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## ADAPTIVE THREAT MANAGEMENT FRAMEWORK: INTEGRATING PEOPLE AND TURTLES

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Since its inception in 1980, The TAMAR Project has experienced great success in protecting sea turtles in Brazil. Currently, the populations of the five species that occur in Brazil are in recovery due to the increase in the number of nests: *Caretta caretta*; *Eretmochelys imbricata*; *Chelonia mydas*; *Lepidochelys olivacea* and *Dermochelys coriacea*. The Project has helped over 15 million hatchlings reach the ocean and is now likely protecting the reproduction of some of those early successful hatchlings. It has also contributed significantly to worldwide scientific data and knowledge about sea turtles' biology, such as life cycles and migration patterns. This success reflects not only TAMAR's research and protection strategies, but just as much its initiatives to bring fishers' and local communities' participation into its effort to protect sea turtles. TAMAR's conservation strategies have always relied on a variety of environmental education and social inclusion activities highly adapted to the socio-environmental evolving contexts of its 25 locations distributed across nine states in Brazil. The defining characteristic of TAMAR's community integration interventions is that these interventions respond to the perception of threats, or the possible formation of threats, due to the evolving social interfaces with sea turtles. These interfaces are influenced by highly localized socioeconomic, political, geophysical, and ecological factors, among others. Diversity and flexibility are critical to enable timely and effective local responses to existing or potential threats to sea turtles. TAMAR's EESI strategy has four threat management lines of actions. Two lines of action address the main present and immediate threats to sea turtles in Brazil: sea turtle bycatch and coastal development. The other lines of action are designed to prevent the emergence of new threats. Social inclusion initiatives were developed to address the greatest threat to sea turtles at the early stages of the Project, which were turtle harvesting and egg collection. While turtle and egg harvesting accounts are insignificant in Brazil nowadays, social inclusion remains an important preventive strategy for this and other types of human-related threatening behaviors that may emerge and have become an organic part of TAMAR's sustainability strategies, which include support to t-shirt manufacturing groups and other productive groups, basically formed by members of local fisher communities. The fourth line of action is long-term preventive cross-cutting capacity building and educational programs, targeting mostly children and youth in the communities where TAMAR works, which results in the formation of new generations committed to the preservation and sustainability of the environment. This work brings EESI under the same conceptual framework that underlies its conservation approach by adopting an adaptive threat management framework to organize and qualify its educational and social interventions according to the main categories of threat addressed by TAMAR. The intuitive, creative, contextual, decentralized, and independent way environmental education and social inclusion (EESI) activities have been carried out have generated positive results in the resolution of specific and evolving local problems through the course of the Project.