



K I N G S T O N

# A City Adapting to a Changing Climate

Advocating for Nature-based  
Solutions (NbS) in urban and peri-  
urban development.

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Kingston is one of three medium-sized cities in Latin America and the Caribbean, which has benefited from CityAdapt - Building Climate Resilience of Urban Systems through Ecosystem-based Adaptation (EbA)- a novel project implemented by the United Nations Environment Programme (UNEP) and financed by the Global Environment Facility (GEF) through its Special Climate Change Fund.

Since 2018, CityAdapt has been implementing climate resilience pilot interventions through EbA or Nature-based approaches in urban and peri-urban communities in Kingston (Jamaica), Xalapa (Mexico) and San Salvador (El Salvador).





# Advocating for Nature-based Solutions: The CityAdapt Method.

Like many middle-income countries across the globe racing toward modernisation and development, Jamaica's rapid urban expansion is resulting in the degradation of critical urban and peri-urban ecosystems in the face of the unavoidable impacts of climate change.





The Wag Water River Watershed and Hermitage Sub-Watershed system in the Blue Mountains, the source for up to 40% of Kingston's water supply, is under strain, which intensifies during rising urban heat temperatures and extreme hot weather events. Advocating for the preservation of the city's vital water sources through nature-based approaches has been an important initiative of The Nature Conservancy (TNC), an international environmental organisation operating in the Caribbean for over four decades.

Limited urban planning in the wake of exponential development of Kingston's infrastructure, including construction of heat-absorbing multi-storey residential spaces and complexes, has meant increased density of the urban space, removal of trees and consequently, warmer temperatures.

In its partnership with CityAdapt since 2021, TNC has been designing systems for the integration and scaling up of Nature-based Solutions in Jamaica's climate policy and medium to long term urban planning process.





## Did you know?

**Kingston is expected to be the second city in the world to reach climate departure by 2023.**

**Climate Departure** is defined as “the moment when the average temperatures, either in a specific location or worldwide, become so impacted by climate change that the old climate is left behind. A city is set to hit climate departure when the average temperature of its coolest year is projected to be warmer than the average temperature of its hottest year between 1960 and 2005.”

**Source:** Mora et. al, University of Hawaii (October 2013). “The projected timing of climate departure from recent variability.” *Nature*, 502, 183-187.

# TNC Interventions under the CityAdapt Project

Training local stakeholders, such as environmental agencies, municipal authorities, public utility companies, real estate developers, and civil society groups to understand climate change factors, integrate climate change indicators into their planning process and use NbS tools.

Assessing the plans, policies and programmes necessary for Government of Jamaica to effectively implement and promote Nature-based Solutions and climate-resilient development in urban spaces.

Ascertaining and assessing the nature-based approaches best suited for the unique topographies of urban and peri-urban areas in and around Kingston.

Recommending necessary legislative changes and sharpening the use of NbS language in Jamaica's laws and regulations on the Environment, and for the integration of NbS considerations in permits and approvals.



“CityAdapt has attempted to work from the bottom up, as well as from the top down, and has been a great project design to guide the policy work being done by TNC to advocate for Nature-based Solutions or Ecosystem-based Adaptation to be reflected in policies, plans, programmes and laws. We’ve consulted and provided training for the municipal authorities and decisionmakers in key Government agencies on strategies across the whole spectrum, to cement the gains and lessons learnt beyond the end of this project.”

**Donna Oniss Blake**  
**Jamaica Programme Director**  
**The Nature Conservancy**

# What are Nature-based Solutions (NbS)?

Nature-based Solutions (NbS) are inspired and supported by nature to protect, sustainably manage, or restore natural ecosystems. They encompass a wide range of climate change mitigation and adaptation measures to improve urban resilience by using nature to deliver social, ecological, and economic benefits.



"In small-island developing states like ours, Nature-based Solutions are well-suited as climate-change adaptation measures because they are cost-effective in comparison to human-engineered grey infrastructure. They also offer a range of benefits and co-benefits to strengthen critical ecosystem services such as biodiversity conservation and regulated water resources.

The targeted activities under this UNEP CityAdapt Project took note of the vulnerabilities in our urban spaces. The unique lessons learnt will inform our policies and responses to cope and adapt to the vicissitudes of a changing climate for generations to come."

- **Shanice Bedward-Grant**  
National Coordinator, CityAdapt Jamaica

#### For more information contact:

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