# MOZ 2d: Analysis of extreme sea level events at Mozambique Coast

**Keywords:** Sea Level, Extreme events, Climate Change, Coastal Risk

#### **Primary actors**

Mozambique: INAHINA (Clousa Maueua), support from UEM Student (Fernando Sibanda)

**UK:** SatOC (David Cotton)

### Stakeholders / End Users

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

### **Introduction / Statement of the Problem**

The landfall of tropical cyclones at the Mozambique coast has a major impact on the coastal population. Between 1956 & 2008 Mozambique was hit by 13 documented intense tropical cyclones killing approximately 700 people and affecting nearly 3 million people<sup>2</sup>. However, there is limited understanding if / how this risk is changing with climate change.

# **Case study description**

### The case study will involve the following activities:

- Carry out a literature review of storm surge events at the Mozambique coast.
- Access information on Mozambican surge events from the e-Surge project (www.storm-surge.info) from the the Global Extreme Sea Level Analysis (GESLA) data set (www.gesla.org). Extend the coverage to neighboring countries if necessary.
- Produce a report on the characteristics of recent extreme sea level events in Mozambique. Can any change in the nature of these events be detected? Can recommendations be made for the monitoring and recording of future events?

## **Expected Impacts**

Long Term Primary Impact: 2019 onwards

Knowledge of changing nature of extreme sea level events 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. Recommendations will be developed to establish a long term programme to monitor extreme sea-level events.

INAHINA and UEM will gain an understanding of the changing nature of extreme sea level events.

SDG 1.5 11.B, 13.1, 13.2, 13.3

<sup>2</sup> WIDER Working Paper No. 2013/03, Neumann et al. (2013). Assessing the Risk of Cyclone-Induced Storm Surge and Sea Level Rise in Mozambique