Food and Agriculture Organization of the United Nations

INTERNATIONAL MARITIME ORGANIZATION

Reducing ghost fishing from lost lobster traps in Brazil

The problem

Abandoned, lost or otherwise discarded fishing gear (ALDFG) causes:

- marine pollution
- economic harm
- **ghost fishing**: When ALDFG continues to fish, causing injury and death to marine species

Traps can be prone to being lost due to the unattended nature of their operations. This raises the risk of ghost fishing and resource damage. Reducing trap losses and their ghost fishing capacity are important measures to protect fisheries resources and the livelihoods of the fishing communities that depend on them.

The solution

A project by **UFRPE**, supported by the **GloLitter Partnerships** project, tested the development of an "**Eco-trap**" with an **"Anti-Ghost Fishing Device (AGFD)**" (Figure 1):

- AGFD uses **biodegradable cotton or sisal twines** tied to an iron rebar;
- when twines degrade (after 3–6 months), the trap **opens and releases trapped animals;**
- AGFD is simple, effective and adaptable to most traps;
- eco-trap includes lobster and fish exclusion components.



Figure 1. The Eco-trap with lobster and fish exclusion components, and the Anti-Ghost Fishing Device (AGFG) that employs degradable cotton or sisal twines tied to the iron rebar

OceanLitter Programme

How it works

• The AGFD uses **biodegradable twines** (cotton or sisal) tied to an **iron rebar** (Figure 2).

• **When the twines weaken or break**, the weight of the rebar causes the panel to collapse, creating an **escape opening** for entrapped lobsters and other animals.

• The AGFD **opening/breakage time is controlled by the number of knots securing it to the rebar**, with more knots resulting in longer times to breakage (2 to 3 knots were shown to take 3 to 6 months to break).

• This **prevents** ghost traps from continuing to **capture valuable fishery resources**.

• The AGFD can be incorporated into any trap and easily attaches to any panel.

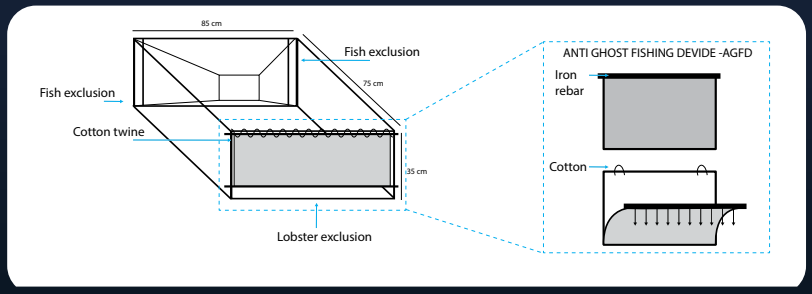


Figure 2. The Eco-trap with lobster and fish exclusion components a nd t he A nti-Ghost Fishing Device (AGFD)

Field testing

• **75 Eco-traps** were tested with local fishers in Recife and Sirinhaém (Figure 3).

• **Different materials, knot numbers,** and **panel placements** were trialed.

• **Fishers advised** to move the AGFD from the trap's bottom panel to the front panel, to prevent loss of catch during trap retrieval and facilitate escape of entrapped animals from lost traps.

Challenges: Limited time for field testing of different AGFD knot and material configurations due to seasonal fisheries closures and adverse environmental conditions including storms and strong currents.

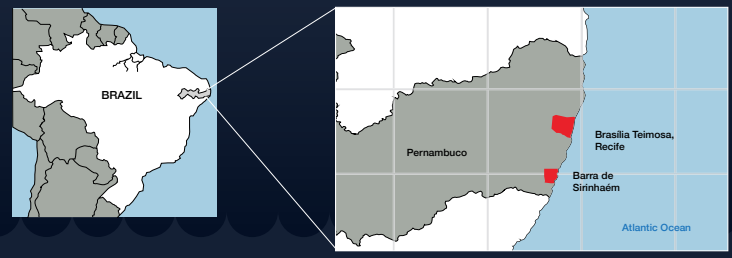


Figure 3. Locations in Brazil where the Eco-trap with Anti-Ghost Fishing Device (AGFD) were tested for the spiny lobster trap fishery

Community engagement

• **Awareness raising and consultations** undertaken with local fishing communities and cooperatives

• **Local fishers advised** upon trap designs, modifications and field trials

• Fisher feedback informed adaptive trap designs to ensure **practical, fisher-friendly use**

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Project Sumary
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