary latrines must be converted to sanitary latrines.

c. Manual cleaning of sewer lines and manholes

- All the ULBs and Village Panchayats must adhere to the CPHEEO norms for safety measures before and while cleaning man- holes and sewerlines.
- It is obligatory as the part of for the employers that employees engaged for cleaning septic tanks or man- holes and sewer-lines to provide adequate safety equipment and protective gear & insure their safety.

d. Manual cleaning of septictanks

- The ULBs and Village Panchayats shall conduct survey and maintain a record of properties not connected to underground drainage system and rely on OSS for disposal of waste water. These records must contain details on the type of OSS, its capacity and frequency of cleaning. The ULBs and village panchayats through their building plan permission processes shall also check compliance of OSS with design standards in case of new buildings.
- The ULBs and Village Panchayats shall conduct an awareness campaign with the property occupants to educate them about the technology and its limitations, and requirements of maintenance as per CPHEEO norms.
- The ULBs and Village Panchayats must empanel all the private contractors providing septic tank cleaning services, in the territory. This list shall be maintained to monitor and enforce schedules of cleaning septic tanks, according to CPHEEO norms.
- The ULBs and Village Panchayats shall inventories the equipment available & ensure that requisite equipment is available to provide adequate services when required.

e. Manual cleaning of faecal matter from the floor in publictoilets

- The ULBs and Village Panchayats must ensure that the members of cubicles inside public toilets are adequate, accessible and usable to eliminate chances of defecating on the floor or elsewhere in public toilets. Also, appropriate signages within the toilets must be displayed to educate users about the correct method of using toilets and about keeping the facility clean.

Daman & Diu waste management and sanitation policy 2018

- The ULBs and Village Panchayats shall conduct regular training programmes for all cleaners and supervisors of public conveniences run by the ULBs and Village Panchayats and/or operated by private contractors.

Goal 5: All Local Bodies shall revive their natural drains and ensure 100 percent coverage of storm water drainage system, natural and constructed.

Storm water drains are important as they channelize the surface run to lakes, tanks and rivers. Storm water drains are necessary for augmenting the ground water and also act as flood control devices.

Existing scenario

Daman and Diu are connected with three rivers and Arabian sea, which are sufficient to carry all the rain water of the entire area. Most of the streets and roads are provided with the covered rain water drain. Regular cleaning of these drains shall be carried out to ensure that area is not flooded.

Strategy

- a. 100% coverage of storm water drainage by constructing storm water drains as well as through natural drains.
- b. The ULBs and Village Panchayats shall ensure that wastewater is not disposed off in the storm water drains.
- c. The ULBs and Village Panchayats shall mandate private and government properties (beyond certain size as prescribed by the ULB) to harvest to install rainwater harvesting structures to use rainwater.
- d. The ULBs and Village Panchayats shall replenish ground water reservoirs as well as lakes and ponds with rainwater collected through the drains. All ULBs and Village Panchayats shall monitor the quality of water at discharge points and treat the water prior to discharge, if required.
- e. Existing ponds and lakes shall be deepened so as to increase storage and improve the ground water level. The ULBs and Village Panchayats shall remove the encroachment from the water body if any and keep the water bodies, nallas and natural drains free from any nuisance.

Daman & Diu waste management and sanitation policy 2018

- f. The storm water drains carry rainwater during the monsoons only and for the rest of the year, they are prone to get choked by solid wastes. The ULBs and Village Panchayats shall ensure regular and periodic cleaning to prevent any blockage.
- g. Natural drains need to be marked on the Development Plan of the ULBs and Village Panchayats for the prevention and to thus ensure that there is no encroachment.
- h. All storm water drains shall be designed and maintained as per CPHEEO norms.
- i. The ULBs and Village Panchayats shall seek funding under existing schemes, missions and programmes of GoI.
- j. The ULBs and Village Panchayats shall prepare storm water drainage network to inter connect ponds, lakes or other water bodies so as to facilitate sufficient water for all the season.
- k. The ULBs and Village Panchayats shall prepare a masterplan for management of water bodies by addressing the cause of water logging area with proper drain network to overcome the problem.

Goal 6: All Local Bodies shall have data (spatial and non-spatial) related to all water supply and sanitation services and shall make it available on public domain through a robust management information systems (MIS) and GIS mapping

The SBM requires all the ULBs and Village Panchayats to improve sanitation primarily through provision of adequate infrastructure, and conversion of insanitary toilets to sanitary. Baseline data on the households devoid of toilets is needed to effectively address the issue and to keep pace with rapid urbanization. It is imperative that ULBs and Village Panchayats to have robust IT enabled or conventional Information Systems that provide information on ground scenario with essential data reflecting the current status to make informed decisions.

Also, the database must include both spatial and non-spatial information which will help the ULBs and Village Panchayats to tide over existing situations and also plan effectively to keep pace with the growth of urban and rural areas.

- a. The information systems so developed must at least cover water supply, waste water disposal, and solid waste management and citizen feedback must be integral parts of this information system. There shall be provision for ULBs registration, reporting and redressal of citizens' complaints.
- b. All the maps of the ULBs and villages under all panchayats shall be digitized and inventories should be updated to current situation. Additionally, property tax information

Daman & Diu waste management and sanitation policy 2018

shall also be integrated with the database. The data shall be used to plan for provision of services for projected growth of urban areas and villages.

- c. Financial systems shall also be realigned with double entry accrual based accounting systems and ensure uniformity across ULBs and Village Panchayats.
- d. Investments required for institution of such systems shall be borne by the Administration based on appraisal of plans prepared by the ULBs and Village Panchayats.

Goal 7: All Local Bodies should generate targeted awareness about the linkages between sanitation, environment and health

The recent 'swachhata Survekshan' of cities in India reveal that even the best performers are way below the basic requirements of sanitation. Implementation of only a "mission-mode" campaign might not be sufficient, to alter the behavior of people to get the desired outcome on health and sanitation. Real behavior changes among people require constant motivation at the community's level, which in turn creates proper demand for sanitation and realization about the impact of unhealthy and insanitary practices on the communities. Now when UT has achieved ODF status, it is important to ensure that there is no slippage and that re-occurrence of OD. Hence, there is an imminent need to implement a campaign that focuses on creating demand and covers all WASH aspects (including hand washing and menstrual hygiene management) and make the communities realize the importance of hygiene and sanitation.

Strategy

- a. The ULBs and Village Panchayats shall prepare their IEC plans and use specific mediums for successful implementation. The ULBs and Village Panchayats shall design a targeted awareness strategy depending on the characteristics of their population.
- b. For a ULB or Village Panchayat to achieve and sustain safe sanitation, it is important that all ULBs and Village Panchayats shall join hands with other stakeholders to propagate the message of SBM. The ULBs and Village Panchayats shall rope in local NGOs and/or community organizations/ local print media and radio stations to launch a UT-wide sensitization campaign. Involve all outreach agents such as sanitary workers, sanitary inspectors, health officials including ASHA, medical officers and teachers to take the message of safe sanitation to all communities. Initiate targeted campaigns for students of colleges, schools and anganwadis.

- c. The ULBs and Village Panchayats shall first target the students in their own schools, the ones managed by them. For ensuring behavior change in a sustainable way, the ULBs and Village Panchayats shall explore various options for regular inspections, monitoring and redressal, by sanitary inspectors, community representatives and / or through doctors.

Goal 8: All water bodies within urban and rural local bodies shall be free of solid and liquid waste

The domestic and industrial wastewater generated in urban & village areas and the industrial estates shall be treated and disposed of properly. The water bodies in urban areas and villages shall be free of any liquid waste. Proper treatment and disposal of the solid waste shall also be ensured to keep the water bodies clean. This goal will be achieved only when the ULBs and Village Panchayats treat their solid and liquid waste effectively and efficiently.

Strategy

- a. The ULBs and village panchayats shall prevent dumping of any waste in the banks of nallas, water bodies, natural drains and storm water drainages.
- b. The ULBs and village Panchayats shall apply polluters pay principle and levy fine on persons/agencies polluting the water bodies

Goal 9: All Local Bodies shall designate land in the development plan/ local area plan for sanitation infrastructure facilities.

Strategy

The ULBs and village panchayats must mandatorily specify & keep provision for reserve spaces in the development plan for development and sanitation related infrastructure and facilities including attrition of activities of infrastructure or additional. These reservations shall accommodate provisions like public toilets, sorting sheds for solid waste, and places for domestic hazardous waste.

5. Institutional Arrangements

Involvement of all stake holders and various organizations at both government and non-government and their coordinated efforts are paramount to achieve the various tenets of this waste management and sanitation policy of Daman & Diu.

There shall be a pool of empaneled agencies to local bodies to prepare local and village specific plans on SWM and help in implementation of the same. The technical support in areas such as planning, designing, implementation may be provided to ULBs and village Panchayats to achieve desired outcome on SWM. The village panchayats shall develop their capabilities and enhance their capacities to deal with issues related to SWM.

The Swachh Bharat Mission, along with its Technical Support Unit shall play an integral role in coordinating with different organizations, bringing out SOPs and best practices providing handholding support to ULBs and Village Panchayats and help in monitoring the performance.

The role of the respective local bodies shall be to deliver these services and work in close coordination with various agencies and government institutes besides. Engagement with local NGOs, CBOs especially women self-help groups, academic institutions to achieve the goals, objectives and missions of SWMs sanitation.

5.1 Activities of stakeholders within the government

Though sanitation is primarily the responsibility of the urban and rural local bodies of Daman & Diu, the success and achievement of goals is possible only by integrating and synchronizing the efforts of various other departments of the administration of Daman and Diu.

Urban Development Department: All the housing schemes approved and undertaken by the department shall include waste management infrastructure in their plan.

Education department: The School Management Committee (SMC) has the overall responsibility of approving and monitoring the construction of toilets in the schools. The regular monitoring of the maintenance of toilet infrastructure in school under the urban local bodies and Zilla Panchayats shall be done by the municipalities and Zilla Panchayats. The students shall be provided with knowledge on the importance of sanitation and its link with improved health and economic conditions. Students shall be exposed to sanitation initiatives at an earlier age through

Daman & Diu waste management and sanitation policy 2018

formation of Bal Swachhata sainiks in Schools. It will help in nurturing children as message multipliers of good sanitation practices.

Women and Child Development Department and Social Welfare Department: These departments shall prioritise women empowerment for sanitation and ensure equity and accessibility to the facilities. The Integrated Child Development Services (ICDS) Scheme operated by the WCD Department shall use anganwadis as a platform for inculcating good hygiene practices amongst children and mothers.

Tourism Department: Tourism department shall give highest priority to sanitation as a huge floating population visit both Daman & Diu and add to the solid waste and liquid waste load of the territory. At important places signages and instructions shall be kept on the expected behavior of visitors and importance of cleanliness including Dos and Don'ts. Temporary/ permanent toilets shall be installed during festivals at tourist places.

Health and Family Welfare Department: The department shall work closely with the Education department. Regular health camps and check-ups and provision of primary, secondary and tertiary health care services shall be provided to all families. Medical doctors shall provide orientation training and spread the messages on good hygiene practices, sanitation and government initiatives in SBM & SWM. The department shall monitor the hygiene and sanitary conditions in both urban and rural areas and take steps to improve the same.

Town & Country Planning Department: The department shall be responsible for drafting the guidelines, policies and standards for urban, rural and regional planning. Sanitation infrastructure and management shall be an integral part of all the planning process.

Revenue Department: The revenue department shall be responsible for allocating and accommodating the land for waste management in both urban and rural areas.

6. Financing Solid Waste management and Sanitation

Urban sanitation improvements have been largely funded through GoI and UT plan schemes. Though higher levels of government continue to provide a significant portion of funds for the required capital investments, funding the operation and maintenance of sanitation infrastructure mostly falls under the purview of the Local Bodies. All funds from various central schemes and UT Plan schemes/ programs /missions and CSR contributions shall be properly used for creation, operation and maintenance of infrastructure including activities related to SWM.

The aggregation of investment anticipated under the Local Bodies Sanitation Plans shall indicate financing requirements for implementing total sanitation in the urban and rural areas of Daman & Diu.

Local bodies shall have to make significant efforts to improve their cost recoveries and tax collection efficiencies. This will not only aid sanitation improvements, but also improve the revenue base of the local bodies. Infusing funds from private sector through CSR into waste management service and also the Public Private Partnership mode may be explored.

7. Monitoring Solid Waste Management and Sanitation

Regular monitoring of performance of local bodies in the realm of sanitation shall be integral and vital for achieving and sustaining the improvements. Along with mandated monitoring systems as per the SBM requirements, each local body shall institute a monitoring system integrated within their existing systems. Monitoring protocol with assigned responsibilities at each level has to be devised and implemented. Swachhata Survekshan/sanitation ratings /urban sanitation index/livability index shall be extended to cover all the Local Bodies in the territory and put in public domain. Participation of primary stakeholders i.e. users of services shall be ensured.

Applications for citizens to lodge their sanitation-related complaints shall also be developed and launched to reach all sections including telephone-based applications. ULBs and Village Panchayats shall explore the possibilities to develop and install a solid waste monitoring and management system using radio frequency identification (RFID) associated with mobile communication like GSM and geographical information system (GIS) for tracking vehicle position, to monitor the solid waste collection process and management the overall collection process. This will lead to timely collection of solid waste and also overcome the disadvantages

such as usage of minimum route, low fuel cost, clean environment and available vehicle. The technologies shall be leveraged to ensure proper and perfect solid waste collection process monitoring and management for green environment.

8. WayForward

Poor waste management can affect not just the aesthetic beauty of the environment, but can severely impact the resource base, its ecological functions and thus, the health of the environment. With the rise in population, both residential and floating, and the consequent increase in waste generation, the problem will only get compounded in the years to come. This policy thus calls for effective waste management practices to be followed at all levels across Daman and Diu. There is a need to relook at the policy in near future and revise the same in tune with the changing times and situations. There are plenty of opportunities for ULBs, Village Panchayats and Corporates in Waste Management from centralized to decentralized, from investment to CSR, from empathy to engagement, from collection to treatment. Working alongside communities, local bodies and achieving compliance is the best road forward for the territory to achieve zero waste status.

9. Glossary of terms

Agency/Agent/Contractor/Service Provider means any entity/person appointed or authorized by the Municipal council to act on behalf of the Municipality, for discharge of duties or functions such as collection of waste, collection of charges/taxes/rates, segregation, treatment, disposal etc.

Community means a group of interacting people, living in some proximity (i.e., in space, time or relationship) It refers to a social unit larger than a household that shares common values and has social cohesion.

Community toilets mean a shared facility provided by and for a group of residents or an entire settlement. Community toilet blocks are used primarily in low-income and/or informal settlements/slums where space and/ or land are constraints in providing a household toilet.

These are for more or less fixed user group. Operation and maintenance of community toilet block rests with the ULB or its appointed contractor. (*Source: Guidelines for 'Open Defecation Free Gujarat, Swachh Bharat Mission*)

Grey water/ Sullage: Waste water generated in kitchen, bathroom and laundry. (*Chapter 3, Report of Sub Group of Ministers on Swachh Bharat Abhiyan, Niti Ayog, 2015*)

Individual toilet means a toilet which is available within the premises of a household. Operation and maintenance of individual toilet rests with the beneficiary. (*Source: Guidelines for 'Open Defecation Free, Swachh Bharat Mission (Urban),*)

Industries mean small and medium size generators of waste that are within the jurisdiction of the ULB and not part of any industrial estate.

Insanitary latrine means a latrine which requires human excreta to be cleaned or otherwise handled manually, either in-situ or an open drain or pit into which the excreta is discharged or flushed out before the excreta fully decomposes in such manner as may be prescribed. (*Chapter I Section 2(i)(e) The Prohibition of employment as manual scavengers & their Rehabilitation Act 2013*)

Manual Scavenging is a 'the dehumanizing practice of manually cleaning insanitary latrines or handling human faeces or manually cleaning sewer-lines/man-holes'. (*Source: Ministry of Law and Justice, 2013*)

On-site sanitation: It is underground waste collection system which is used in the absence of piped sewer system. When the wastes are collected, treated and disposed of at the point of generation, it is

Daman & Diu waste management and sanitation policy 2018

called an on-site system like pit latrines and septic tank systems. (Source: *Manual on Sewerage and Sewage Treatment Systems Part A Engineering, CPHEEO*)

Open defecation means the practice whereby people go out in fields, bushes, forest, open bodies of water or other open spaces rather than using the toilet.

Open Defecation Free (ODF) territories are where all dwellers have access to and use safe and hygienic sanitation facilities and arrangements so that no one defecates in the open.

Public place includes any road, arch road, viaduct, lane, footway, alley or passage, highway, causeway, bridge, square alley or passage whether a thorough fare or not over which the public have a rite of passage, and such places to which the public has access such parks, garden, recreation grounds, playgrounds, beaches, water bodies, water courses, public plazas and promenades, government and municipal buildings, public hospitals, markets, slaughter houses, courts, etc ;

Public Toilet means toilets meant for floating population/ general public in places such as markets/ transit nodes/ tourist places/ office complexes and other public areas with a high number of footfalls. Operation and maintenance of public toilets rests with the ULB or its appointed contractor.

Sanitation is not just about building toilets and consists of a series of steps, which are:

1. Capture
2. Storage
3. Transportation
4. Treatment
5. Reuse or disposal

Waste must be captured and stored so that it does not come in touch with people or contaminate the local environment. In densely populated urban areas, waste must be extracted, transported, treated and disposed-off safely.

Septage: In cases where underground sewage line is absent and toilets are connected to soak pits or septic tanks, the sewage generated is called as 'septage'. (Chapter 3, *Report of Sub Group of Ministers on Swachh Bharat Abhiyan, Niti Ayog, 2015*)

Septage management: The systematic management and disposal of faecal sludge produced in septic tanks. (Source: *National Urban Sanitation Policy, 2008*)

Daman & Diu waste management and sanitation policy 2018

Septic tank: It is an underground structure made up of bricks, cement or concrete. It has 3 or more chambers separated by baffle wall. In different chambers waste as settled and degraded anaerobically and the final effluent is discharged through outlet pipe of septic tank. *(Source: Handbook on Technical options for onsite sanitation, Ministry of Drinking water and sanitation, Govt. of India, May 2012.)*

Sewage/ Blackwater: Waste water generated in the toilets contains faeces, urine and flush water. *(Chapter 3, Report of Sub Group of Ministers on Swachh Bharat Abhiyan, Niti Ayog, 2015)*

Sewerage means a system of sewers, the removal of waste materials by means of a sewer system. *(Chapter 3, Report of Sub Group of Ministers on Swachh Bharat Abhiyan, Niti Ayog, 2015)*

Storm water drainage is the process of draining the run off from streets, sidewalks, roofs, buildings, and other areas through either constructed or natural systems which function together as a system to collect, convey, channel, hold, inhibit, retain, detain, infiltrate, or divert storm water. *(Source: National Disaster Management Guidelines: Management of Urban Flooding, National Disaster Management Authority, Govt. of India, 2010)*

Community Toilet is the toilet constructed by ULB's or other agencies, used by the community, maintained by the community in such places which is in congested area, narrow streets. The purpose of this toilet is to provide toilet facilities to those citizens who have no sufficient space for constructing individual toilets in their own premises.

By order and in the name of the
Administrator of Daman & Diu

Sd/-
(Vaibhav Rikhari)
Deputy Secretary Urban Development
U.T. of Daman & Diu.