

# DISCARD AND BY-CATCH REDUCTION



Selective fishing gears and practices have been promoted in the Southeast Asian region through demonstrations and experiments. Since trawling in shallow coastal waters could have an adverse effect on the biodiversity and more directly on the irresponsible catch of juveniles and immature fishes that seek food and protection in the target waters, SEAFDEC through the Training Department has developed the Juvenile and Trash Excluder Devices (JTEDs) as by-catch reduction devices and collaborated with the ASEAN countries for the conduct of demonstrations on the use of JTEDs in the region. The successful demonstration of the use of JTEDs in Calbayog City, Philippines had prompted the Philippine Government to issue a regulation on the use of JTEDs in all trawlers operating in the country.

## SEAFDEC INITIATIVE ACTIVITIES

### related Topic of Fisheries Management Practices and By-catch Reduction Issue

#### 1. Promotion of the Used of By-catch Reduction Devices in the Southeast Asia Region Reduction of Environmental Impact from Tropical Shrimp Trawling (REBYC) 2002-2008

The Turtle Excluder Devices (TEDs) and Juvenile and Trash Excluder Devices (JTEDs) were promoted in the region to avoid catching sea turtles, other endangered species, and juvenile fishes by trawlers. These devices were introduced to fishers and managers in the Southeast Asian region, through training and pilot demonstrations.

#### TEDs



**Turtle Excluder Devices (TEDs)** and various types of juvenile and Trash Excluder Devices (JTEDs) were tried, modified, and improved to reduce the by-catch at different sites in SEAFDEC Member Countries.



#### JTEDs : juvenile and Trash Excluder Devices

This device was developed to prevent the catching of unwanted juveniles and trash fish. The research on JTEDs was initiated by SEAFDEC/TD in 1998. A series of JTED designs have been developed by SEAFDEC/TD by taking into consideration the suggestions made by the participating countries in the Southeast Asian region after the series of trials conducted in the countries. Improvements to the designs have also been carried out for a more efficient escape rate of the fish juveniles. The basic JTED designs developed by SEAFDEC/TD included the rectangular-shaped window, semi-curved window, rectangular rigid sorting grid, and semi-curved rigid sorting grid. The trials and experiments were conducted off the coasts of Thailand, Brunei Darussalam, Vietnam, Malaysia, the Philippines, Indonesia, Myanmar, and Cambodia.



#### 2. Promotion of the Use of Circle Hook in Longline Fisheries

#### Circle Hook

To sustain the pelagic fisheries resources, especially for tuna longline fisheries, the use of circle hooks instead of J-hooks had been advocated for commercial and artisanal fisheries and proved effective. The efficiency of the Circle Hook in Comparison with J-Hook in Longline Fishery has been studied and promoted in mitigation of the fishery for sea turtle interactions. The objectives of this study are to determine the efficiency of circle hook and J-hook with respect to the catch composition, catch rate, hooking position, and length-frequency distribution of some dominant fishes.



### 3. Research and Study on Light Fishing and Stationary Gears to Reduce By-catch

- **Light Fishing**



- **Stationary Fishing Gears**



### 4. Modification of Fishing Gears

- **Small-scale Gears : Trap**



- **Long-line (Circle Hook)**



- **Modifying the Drifting Fish Aggregating Devices to Mitigate Sea Turtle Mortality**



- **Appropriated Technique to Reduce Mortality of Sea Turtle by Audience Frequency**



### 5. Human Capacity Building

- **Regional Training Workshop on the Use of Selective Fishing Gears and Devices**



### Collaborative Activities with the Related Organization on the By-catch Reduction Issue

- IOSEA
- UNEP
- FAO
- AMC
- MI
- TUMSAT
- GEF
- WWF
- NOAA

