Food and Agriculture Organization of the United Nations

INTERNATIONAL MARITIME ORGANIZATION

Reducing ghost fishing from lost crab pots in Indonesia

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.

Pots (which are commonly also called 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.



Figure 1. Indonesian fishers set blue swimming crab pots during fishing trials

The solution

A project by **IPB University**, supported by the GloLitter Partnerships project, tested biodegradable cotton twines to modify crab pots. These twines:

- replace synthetic (polyethylene) material to secure the entrance panels of the pot (red lines, Figure 2);
- degrade and break after approximately 5 to 9 months, providing an escape opening in the pot for entrapped animals;
- reduce and disable ghost fishing after the twines have degraded and broken

Fishing trials (Figure 1) showed no significant difference in total catches or catch productivity between the modified and conventional pots.

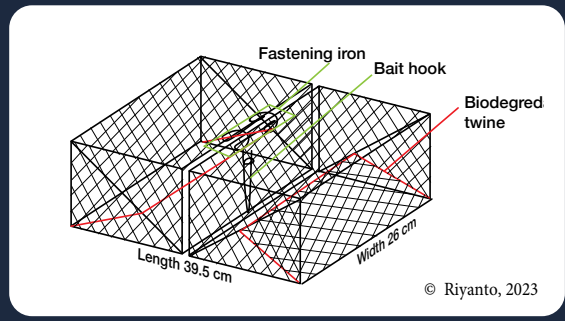


Figure 2. Indonesian blue swimming crab pot modified with biodedgradable twine

OceanLitter Programme

Field trials

- **Location**: Gebang-mekar, Cirebon Regecy, West Java Province (Figure 3)
- **Fisher consultations**: Local, small-scale commercial fishers advised and participated in the pot modifications and fishing trials
- **Gear tested**: 500 modified and 500 conventional pots
- **Duration**: 30 daily trips (Oct–Nov 2022)

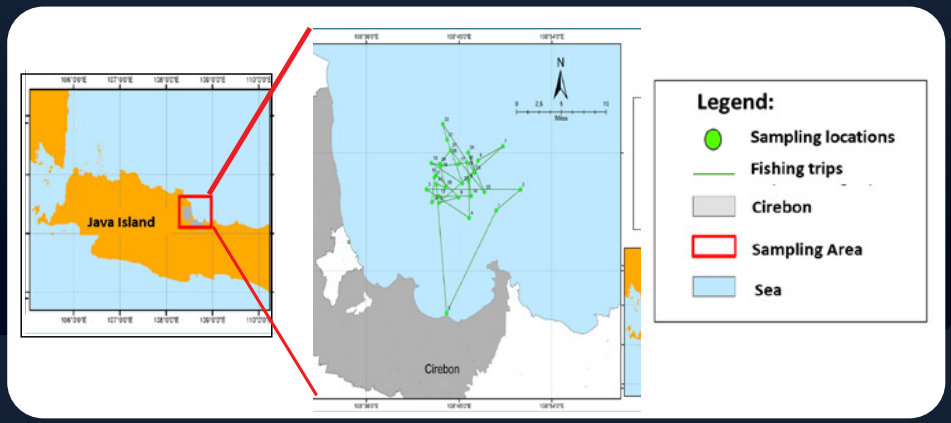


Figure 3. Field (fishing) trial locations

Results

- No significant differences were observed in quantities of targeted blue crab and in quantities of the total catch between the modified and conventional pots
- Blue swimming crab = ~50% of total catch
- Similar size, sex and carapace width-to-weight ratios of blue swimming crabs were observed from both modified and conventional pots

Despite modified pots requiring more maintenance, no operational challenges were observed and **the modified pots were well received by fishers in the consultations and field tests**.

Key takeaways

- **Ghost fishing from lost pots is a real threat for fishers' livelihoods and the ecosystems they rely on**
- **Simple gear modifications can stop ghost fishing**, without reducing catch
- **Local fishers supported the gear modifications**

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Project Info
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Partner: IPB University
Led by Dr. Mohammed Riyanto
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