



Resilient, Green, and Inclusive Flood Investment Baseline for the Georgetown Metropolitan Area

Context and Objectives

Guyana is exposed to multiple weather and climate change-related risks, especially flooding. The country's coastal plains, where 90% of the population lives (including the capital city of Georgetown) and which support agricultural areas vital to the country's economy, are particularly vulnerable. Flood hazards in Georgetown are manifested through rising sea levels, excessive rainfall, and inadequate drainage infrastructure and water management, and are compounded by poor refuse disposal. Due to its complex physical drainage system, the Georgetown Metropolitan Area (GMA) was not included in previous flood-risk management studies, yet as the city is likely to continue expanding due to urban growth authorities are needing a cohesive strategy to guide flood risk reduction and spatial planning strategies.

The "Resilient, Green, and Inclusive Flood Investment Baseline for the Georgetown Metropolitan Area" Technical Assistance (TA) project was launched to assist the government in designing this new strategy to guide new opportunities for investments in resilient infrastructure based on natural solutions. The government of Guyana is developing a comprehensive map of the GMA's hydrological regime, resulting in a base strategy upon which to develop future interventions. This strategy includes topics such as improving the efficiency of the urban drainage system, identifying opportunities for improvement while considering the GMA's continuing expansion and population growth.

Main Activities

- **Understanding and managing flood risk through in Georgetown Metropolitan Area:** This component forms the technical baseline for understanding and managing flood risk. Activities include: (i) a mapping exercise that analyzes the city's drainage system, identifies flood-prone areas, and installs instruments that monitor water levels and canal discharges in key areas; (ii) a hydrological and hydrodynamic modelling exercise of the current drainage system with scenarios for urban expansion; and (iii) the development of preliminary technical design drawings to identify priority flood-risk reduction interventions.
- **Technical support for developing a comprehensive study for a resilient, green, and inclusive Georgetown metropolitan area:** This component supports the preparation of a study, training, and operational capacity-building to better manage existing and future flood-risk infrastructure. Activities conducted under this component will produce an advisory report on the resilient, green, and inclusive infrastructure planning for the GMA with specific recommendations on flood risk management and land use and include capacity-building activities to provide a better understanding of natural flood management solutions.

Results

This project was activated in July 2020 with the objective to provide support to the government of **Guyana** in building climate and flood resilience in the Georgetown metropolitan area. The process for hiring an international consulting firm through a competitive selection process has started. Under the supervision of the World Bank team, the chosen firm will develop a list of prioritized investments for reducing flood



hazards and risks in the Georgetown metropolitan area for the next 20 years and prepare preliminary designs for proposed interventions. The work is expected to start in early 2021 and a number of tasks are already planned, including (i) the review of existing drainage system, data acquisition, data quality checking, and data storage for flood hazard spatial and temporal analysis; (ii) the development of flood risk, exposure, and vulnerability spatial and temporal analysis for current and planned interventions of urban development and for the relevant stakeholders and their responsibilities; and (iii) the compilation of a base layer for the project domain, which are to be completed by May 2021.

Partnerships and Coordination

The Resilient, Green, and Inclusive Flood Investment Baseline for the Georgetown Metropolitan Area” Technical Assistance is undertaken jointly with institutions of the government of Guyana including the Ministry of Agriculture’s Agriculture Sector Development Unit, the National Drainage and Irrigation Authority, the Ministry of Finance, the Ministry of Public Infrastructure and the Municipality of Georgetown.

Country

Guyana

Region

Caribbean

Caribbean Regional Resilience Building Facility component

Adaptation Facility for Leveraging Investments in Resilience in the Caribbean

Amount approved

\$503,000

Duration

07/2020-02/2023