

# Plastic Pollution Problems in Mogadishu, Somalia

## 1. Introduction

Plastic pollution is an increasing environmental concern in Mogadishu, the capital of Somalia. The widespread use of plastic bags, disposable food containers, water bottles, packaging materials and other single-use plastics contributes to waste accumulation in residential areas, commercial districts, markets, roadsides, drainage channels and coastal environments.

Mogadishu's coastal location along the Indian Ocean makes plastic pollution particularly important. Poorly managed plastic waste can move from streets and drainage systems into the sea, affecting marine ecosystems, fisheries, public health and the livelihoods of coastal communities.

Addressing this problem requires coordinated action involving government institutions, environmental organizations, private businesses, waste collectors, local communities, women, youth and development partners.





## **2. Major Plastic Pollution Problems in Mogadishu**

### **2.1 Accumulation of plastic waste on streets and in markets**

Plastic bags, sachets, beverage bottles, food wrappers and packaging materials are frequently discarded in public spaces when collection and disposal services are inadequate. Waste accumulation can reduce the cleanliness of neighborhoods, markets and public areas.

Main consequences:

- Degradation of the urban environment.
- Increased costs of cleaning public spaces.
- Exposure of residents and street vendors to dirty and potentially hazardous waste.
- Reduced attractiveness of public spaces and coastal areas.

### **2.2 Blockage of drainage systems and increased flood risks**

Plastic bags, packaging and other non-biodegradable waste can obstruct drainage channels and culverts. During heavy rainfall, blocked drainage infrastructure can restrict water flow and contribute to localized flooding.

This can damage homes, roads, businesses and public infrastructure, while stagnant water may create additional public-health concerns. Plastic waste is not the only cause of flooding; drainage capacity, rainfall intensity, sediment and inadequate infrastructure also contribute.

### **2.3 Marine and coastal plastic pollution**

Plastic waste carried through streets, open dumping sites and drainage channels can reach Mogadishu's beaches and nearshore waters. Littering and poorly managed waste disposal along the coast can add to this pollution.

Potential impacts include:

- Entanglement of marine animals in discarded plastic.
- Ingestion of plastic fragments by marine organisms.
- Damage to coastal habitats and beach environments.
- Risks to fisheries and seafood-related livelihoods.
- Reduced recreational and economic value of coastal areas.

### **2.4 Threats to fisheries and the blue economy**

Fisheries provide food, income and employment for coastal communities in Mogadishu. Plastic pollution can threaten these benefits by degrading fishing environments, contaminating marine habitats and creating waste-management costs for fishers and seafood businesses.

Discarded fishing gear and plastic ropes can also contribute to marine debris. Better waste collection, responsible fishing practices and community-led coastal cleanups can help protect marine resources.

## **2.5 Inadequate waste collection and recycling facilities**

Many households and businesses face challenges accessing reliable waste collection and appropriate disposal services. A 2026 study of municipal solid waste management in Mogadishu identified significant service and infrastructure challenges, including roadside dumping and limited disposal facilities.

Key challenges include:

- Insufficient waste collection bins and collection points.
- Limited sorting and recycling infrastructure.
- High transportation and waste-management costs.
- Limited access to appropriate final disposal facilities.
- Weak coordination among waste collectors, businesses and public institutions.
- Insufficient investment in recycling and waste recovery enterprises.

## **2.6 Open burning of plastic waste**

Where waste collection and disposal options are limited, plastic waste may be burned in open spaces or at informal dumping sites. Burning mixed waste can release harmful pollutants into the air, creating potential respiratory and other health risks.

Improving waste collection, preventing open dumping and expanding safe recycling options are important measures for reducing this problem.

## **2.7 Public health and sanitation risks**

Poorly managed plastic waste contributes to dirty surroundings and can create conditions that worsen sanitation problems. Plastic containers may also retain stagnant water, depending on their location and environmental conditions.

Potential risks include:

- Exposure to smoke from burning plastic.
- Injuries from sharp or contaminated waste.

- Increased mosquito breeding opportunities where standing water accumulates.
- Contamination of soil and water through mixed waste.
- Greater environmental health burdens for communities living near dumping areas.

The specific health effects in individual Mogadishu neighborhoods require local environmental and public-health assessments.

## **2.8 Limited public awareness and enforcement**

Plastic pollution cannot be addressed through cleanup activities alone. It also requires public education, effective implementation of environmental regulations, accessible waste collection services and cooperation among households, retailers, importers and waste-management businesses.

Somalia has introduced a nationwide ban on single-use plastic bags, with implementation reported from 30 June 2024. Continued plastic pollution highlights the need to strengthen enforcement, public awareness, monitoring and practical alternatives.

## **3. Evidence of Plastic Pollution in Mogadishu**





A peer-reviewed study published in 2024 examined marine litter at Liido Beach in Mogadishu. Its findings provide direct evidence of the scale of the coastal pollution problem.

Findings from the Liido Beach marine litter study

**119,873**

Total litter items recovered during the study

**89.47%**

Of recovered items were plastic

**54.12%**

Of litter attributed to local recreational and shoreline activities

**36.61%**

Of litter attributed to dumping

Source: The First Assessment of Marine Litter on Somalian Coast: The Case of Liido Beach, Mogadishu (2024). These figures relate to the study's sampled beach and collection period, not the whole city or a current annual total.

These findings indicate that reducing plastic pollution at Liido Beach requires both improved waste disposal and changes in behavior among beach visitors, nearby businesses and other waste generators.

**4. Root Causes of Plastic Pollution**

| Root cause                           | How it contributes                                                            |
|--------------------------------------|-------------------------------------------------------------------------------|
| Excessive use of single-use plastics | Generates large quantities of disposable packaging and bags.                  |
| Inadequate waste collection          | Leaves plastic waste in neighborhoods, markets and public spaces.             |
| Limited recycling infrastructure     | Reduces opportunities to recover and reuse discarded plastics.                |
| Illegal and informal dumping         | Allows waste to accumulate on land and enter coastal waters.                  |
| Weak enforcement                     | Makes it difficult to prevent prohibited products and irresponsible disposal. |
| Limited environmental awareness      | Encourages littering and inappropriate waste disposal.                        |

Financial and institutional constraints

Limit investment in equipment, personnel and waste services.

Rapid urban growth

Increases demand for waste collection and disposal services.

These factors are interconnected. For example, public awareness campaigns will have limited impact if residents lack accessible collection points or affordable waste services.

## 5. Proposed Solutions for Mogadishu



### 1. Improve household and commercial waste collection

Establish accessible collection points, improve collection schedules, provide suitable waste containers and strengthen neighborhood-level collection services.



## 2. Establish plastic recycling and recovery centers

Develop neighborhood collection hubs where plastic bottles and suitable packaging can be sorted, stored and supplied to recycling enterprises. Create employment opportunities for women and young people.



### 3. Conduct regular coastal and neighborhood cleanups

Organize cleanup campaigns at priority beaches, markets, drainage channels and public spaces, with safe handling and transport of collected waste to appropriate facilities.



#### 4. Reduce single-use plastics

Promote reusable shopping bags, refillable water containers and affordable alternatives to disposable packaging. Support compliance with applicable national restrictions on single-use plastic bags.



## 5. Strengthen environmental education

Work with schools, universities, religious institutions, community leaders, market associations and local media to promote responsible waste disposal and plastic reduction.

## 6. Strengthen municipal governance and partnerships

Improve coordination among the Benadir Regional Administration, relevant federal ministries, environmental organizations, private waste collectors and community groups. Introduce transparent monitoring and appropriate enforcement measures.

These measures are consistent with UN-Habitat's approach to integrated solid waste management, resource recovery and inclusive urban services.

## **6. Proposed Project Concept for AECBED**

Given the need for coordinated environmental action in Mogadishu, the African Environmental Conservation and Blue Economy Development (AECBED) could develop a project focused on reducing plastic pollution and protecting coastal ecosystems.

### **Mogadishu Plastic Pollution Reduction and Coastal Protection Project**

Indicative project concept for development and donor engagement

Overall objective

To reduce plastic pollution in Mogadishu through improved waste collection, plastic recovery and recycling, coastal ecosystem protection, environmental education and stronger community participation.

Proposed project components

1. Plastic waste assessment and baseline mapping in selected neighborhoods and coastal locations.
2. Community waste collection and plastic separation systems.
3. Plastic recovery and recycling enterprises that support green jobs.
4. Beach, drainage and public-space cleanup campaigns.
5. Environmental education and behavior-change campaigns.
6. Institutional coordination, policy enforcement and monitoring.

Potential implementation partners

AECBED, Benadir Regional Administration, relevant environmental authorities, local communities, private waste-management companies, universities, youth groups, women's associations and eligible development partners.

## 7. Illustrative Results Framework

The following targets are provisional planning targets, not established baseline figures. They should be confirmed after a feasibility study, baseline assessment, consultation with authorities and review of available financing.

| <b>Expected result</b>                                                   | <b>Illustrative 12-month target</b> |
|--------------------------------------------------------------------------|-------------------------------------|
| Plastic pollution baseline completed                                     | 1 assessment                        |
| Priority neighborhoods covered                                           | 5 neighborhoods                     |
| Coastal or public-space cleanup events                                   | 24 events                           |
| Plastic waste collected and delivered for verified recovery or recycling | 100 tonnes                          |
| Residents reached through awareness campaigns                            | 10,000 people                       |
| Women and youth participating in green livelihood activities             | 100 people                          |
| Community or institutional partnerships established                      | 10 partnerships                     |
| Plastic waste collection or recovery points established                  | 5 points                            |

Monitoring requirements: Record waste quantities by weight, document the final destination of collected materials, measure participation by age and gender, and assess changes in litter levels at fixed monitoring locations. Collection alone should not be counted as successful recycling unless the material reaches a verified recovery or recycling destination.

## 8. Potential Funding and Technical Support

Potential partners to approach, subject to their current funding windows and eligibility criteria, include:

- United Nations Environment Programme (UNEP) — marine litter reduction, coastal protection and environmental governance. [Official website](#)
- UN-Habitat — municipal waste management, urban services and community-level waste recovery. [Official website](#)
- Global Environment Facility (GEF) — eligible environmental and pollution-reduction initiatives. [Official website](#)
- World Bank — eligible urban infrastructure and environmental management programs. [Official website](#)

- Food and Agriculture Organization of the United Nations (FAO) — where plastic pollution interventions are linked to fisheries, aquatic food systems and sustainable livelihoods. [Official website](#)

Funding would depend on the specific program, national priorities, applicant eligibility, project design and availability of resources.

## **9. Conclusion**

Plastic pollution in Mogadishu is an environmental, public-health, urban-management and coastal conservation challenge. The documented findings from Liido Beach demonstrate the importance of reducing plastic waste at its source and improving how waste is collected, managed and recovered.

A coordinated initiative combining reliable collection services, recycling opportunities, community education, coastal cleanups and stronger environmental governance could help reduce plastic leakage into the Indian Ocean while creating green livelihood opportunities.

For AECBED, this issue offers a practical opportunity to develop a measurable, community-centered environmental conservation project aligned with urban resilience, marine ecosystem protection and sustainable blue economy development.

Recommended next step: Donate Mogadishu Plastic Pollution Reduction and Coastal Protection Project in Somalia.