INTRODUCTION
Abandoned, lost and otherwise discarded fishing gear (ALDFG), including fishing litter, causes economic losses, environmental damage and harm to marine wildlife. Although gear is most often lost accidentally and/or abandoned due to bad weather or safety concerns, in some cases, gear can also be deliberately discarded, especially when being used in illegal, unreported and unregulated (IUU) fisheries. The scale of the problem is vast, with an estimated 640,000 tonnes of fishing gear being lost in our oceans each year.

In 2016, the Global Ghost Gear Initiative’s (GGGI) best practice working group developed a “Best Practice Framework for the Management of Fishing Gear” (BPF). The framework provides guidance to various actors in the seafood supply chain on effective approaches to reducing gear loss / abandonment and ways to lessen the impacts of ALDFG once gear is gone.

APPROACH AND SCOPE OF THE BPF
The BPF includes a synopsis of most common fishing gears used on a global scale by catch volume and fishing effort, as well as a subjective risk assessment for each gear’s propensity to become ALDFG with its associated impacts – ghost fishing, harm to the marine environment and entanglement of marine animals.

The framework presents a holistic combination of principles for best practise, targeted best management practices organized by stakeholder group and examples using case studies. Adopting best practices for fishing gear management can ensure lost and abandoned fishing gear is minimized. Prevention is key, but when gear is unavoidably lost or abandoned, there are effective tools and procedures that can be adopted to curtail ghost gear’s detrimental impacts.

CONTRIBUTION OF FADs TO ALDFG
For many years, fishers have known that open ocean fishes tend to aggregate around floating or slow moving objects, including logs, whale sharks, or even plastic debris. Fish aggregating devices (FADs) are artificial floats deployed by fishers to attract and follow tuna. Most FADs include satellite tracking beacons and high tech equipment that can estimate the amount of tuna in a school. Each year, more than 120 thousand FADs are deployed in the tropics, worldwide, and they are highly likely to become a component of ALDFG, as there is no legal requirement, anywhere in the world, to recover them. Many FADs are lost or deliberately abandoned when they drift out of the primary fishing area or are no longer considered useful as a fishing tool.

When FADs are lost or abandoned, they contribute to the global ghost fishing problem until they sink or wash ashore in three primary ways: 1) they continue to attract and aggregate fishes, potentially altering the behavior or structure of tuna populations; 2) if not specifically designed to avoid accidental entanglement of sharks, turtles, and other non-target marine life, they continue to do so, even after being lost or abandoned; 3) they interact with coral reefs and other tropical, marine habitats that are sensitive to such interactions.

FADs are somewhat unique in that they are the only form of fishing gear that can be legally abandoned at sea. At least tens of thousands of FADs are deliberately abandoned each year. The best practices presented here are meant to prevent, mitigate, and cure the risks to marine life and ecosystems associated with lost or abandoned FADs.

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BEST PRACTICE INTERVENTIONS FOR FADs

PREVENTION

- Build in traceability components during FAD construction
- Develop minimum standards for FAD marking and tracking
- Require FADs to be marked and identified appropriately and that real-time location information determined from satellite tracking is provided to the relevant authority for monitoring purposes
- Commit to comply with the waste management regulations of MARPOL and other relevant groups
- Ensure there is adequate storage space on boats/vessels for recovered FADs
- Develop Code of Practice for responsible FAD fishing among members of a fisheries organization
- Include FAD loss or abandonment and its environmental consequences in seafood sustainability standards

MITIGATION

- Test and apply biodegradable materials to FAD construction
- Test and apply non-entangling FAD design that reduces instances of entanglement by non-target marine species
- Report the last known time, date, and position of lost or abandoned FADs to the relevant authorities
- Take every reasonable effort to recover all deployed FADs (i.e., prevent the deliberate abandonment of FADs that drift out of the primary fishing areas or are no longer useful as a fishing tool)
- Develop a register/record of FAD deployments, recovery, and abandonment

CURE

- Share the details of any lost or abandoned FADs in areas under national jurisdiction of any coastal State with the relevant authorities in that State
- Work collaboratively with relevant authorities or local partners to make every effort to recover lost or abandoned FADs that enter sensitive areas (e.g., coral reefs, beaches) under national jurisdiction of any coastal State

KEY STAKEHOLDERS INVOLVED IN ABOVE INTERVENTIONS

*Gear manufacturers
+Fisheries control agencies, and fisheries managers and regulators
*Fishers
+Fisheries organizations
βSeafood ecolabel standard and certification holders

The Global Ghost Gear Initiative (GGGI) is a cross-sectoral alliance committed to driving solutions to the problem of lost and abandoned fishing gear worldwide. The GGGI aims to improve the health of marine ecosystems, protect marine animals, and safeguard human health and livelihoods. It is the first initiative dedicated to tackling the problem of ghost fishing gear on a global scale.