

**ASSESSMENT OF CURRENT STATUS OF THREATENED
AND PROTECTED MARINE FLORA AND FAUNA
IN TRADE IN INDIA**



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Front cover

1. Sharks landed at Vishakapatnam harbor, Andhra Pradesh
2. Marine curio shop at Puri, Orissa.
3. Olive ridley turtle landed at Vizhinjam harbor, Kerala
4. Sea cucumbers collected by skin divers at Keezhakarai, Tamil Nadu*

*Photograph: K.R. Saravanan

Back cover

1. Marine curio vendors at Kanyakumari, Tamil Nadu

EXECUTIVE SUMMARY

The Wildlife (Protection) Act, 1972, (WPA) prohibit the trade of protected marine species in India but illegal trade on these species was observed to be continuing in almost all maritime States and Union Territories. Illegal trade of these protected marine species was observed to be contributing marginal benefits to the rural fisher folks but it imperils the complex marine biodiversity in the country.

Most of the elasmobranchs (Sharks, Rays and Skates) in India are threatened due to indiscriminate fishing. In India, seven species of marine elasmobranchs are protected by the WPA. Even though protected elasmobranchs were not encountered in the marine fish landing centres during the study period, their illegal trade cannot be completely ruled out. Majority of the elasmobranchs recorded in the fish landing centers were small in size. Ever increasing market demand for their meat, fins and cartilage are the major cause for this over exploitation.

Among marine mammals the dugongs, dolphins and porpoises were caught either incidentally or deliberately in India. In many parts of coasts they have been traded in the domestic market although it was very occasional. Interviews with fisher folks revealed that dolphin meats were largely used for shark baiting than consumption. Occasional killing of dugong was also observed along the Palk Bay, Gulf of Mannar, and Andaman Islands.

Meat and eggs of marine turtles are consumed in many parts of the coastal India. Sea turtle landings are not rare on the southern coasts of India especially in the coastal areas between Tuticorin and Trivandrum. Illegal trade of sea turtle's meat were also observed along the Indian coasts but it is rare or nil in Orissa. Vizhinjam harbor in Kerala is one of the major marine fish landing centers in India where the turtles were regularly traded in the open market.

Protected marine mollusks and corals are also illegally collected and sold as curios in several parts of the country especially near the popular tourist beaches and pilgrimage centers. Most of these marine mollusks and corals are collected from the coral rich reefs around Gulf of Mannar, Andaman and Nicobar Islands and Lakshadweep. Beside, large quantities of seashells are also imported from Tanzania, Philippines and Sri Lanka to meet the local market demand. The imported seashells are then processed in Kanyakumari,

Rameswaram and Tuticorin before sending to markets. Therefore, it would be difficult to differentiate the source of these materials whether they have been collected locally or imported from other countries. These processed materials are then either exported to other countries or traded locally. The size classes of these marine mollusks which have been observed in the markets were significantly smaller than the average size observed in the literatures, which itself infer that the populations in the wild have been over exploited and larger sized seashells have already become rare.

Domestic markets for the illegal trade of seashells and corals are concentrated largely around pilgrimage and tourist areas. Among the west coast, major illegal marine curio trade exists in the state of Goa. Among the east coast, major domestic curio market was found in Kanyakumari (Tamil Nadu).

Lack of awareness, poverty, market demand and feeble enforcement are the major reasons for continuation of illegal trade on protected marine species in India. Therefore, integrated marine biodiversity conservation plan along with plan to upliftment of fishermen community is required to prevent illegal trade forever. Further, strengthening of infrastructure and capacity of enforcement agencies is also required to curb these illegal activities in the country. Most importantly, there should be an integration and cooperation between line departments such as Police, Customs, Forest, Fisheries and Coast Guard to successfully curb marine wildlife illegal trade in India.

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PROJECT TEAM

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BACKGROUND

The greater part of the earth surface is covered by the seas and oceans, which contain approximately 5,00,000 species of marine organisms. The distribution of marine biodiversity always depends upon water temperature, salinity and water current and these factors vary from place to place in the Indian Ocean. The southernmost marine ecosystem of India has richer marine biodiversity due to its proximity to equator and the presence of both Wadge and Palk Bank. Fishing in this region is known from 200 B.C. and fisheries research and training institutions are supported by central and state governments that deserve much of the credit for the expansion and improvements in the Indian fishing industries of this region. Indiscriminate use of modern technologies allows scooping out of whole shoals of fish, comprising of young ones and gravid females. The renewability of sea with new recruits has been lost. At the same time, removal of other non-target organisms also has broken important links of food web of marine ecosystem. Since long, we have been looking at the marine organisms as economically important products. Instead of appreciating their ecological values, we have exploited them. Several marine species including elasmobranchs, mollusks, coelenterates, sea turtles and cetaceans have been pushed into the verge of extinction. In this context, the Wildlife Institute of India has decided to establish a satellite centre 'National Institute for Coastal and Marine Biodiversity (NICMB)' at Kanyakumari to safeguard country's coastal and marine biodiversity using scientific means. As part of NICMB activities, an assessment on protected marine species in illegal trade has been carried out all along the nine maritime states of the country along with the two island territories.