



**POLICY AND GUIDELINES ON  
REDUCING MARINE LITTER IN  
UNIVERSITI MALAYSIA  
TERENGGANU**

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## **A. Executive Summary**

The presence of marine litter poses various threats to the environment, economy, health, aesthetics, and culture, leading to the degradation of marine and coastal habitats. The impacts of such litter extend to ecosystem services and the socioeconomic aspects of marine-based sectors, resulting in economic decline either directly or indirectly. Furthermore, marine litter poses potential harm to marine life, including birds, fish, turtles, and marine mammals. Universiti Malaysia Terengganu, located by the beach, plays a crucial role in advancing Goal 14: Life Below Water by actively participating in reducing marine litter through the "Take Action" initiative. Recognizing the significance of addressing marine litter concerns, there is a growing need for increased coherence, coordination, and synergies among existing mechanisms. This collaborative effort aims to enhance cooperation in effectively tackling marine litter challenges at Universiti Malaysia Terengganu and its surrounding areas. The content of this document will guide adjustments and align actions in accordance with national priorities for addressing marine litter pollution.

## **B. Background**

Marine litters encompass persistent solid materials, either manufactured or processed, that are deliberately or inadvertently introduced into the marine environment, originating from both land-based and sea-based sources, according to the United Nations Environment Programme (UNEP). Often referred to as marine debris, these materials contribute significantly to pollution in the world's oceans. Recent studies indicate that Southeast Asia (SEA) is identified as a prominent global hotspot for marine debris, contributing approximately 30% of the world's marine debris pollution (Ometyer et al., 2022). The Coastal Clean Up (CCU) initiative, focusing on marine debris education in Southeast Asia (Figure 1), underscores that Universiti Malaysia Terengganu is actively engaged in hotspot activities. These involve local communities, including students, tourists, and high school students, as highlighted in the outreach efforts (Purba et al., 2023).

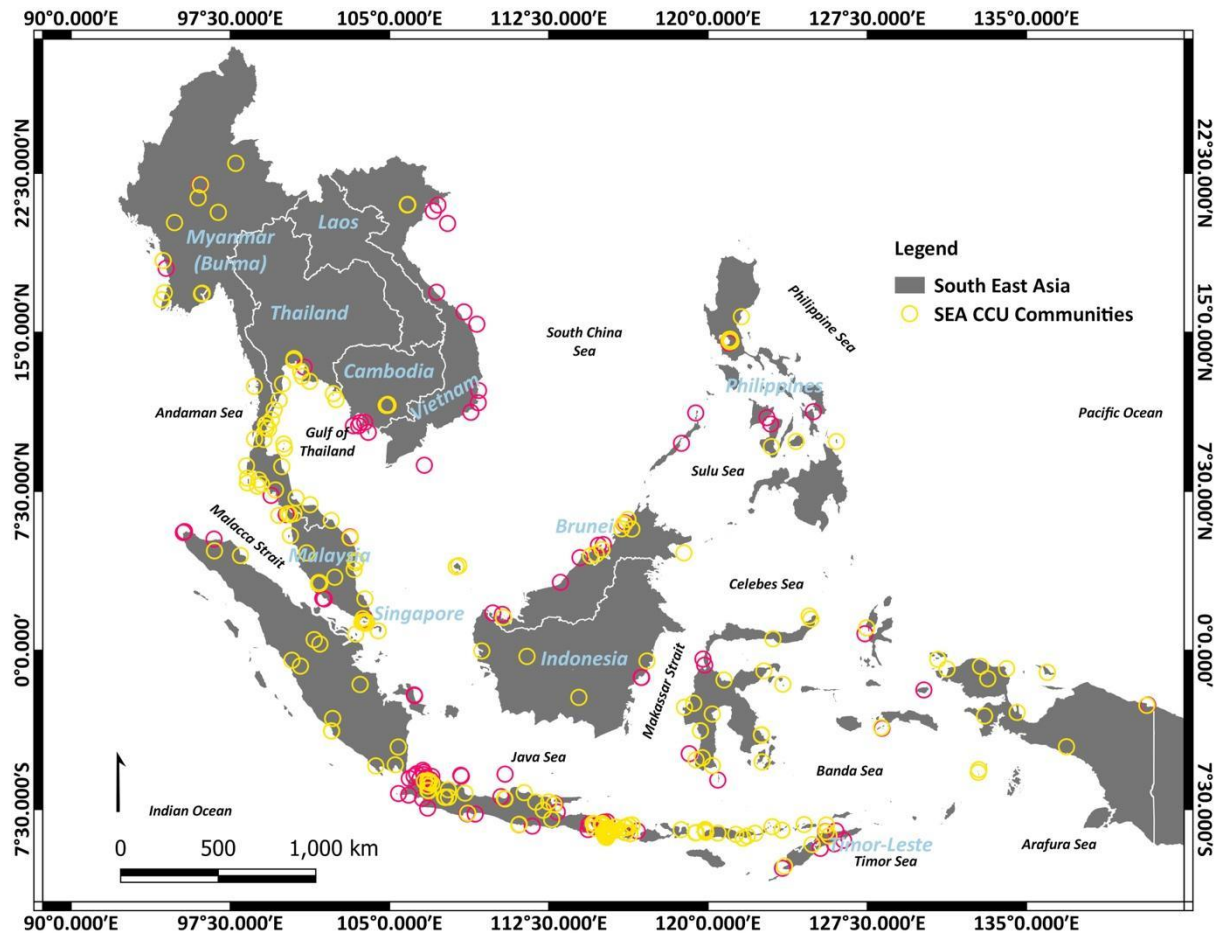


Figure 1: Hotspots of Coastal Clean Up events and marine debris communities in Southeast Asia highlighted the strategic location of Universiti Malaysia Terengganu as part of reducing marine litters (Source: Purba et al. 2023)

Marine litters in the vicinity of Universiti Malaysia Terengganu predominantly originate from land-based sources, such as beach-goers and vendors along the coastline, as well as urban areas near riverbanks, where waste management systems are struggling to keep pace. Additionally, sea-based sources pose a challenge, particularly due to the significant fisheries activities in Terengganu. Since October 2021, Universiti Malaysia Terengganu has implemented recycling programs on campus, resulting in the collection of a substantial 2,563 kilograms of recyclable materials. Despite concerted efforts through various coastal clean-up programs involving students, local agencies, and non-governmental organizations, marine litter continues to present challenges to the environment.

The Regional Action Plan on Marine Litter supports the Coordination Body on the Seas of East Asia (COBSEA) in its efforts to prevent and substantially reduce marine pollution,

with a particular focus on land-based activities, including marine litter. This aligns with the broader objective of contributing to the achievement of Sustainable Development Goal 14. Research indicates that marine litters, particularly plastics, undergo a process of breaking down into microplastics, which have been detected within the food chain. Larger plastic particles degrade into smaller sizes through weathering, ultimately producing microplastics or even nanoplastics. The ingestion of microplastics by coral reef biota can occur either directly or indirectly, as highlighted by Tan et al. in 2020. Recent studies have presented evidence of the presence of microplastics in various organisms, including fish (Ibrahim et al., 2017), bivalves (Ibrahim et al., 2016), zooplankton (Amin et al., 2020), as well as in sediment and water samples (Khalik et al., 2018; Choong et al., 2021).

The National Marine Litter Policy and Action Plan (NMLPAP) for the period 2021–2023 outline key priority areas and actions aimed at mitigating marine litter pollution in Malaysia. The overarching goals and objectives of the NMLPAP are designed to steer national efforts in addressing the issue of marine litter. In alignment with these national priorities, Universiti Malaysia Terengganu, as a federal higher institution, is resolute in its commitment to support the NMLPAP. The university seeks to achieve this by establishing a comprehensive and integrated approach, dedicated to fostering a healthy environment and ensuring sustainable livelihoods through the prevention and effective management of marine litter.

### **C. Scope**

Towards achieving the above objectives, Universiti Malaysia Terengganu will implement the following actions and activities in reducing marine litter.

**(i) Policy Adoption and Implementation**

Sharing of information, knowledge and enhancing coordination with all faculties and institutes to reduce and mitigate marine litter pollution.

**(ii) Improve Monitoring and Data Collection on Marine Litter**

Establish a marine litter monitoring programme and hotspots evaluation.

**(iii) Awareness, Outreach and Engagement**

Raise awareness at all levels of society in addressing marine plastic pollution.

## **D. Actions**

### **(i) Policy Adoption and Implementation**

- Promote policy dialogues on prevention and reduction of marine litter from land-and sea-based activities by highlighting the issue, sharing information and knowledge to students and communities.
- UMT is close cooperation with groups within campus (eg: Green Living UMT, Jawatankuasa Citra dan Kelestarian Kampus and so on) shall initiate the information, education and communication to UMT community. The campaign shall include the activities to educate the community to care for the environment, to reduce marine litter and to explain the potential hazards of plastic pollution.

### **(ii) Awareness, Outreach and Engagement**

- Promote collaborative actives with private sector and industry associations to implement measure to address marine litter issues.
- Promote public awareness on station and impacts of marine litter and microplastics.

### **(iii) Enforcement**

- Written warnings and written explanation are required for first-time offense and further punishment that are deemed suitable by the University administrators for repeated offenders.

## **E. Relevant committee and their responsibilities**

- I. **Special Task Force** shall coordinate the campaign, monitor the implementation and ensure the enforcement of the policy.
- II. **Pusat Pembanguna Harta (PPH)** shall ensure the facility needed to support the sustainable green practices and water dispenser are available. PPH shall ensure the maintenance of such facility by employing contractors, etc.
- III. **Pusat Komunikasi Korporat (PKK)** shall be responsible for dissemination of information, education and communication campaign with rationale of sustainable green practices and prohibition of single-use plastics.
- IV. **UMT staffs** are required to cooperate and help educate and promote sustainable green practices and zero waste principles to students and fellow colleagues.
- V. **Students, Alumni, Guests, Cafeteria owners** shall abide by the guidelines.

- VI. **Bahagian Keselamatan** shall enforce the policy in campuses and give out warnings/penalty for any reported misconduct.

## **F. Recommendations**

The committee recommends the following:

- I. Approval of policy.
- II. Campus awareness, outreach and engagement event to department and schools in the vicinity of UMT.

## **G. Policy Enforcement**

This policy is effective from March 30, 2024.