

# **Derelict fishing gear and other marine debris: Australia and the Asia Pacific**

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# Marine debris: derelict fishing gear

Derelict fishing gear requires attention as it:

- is a hazard to vessels, and human life and property at sea
- has implications for the economic viability and sustainability of commercial fisheries
- entangles marine species
- impacts on subsistence resources of Indigenous fishers and coastal communities





# Finding solutions to derelict fishing gear and other marine debris

- Review the effectiveness of existing measures
- Improve our knowledge on why gear is lost/discarded, where it comes from, what its movements are, and the nature and degree of its impacts
- Identify, economic, social or other factors affecting accidental loss and deliberate decision-making about the disposal of fishing gear



# Origins of marine debris around Australia

Across Australian waters:

- 13 800 tonnes of waste is generated by ships each year, but
- only 9 800 tonnes of waste are returned to shore for disposal each year
- up to 4 000 tonnes of waste is lost or discarded by ships each year, and
- 2 400 tonnes of gear is lost or discarded by fishing vessels each year  
(ANZECC, 1996)





# Origins of marine debris around Australia

- Close to Australia's urban areas, approx. 80% of marine debris found on beaches is from sources on land



*but*

- On remote Australian coastlines nearly all debris comes from marine sources
- *More* debris is found on some remote areas of the Australian coastline than areas close to urban centres





**Indian Ocean**

**Indonesia**

**Timor Leste**

**Arafura Sea**

**Papua New Guinea**

**Australia**

**Pacific Ocean**

**New Zealand**



# Origins of marine debris in northern Australia

In northern Australia

- coastal and offshore shipping are a source of debris
- the fishing industry is responsible for the majority of debris found on beaches





# Origins of marine debris in northern Australia

- Around 5 - 15% of derelict fishing nets identified on Australia's northern coasts are from Australian fisheries
- Approx. 80% of fishing nets identified from northern Australia's beaches originate outside Australian waters





# Origins of marine debris in northern Australia

- Derelict nets found in northern Australia that originate outside Australian waters tend to be of larger mesh size, area, and weight than derelict nets of Australian origin
- Derelict fishing nets originating beyond Australian waters are also causing some of the greatest harm to marine species, especially turtles





# Impacts of marine debris in northern Australia

Since 1996 more than 290 marine turtles have been found entangled in derelict nets on a 70km stretch of beach in northern Australia





# Impacts of marine debris in northern Australia

Many other species, such as whales, dugong, sharks and sawfish are also being found entangled in fishing debris





# Impacts of marine debris around Australia

In southern Australia, approx. 1500 Australian sea lions and New Zealand fur seals are being entangled each year

Much of the fishing gear responsible for entangling seals in southern Australia appears to originate from the Australian fishing industry





# Impacts of marine debris in the Asia Pacific region

- Republic of Korea - discarded fishing gear caused a public ferry to capsize with a significant loss of life
- Japan – significant economic impacts of derelict gear on commercial fisheries; major insurance costs
- SPREP – lack of port reception facilities for fishing operations (90% of which are foreign) resulting in solid waste management as the number one issue facing Pacific Island States
- Southern Ocean – direct links between illegal fishing effort and fishing debris

# Australian responses to marine debris

- Development of a Threat Abatement Plan for *'Injury and fatality to vertebrate marine life caused by ingestion of, or entanglement in, harmful marine debris'*
- Reviews and reports, including, *'Finding Solutions to Derelict Fishing Gear and other Marine Debris in Northern Australia'* (Kiessling, 2003)
- Industry initiatives
- Community initiatives





# Australian community responses to marine debris

- seal entanglement studies (eg. Page *et al.*, 2004)
- turtle entanglement studies (eg. Roeger, 2004)
- *A Fishing Net Identification Kit for Northern Australia* (WWF, 2002)
- Carpentaria Ghost Net Programme





# Regional responses to marine debris

- Australia Indonesia Working Group on Marine Affairs and Fisheries
- Asia Pacific Economic Cooperation (APEC)





# Finding solutions to derelict fishing gear and other marine debris

Why are nets lost or discarded at sea?

Where are derelict nets from?

- Links between IUU fishing and marine debris?
- Technical issue?
- Economic issue?
- Management and enforcement?





# Finding solutions to derelict fishing gear and other marine debris

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# Finding solutions to derelict fishing gear and other marine debris

For many industrial fisheries, RFMOs provide the framework for States to manage and control the loss and disposal of fishing debris

- Introduce measures to implement MARPOL Annex V
- Introduce flag state and port control measures
- Introduce compulsory requirements for reporting lost fishing gear





# Finding solutions to derelict fishing gear and other marine debris

As a basis for finding solutions to derelict fishing gear, we should establish the following:

- inventory of net types and other gear used by fisheries under State jurisdiction
- clearing house mechanism to facilitate the sharing of information on fishing net types and other gear used by fisheries around the world
- international network of regular, long-term monitoring of derelict fishing gear and related debris





# Finding solutions to derelict fishing gear and other marine debris

- targeted studies to determine factors motivating loss and disposal of fishing gear at sea, as a basis for
- developing measures to prevent loss and promote appropriate disposal of fishing gear and other waste





