

“This technology potentially reduces our catch of juvenile species, and I can only laud the efforts to involve us in activities like this and enable us to appreciate and see for ourselves its benefits. In return, what I can offer is our cooperation and do our share to protect and sustain our fish resources.”

Ms. Marisa Lakindanum, owner-operator of six trawlers in the Philippines

TED, BRD AND JTED

A TED or ‘turtle excluder device’ is any modification to a shrimp trawl designed to reduce the capture of turtles. These devices are sometimes called “trawl efficiency device’ because they can also prevent the capture of other large animals including sharks, stingrays, jellyfish and some large fish.

A BRD is any modification designed principally to exclude fish bycatch from a shrimp trawl. These devices may also exclude other animals and non-living material (debris), but because fish usually dominate the bycatch, most BRD research has attempted to exclude these animals from the trawl.

JTED stands for ‘juvenile and trash excluder device’. This device is designed to exclude small fish – usually juvenile or trash fish – from the trawl and maintain the catch of shrimp and large fish.



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Reduction of Environmental Impact from Tropical Shrimp Trawling, through the Introduction of Bycatch Reduction Technologies and Change of Management



EP/GLO/Z01/GEF
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SHRIMP TRAWLING, BYCATCH AND DISCARDS

Shrimp exploitation by tropical trawl fisheries generates significant amounts of non-shrimp bycatch. Bycatch is anything that a fisherman does not mean to catch, whereas discards is that part of the catch that is returned dead to the sea.

In some countries, bycatch has become an important source of income and contributes to food supply. In others, bycatch of fish, particularly small-sized, is discarded at sea.

The capture of juveniles of valuable food fish constitutes a threat to the sustainable production of fish from an area. Extensive removal of non-target fish is also a threat to the biodiversity in a fishing area.

If the introduction of fishing technologies and practices that reduce the capture of juveniles is successful in a few selected countries in various regions, it can be assumed that such technology and practices would be adopted by other shrimp fishing countries also experiencing problems with bycatch. In addition to the expected increased fish production and conservation of biodiversity as a result of project intervention, shrimp trawling will earn an improved reputation and so continue to produce needed export income for several poor developing countries.

OBJECTIVE

The overall **objective** of the project is to reduce discards of fish captured by shrimp-trawlers, primarily by introducing technologies that reduce the catch of juvenile food-fish and other bycatch. The participating countries have themselves identified the capture of juvenile food-fish and discards as a non-sustainable practice and have therefore assigned priority to reducing the problem nationally. These countries will therefore contribute through research and management in the fields of marine biology and fishing-gear technology.

OUTPUT

The ultimate **output** of the project will be the adoption by the participating countries of fishing technologies and practices that are environmentally friendly, so that their shrimp-trawling fisheries will be enhanced in terms of their environmental performance and reduction of biological impacts, and will be more sustainable in the future.

A direct outcome of the project will be a reduction in number of juvenile species caught by shrimp trawlers using bycatch reduction devices (BRDs) compared to trawlers not using such devices. This can be verified when a successful BRD has been developed and introduced in a shrimp-fishery and a comparison made between a trawl equipped with BRD and one without. Another indicator of project success will be the number of shrimp trawlers using BRDs

in each fishery at the end of the project period.

An additional expected outcome is the improvement in national capacities for the sound management of the shrimp-trawler fisheries and increased cooperation among countries at the regional and global levels. All of which would not be achievable without the framework provided by this project.

PARTICIPATING COUNTRIES AND ORGANIZATION

Asia: Indonesia, the Philippines, and the Southeast Asian Fisheries Development Center (SEAFDEC)

West Africa: Cameroon, Nigeria

Gulf Region: Bahrain¹, Iran

Latin America and the Caribbean: Colombia, Cuba, Costa Rica, Mexico, Trinidad and Tobago, Venezuela

The project is funded by the Global Environment Facility (GEF), coordinated by the United Nations Environment Programme (UNEP) and executed by the Food and Agriculture Organization (FAO) of the United Nations.

More information at:

<http://www.fao.org/fi/gefshrimp.htm>

¹ Since Bahrain is not GEF-eligible, financial support is obtained from other sources.