



For Immediate Release

CANARI strengthens coastal communities' resilience in Trinidad and Tobago through integrating innovative and inclusive technologies

Port of Spain, August 11, 2025 – Coastal communities are facing growing challenges from sea level rise, coastal erosion, sargassum influxes and extreme weather events due to the climate crisis. These challenges impact on communities' health, local livelihoods, property and infrastructure, and coastal ecosystems such as mangroves, coral reefs and seagrass. However, assessments to date have been hampered by limited data and technical capacity, leading to gaps in coastal planning and implementation of suitable climate actions.



Carli Bay fishing facility drone shot. Credit CANARI Trinidad drone team



Trinidad drone team in field at Carli Bay. Credit CANARI Trinidad drone team

From 2023-2025, the “*Integrating digital technologies and participatory tools to support coastal community resilience in Trinidad and Tobago (Tech4CoastalResilience)*” project aimed to improve the capacity and resources of coastal communities and key management agencies to use innovative technologies to address data gaps and enable a more inclusive and informed approach. This included use of drones and participatory geographic information systems (PGIS) to map and monitor climate impacts and other changes on the coast.

The project was implemented by the Caribbean Natural Resources Institute (CANARI) in partnership with the Fisheries Division, Ministry of Agriculture, Land and Fisheries and the Department of Marine Resources and Fisheries, Tobago House of Assembly.

The project focused on ten vulnerable coastal communities, including fisherfolk, dive and tour operators and other coastal residents in Blanchisseuse, Carli Bay, Icacos, Matelot, Mayaro and Moruga in Trinidad and Castara, Roxborough, Scarborough and Speyside in Tobago.

Training was provided to key management agencies, fisherfolk organisations and environmental non-governmental organisations (NGOs) on how to use drones and GIS to support coastal mapping and monitoring of changes over time, as well as coaching to form joint field teams and map the ten coastal communities, under the project. Drone equipment and software were also provided to the two national fisheries authorities and three NGOs – Environmental Research Institute, Charlotteville, Future Fishers and SpeSeas – to support their ongoing work.

Ms. Evana Douglas, Future Fishers highlighted the following, “I see a lot of applications for the drones, especially in relation to the fisheries management that we’re doing and projects we’re involved in, with regards to being able to map different habitats and ecological areas and pinpoint key areas for action.”

Mr. Recardo Mieux, Fisheries Officer, Fisheries Division highlighted as well that “The drone training, and equipment provided, will be instrumental in bringing the use of more technology into the Division’s activities. It will be instrumental in terms of marine spatial planning, enforcement and surveillance. I think it also has many different applications in terms of our collaboration with other agencies, like the Institute of Marine Affairs and Coastal Protection Unit, fisherfolk and coastal communities, and it will have a positive impact on our fishing industry.”

Vulnerability assessments and action planning were also undertaken with the ten coastal communities to gain an in-depth understanding of local climate impacts and vulnerabilities and other coastal changes and identify priorities for action. The assessments were participatory, involving community mapping and participatory GIS to complement the drone work, developing historical timelines of changes in each community and conducting over 375 household surveys. Based on the findings, a community resilience plan was developed for each community that details the priority actions to address the key impacts and vulnerabilities identified, the roles of various actors from government, civil society and the private sector, and the required resources and timeframe.

In communities like Moruga, Trinidad and Speyside, Tobago, priorities for action included coral reef and mangrove restoration to address coastal erosion, drainage upgrades to reduce flooding, increasing use of water storage tanks and rainwater harvesting to address water shortages, providing light equipment and training on best practices for regular clean-up of sargassum clogging beaches, and diversifying livelihoods via fish processing and using sargassum to produce value-added products.

Through this work, the project has laid a foundation for embedding digital innovation for coastal management and resilience through empowering coastal communities and key management agencies via training, equipping them with the necessary tools and resources, and fostering multi-stakeholder collaboration. It has also enabled more evidence-based and inclusive planning and decision-making, with the ten community resilience plans being formalised and contributing towards the National Adaptation Plan and Integrated Coastal Zone Management Policy for Trinidad and Tobago.

This project was supported under the regional programme, “Harnessing Innovative Technologies to Support Resilience Settlements on the Coastal Zones of the Caribbean (HIT RESET Caribbean)”. HIT RESET Caribbean is funded by the ACP Innovation Fund, OACPS Research and Innovation Programme,

which is implemented by the Organization of African, Caribbean and Pacific States (OACPS) and financed by the European Union (EU).

For more information:

- visit the project webpage: <https://canari.org/projects/tech-4-coastal-resilience/>
- visit the project storymap summarising its results: <https://arcg.is/1buurP1>

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About CANARI: The Caribbean Natural Resources Institute (CANARI) is a regional technical non-profit institute which has been working across the Caribbean islands for more than 35 years. Our mission is to promote and facilitate stakeholder participation in the stewardship of natural resources in the Caribbean. Our work focuses on Biodiversity and Ecosystems, Equity and Justice, Participatory Governance and Resilience. For more information, see: <http://www.canari.org/>

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