



# Assessing vulnerability to climate change in the Roxborough community, Trinidad and Tobago

The Caribbean Natural Resources Institute (CANARI) and the Department of Marine Resources and Fisheries (DMRF) – Tobago House of Assembly engaged fisherfolk and their organisations, other community members and the public and private sector in Roxborough in 2020 to assess the vulnerability of their fisheries and wider community to climate change and identify priorities for adaptation.

## How was vulnerability to climate change assessed?

The assessment utilised three tools, participatory geographic information systems (GIS), surveys and an impact and capacity matrix, for data collection and analysis as follows:

- 1. Participatory GIS** used paper maps printed to scale to capture and integrate local and scientific knowledge on resource use, livelihoods and areas critical to the fisheries sector with community stakeholders. The paper maps were then converted to digital maps that can be compared and integrated with other GIS and technical data to support planning and decision-making.
- 2. Surveys** collected information and perspectives from fisherfolk and the wider community on attitudes/ perceptions, environmental, economic, social and political issues shaping vulnerability to climate change at the local level.
- 3. Impact and capacity matrix** allowed for identification of the hazards that have the most serious impact on the community, who and what are most vulnerable, and existing and potential coping and adaptation strategies to address these hazards. This supported prioritisation of needs and actions.



## Key climate change impacts identified by Roxborough stakeholders



Coastal erosion and sea level rise impacting infrastructure, beaches and coastal cliffs



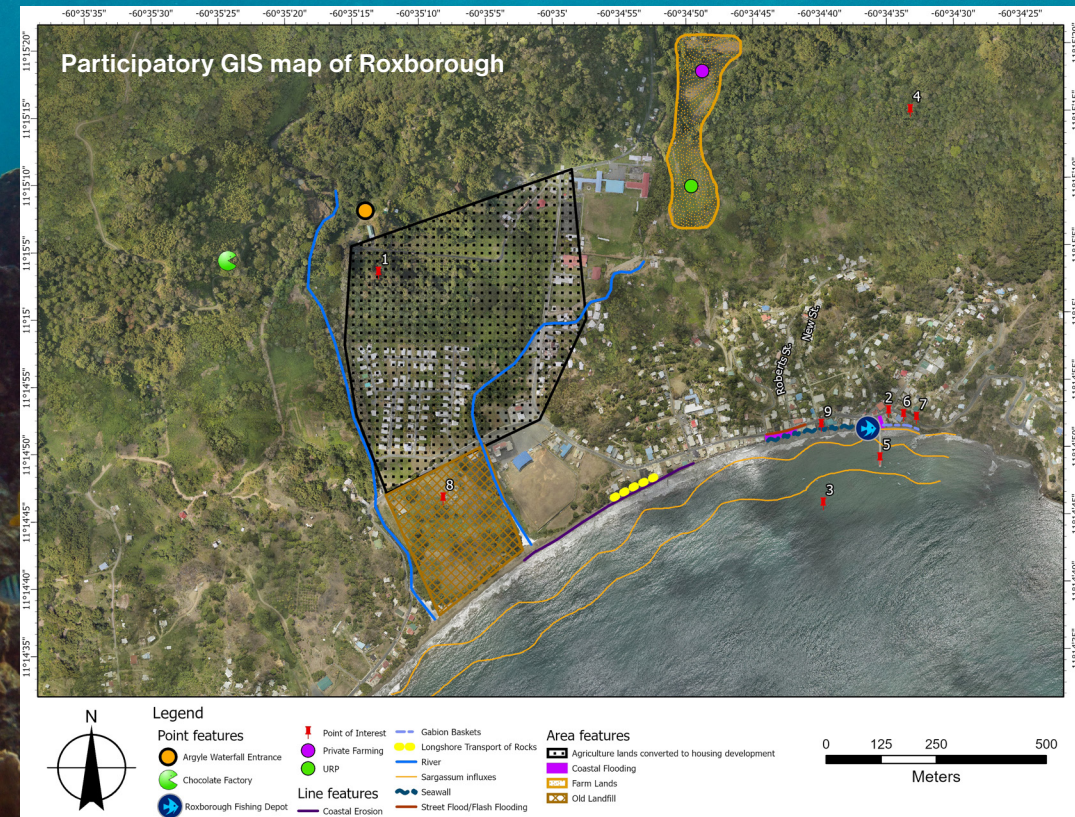
Flooding, both coastal and inland, impacting infrastructure, agriculture and ecosystems



Storms, storm surge and rough seas



Sargassum influx impacting fishers, coastal areas and public health



## Adaptation priorities for the Roxborough community

- upgrade to a floating jetty to allow fishers/boaters access despite changing water levels;
- improve access to third party insurance for fisherfolk, early warning systems and safe storage facilities to reduce storm risks;
- improve marine conservation through set up of the NE Tobago Marine Protected Area; and
- develop a community action plan to address sargassum influxes.

