

International Coastal Cleanup (ICC) Day 2025 Sagar Island Beach, West Bengal, 20 September 2025

Marine litter, dominated by plastic waste, is among the most critical global environmental challenges, threatening coastal biodiversity, ecosystem services, public health, and local economies. While cleanup activities provide essential baseline data and immediate relief, long-term mitigation requires integrated approaches combining policy interventions, engineering solutions, and sustained community participation. In this context, the International Coastal Cleanup (ICC) serves as a vital global initiative to address marine debris while fostering environmental stewardship.

The ICC Day 2025, observed on 20 September 2025, was organized at Sagar Island Beach, West Bengal, with coordination from the University of Calcutta in collaboration with the National Centre for Coastal Research (NCCR) and the Ministry of Earth Sciences (MoES), Government of India. The initiative aligns with global ICC efforts coordinated with UNEP and SACEP, and nationally led by the Indian Coast Guard since 2006.



Participants of the coastal clean-up day -2025

Study Area

Sagar Island Beach is located at the confluence of the Bay of Bengal and the Muriganga River in South 24 Parganas district (21.633°N, 88.081°E), approximately 130 km south of Kolkata. The designated cleanup area extended 189 m in length and 50 m in width, covering 9,450 m². The site is a high-activity zone with food stalls, souvenir shops, and entertainment facilities.

The nearby Gangasagar village hosts the annual Gangasagar Mela, the second-largest religious gathering in India, drawing hundreds of thousands of pilgrims each January. While culturally significant, this event generates substantial waste, placing immense pressure on the fragile coastal ecosystem.



Location map of the Clean-up area

Objectives

The key objectives of the cleanup program were to:

- Reduce plastic waste and marine debris along the Sagar Island shoreline
- Raise awareness among pilgrims, tourists, and local communities regarding marine pollution
- Ensure proper segregation and handover of waste for recycling and sustainable disposal

Planning and Execution

The program was meticulously planned and executed with logistical and administrative support from the central government and the West Bengal Forest Department. A total of 50 participants took part, including 34 volunteers from the University of Calcutta (from Environmental Science, Genetics, Home Science, Economics, English, Marine Science, Microbiology, and the Nature Club) and 16 local participants from NGOs and community organizations.

Volunteers received training on safety protocols, waste segregation, and data recording. Essential equipment such as gloves, collection bags, bins, and weighing balances were provided. An awareness rally and public outreach activities were conducted to engage local residents.



Beach cleanup activity by participants

Collaborating organizations included Howrah Vigyan Chetna Samannaya and the Rotary Club of Calcutta.

Cleanup Activity

Volunteers were divided into small groups to systematically clean assigned beach strips. Waste was initially sorted into plastic, glass, paper, and other categories, followed by detailed classification according to the NCCR questionnaire. The segregated waste was safely handed over to Kalpana Industries, Namkhana, for recycling and disposal.

Findings

The clean-up resulted in the removal of 141.55 kg of waste counting a total of 2723 litter items from the 9,450 m² area. The collected wastes are

- | | |
|-------------------|----------------|
| • Plastic: 51.52% | • Glass 9.97% |
| • Rubber: 24.18% | • Cloth: 1.55% |
| • Papers 12.24% | • Wood: 0.43% |

Major plastic items included food wrappers, polythene bags, fishing nets, woven plastic bags, foam plastics, medical waste, and plastic ropes. Notably, discarded fishing nets (ghost gear) and rubber flip-flops contributed significantly to the total waste by weight.



Segregated items collected during the clean-up activity

Key Achievements

- Removal of 141.55 kg of waste from the coastline
- Increased public awareness and administrative attention
- Rescue of a live crab trapped in abandoned fishing net, demonstrating immediate ecological benefit

Areas of Concern

Persistent issues include ghost fishing gear causing mortality of marine organisms, widespread plastic litter posing ingestion and entanglement risks, and accumulation of rubber footwear that releases micro-rubber particles. These pollutants degrade ecosystem health, disrupt nesting habitats, and negatively impact tourism and pilgrimage experiences.

Media Coverage and Outreach

The event received significant media attention, including coverage by DD Bangla News and Anandabazar Patrika, amplifying its outreach and reinforcing the message of “Clean Coast, Healthy Biodiversity.”

Conclusion

The ICC Day 2025 cleanup at Sagar Island Beach demonstrated the effectiveness of collaborative, community-driven action in addressing marine litter. While cleanup alone cannot solve the marine debris crisis, such initiatives play a crucial role in data generation, awareness building, and stakeholder engagement. Sustained efforts integrating policy, education, and community participation are essential for protecting the fragile coastal ecosystems of Sagar Island and ensuring their long-term ecological and socio-economic sustainability.