

Project Update: May 2021

Introduction

This report is an accomplishment of the project's Work Package 200 (capacity building) and 400 (assessment and monitoring of turtles nesting activities) that have been conducted between February and April 2021. The activities involved training and provision of field monitoring materials to the Turtle Conservation Groups (TCGs), beach nesting and anti-poaching patrols and data collection, student mentorship programmes, and development of awareness and education materials. A total of two training programmes, seven official RSG beach patrols, 110 nests laid in safe areas, 41 green turtle nests relocated, 226 scrawls tracks reported, about 1990 hatchlings released, 13 turtle mortalities reported, and one joint beach clean-up event conducted during this project period. Only one nest and one carcass belonged to hawksbill while the rest were for green turtles.

Training Programmes

Two training programmes have been conducted, one in Msambweni at Msambweni TCG centre and another at Kisite Mpunguti Kenya Wildlife Station (KWS). The first training event was conducted on 11th February 2021 at Msambweni TCG Resource Center. It involved 25 representatives from TCGs between Msambweni to Tiwi, KWS, BMUs, NGOs (Diani Turtle Watch, KCAR and Eracoma) and Technical University of Mombasa (TUM). The second training was coordinated by Neville Agesa, the project field coordinator. It was conducted at Kisite Mpunguti KWS station attended by 12 stakeholders representing different CBOs, BMUs (Shimoni, Jimbo, Mwazaro, and Vanga) and KWS.

All the events involved training in standard sea turtle monitoring protocols as prescribed in the WWF- KWS manuals and issuance of basic monitoring materials (tape measure, bucket, data forms gloves, and stationary), to ensure harmonisation of the monitoring activities in the region. The event was also meant to bring the different stakeholders together to establish potential collaboration areas necessary for protection and conservation of sea turtles in the area. The major components of the training were:

- Turtle biology and species identification techniques.
- Beach patrols – location of sea turtle nests and mortalities.
- Nest monitoring – from laying to hatching and excavation to determine success rates.
- Nest relocation – nest risk ((poaching and flooding) identification and relocation.
- Anti-poaching patrols – find evidence and monitor trends with KWS Beach patrols and locate sea turtle nests and mortalities.
- Photo ID – to help in collecting data for mortality cases and turtle's interaction while diving.
- Community and tourists' education and awareness on best practices during turtle interactions.

Training outcomes

- Provision of monitoring materials to the eight TCGs outside the territories of Diani Turtle Watch.
- Enhanced knowledge, motivation and rekindled energy among TCGs in Msambweni, Shimoni, Jimbo and Mwazaro that were initially inactive.
- Establishment of an anti-poaching patrol programme together with community members in Funzi, KWS and Funzi TCG.
- The Shimoni TCG has formed a youth turtle conservation team that will spearhead monitoring of sea turtle both in water survey and beach survey and are the process of registration with Kenya Wildlife Services.



Training session in Msambweni



Training session and issuance of monitoring materials in Kisite KWS station



Group photo during the training events in Msambweni (left) and Kisite MNP

Beach Patrols

The beach patrols have been conducted weekly by the eight TCGs since the inception of the project with official RSG supported field data monitoring patrols conducted bi-weekly in collaboration with our key partners Diani Turtle Watch (DTW), students and KWS. The field observations that need attention before official fieldwork have however been reported to field coordinator for prompt action. The patrol teams are divided per sections monitored by the TCGs. Since February 2021, the teams have been able to conduct seven beach patrols that cover the entire Kenyan south coast strip under TCG monitoring. TCGs outside DTW and KWS territories that have maintained the patrols under the RSG so far, are Tiwi Turtle Police, Msambweni, Funzi and Shimoni Turtle watch.



Beach patrols at (from left) Funzi, Tiwi and Diani Beaches

Nesting Occurrences

A total of 110 have been safely established with a total of 41 green turtle nests unsafely established relocated to safe areas. Out of the nests recorded, only one belonged to hawksbill turtle while the rest were for green turtles. The distribution of the nests along the region are shown below. Additionally, a total of 226 of turtle track scrawls have been recorded during the project period. The majority of green turtles nested in the border zone and in the open zone, only seven turtles were recorded with a false crawl emergence. The highest number is observed in the DTW monitored sites followed by the area under Tiwi Turtle police with Shimoni registering only one nest as major part of the site hosts critical feeding sites for the turtle. The low number of nests in Funzi can also be due to poaching as the area is isolated making it unsecure and expensive for frequent

monitoring. The number of nests already reported are 77% of the total number of nests reported last year in the DTW territory that registered 74 nests (unpublished data) throughout the year along Diani, Chale and Funzi beaches.



Turtle nest establishment and turtle tracks

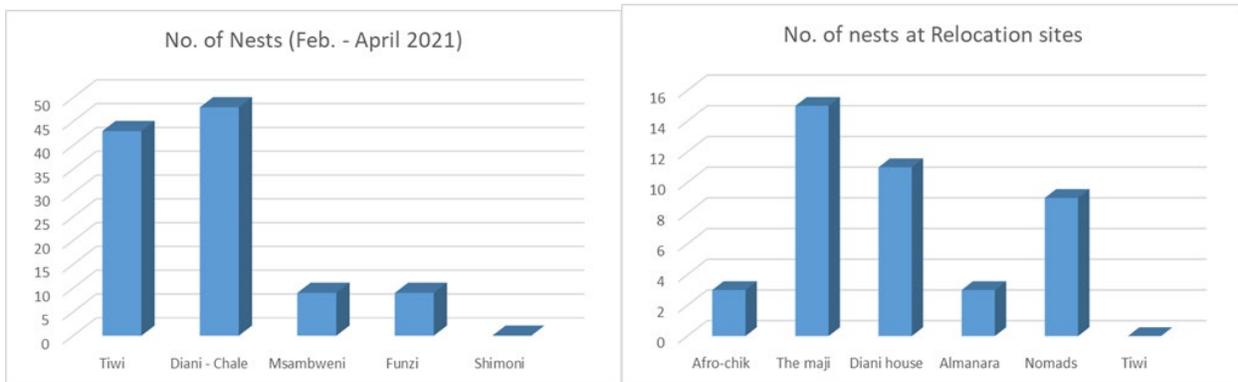


Figure 1: Nest's occurrences (left) and relocation in the South Coast of Kenya between February – April 2021

The relocated nests were those established in insecure areas where they are exposed to poaching by people, dogs, monitor lizards, and red fire ants. Other reasons were human traffic especially in Diani, those laid below watermark and risk flooding and being washed away by moving waters as well as those nests established close to the beach walls and risk human disturbance.



Turtle nesting next a beach wall and a relocation site in Diani



Nest relocation and relocation sites in Diani managed by DTW

Hatching Successes

An estimated 1990 turtle hatchlings hatched from the nests that were laid between January and April 2021 made it safely back to the ocean under the watch of our monitoring team.



Team from turtle conservation groups doing a nest excavation to determine success rates

Turtle mortalities:

Thirteen carcasses of turtle were found dead on the beach as per monitoring records. Ten dead turtles have been recorded in our data book, one being hawksbill and the rest being green. Most of the green turtles were decapitated. Four of the green turtles confirmed for fibropapiloma (FP) showed signs of the disease. FP tumours were found on four turtles during the routine body check by Diani Turtle Watch turtle experts.



A rescued turtle with *Fibropapiloma* (left) and dead turtle with *Fibropapiloma* (bottom right)

Turtle rescues

One green turtle was found alive, after being caught in fishermen's nets and it was released successfully, and the fishermen compensated for the repairs of their nets. Later on three more green turtles were rescued in Diani as the wall had collapsed on them as they had shown on the beach to nest, and they were rescued and guarded until they made it back to the ocean.

Poaching Trends

Poaching of turtles and their products in the region is carried by both humans and wild animals (dogs, monitor lizards and ants). High human poaching has been reported in Funzi, and this could be due to its isolation and low human population and inaccessibility (only by boats) making frequent patrols expensive. The poaching was high in February and March 2021 registering a total of six turtles - this was followed by intensified anti-poaching patrols in the region by the TCGs and KWS supported by the project resulting to no poaching record for April 2021. One nest was however reported to have been poached by monitor lizard in April 2021 and one hatchling trapped in litter and killed by ants.



Rescued turtle returning safely to the ocean in Diani beach after biometric measures taken



Poaching events in Funzi during the anti-poaching patrol



Beach litter and a hatchling trapped in the litter in Funzi

Marine Litter Management

While most beaches have been under frequent clean-up by the BMUs and the TCGs, a

worrying condition was observed at Funzi beach that has experienced high supply of both human and organic litter from the ocean with less clean-up due to its inaccessibility.



Beach litter collection, sorting and weighing by the community members for recycling

Students Mentorship Programmes

The project has engaged one intern and four BSc Marine Resources Management Course Students from Technical university of Mombasa. The students have been engaged in the project activities and are conducting their thesis project work through the RSG project. All the students have been engaged in training, beach patrols and monitoring programmes and education and awareness campaigns with TCGs, DTW and KWS. The students are always distributed and work with different TCGs (with alternations) during official TCG field works, where they are always tasked with data collection, management and writing site reports. The students have also been engaged and are working closely with Marine Education Centre and Conservation Education Society in Diani in their Junior Research Assistant programme, which is key to their career as it provides them with first-hand information on marine management issues. They are conducting environmental education to the visiting students on marine ecosystems and biodiversity as well as conservation problems in the area with special focus on plastic pollution and industrial fishing. Additionally, the project team are planning for a Sea Turtle Festival event in June together with the above teams.



Student engagement activities, patrols, education programs at CES and indoor presentations.



Students involved in the RSG project from left Brian, Joel, Stephen and Shariff all from TUM. Second from left is Meryline and Neville Agasa (third right), the project field Coordinators.

Plans for the next 3 months

The next quarter will be dedicated to intensified beach patrols including nest monitoring and anti-poaching campaigns in the area. This is because April-July has been reported in the previous studies as high nesting season, intensified patrols will thus enable for timely identification of nests and relocation to safety for those that will be in risky areas. The period will also be for creating new partnerships and working with the community to conduct education and awareness campaigns in learning institutions and other CBOs with the biggest event for the region, 'The Turtle Festival' Planned for mid-June 2021. Other events will be beach clean-up with students around the beaches planned for Diani and Msambweni.

One meeting will also be conducted with all the turtle monitors to verify the progress of the supported TCGs. Additionally, the project team shall build the capacity of the monitoring team and engaged students via in house presentations and attendance of more events as well as exposure of the members of the TCGs will be conducted by bringing them to Marine Conservation Centre. The project team are also planning to install new information exhibits for sea turtles at the Msambweni turtle conservation centre.