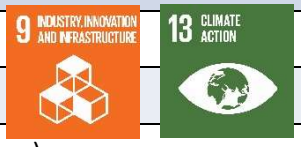
MOZ 2b: Analysis of regional variability in sea level change in Mozambique coastal seas



Keywords: Sea Level, Climate Change, Coastal Risk

Primary actors

Mozambique: INAHINA (Clousa Maueua), support from UEM Student (Keven Langa)
UK: SatOC/NOC (David Cotton / Francisco Calafat)

Stakeholders / End Users

INAHINA, UEM (School of Coastal and Marine Science), INGCC

Introduction / Statement of the Problem

Good sea level climatologies, and an understanding of the key regional characteristics of inter-annual variability in sea level are important for understanding the changing nature of risk from coastal inundation and for the planning of new infrastructure developments. A report for the INGCC: "Responding to Climate Change in Mozambique[1]" highlights the need for improved sea level information from satellites.

Case study description

The case study will involve the following activities:

- Carry out a literature review into regional variability of sea level.
- Using CRISE data and software produce maps of annual and inter-annual variability in sea level in Mozambique waters, and analyse, comparing results with information from studies of altimeter and model data in the scientific literature. Refine the analysis if necessary (would it be useful to look at variability from year to year, instead of a trend over the whole data set?).
- Produce a report on the variability of sea level in the Mozambique channel, comparing to results from previous studies.

Expected Impacts

Long Term Primary Impact: 2019 onwards

New knowledge of characteristics of Sea Level change to be passed to Mozambique Govt (INGCC) to support a national strategy to respond to climate change**.**

Initial Secondary Impact: To be reported on Case Study Completion at December 2018

INAHINA and UEM will develop the capability to access and process satellite data on sea level and to apply them in a collaboration with end-users.

INAHINA, and UEM will gain an understanding of the key features of inter-annual variability in sea level at the Mozambique coast,

SDG 13.1, 13.3 and 9.A

[1] Theron, A.K. & Barwell, L. 2012. *Responding to climate change in Mozambique: Theme 2: Coastal planning and adaptation to mitigate climate change impacts*. Stellenbosch: CSIR.