

Combating marine plastic pollution in Manila Bay

Insights on upstream management from two PEMSEA projects

Integrated Coastal Management (ICM)

The multiple uses and demands made upon coastal areas necessitates a **holistic approach** to development and management. Integrated Coastal Management (ICM) is a management approach that recognizes:

- the **interdependence** of **environmental** needs and benefits,
- **human** social interests, and
- **economic** development.

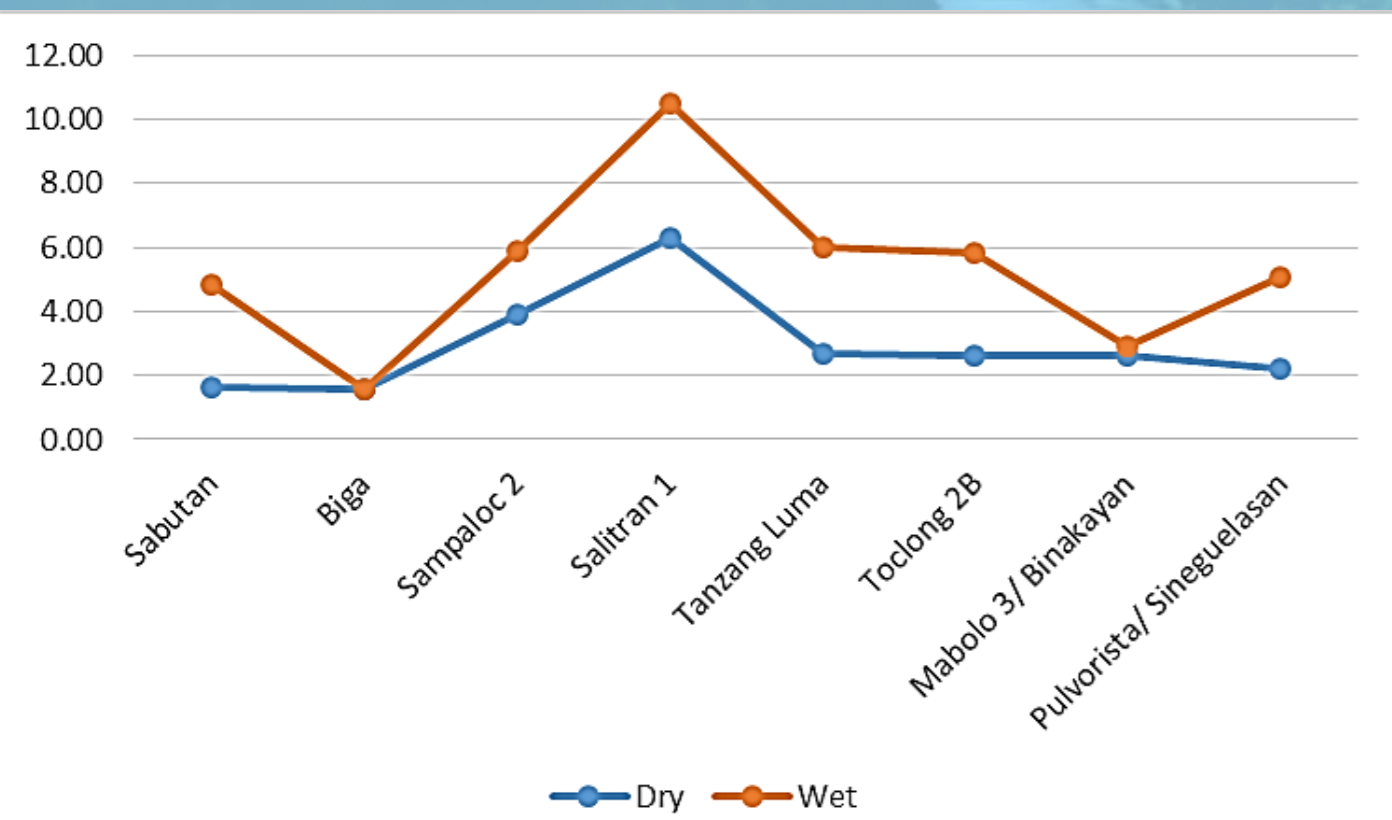
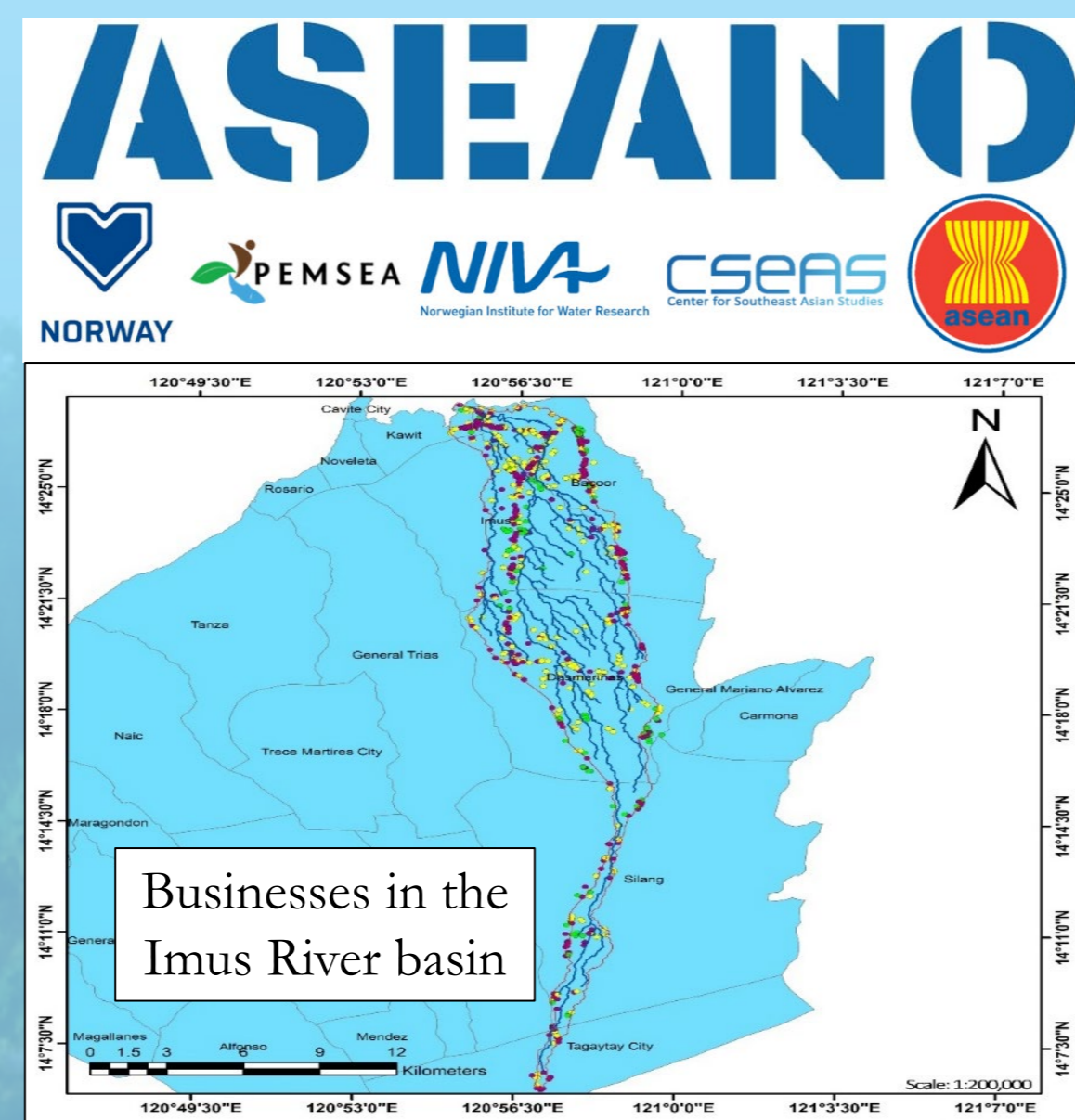
ICM requires **collaboration** between key stakeholders in the coastal region, including local communities, government agencies, and private sector organizations. Its concept can be extended into Integrated River Basin Management, combining ICM with the source-to-sea approach.



ASEAN-Norwegian cooperation project on local capacity building for reducing plastic pollution in the ASEAN region

Research, social surveys, and capacity building in the Imus River Basin of Cavite.

Complete **mapping** of the Imus River basin, identifying watershed boundaries, LGUs, points of industry, land use, and river network.



Assessment of plastic waste in the river system, finding both **spatial and temporal differences** in riverine plastic waste composition.

Social survey of communities around the Imus river, finding that local communities were **highly knowledgeable** about plastic waste, and had a **positive attitude** towards waste reduction measures.

Major Findings

12.97/15
HIGHLY KNOWLEDGABLE
 On negative effects of plastic pollution on Imus River
 Plastic wastes cause floods and harmful to human health
 Barangay officials as the source of environmental information and implementers of river clean-ups

3.24/5
GOOD PRACTICE
 On conservation and mitigation efforts on Imus River
 Often use SUPs (sachets, wrappers)
 Seldom separate biodegradable and non-biodegradable wastes

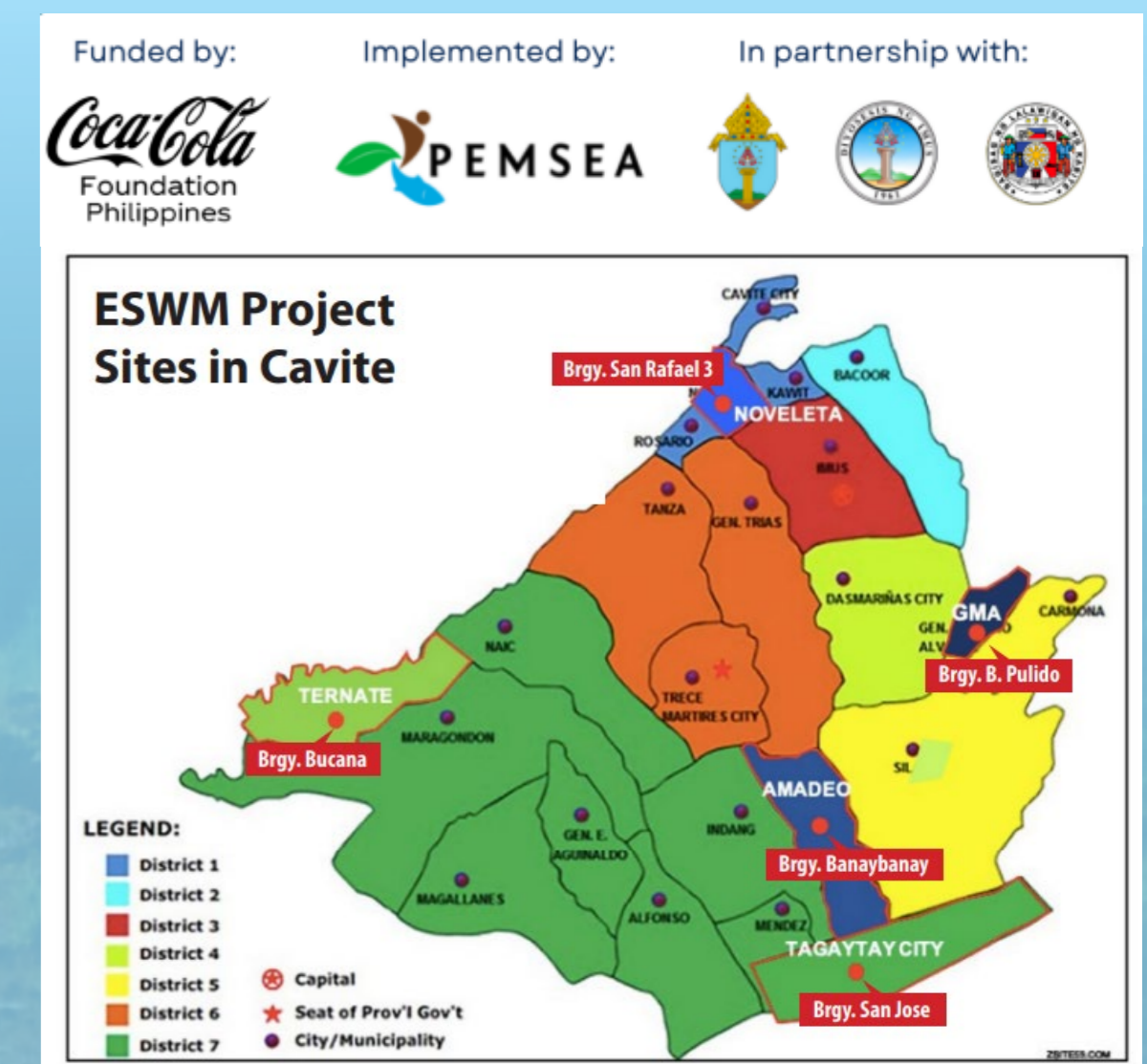
4.18/5
HIGH POSITIVE ATTITUDE
 Regarding conservation and mitigation efforts on Imus River
 Agree that discipline is the solution to waste problem and plastic pollution is dangerous to community

POSITIVE RELATIONSHIP between Knowledge and Attitude
 When they become more knowledgeable, their attitude also becomes more positive and vice versa

Ecological Solid Waste Management in Cavite Province (Plastic Wastes Recycling) Project

Project to support diversion of solid waste in Cavite Province from landfill and/or leakage into the environment.

Carried out a **community needs assessment** and waste analysis and characterization study at the community and municipal levels.



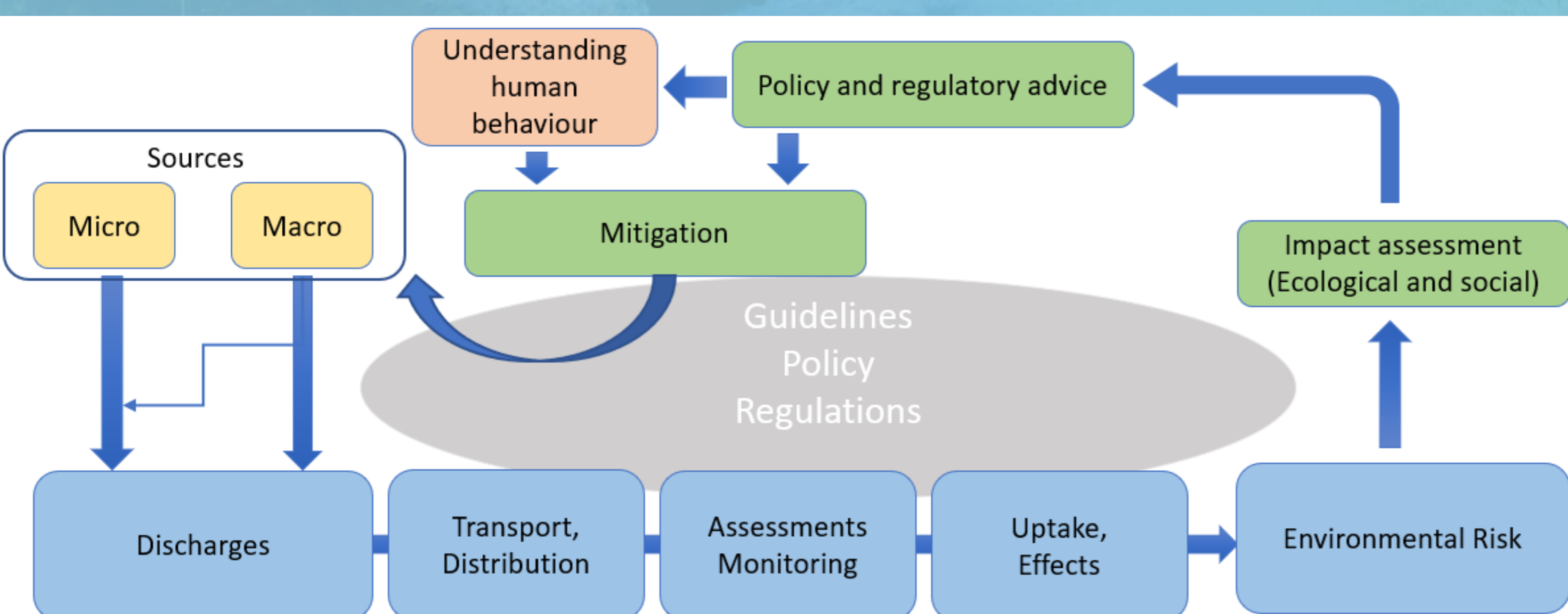
Capacity building and awareness raising on solid waste management, circular economy, and livelihood development.

Created or enhanced **livelihood options** for 110 individuals, mostly women, in the project area.

Setting up of an **Ecological Center** replicating previous models to serve as a plastic recovery center and a community space.



Lessons learned from both projects



- Establishing plastic recycling requires consideration of procurement of equipment, permits, community consultation, and the initial recycling cycle.
- Local government is key for accessing technical resources and ensuring long-term sustainability.
- Projects need to be adaptive and responsive to the needs of the local community, and adjusted to local conditions.

These research project methodologies are **replicable** and **scalable**, and can be adapted to contribute to local capacity elsewhere.

IMPACTS

Improved capacity to tackle plastic pollution

NEEDS

Better data

Community engagement

Stakeholder cooperation

Political will



Find out more at www.pemsea.org
 Contact PEMSEA at info@pemsea.org.