



















An Integrated Environmental Assessment of Georgetown

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## **FOREWORD UNEP**

The United Nations Environment Programme (UNEP) is pleased to present the urban environmental profile of the city of Georgetown - GEO Georgetown- which is the result of an initiative of the Mayor and City Council of Georgetown, implemented with the technical assistance of the School of Earth and Environmental Science of the University of Guyana and the UNEP.

The report was prepared using the DPSIR (Drivers–Pressure–State–Impact-Responses) conceptual framework of the Integrated Environmental Assessment methodology developed by UNEP, and applied for regional, sub-regional, national and city level assessments in Latin America and the Caribbean since 1995.

The GEO Georgetown report evaluates the interaction between the urban development and its impact on the environment. This report calls for action with regard to recognizing the nature, causes and impacts of the city's problems. It goes further, focusing on building a consensus and will to act to resolve these problems, considering specifically articulated scenarios.

At present, climate change is one of the main problems of coastal cities like Georgetown, located on a coastal plain where the geological and geomorphological characteristics of the soils, and the fact that the city is two meters below the sea level, exacerbate its vulnerability to flooding. Georgetown faces serious drainage systems problems increased by unplanned urban growth and the inland tidal effect that increases siltation along the coasts.

The report identifies the major sources of greenhouse gases such as the energy and agricultural sectors (from fossil fuels), landfill and household wastes, sugar cane burning, small and medium-size energy generators and motor vehicles, and highlights that greenhouse gases emissions are not monitored continuously.

Another problem confronting the city is related to the quality of natural water sources, soil contamination, and deforestation and degradation of mangroves affecting the marine and coastal ecosystems. Natural water sources are highly polluted, exceeding the standards of the World Health Organization. Improvements in sanitation, water quality and sewerage systems are needed to improve the living conditions of the population. The lack of access to drinking water and the deficiencies in sanitation in many settlements are responsible for the contamination of soils and water, as well as morbidity and mortality of the population of Georgetown. Some diseases like malaria, dengue, lymphatic filariasis are due to the main sanitation conditions.

GEO Georgetown presents scenarios on three selected themes, namely disaster preparedness, solid waste management and urbanization/migration, developing a vision with regard to framing policy, infrastructure, institutional capacity, citizen awareness and compliance. It recommends an intra and interagency coordination to: promote and facilitate the orderly development of secondary towns; enhance public environmental awareness and education; build institutional capacity; enhance legislation and enforcement; and to prepare community and National Disaster Preparedness and Management Plans.

With the preparation of the GEO Georgetown report, UNEP hopes that local decision makers, university students, environmental consultants and all those working in fields related to sustainable development can use this valuable tool to improve the quality of life of the city residents.

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