United Way Mumbai

Samarth Bharat Vyaspeeth

Mahim Reti bunder & Mahim Causeway beach

JANUARY 2025

Present Status

The growing urbanization in Mumbai, which is the economic capital of India, has had adverse effects on the sea, creeks, forests, rivers, and other forms of biodiversity. Due to the massive increase in population along the coastline and creeks of Mumbai, both of these elements have started to become polluted. Several non-biodegradable substances have primarily contributed to this water pollution. Against this backdrop, it has become crucial to responsibly use such non-biodegradable materials and ensure their proper disposal. And hence there is a priority need to collect, classify and scientifically dispose of the non-degradable materials floating on the shores of Mahim Retibandar and causeway.

Measures

UNITED WAY MUMBAI, a non-government organization which is a society registered under the Society Registration Act, 1860 and a trust registered the Maharashtra Public Trusts Act, 1950

Samarth Bharat Vyaspeeth, Samarth Bharat Vyaspeeth is section 8 company Non-Profit Organization working in field of waste management and education for under privileged street children, and SBV is engaged in the collection and disposal/recycling of plastic waste.

To prevent water pollution, both the social organizations United Way Mumbai and Samarth Bharat Vyaspeeth, have come together and formulated an action program to implement the Beach Cleanliness Mission. Under this initiative, every day, through six safai sathis, a minimum of 7 hours is dedicated to collecting non-biodegradable materials from the coastline. Afterward, these materials are sorted at the waste management center under Samarth Bharat Vyaspeeth Project Revitalisation, where they are disposed of in a scientifically appropriate manner.

Action

Mahim Retibandar and Causeway are adjacent to each other and connected, covering a total area of approximately 4 kilometers. Based on the timing of the tides, it has been observed that collection activities take place at different times of the day at both locations.

Accordingly, the collection campaign is carried out at Mahim Sandbar from 8 AM to 1 PM, and at Causeway from 2 PM to 4:30 PM. Collection is done every day of the week. During the collection process, different types of waste are gathered and sorted. Items like plastic bags, packaging plastics, cartons, glass, hard plastics, cloth, and other materials are collected. Afterward, the collected waste is sent daily to the waste management center under Samarth Bharat Vyaspeeth's Project on Revitalisation.

Process

Once the waste reaches the waste management center under Samarth Bharat Vyaspeeth project Revitalisation, it is first spread out in the designated area for sundrying. This process typically lasts for about three to four days to allow the moisture to evaporate. Every morning and afternoon, the waste is turned over to ensure that the moisture in every part of the waste is effectively removed during sundrying.

After the waste has dried, it is sorted into different categories, such as single-use plastics, multilayer plastics, hard plastics, glass, and non-recyclable waste. The single-use plastics and multilayer plastics are processed in a dust remover machine to remove any sand or other debris. The cleaned plastics are then sent to the baling machine, where they are compacted into bales and sent for recycling.

Hard plastics and glass are manually cleaned by staff using cleaning brushes to remove any attached sand, and then they are placed in separate bags and sent for recycling. Non-recyclable waste is sent to the municipal processing center for appropriate disposal.

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Safai doot Story

My name is Sunita Arjun Pawar.

I have completed my education up to the 10th grade and am 29 years old. I belong to Parbhani and I am from the Pardhi caste. I have three children, one son.

I came to Mumbai because I thought food would be readily available here; I realized that I could just eat from what I received. I said to myself that we live to eat, which is why I had come to Mumbai. But after a few days, I realized that I had other needs as well. So, I started looking for work and have been working since then.

In Parbhani, I do farming. When the season for work in Mumbai starts, we leave our village and come to Mumbai. I do different jobs like cleaning gutters, working as a matador, and land work. I have been living in Koliwada for the past twelve years.

When there is no work at hand, we go to weddings, birthdays, and other parties to wash utensils.

During Diwali and Lakshmi Puja, we sell lotus flowers. We go to Surat, where there are some ponds, and we dive into the water to pick those flowers. We sell each flower for about 50 to 60 rupees.

When it rains, all the drains and gutters get clogged. We take this opportunity to find work, cleaning the drains.

When I started working at United Bee, I felt really good since there was work close to my home, allowing me to keep an eye on my children. The work in the gutters is far away, requiring us to go down four to five feet to clean the waste, and even breathing becomes difficult.

We go to places like Santa Cruz, Bandra, and Khar Road to clean the gutters. While doing this work, we have never received full payment. We work and get paid only part of it from the contractor.

Since I started working with Samarth Bharat, I have been able to send my kids to tuition classes and save a little money for my daughters in the bank. I am very grateful to United Way and the Samarth Bharat platform.

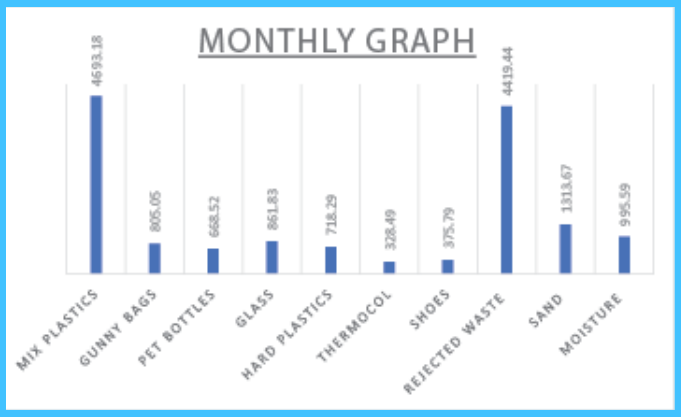
United way Mumbai & Samarth Bharat Vyaspeeth Beach cleanup drive Month of January 2025 Data

Date	Total Segregation Waste	Mix Plastics	Gunny Bags	Pet Bottles	Glass	Hard Plastics	Thermocol	Shoes	Rejected Waste	Sand	Moisture
1 January 2025	76.3										
1 January 2025	371.12										
2 January 2025	80.05										
2 January 2025	392.1										
3 January 2025	82.9										
3 January 2025	378.09										
4 January 2025	81.26										
4 January 2025	389.4										
5 January 2025	77.9										
5 January 2025	386.02										
1 January to 5 January 2025 Total	2315.14	671.39	138.9	92.6	173.63	127.3	46.3	92.6	625.08	186.21	161.13
6 January 2025	87.3										
6 January 2025	392.01										
7 January 2025	89.2										
7 January 2025	404.16										
8 January 2025	88.0										
8 January 2025	409.21										
9 January 2025	81.4										
9 January 2025	412.16										
10 January 2025	87.09										
10 January 2025	419.5										
11 January 2025	85.1										
11 January 2025	412.07										
12 January 2025	93.6										
12 January 2025	418.9										
6 January to 12 January 2025 Total	3479.74	1148.3	139.18	173.98	156.5	208.7	96.89	104.3	974.32	278.37	199.2

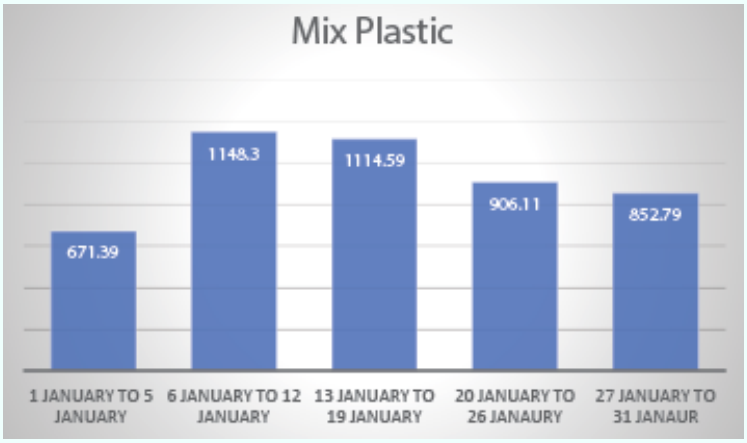
13 January 2025	95.1										
13 January 2025	422.07										
14 January 2025	88.2										
14 January 2025	426.15										
15 January 2025	93.8										
15 January 2025	421.6										
16 January 2025	95.3										
16 January 2025	419.18										
17 January 2025	91.02										
17 January 2025	426.4										
18 January 2025	98.15										
18 January 2025	405.7										
19 January 2025	96.8										
19 January 2025	416.01										
13 January to 19 January 2025 Total	3595.48	1114.59	179.7	143.8	215.7	161.79	71.9	89.8	1078.6	323.5	216.1
20 January 2025	108.2										
20 January 2025	424.15										
21 January 2025	98.04										
21 January 2025	415.7										
22 January 2025	103.05										
22 January 2025	417.9										
23 January 2025	109.01										
23 January 2025	429.07										
24 January 2025	98.14										
24 January 2025	413.8										
25 January 2025	105.16										
25 January 2025	402.3										
26 January 2025											
26 January 2025											
20 January to 26 Janaury 2025 Total	3124.52	906.11	187.47	124.9	156.2	140.6	46.8	62.49	968.6	312.4	218.95
27 January 2025	93.16										
27 January 2025	408.01										
28 January 2025	106.4										
28 Janaury 2025	412										
29 Janaury 2025	108.13										
29 January 2025	424.6										
30 Janaury 2025	112.06										
30 Janaury 2025	435.13										
31 Janaury 2025	119.4										
31 Janaury 2025	446.08										
27 January to 31 Janaury 2025 Total	2664.97	852.79	159.8	133.24	159.8	79.9	66.6	26.6	772.84	213.19	200.21
	15179.85										

Data Analysis

Monthly Graph



Mix Plastic

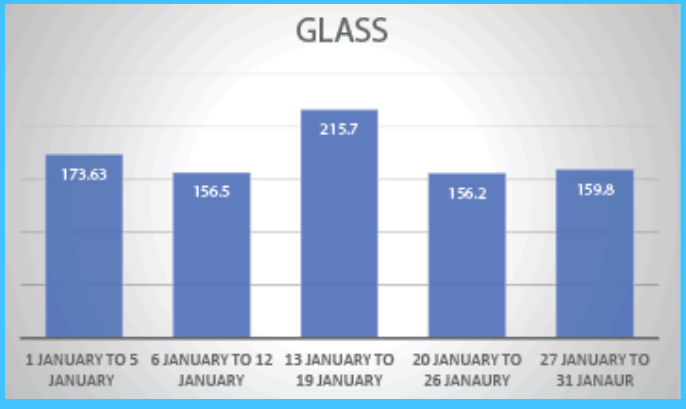


Data Analysis

Gunny Bag Collection

Pet Bottles Collection

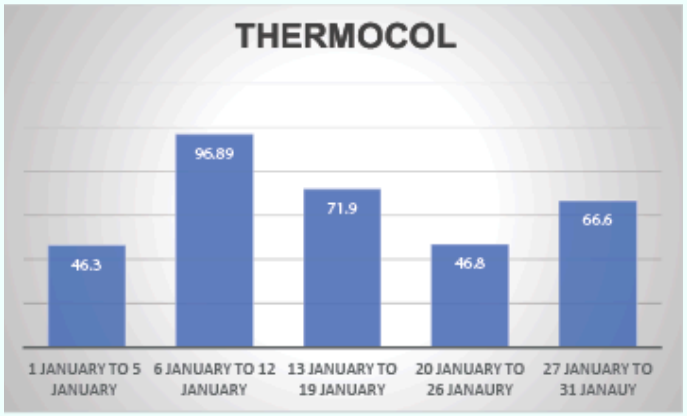
Glass



Data Analysis

Hard Plastic

Thermocol

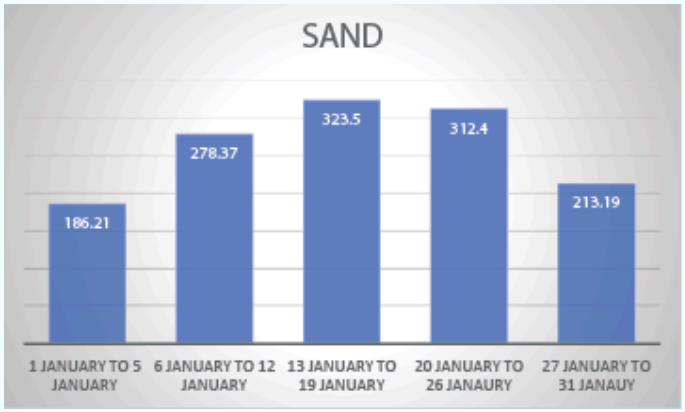


Shoes

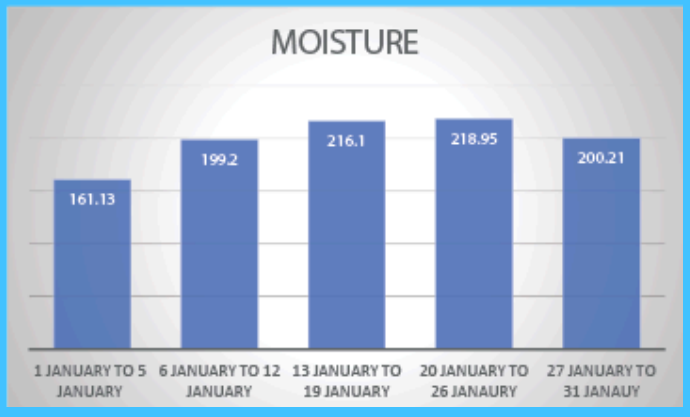
Data Analysis

Rejected Waste

Sand



Moisture



Findings

Collection Span – 1ST January 2025 to 31 January 2025
Total Working Days – 30
Total Holidays – 1
Total Working Hours - 30 X 7 = 210 Hrs.
Total waste collected –15179.85 KG
Waste collection per hour –72.28 KG
Waste collection per hour per Safai Sathis –12.04 KG
Total Mix Plastics –4693.18 KG
Total Gunny Bags – 805.05 KG
Total Pet Bottles –668.52 KG
Total Glass- 861.83 KG
Total Hard Plastics- 718.29 KG
Total Tharmocol- 328.49 KG
Total Shoes- 375.79 KG
Rejected Waste –4419.44 KG
Sand –1313.67 KG
Moisture- 995.59 KG

Percentage Analyzing

Mix Plastics – 31 %
Gunny Bags - 6.0%
Pet Bottles - 4.4%
Glass - 5.6%
Hard Plastics - 4.7%
Tharmocol – 2.1 %
Shoes – 2.4 %
Rejected Waste -29.1%
Sand - 8.65%
Moisture -6.5%

Remarks

Of the total collected waste, 48% was found to be plastic waste.

Due to the ebb tide, a large amount of sand enters the waste, and as a result, the proportion of sand in the collected waste was also significant, amounting to 8.65%.

A considerable amount of waste that cannot be recycled, such as waste thrown into the sea, creeks, and drainage systems, was found to make up nearly 44.25% of the total waste.

To reduce the sand content, measures have been implemented to shake off the sand while collecting the waste. Efforts will be made in the future to further reduce this percentage.

Among the plastic waste, nearly 60% was found to be packaging material.

Prior to the collection, this waste had been floating in the waters of the creek and sea for at least 3 to 4 months. The packaging date and expiry date found on the plastic bags indicated that these plastics had been polluting the water for around 2 to 4 months before washing up on the shore. This indicates that the plastic waste had been contributing to water pollution for a significant period of time.