



**BERGEN SUMMER RESEARCH SCHOOL POLICY BRIEF**

# Marine Litter Reduction for Sustainable Coastal Tourism and Fisheries Development



UNIVERSITETET I BERGEN

Integrated policies addressing marine litter and sustainable tourism, building resilient coastal communities, healthier marine ecosystems, and a more sustainable fishing economy



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## Introduction

Marine pollution is an increasing threat to marine ecosystems, human health, tourism, and fisheries (Thushari & Senevirathna, 2020) (figure 1). Marine litter (e.g. plastics) refers to manufactured or processed solid materials discarded into marine and coastal environments (Bergmann et al., 2015), which can remain in the marine ecosystem for hundreds of years (UNEP, 2026). Here, we present a policy brief which recommends strengthening waste management systems to protect coastal ecosystems, local fisheries, and integrate marine litter management into sustainable tourism development programs.

Small-scale fisheries are also considered one of the main economic sectors affected by marine litter (SAPEA, 2017; Kasa et al., 2025): marine litter disrupts local marine ecosystems, damages gear, reduces fish catch, and consumes time to repair fishing gear (Galimany et al. 2019). Therefore, marine litter disrupts local marine ecosystems, has knock-on implications for fisheries and increases costs for local economies.

The tourism sector is likewise dependent on coastal and marine environments as coastal areas contribute to local livelihoods and tourism revenues. The growth of visitors to certain beach areas has led to a corresponding rise of solid waste generation (Kasa et al., 2025). However, the lack of systematic waste quantification and waste management has hindered effective waste control (Pettipas et al., 2016). With this regard, marine and coastal ecosystems are increasingly exposed to environmental degradation, threatening biodiversity, and aesthetic quality of coastal environments.

## Analysis

The total volume of plastics in the ocean is estimated at 75 - 199 million tonnes, with an influx of 19 - 23 million tonnes each year into aquatic ecosystems (UNEP, 2026). Coastal tourism contributes significantly to environmental plastic pollution (Kasa et al, 2025). Moreover, the tidal cycle, extreme weather events, and inadequate local waste management contribute to increased introduction and redistribution of plastic in the marine environment (UNEP, 2026). Additionally, with future predicted climate change conditions, extreme weather events and sea level rise are expected to increase, exacerbating the impacts of marine pollution on coastal communities (IPCC, 2023).





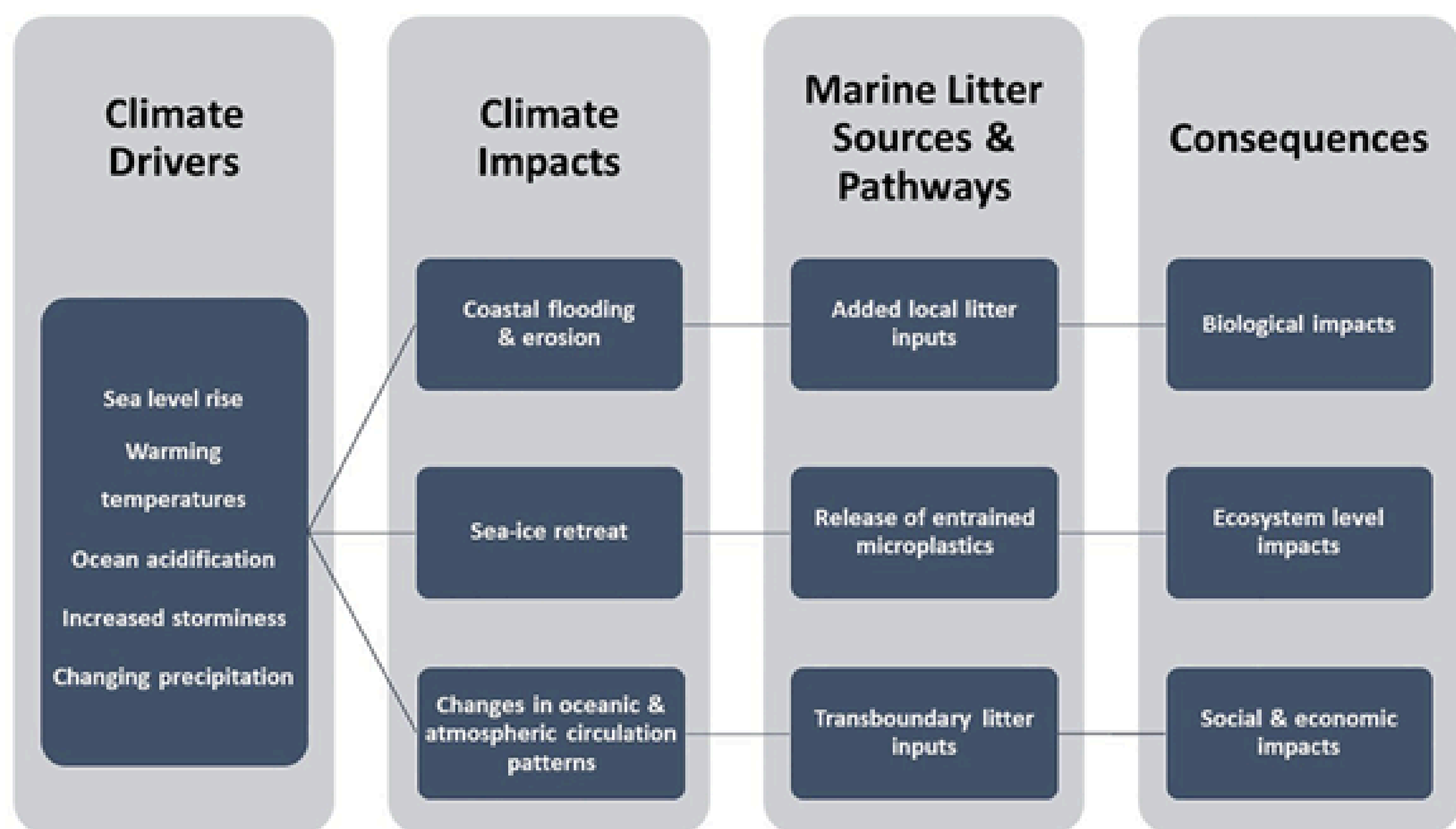


Figure 1 - Schematic representation of some examples of interactions between climate change impacts and marine litter, through changes to litter sources and pathways, and the resulting effects on marine biodiversity and ecosystems and human societies. Taken from S. Lincoln et al., 2022.

## Policy recommendations:

- Enhance the community engagement and awareness program.
- Marine coastal resident empowerment.
- Provide both policy and financial incentives to promote waste management in coastal areas specifically for tourism and fishery sectors.
- Facilitate proper waste management systems to prevent waste generation and waste leakage to the marine coast.

## Conclusion

Marine litter impacts the environment and the economy in local communities. Reducing marine litter can be a driver for marine and coastal social-ecological systems to sustain different types of tourism and traditional small-scale fisheries communities. To be able to respond to the complex challenges arising from coastal social-ecological systems, we urge management bodies to change their perspective on marine litter, to build a vision that takes into account both the needs of coastal communities, marine ecosystems and economic sectors as a whole complex and interconnected system, rather than separated compartments.

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