



## **Strengthening Guyana's ability to manage flood risk in the East Demerara coastal area**

### **Context and Objectives**

Flooding is a significant risk to Guyana's population and economy as the country is exposed to rising sea levels, excessive rainfall, and inadequate infrastructure for water drainage and management. Rising sea levels have accelerated coastal erosion and led to growing encroachment of saltwater in sources of freshwater in coastal areas. This will have potentially devastating consequences for the coastal plain region, which is home to 90% of the population (including the capital city of Georgetown) and to the country's agricultural production, accounting for 27% of Guyana's GDP. Meanwhile, the Georgetown metropolitan area is set for a significant expansion after the discovery of offshore oil reserves, yet has poor waste management and disposal capacities, and there is a lack of updated information that could inform flood reduction and spatial planning strategies.

Designing a flood risk management strategy with the most accurate information available is thus an urgent priority, especially for the low-lying areas of the East Demerara region. The government of Guyana has already worked with the World Bank on the Guyana Flood Risk Management Project (GY-FRMP) to address priority flood risk management interventions.

The present technical assistance, which is financed by the European Union-funded Caribbean Regional Resilience Building Facility, managed by the Global Facility for Disaster Reduction and Recovery (GFDRR), will be building climate and flood resilience in the Georgetown metropolitan area and expansion zones, and by reducing flood risk within the Liliendaal and Ogle drainage basins. It will also support routine inspection and maintenance of existing drainage systems and strengthen Guyana's hydrometeorological, flood forecasting and early warning systems, as well as Guyana's overall Disaster Risk Management capacities.

### **Main Activities**

- 1) Prioritizing flood reduction interventions in the East Demerara Coastal Area.** Under this activity, the TA will support the improvement of drainage systems in the Liliendaal and Ogle basins. This support will include feasibility designs, detailed engineering drawings and specifications, a proposed implementation program of works according to accepted geotechnical engineering practices, and the works themselves.
- 2) Hydrometeorological monitoring, and inspection and maintenance of existing drainage infrastructure.** Under this activity, the TA will finance the procurement and installation of hydro-meteorological instrumentation for monitoring water levels and rainfall in the Liliendaal and Ogle basins, and will modernize plans for the operation, maintenance, and monitoring of flood water management.
- 3) Strengthening of flood forecasting and early warning system and capacity building.** Under this activity, Guyana's forecasting and early-warning abilities will be strengthened through institutional reforms and training programs for government agencies on topics such as hydrological modelling, flood forecasting and operational management of hydraulic systems.



## **Results**

This project is in its inception.

## **Partnerships and Coordination**

This project is being implemented by the Ministry of Agriculture's Agriculture Sector Development Unit in coordination with the National Drainage and Irrigation Authority, the Ministry of Finance, the Ministry of Public Infrastructure and the Municipality of Georgetown. These government ministries are supported by the World Bank Latin America and Caribbean DRM team.

### **Country**

Guyana

### **Region**

Caribbean

### **Caribbean Regional Resilience Building Facility component**

Regional Technical Assistance Facility to Mainstream Resilience

### **Amount approved**

EUR 1,650,000 (Recipient-executed activities)

EUR 165,000 (Bank-executed activities) - These expenses are planned for carrying out enhanced supervision of the Recipient-executed activities

### **Duration**

06/2021-12/2022