## Ecosystem conservation approch in marine conservation in Sri Lanka

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Five of the world's seven species of marine turtle come ashore to nest in Sri Lanka. They are the green turtle (*Chelonia mydas*), olive ridley turtle (*Lepidochelys olivacea*), loggerhead turtle (*Caretta caretta*), hawksbill turtle (*Eretmochelys imbricata*) and leatherback turtle (*Dermochelys coriacea*). Despite the protection of sea turtles under the government legislation since 1972, sea turtles are still being exploited by Sri Lankan fishermen for their meat and eggs. Coral mining, destruction of coastal vegetation such as mangroves and seagrass beds, coastal erosion, non-scientific hatchery practices, uncontrolled tourism, some coastal development activities and accidental bycatch can be listed as the other threats for sea turtles in Sri Lanka.

The Turtle Conservation Project (TCP) in Sri Lanka was established in 1993 to address the issue of marine turtle conservation through research, awareness, and community participation. TCP has initiated and conducted many community-based conservation activities along the coastal belt of Sri Lanka in order to address the marine turtle and their habitat issues. Major programs such as community environmental education programs, mangrove rehabilitation programs, model medicinal garden and free herbal drink programs, community library programs, free English teaching programs, nature trail program, turtle watch program, rural medical clinic program, primary school programs, school lecture programs, environmental film show programs have been successfully initiated between Kalpitiya (northwest) and Kirinda (southeast) of Sri Lanka with community participation. TCP continues its education and awareness programs and expands the coastal sites, which were not accessible due to LTTE separatist movements.

## Present status of marine turtles and their conservation in Sri Lanka

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Five species of sea turtles come ashore to nest and inhabit the coastal waters of Sri Lanka. Many turtle populations are declining to the point where they are no longer significant resources either materially or culturally. This is due mainly to the indiscriminate exploitation for their eggs and meat. In addition, turtle nesting beaches are being disturbed by tourism and development. Feeding habitats, such as coral reefs, sea grass beds and other coastal vegetation including mangrove habitats are being destroyed by pollution and unsustainable harvesting. Many turtles are also accidentally caught and drowned in fishing gear. Between November 1999 and November 2000, 5,241 turtles were reported as bycatch from 16 fish landing sites. The Turtle Conservation Project has rescued 278 entangled turtles in fishing nets during the 2000 and 2001 period. All 278 turtles were olive ridleys and were tagged before releasing them.

The south and southwest coasts of Sri Lanka have the largest marine turtle rookeries. The Turtle Conservation Project (TCP) has conducted an in-situ nest protection and research program in Rekawa between 1996 and 2000. 827 nesting turtles were tagged during this period and 3,328 nests were recorded. 305,128 hatchlings were released to the sea in the Rekawa rookery. One of the most widespread forms of marine turtle exploitations in Sri Lanka is the illegal poaching of turtle eggs for human consumption or for sale to unscientifically managed 'tourist attraction' turtle hatcheries. 16 turtle hatcheries were observed by TCP when conducting its marine turtle hatchery survey in 1995.