MOZ 5b: Possible effect of sea level on mangroves on the Mozambique coast

Keywords: Mangrove ecosystem status, climate change impacts, sea level, wind and wave climatology, integrated coastal zone management

Primary actors

Mozambique: UEM (Fialho Nehama) supported by a student (Jorge Augusto Catandica)

UK: NOC (Val Byfield)

Stakeholders / End Users

NHM, UEM, IIP, NOC, SatOC, INAHINA

MPA managers, Decision makers involved integrated coastal zone management (ICZM)

Introduction / Statement of the Problem

Mangroves offer a variety of ecosystem services of local and national importance. This includes natural protection of the coast against wave action and coastal erosion, and the provision of nursery grounds for young fish and shrimps.

Case study description

The case study will involve the following activities:

- Literature review of existing information on tolerance/vulnerability of mangrove forest to sea-level rise and other factors which may affect their ability to withstand sea-level rise.
- Analysis of C-RISe sea level data at selected locations of mangrove forest along the Mozambique coast.
- Use of high resolution optical data to look at mangrove extent and status in the selected locations.
- Overall analysis informed by the literature review to identify links between sea level and mangrove status, taking into account other influencing factors.

Expected Impacts

Long Term Primary Impact: 2019 onwards

Decision makers involved in integrated coastal zone management and coastal protection against natural marine hazards will benefit from the monitoring and improved understanding of factors affecting mangrove status.

Initial Secondary Impact: To be reported on Case Study Completion at December 2018 UEM and NHM will improve their ability to monitor mangrove extent and status, and to better understand potential links between variability and change in environmental parameters such as sea level and the extent and status of Mozambique's mangrove forests.

SDG 1.5, 14.2

