



# **Prevention, mitigation and cure - key tools for managing fishing gear responsibly**

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# Ghost gear impacts

- Entanglement of marine wildlife
- Polluting the marine environment
- Navigational and safety hazards
- Threats to food security
- Economic costs





# The Global Ghost Gear Initiative

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- Global, multi-stakeholder alliance, launched in 2015
- **Mission:** To ensure safer, cleaner oceans by driving economically viable and sustainable solutions to the problem of ghost fishing gear globally
- **Aims:**
  - To improve the health of marine ecosystems
  - To protect marine animals from harm
  - To safeguard human health and livelihoods



# Three working groups

## Working Group 1

- Build evidence of ghost gear problem

## Working Group 2

- Define best practices and inform policies

## Working Group 3

- Catalyse and replicate on the ground solution projects
- Promote solutions that are sustainable business models



# Best Practice Framework for Management of Fishing Gear (BPF) - Overview



- **Part 1: Scoping and background**
  - Overview of fishing gears and their global use
  - Risk assessment – likelihood of gear being lost and its impact when lost
  - Potential impacts and invention points
  - Prevention, mitigation and cure interventions
- **Part 2: Best Practice Framework**
  - Guidelines to fishing industry stakeholders – 10 in total
  - Best practice principles and actions



# Causes of ghost gear

## Direct

### Adverse weather

resulting in gear loss and making retrieval difficult or dangerous



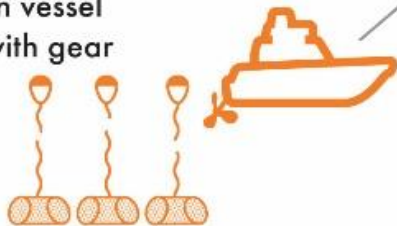
### Spatial pressures

resulting in gear conflicts



### Spatial pressures

resulting in vessel conflicts with gear



## Indirect



Lack of disposal facilities



Inaccessible disposal facilities



Expensive disposal facilities







# Best Practice Framework for Management of Fishing Gear (BPF) – management approaches



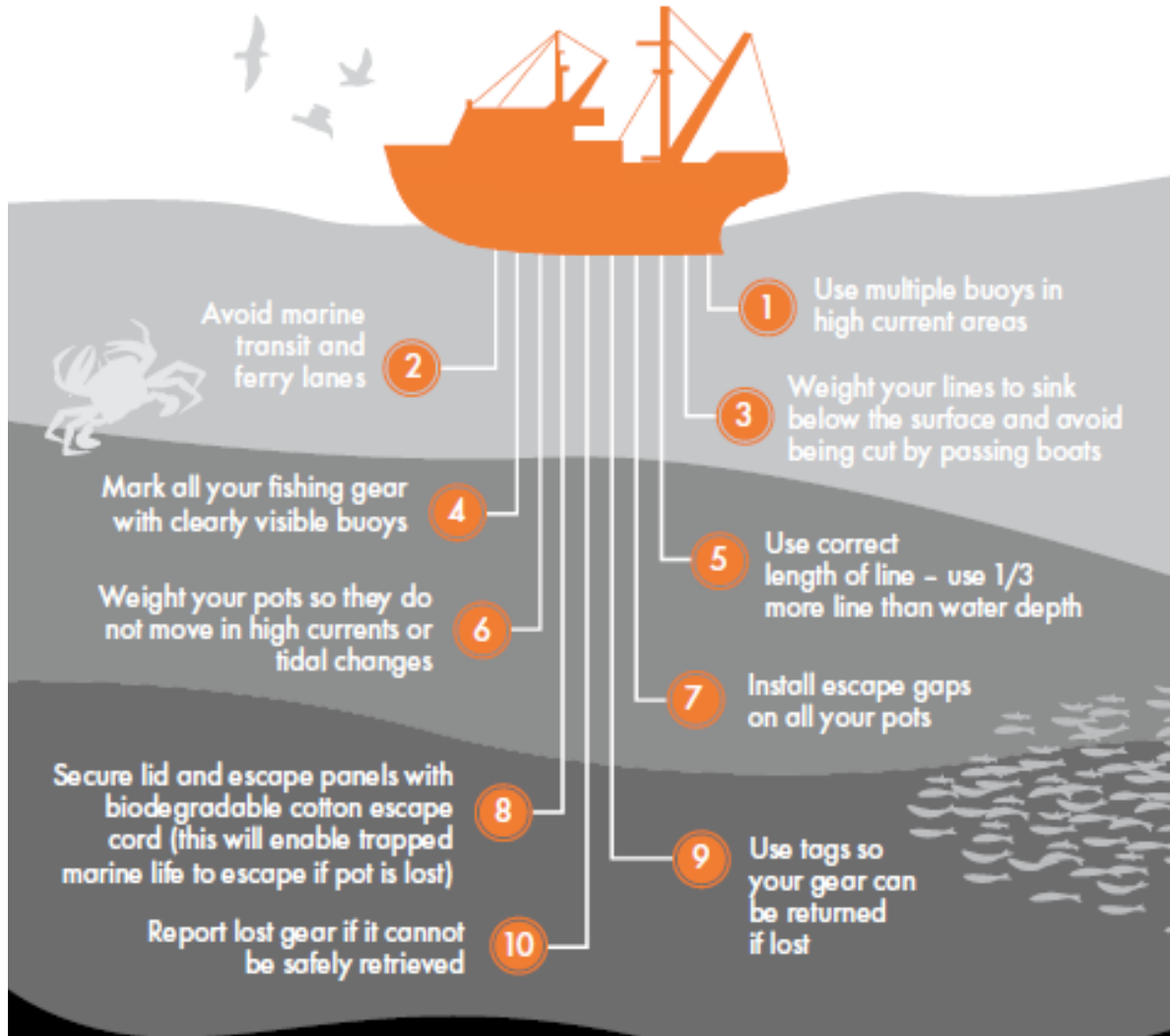
1.	Spatial and / or temporal measures	▶ <b>PREVENTION</b>
2.	Gear design to reduce whole or partial loss of the fishing gear	
3.	Vessel design to reduce gear and other marine litter discarding	
4.	Better marking and identification of fishing gear	
5.	Improved redundant fishing gear disposal facilities	
6.	Education and awareness	
7.	Improved fisheries management regime	
8.	Good practice for avoidance, mitigation and response	
9.	Gear design to reduce the incidence and duration of ghost fishing	▶ <b>MITIGATION</b>
10.	Lost gear reporting, location and recovery initiatives	▶ <b>CURE</b>



# Sustainable fishing is more than pot luck



Fishermen everywhere are taking action to limit the impact of lost gear and protect their fishing ground for the future. It's easy for you to do the same by following these simple tips when fishing.



**Simon Thomas**  
Trialling escape hatches on lobster pots

# Best Practice Framework for Management of Fishing Gear (BPF) – gear risk assessment



GEAR CLASS	LIKELIHOOD	IMPACT	TOTAL RISK
Gillnets	5	5	25
Traps and pots	4	4	16
Fish Aggregating Devices	4	3	12
Hooks and lines	3	3	9
Bottom trawls	2	3	6
Mid-water trawls	1	2	2
Seine nets	1	2	2







# Best Practice Framework for Management of Fishing Gear (BPF) – interventions



IMPACT	DRIVER	POTENTIAL NON-REGULATORY INTERVENTION POINTS
Mortality from ghost fishing	<ul style="list-style-type: none"><li>• Accidental gear loss resulting from gear conflicts, storms, misplaced gear, poor ground</li><li>• Abandoned and discarded fishing gear due to enforcement pressure, inadequate storage space and inconvenience</li></ul>	<ul style="list-style-type: none"><li>• Improved marking of fishing gear to show the location, scale and nature of fishing gear in the water</li><li>• Better identification of fishing gear ownership</li><li>• Improved redundant fishing gear disposal facilities</li><li>• Spatial management</li><li>• Awareness raising</li><li>• Gear design to reduce (i) gear loss and (ii) ghost catches</li><li>• Lost gear reporting, location and recovery initiatives</li><li>• Check in / check out of gear carried</li></ul>
Contribution to marine litter (including micro-plastics)		
Lost gear as a navigation hazard		



# Best Practice Framework for Management of Fishing Gear (BPF) – stakeholder actions



STAKEHOLDER GROUP	ROLE	BEST PRACTICE AREAS
Gear designers and manufacturers	Design, production and sale of fishing gear	Embedded traceability; research into, and use of / integration of biodegradable materials for use in the marine environment; incentives to return redundant / used gear.
Fishers	Individuals and crew catching seafood at sea	Reduced soak times; gear use limits in high-risk areas and during high-risk times; marking and identification of fishing gear; responsible storage of gear; reporting of lost gear, guidance on lost / abandoned gear location and retrieval.
Fisheries organisations	Non-statutory organisations representing fishers	Code of practices specific to fisheries; spatio-temporal agreements with other metiers; monitoring of fishing gear losses; communication protocols.
Port operators	Bodies operating and managing fishing ports	Accessible, low-cost gear and litter disposal facilities; integration into recycling initiatives; better awareness of responsible disposal opportunities; implement 'check out-check in' gear inventories where appropriate.
Fisheries managers and regulators	Management bodies setting policy, plans and regulations for fishing activities	Designation of spatio-temporal restrictions in high risk areas; development of appropriate gear marking and identification regulations; development of technical regulations to reduced ghost fishing potential in high risk areas; conducting impact assessment to gauge unintended consequences of management actions on gear loss and ghost fishing.

# Best Practice Framework for Management of Fishing Gear (BPF) – stakeholder actions



STAKEHOLDER GROUP	ROLE	BEST PRACTICE AREAS
Fisheries control agencies	Body or agency responsible for enforcing fisheries regulations	Establish registry and database of lost / abandoned gear; enforcement of gear marking and identification regulations.
Fisheries and marine environment research	Research and development	Development of biodegradable materials acceptable to fishers, but effective at reducing gear-catching ability after control is lost.
Seafood ecolabel standard and certificate holders	Setting and maintaining standards for responsible sourcing of seafood	Gear loss and its consequences (eg ghost fishing) need to be included in all seafood sustainability standards, with supporting guidance provided where necessary.
Seafood companies	Fleet operators, processors, wholesalers and retailers	Encouraged to ensure that their seafood sourcing avoids high risk fisheries and that they participate in relevant initiatives eg gear recycling (see case study in Section 3.9.3) where possible.
NGOs	Advocates for sustainability and good practices	Coordination of advocacy, actions and information gathering; contributing to a centralised ALDFG / ghost fishing information hub / forums; organising ALDFG recovery in vulnerable areas.



# GGGI Solution Projects

- **Indonesian gear marking project**
  - Study to test the FAO's Guidelines on the Marking of Fishing Gear (currently in draft) on gillnets;
  - Gather feedback on the practical application of the proposed marking techniques;
  - Map hotspots for gillnet loss and scope possibility of a net recycling project
- **FAD Tracking in the South Pacific**
  - Working with large tuna company to track 'abandoned' FADs and scope for retrieval project
  - Testing tracking on anchored artisanal FADs
- **Alaska net recycling project**
  - Multi-stakeholder involvement
  - Providing disposal and recycling options for end-of-life nets and diverts flow of nets into the sea







WORLD  
**ANIMAL**  
PROTECTION



# GGGI participation – benefits to the seafood industry

- Ghost gear is a growing issue of concern; 46% of litter examined in North Pacific Garbage Patch was ghost gear
- GGGI provides ready made package for addressing the problem
- Linkages to other issues – IUU, microplastics, SDGs
- Impacts to fish stocks affects everyone, even if gear is well-managed in your own supply chain







## Questions?

Feel free to e-mail me:

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