COASTAL PROCESSES STUDY

NORTH EAST POINT, MAHÉ, SEYCHELLES

Maximum shoreline fluctuation at North East Point over the available imagery data: northern end (left) central section (mid) and southern end (right).

INFO:

Location: North East Point, Mahé, Seychelles

Client: Government of Seychelles, UNDP, GEF

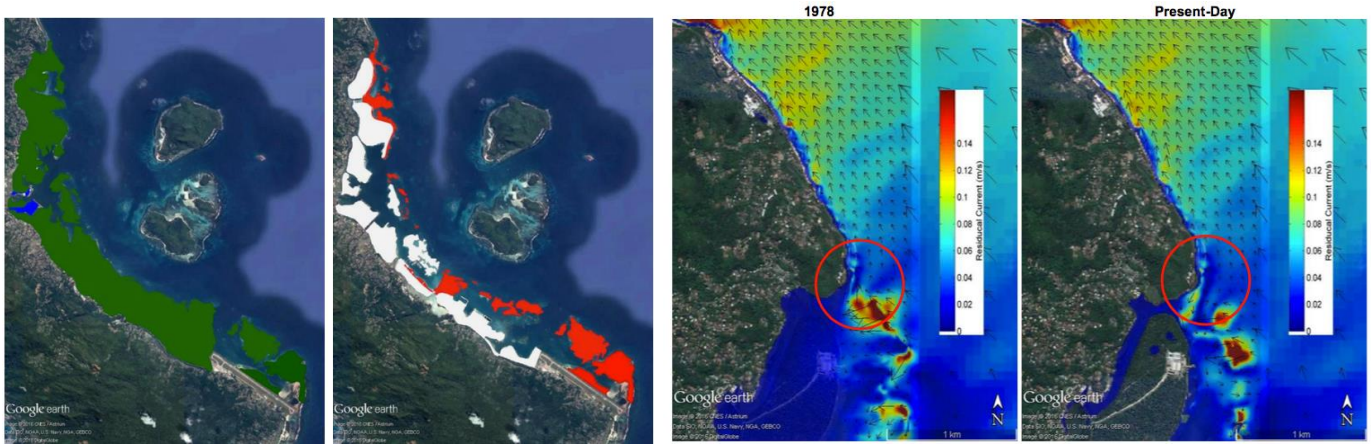
Project Date: 2016

SCOPE OF WORK:

- Coastal Environmental Assessment
- Calibrated numerical modelling
- Modelling hydrodynamics and sediment pathways
- Assessment of climate change adaptation strategies.

PROJECT DESCRIPTION:

The GOS-UNDP-GEF Programme Coordination Unit in the Republic of Seychelles is implementing an Adaptation Fund project: Ecosystem-based adaptation to climate change in Seychelles. As part of this project, we were commissioned to conduct a detailed coastal processes study with key output goals to identify and quantify the existing coastal process and how they affect sediment transport within study site, and how these processes relate to climate change resilience strategies. eCoast conducted field work and calibrated numerical modelling to assess the changes in hydrodynamics that have occurred in the region as a result of extensive dredging of the offshore reef system and subsequent land reclamation.



(left to right) 1978 reef areas (green) and reclaimed areas (blue). 2016 reclaimed areas (white) and reef areas (red). Comparison of residual currents on the 1978 bathymetry (left) and the present-day bathymetry (right). Note the enhanced hydrodynamic connectivity between the fringing reef and the coastline along North East Point in the 1978 which has been reversed as a result of the extensive modifications to the reef.