

Saving the Sentinel of the Sea

A lot can be learned about the condition of the marine environment by looking at sea turtles. They have existed successfully for over 100 million years, and they travel throughout the world's oceans and harness the ocean's entire ecosystem from the beaches to ocean basins. At the moment sea turtles are struggling to survive.

Why?

Sea turtles are endangered and listed under the IUCN Red List. They are endangered due a combination of factors, namely; loss of habitat, incidental catch, trade in turtle products, increasing global temperature, conflicting perceptions and different recovery rate of populations under varying conditions of exploitation and incidental catch stress. Globally the green turtle population are conservatively estimated to have declined by 37-61% over the last 141 years.



Green turtle returning to the sea after nesting (WWF/Mike Olendo)

Why we should care to conserve the sea turtle

Turtles are a flagship species that are important locally due to its socio-cultural significance. Amongst the Bajun turtling is a cultural activity. They use turtles for food, medicine and spiritual purposes. They believe applying turtle oil casts a spell against evil spirits and cures respiratory diseases.

Sea turtles are long-lived, slow-maturing species. They play an ecological role in the marine environment as consumers, prey and competitors. They feed on sea grass and algae spurring regrowth. This enables increased productivity of these systems. Additionally, hatchlings are an important part of marine food web. They are a source of food for sea birds and fish. These interactions ensure a vibrant but stable food chain in these ecosystems.

Scientifically, they utilize two ecosystems; the beach-dune system and the marine system. Because of their habitat utilization they are a good representation of the health of these ecosystems.

Turtle Population Status In Kenya

The status of sea turtles along the Kenyan coast is unknown, although evidence suggests that sea turtle populations are declining however the rate of decline is unclear. Anecdotal information (resource managers, fisher folk) suggests that numbers have reduced substantially. These observations have been reinforced by the sporadic sea turtle nesting pattern and altered characteristic behaviour such as disturbed site fidelity, which can be seen as an indicator for reduced population numbers.

Lamu Seascape

Lamu seascape is a key turtle nesting and foraging ground. Five (5) species of the seven (7) species known world wide are found here. These are: the green turtle (dominant species), hawksbill, the Logger head, Olive ridley and the Leatherback. Lamu seascape accounts for over 70% of turtle nests recorded along the Kenyan coast. Last year (2012) 16418 hatchlings and 153 nests were recorded in Kiunga Marine National Reserve (KMNR). The high turtle numbers recorded can be attributed to the existing collaborative synergy between WWF, KWS and the burgeoning network of turtle conservation groups (TCGs) in Lamu seascape.

WWF's contribution/milestones to Turtle Conservation:

WWF working in partnership with Kenya Wildlife Service introduced telemetry tagging of the sea turtles in Kiunga. This involves tracking the movement of the turtles using satellite. This is to understand the utilization of their habitats, nesting, foraging and migratory routes.

WWF introduced the trash to cash programme. Community members (*women and youth*) clean turtle beaches by collecting plastic debris (*flip flop*) and convert them into beautiful handicrafts for sale, to tourists Their markets are mainly Lamu and Mombasa .

WWF supports beach patrol programmes in Kiunga. This programme consists of mainly youth from the surrounding areas who walk along the beach ensuring the safety of the turtles who come to nest and forage. Their activities also include;

- Translocation of turtle nests laid below the high water mark or in areas with higher incidence nest predation.
- Clearing debris along the beach that impede nesting female turtles and hatchlings journey to the sea and nest monitoring and verification.

On governance WWF is a key partner and is committed in the implementation of the Kenya turtle strategy.

WWF maintains the most biologically comprehensive and up to date sea turtle database on the Kenya coast. In collaboration with relevant partners and TCGs WWF would like to leverage this position to analyze, develop a web portal to document the

before and after sea turtle trends for Lamu Port South Sudan Ethiopia Transport (LAPPSET) Corridor.

SUCSESSES

As a result of the above interventions WWF has become a center of excellence in sea turtle conservation. Using the telemetry technology, knowledge of migratory routes and foraging habitats of the sea turtles has been enhanced.

With the trash and cash programme many households have improved their income and are able to build decent houses and send their children to school.

The community now recognizes the significance of conservation the sea turtle as a result of the above benefits and now is deeply involved in the conservation of the same.

The increased surveillance of the beaches and the protection of sea turtle nests has resulted in a higher number of successful sea turtle hatchlings in Kiunga Marine National Reserve (KMNR). Information gleaned from WWF turtle database indicate that 16,418 hatchlings swam successfully to sea. KMNR records the highest number of nests per year. Last year it reported 153 nests were reported.

What we can do to further enhance sea turtle conservation

In wider Lamu seascape identify specific areas that are physically and biologically essential to the conservation of sea turtles and management considerations there of.

Understand the drivers and inherent factors for turtling (turtle exploitation).

Livelihoods approach; understand and contextualize the level of green turtle exploitation in Kenya, for example the; coastal communities have a history of subsistence exploitation of green turtle and associated traditions.