PROGRESS REPORT- 28th MAY 2026

PROJECT ID: 47945-1

Harnessing Local Knowledge and Advocacy to Reverse Dugong Decline and Promote Sustainable Conservation in East Africa (SaveDugong)

Project Lead: Jackson Lendoya Saiperaki
Institution: Sokoine University of Agriculture (SUA)
Funding Organization: The Rufford Foundation
Reporting Period: July 2025- May 2026
Project Duration Remaining: Approximately 2 months

1. Executive summary

The SaveDugong Project is a community-based marine conservation initiative aimed at supporting the recovery and long-term conservation of dugongs (*Dugong dugon*) along the East African coastline. The project focuses on integrating local ecological knowledge and awareness creation to address the alarming decline of dugongs in Tanzania and neighboring regions. Since the commencement of the project, significant progress has been achieved toward the project objectives. Focus Group Discussions (FGDs), community consultations and mapping of the past and present dugong habitat and their distribution have been conducted successfully in multiple coastal villages within Rufiji-Mafia delta, Kilwa seascape and surrounding areas. The project has generated important baseline information on historical dugong occurrence, local perceptions of dugong decline, fishing-related threats, and key seagrass habitats that may support dugong populations. The remaining project period will focus on completing stakeholder engagement activities, awareness campaigns, finalizing scientific outputs, and strengthening the dissemination of conservation findings.

2. Focus Group Discussions (FGDs) and community consultations

FGDs were successfully conducted in several coastal villages, including Namatungutungu, Somanga, Mafia and Kilwa Kivinje. The discussions involved fishers, elders, local leaders, and community members with extensive knowledge of coastal ecosystems and marine resources. Community members reported that dugongs were previously common in several coastal areas during the 1960s through the early 2000s, depending on location. However, sightings have significantly declined over time. Although the population has declined rapidly, a few respondents reported recent sightings in 2015 and 2025 in Namatungutungu and Somanga, respectively. Some respondents reported recent sightings in areas such as: Mitakawa, Fungu ya kati, Chupachupa, Mwelo, Mohoro bay, Kyasi-Rufiji Delta, Nyororo-Mafia, Somanga, Mitikiti, Kikwaju, Jaja, Pombwe, Bandari basi, Mbwela, Mtoni, Ngusimba, Nsuo, Miteja, Kipelele and matandu. Communities also identified seasonal patterns, indicating that dugongs are more commonly observed between September and February when ocean conditions are relatively calm.

Figure 1: Project team members conducting a focus group discussion at Somanga and Mafia Island (Picture by Ramadhani Mvugilije, 2025).

- ## Perceived causes of dugong decline

Community participants identified several major threats contributing to dugong decline, including: Destructive fishing practices, habitat degradation, increased fishing pressure, trawling for prawns in estuarine habitats, Gillnet bycatch, and unsustainable fishing practices. Participants also noted that accidental capture in fishing gears continues to occur, especially in large-mesh gillnets targeting sharks and rays.

- ## Socio-economic and cultural insights

The discussions revealed that dugongs remain highly valued within local communities for food, business and trade, traditional medicinal uses and cultural beliefs and practices. Although

communities acknowledged awareness of dugong protection status, many participants emphasized challenges related to compliance and enforcement.

- **Community recommendations**

Participants proposed several measures to improve dugong conservation, including: Promotion of sustainable fishing practices, alternative livelihood opportunities, protection of key dugong habitats, rehabilitation of degraded seagrass ecosystems, sustained enforcement against destructive fishing, improved monitoring and mapping of dugong occurrence areas and community incentives for releasing accidentally captured dugongs.

3. Dugong habitats mapping

A major milestone achieved during the reporting period was the mapping of the identified dugong habitats during FGDs.

Figure 2: Project Team Leader, Jackson Lendoya Saiperaki, together with a local boat operator, navigating to areas identified during FGDs as historical dugong sighting locations to collect GPS coordinates for habitat mapping (Picture by Alex Zuberi, 2026).

The mapping process involved: Acquisition of Sentinel-2 satellite imagery, pixel-based classification using QGIS software, ground-truthing surveys and classification of habitat categories including seagrass, water, sand, land vegetation, and bare land. These mapped habitats represent important ecological zones potentially supporting dugong feeding grounds and other marine biodiversity. The generated maps provide an important baseline for: Dugong habitat conservation planning, identification of priority intervention areas, future monitoring programs, community-based habitat restoration initiatives and conservation awareness and advocacy

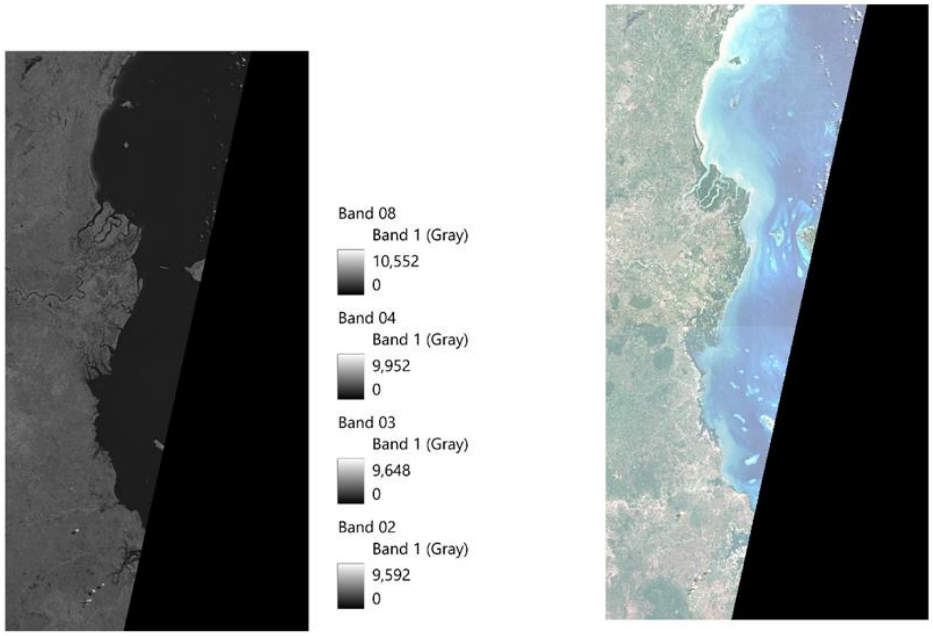

Figure 3: The Sentinel-2 bands and the virtual raster created for the visualization of features from Sentinel-2 bands.

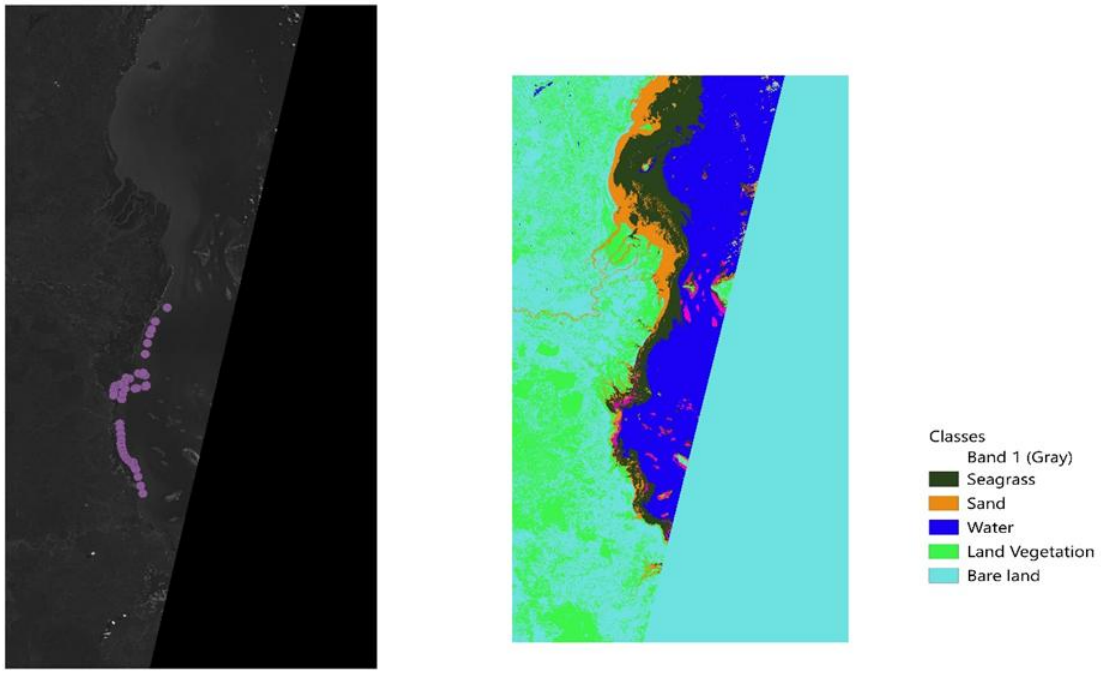

Figure 4: Ground-truth dugong habitats points integrated with Sentinel-2 satellite imagery and the resulting pixel-based classification map showing the distribution of major habitat classes, including seagrass meadows, along the southeastern coast of Tanzania.