## MOZ 5a: Effects of climate variability on semi-industrial shrimp catches in Maputo Bay

**Keywords:** shrimp fisheries, marine living resources, climate change impacts


### Primary actors

**Mozambique:** NHM (Alvaro Vetina), UEM (Veronica Dove) supported by a UEM Student

**UK:** NOC (Val Byfield)

### Stakeholders / End Users

NHM, UEM, IIP

Fishing industry, traditional fishers

### Introduction / Statement of the Problem

Shrimp fisheries are an important economic resource, but recruitment is affected by variability/change in environmental parameters. The study aims to establish if there is a relationship between climate variability observed in satellite data and shrimp catches of *Penaeus indicus* and *Metapenaeus Monoceros* in Maputo Bay

### Case study description

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

- In addition to the C-RISe parameters (SSH/sea-level, wind, waves and tides) the use case will use chlorophyll, sea surface temperature (SST) and sea surface salinity (SSS) data from satellites, as well as data from tidal models and fish catch information.
- Analysis of shrimp catch data (*Penaeus indicus*, *Metapenaeus Monoceros*) available from IIP (Fisheries Research institute) of Mozambique over a period of 50 years (1965-2017).
- Analysis looking for potential links between shrimp catches and variability/change in the environmental parameters listed above.

### Expected Impacts

*Long Term Primary Impact:* 2019 onwards
In the long term the fishing industry, commercial and artisanal fishers will benefit from improved management of the shrimp fisheries.

*Initial Secondary Impact*: To be reported on Case Study Completion at December 2018
NHM hope to gain an understanding of how recorded ecological effects (changes in species composition and abundance) relate to observed climate variations. IIP will gain from improved understanding of factors affecting shrimp abundance. This will lead to an improvement in their ability to monitor the dynamics of the fisheries resources in Mozambique and to use the information to design management strategies, especially for commercial species.

**SDG 14.2, 14.A**