

# SPECIAL REPORT

## SEAFDEC initiatives on mitigating the impacts of abandoned, lost, or otherwise discarded fishing gear on marine capture fisheries of Southeast Asia

SEAFDEC Training Department



Fishing gears have been lost, abandoned, or otherwise discarded in all seas and oceans ever since fishing began. Abandoned, lost, or otherwise discarded fishing gear (ALDFG), also known as “ghost gear” is a significant component of marine litter with far-reaching impacts on marine ecosystems, fishery resources, and coastal communities. ALDFG not only resulted in increased operational costs for fishing vessel owners for the replacement and retrieval efforts of lost gear, but it also continued to catch target or non-target aquatic species, entangle and kill marine animals including threatened, protected, and commercially important fish species. While surface ALDFG presents a hazard for aquatic resources and resource users, near-bottom ALDFG causes damage to coral reefs and seabed which are important ecosystems.

Moreover, as ALDFG is commonly composed of plastic and does not easily degrade and may be present for hundreds of years, once it is washed ashore, ALDFG also pollutes beaches with plastic litter. It can also be a source of secondary microplastic as it fragments over time and contaminates fish and other aquatic organisms resulting in adverse impacts on

people’s health and food security. Although retrieval and clean-up of ALDFG could mitigate the problems, doing so would entail a huge cost for relevant authorities and the fishing industry.

### Box. Definition of abandoned, lost or otherwise discarded fishing gear (ALDFG) (FAO, 2019)

**Fishing gear** - any physical device or part thereof or combination of items that may be placed on or in the water or on the seabed with the intended purpose of capturing or controlling for subsequent capture or harvesting marine organisms, in accordance with MARPOL Annex V

**Abandoned fishing gear** - fishing gear over which that operator/owner has control and that could be retrieved by owner/operator, but that is deliberately left at sea due to force majeure or other unforeseen reasons

**Lost fishing gear** - fishing gear over which the owner/operator has accidentally lost control and that cannot be located and/or retrieved by the owner/operator

**Discarded fishing gear** - fishing gear that is released at sea without any attempt for further control or recovery by the owner/operator

The pressing concern on ALDFG was recognized at the global level as it could be seen in the Code of Conduct for Responsible Fisheries (CCRF) stipulating that “States should take appropriate measures to minimize waste, discards, catch by lost or abandoned gear, catch of non-target species, both fish and non-fish species, and negative impacts on associated or dependent species, in particular endangered species ...” (FAO, 1995). However, the amount, distribution, and effects of ALDFG continued to rise substantially over the past decades with the expansion of fishing efforts and fishing grounds, coupled with the development of new materials for fishing gears that are more durable and buoyant. One of the important tools to prevent and mitigate the impacts of ALDFG (and also to combat IUU fishing) is the “fishing gear marking.” In 2019, FAO, therefore, came up with the “Voluntary Guidelines on the Marking of Fishing Gear” as a tool to contribute to sustainable fisheries, improve the state of the marine environment, and enhance safety at sea by combatting, minimizing, and eliminating the ALDFG and facilitating the identification and recovery of such gear (FAO, 2019).

In Southeast Asia, ALDFG has been recognized as one of the issues that hamper the sustainability of marine capture fisheries considering its impacts on the aquatic animals and their associated habitats. The necessity to address such issue was also stipulated in the “Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030,” *i.e.* *Resolution No. 11 Increase awareness and support the reduction of impacts of aquatic pollution and marine debris, including abandoned, lost or otherwise discarded fishing gear (ALDFG), and microplastics/microbeads on fisheries and aquaculture; and Plan of Action No. 26 Assess and manage the impacts of aquatic pollution and marine debris, including abandoned, lost, or otherwise discarded fishing gear (ALDFG) and microplastics/microbeads, on fisheries and aquaculture* (SEAFDEC, 2020).

While some countries in the Southeast Asian region have been undertaking initiatives to mitigate the impacts of ALDFG



*Abandoned fishing nets entangling animals and coral reefs*



*Filaments that are not degraded and becoming part of marine litter on the beach*

such as through pilot projects on gear marking in Indonesia and Thailand, SEAFDEC Training Department (TD) also embarked on activities to estimate the level of ALDFG. The project “Survey to estimate levels of abandoned, lost or otherwise discarded fishing gear in Thailand, gillnet and trap fisheries” was implemented by TD in collaboration with the Department of Fisheries, Thailand with support from FAO. A series of survey trials were conducted using the FAO questionnaire to collect baseline information and a database was developed to compile the data from the surveys in coastal provinces of Thailand as an example to estimate the levels of ALDFG. It was expected that through these trial surveys, the FAO questionnaire could be verified and finalized in order to support the collection of global baseline information on ALDFG, and the information collected through such questionnaire could be used to support the development of management actions to combat marine debris from ALDFG in the future.

## References

- FAO. (1995). *Code of Conduct for Responsible Fisheries*. Rome. <https://www.fao.org/3/v9878e/V9878E.pdf>
- FAO. (2019). *Voluntary Guidelines on the Marking of Fishing Gear*. Rome. License: CC BY-NC-SA 3.0 IGO. <https://www.fao.org/3/ca3546t/ca3546t.pdf>
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