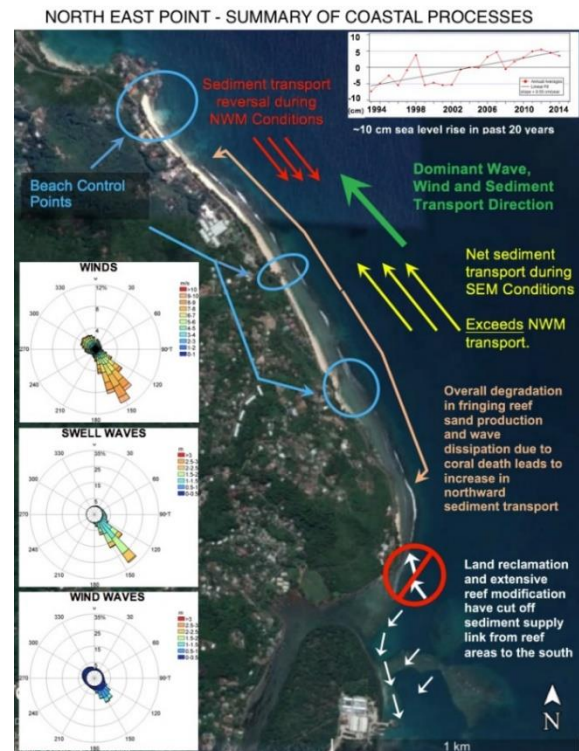
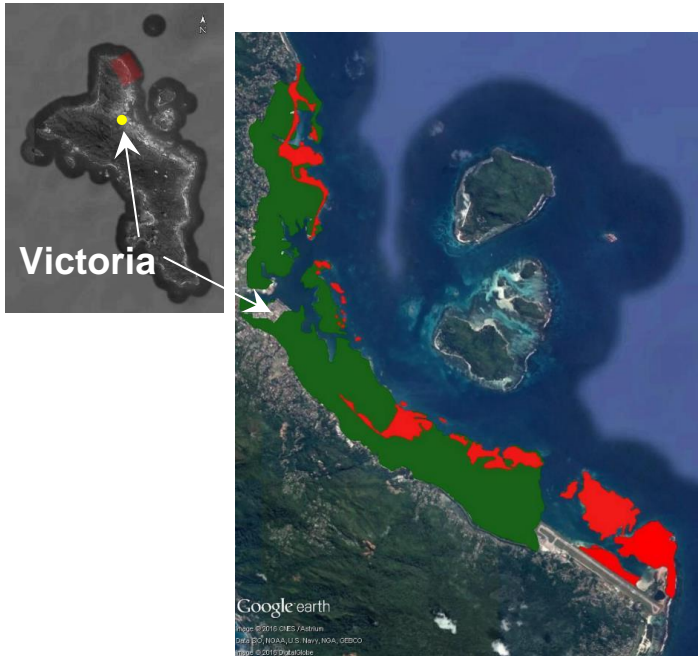


# COASTAL PROCESSES STUDY FOR CLIMATE CHANGE ADAPTATION: NORTH EAST POINT

NORTH EAST POINT, MAHÉ, SEYCHELLES



(above) (left) Mahé Island with the study area highlighted in red; (middle) reef areas in 1978 compared to remaining reef areas in 2014; (right) summary of coastal processes along North East Point beach.

## INFO:

**Location:** Mahé Island, Seychelles

**Client:** UNDP, Government of Seychelles

**Project Date:** June 2016 - December 2016

## SCOPE OF WORK:

- Field data collection
- Data analysis
- Numerical modelling
- Coastal processes study

## PROJECT DESCRIPTION:

We participated in an Adaptation Fund project entitled: Ecosystem-based adaptation to climate change in Seychelles. The coastal zone of the Seychelles is vulnerable to flooding due to rising sea level and increased storm surges from cyclonic activity in the Western Indian Ocean. This project aims to reduce the vulnerability of the Seychelles coast to climate change based threats.

The first stage of the project was to understand 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.

For this project we conducted a detailed field data collection campaign to support calibrated hydrodynamic and sediment transport numerical modelling. The study considered the effect of the degradation of the offshore reef systems due to extensive dredging and land reclamation. A key result of the study was that the modified reef configuration has interrupted the supply link between the sand production of the offshore reef and the beaches of the north east coast. This reduction in supply combined with encroaching development and roading infrastructure has resulted in chronic erosion problems along the beach.