

Waste Management Practices for Users of Port Reception Facilities

People need to bring generated marine litter to port and marinas, and marine litter should be discharged to port reception facilities through proper procedures, so that unnecessary litter is not to travel around the ocean. Users of port reception facilities need to bear in mind the procedures of use of port reception facilities. More detailed guidelines are provided in the *Guidelines for providing and improving port reception facilities and services for ship-generated marine litter in the Northwest Pacific region* which were developed by MERRAC as another outcome of MALITA project. Users also need to separate ship-generated marine litter and discharge into the appropriate receptacles depending on the categories.

- Plastics.
- Floating dunnage, lining, or packing material.
- Ground paper products, rags, glass, metal, bottles, crockery, etc.
- Cargo residues paper products, rags, glass, metal, bottles, crockery, etc.
- Food waste.
- Incinerator ash except from plastic products which may contain toxic or heavy metal residues.

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Sectoral Guidelines for the Marine Litter Management Fishing

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Background

Marine litter is any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment. Marine litter comes from multiple sources, land-based and sea-based sources. In particular sea-based activities include fishing, shipping, recreational activities and passenger ships that generate a significant proportion of marine litter. Among others, sea-based litter such as derelict fishing nets, wire, rope and plastic bags, remains on the seabed, in the water column and on the sea surface. It can also be transported with ocean currents and winds and found on the beaches and shorelines.

Marine litter can cause injury or death of human and other living thing by entanglement and ingestion. Animal might occasionally feed on plastic bag looks like food which may lead them to starvation or malnutrition. Abandoned fishing nets can trap a number of animals and lead to their death consequentially. Vessels can also be damaged by buoyant materials which can result in considerable costs to repair. In this regard, marine litter is now recognized as one of major marine pollution that destroys the ecological, economical and cultural values of the marine and coastal environment.

These guidelines were developed as a part of the NOWPAP Marine Litter Activity (MALITA) in order to provide good action tips how to reduce the amount of marine litter from the sources that will also be helpful to understand regulations on sea-based marine litter and practical principles of environment-friendly behaviors.

Global Regulations Related To Marine Litter Management

There are several global conventions and agreements which aim at protecting the marine environment from marine litter.

- MARPOL Convention (Annex V): Regulations for the prevention of pollution by garbage from ships.
- London Convention: Prevention of marine pollution by dumping of wastes and other matter.
- FAO Code of Conduct for Responsible Fisheries: The Code of Conduct for the appropriate shipboard management.

Fishing

Fishing is human activities catching fish or other aquatic species. During fishing activities, various kinds of marine litter can be generated, and abandoned, lost, and derelict fishing gears take a greatest portion among sea-based marine litter. Fishing sector should recognize that these kinds of marine litter could lead to the some decline of fish stock and consequently pose a threat to fishing activities as a whole. There are several practical methods to reduce marine litter from fishing activities. To effectively reuse and recycle waste, people need to segregate marine litter. In addition, people in fisheries can use biodegradable materials and buy products without an unnecessary packaging. The below examples are the types of marine litter and there are helpful practices which could be applied during fishing activities.

Examples of Marine Litter Generated from Fishing Activities

Fishing Activities

- Fishing nets;
- Fishing line, rope and wire;
- Fishing lures;
- Salt bags;
- Rubber gloves;
- Traps (crab, fish);
- Buoys and floats;
- Straps;
- Plastic sheeting and tarps;
- Boxes (fish boxes, cardboard boxes).

Ship Maintenance and Operation

- Oil and lube bottles;
- Dirty rags;
- Light bulbs;
- Pallet.

Shipboard Life

- Plastic material (bags, etc.);
- Food wrappers and containers;
- Cigarette butts and filters;
- Beverage bottles and cans;
- Tableware (cups, plates, forks, knives, spoons, etc.);
- Grocery bags and miscellaneous goods.

Action Tips for Reducing Marine Litter

Fishing Activities

- Buy and use the recyclable or degradable fishing gear.
- Reduce unnecessary fishing gear and use appropriate number of fishing gear.
- Reuse and recycle fishing gear.
- Don't toss fishing line or fishing nets overboard.
- Manage buoys, floats, straps with caution and do not let them to be drifted or blown off.
- Take back unusable fishing gear and dispose of properly.
- Don't throw marine litter back into ocean if it is caught during the fishing operation and dispose it of at a shore, use port reception facilities.

Activities Related to Shipboard Life

- Pack food in reusable containers rather than plastic bags.
- Use permanent or reusable tableware instead of disposable ones.
- Do not throw away overboard cigarette butts, beverage cans, food wrappers, etc.

Shipboard Marine Litter Management

- Remove packaging material on shore to eliminate space-consuming waste onboard.
- Never leave used oil or fuel filters unattended. Store them in a safe and secure place.
- Separate and store recyclable materials like cans and bottles, glass, paper, antifreeze, oil, oil filters, and lead batteries.
- Designate a permanent onboard trash bin. Use a container with a lid.
- Install trash compactors on large vessels.
- If trash blows overboard, retrieve it. Consider it "crew-overboard" practice.
- Bring all litter generated during the voyage back ashore.
- Properly dispose of all marine litter on-shore, and use port reception facilities.
- Educate crews about the importance of reducing marine litter and good waste management system on vessels.