Building Blue Resilience through Innovation

MODIME

Modelling Oil Dispersion and Impacts on the Mauritian Ecosystem

AIMS

**This project aims to quantify the ecosystem-wide impacts of the Wakashio incident by extensively**

- modelling the dispersion of oil leaked
- modelling the ecosystem effects
- determine a 'safe distance'
- propose restoration efforts and interventions

We make use of two software suites- NOAA's GNOME for modelling oil dispersion and Ecopath with Ecosim (EwE) to develop an ecosystem model describing the Mauritian marine environment.

Using output from GNOME, the EwE model will be utilised to trace the transfer of oil to organisms and accumulation in organisms.

We will then develop a integrated platform that can be used to determine a safe distance for oil tankers to pass by Mauritius (as a preventive measure) and propose interventions to restore the marine environment.

This is an international collaboration whereby we have four universities participating - University of Florida, University of Strathclyde, Glasgow, University of Mauritius led by Middlesex University Mauritius. NOAA and Ecopath International Initiative are the maintainers of GNOME and Ecopath software respectively and are part of the MODIME consortium.
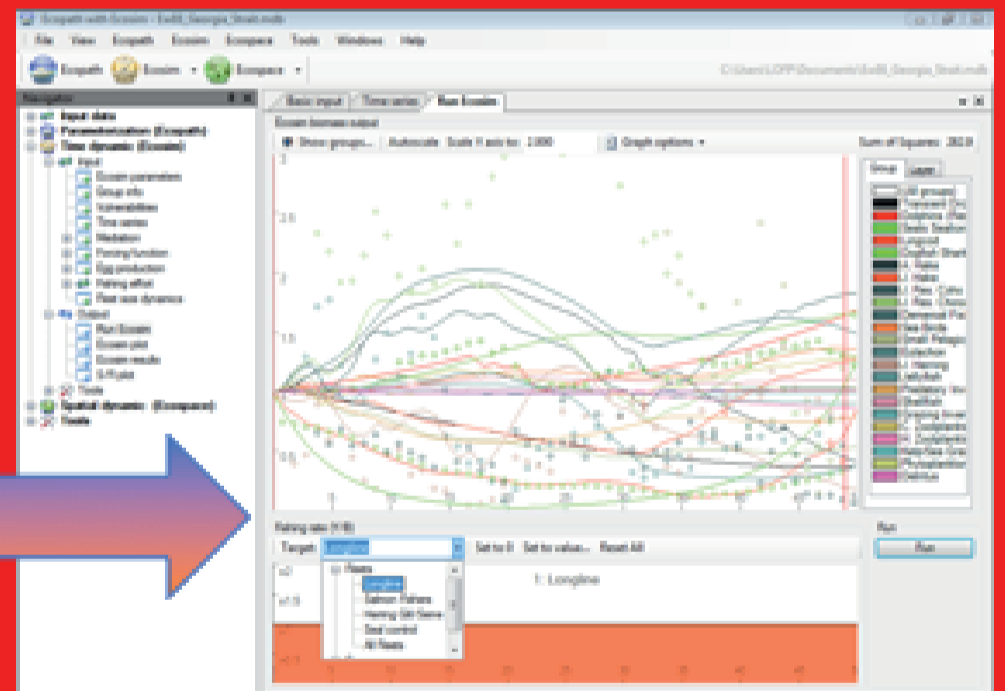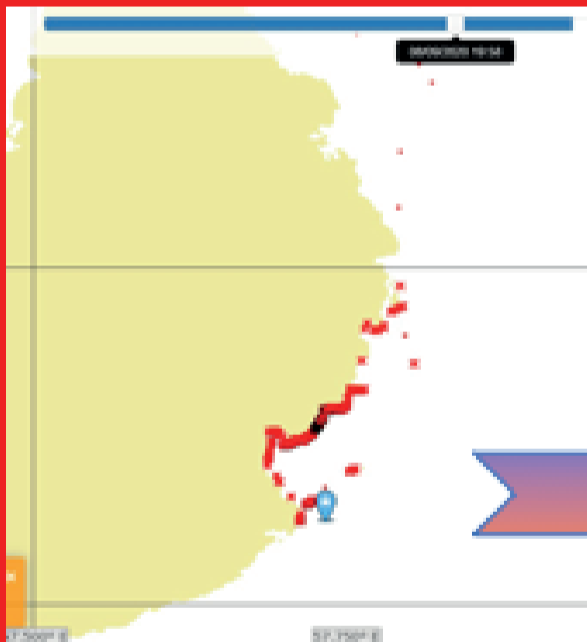
Total Project Value - MUR 1.96M

Amount Funded - MUR 1.16M

Duration: 24 Months