

## The Decadal Fruits of Community-Based Sea Turtle Conservation: An Intergenerational Case Study of the Lamu Archipelago in Kenya

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### Abstract

The Kenyan intertidal flats and pelagic waters are crucial for the endangered sea turtles of the Western Indian Ocean (Western Indian ocean). The beaches and neritic waters are the most important nesting and foraging areas for the green sea turtle (*Chelonia mydas*). Smaller rookeries of the International Union for Conservation of Nature (IUCN) red-listed hawksbill sea turtle (*Eretmochelys imbricata*) have also been found nesting and grazing in this area. The pelagic waters are critical to the connectivity of the WIO rookeries, serving as a migratory highway for not only the green and hawksbill turtles, but also the olive ridley (*Lepidochelys olivacea*), leatherback (*Dermochelys coriacea*) and loggerhead (*Caretta caretta*) sea turtles. However, the local and international illegal trade in sea turtle meat, oil and carapace jewelry has been highly documented, fueled by illegal take and small scale fisheries by-catch (15,600-31,800 incidents yr<sup>-1</sup>). Using an intergenerational community approach, WWF-Kenya managed to increase the number of protected nests by five-fold over two decades in a community with the highest affinity towards sea turtle and sea turtle egg poaching along the coast of Kenya. Efforts were focused on the most important sea turtle nesting and foraging area in Kenya, Kiunga, with the youth as the main target. A number of interventions were used to achieve this result, including awareness campaigns in schools; encouragement of alternative livelihoods and finance access among women; sustainable fisheries education among the local fisher communities; education scholarships to reduce reliance on nature-based livelihoods; and the establishment of a community sea turtle nest policing system through youth-run Turtle Conservation Groups (TCGs). A number of challenges faced these interventions, including inadequate business planning for alternative livelihoods leading to poor income generation; and poor sustainability of TCGs, which were highly dependent on incentives and donor funding. Despite these challenges, the community-based conservation approach resulted in the protection of five key locations in Kiunga with up to 26 nesting beaches; 2,021 reported and protected nests between 1997 and 2013; and 173,333 viable hatchling releases between 1997 and 2013.