



A Briefing on the Urban Biodiversity Project!



Community Members placing Biodiversity signs.

By Keisha Rodriguez [Belize Association of Planners](#) on April 30th, 2022

Background

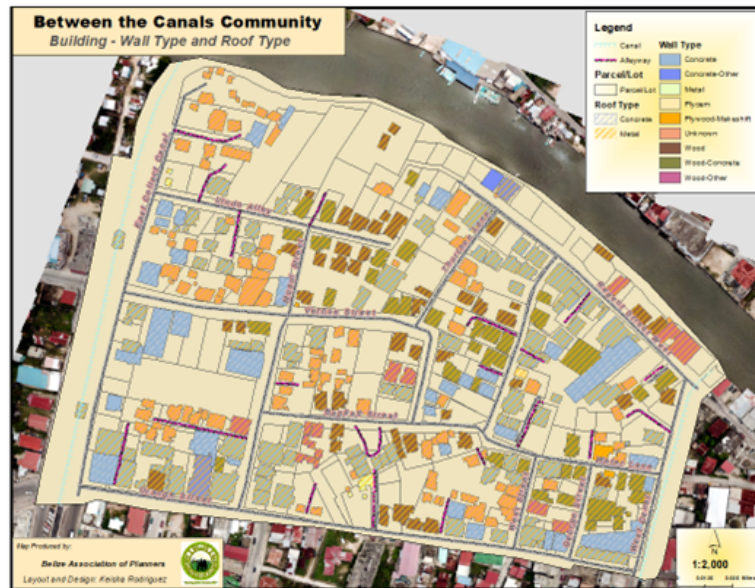
Urban climate change-related risks are increasing (including rising sea levels and storm surges, heat stress, extreme precipitation, inland and coastal flooding, landslides, drought, increased aridity, water scarcity, and air pollution) with widespread negative impacts on people (and their health, livelihoods, and assets) and on local and national economies and ecosystems. Urban adaptation action that delivers

mitigation co-benefits is a powerful, resource-efficient means to address climate change and to realize sustainable development goals. 1 As such, maintaining and enhancing urban biodiversity is critically important to climate resilience in cities, as they improve the health and well-being of residents, reduce energy consumption and vulnerabilities to disasters, provide ecosystem services, and are sinks to greenhouse gases. Notwithstanding, ensuring that cities and urban communities value and maintain their urban biodiversity is often discounted in national and local policies.

There is an urgent need to increase awareness of the role of urban biodiversity to climate change mitigation and adaptation. Already, climate induced extreme weather is causing significant loss of property, livelihoods and well-being, wiping out development gains and compromising the ability of Small Island Developing States (SIDS), including Belize, to achieve its development goals. Expected to worsen, this will undoubtedly exacerbate the stresses already placed on urban ecosystems. Two key aspects of urban biodiversity critical for policy are the quality and extent of urban ecosystems and the provision of green infrastructure. Responding to this urgent need, the Belize Association of Planners in partnership with the “Between the Canals” Community in Belize City, devised and implemented an innovative project to enhance community knowledge on the role of urban biodiversity in mitigating and adapting to climate change.

The project was implemented during the period September 1st, 2021 – January 31st, 2022 and entailed a series of activities including training workshop comprising presentations and field mapping of green spaces, ecological corridors and waterways to establish biodiversity levels; designing and implementing a biodiversity project to increase biodiversity levels in the community; and producing and disseminating knowledge products. This policy brief which explores the nexus of urban biodiversity, climate change mitigation and adaptation in an inner-city community; documents the experience and provides lessons-learned as well as best practices for potential replication in other communities in Belize City; and national upscaling.

Climate Change Vulnerability in ‘BTC’



Urban communities are significantly exposed to climate change impacts such as sea level rise and intense weather events such as storms and hurricanes. Belize City is the primary example as it is located at the mouth of the Belize River; an area which is low lying, swampy and vulnerable to flooding and storms. The disadvantages of its physical environment coupled with escalating pressures from population growth and the compounded effects of socio-economic challenges such as poverty makes the city acutely vulnerable to the impacts of a changing climate. Located between waterways, on the banks of the Haulover Creek and a mere 0.36 km from the coast, ‘Between the Canals’ is a part of Belize City that is greatly exposed to climate risks. It is known anecdotally that heavy rainfall rapidly floods streets such Alexandria Street where inadequate drainage systems are often quickly overwhelmed. Housing is another area where the community is at high risk as the housing stock is deteriorating with 54% of the housing in fair-poor condition and 52% constructed of wood. There are no official green/public space within the community but there is a proliferation of abandoned vacant lots; about 28% of the lots in the community fall under this category. The trend has been for these vacant properties to be eventually converted into large concrete buildings that can contribute to the heat island effect. While climate action is normally at the national level and sometimes at the city or municipality level; it is important to be cognizant that the current awareness and activities occurring at the community-level will be crucial in determining the resilience of that community and the larger city or the entire country to a changing climate.

Achievements of the ‘BTC’ Urban Biodiversity Project

The project was successfully executed, meeting and exceeding its desired objectives.

Workshops-A total of 20 persons from the community participated in two interactive community workshops comprising presentations and field mapping of green spaces, ecological corridors and waterways to establish biodiversity levels within their community. The participants were diverse in age and gender comprising 14 females and 6 males and ranging from age 13 to 60+. 85% of the participants were youth as they were below the age of 30. During these workshops participants were introduced to the topics of climate change and urban biodiversity; they shared their personal experience and knowledge on the topics contributing to rich discussions; as well as shared their enthusiasm for gaining new information and knowledge that they can share with their families and communities and apply in their daily lives. The field aspect of the workshops was well-received as the participants were able to perceive their communities through new lenses as most were not aware of the diverse flora and fauna in their immediate surroundings. As a result of these sessions, participants were able to identify 3 species of mangroves growing in their community, the Red, Black and White mangroves, promoting more biodiversity in the community.

Throughout the BTC community, the only existing public space was a half-basketball court in the Lindo’s Alley area. The court was surrounded by several homes and was in disrepair, additionally the court is prone to flooding during heavy rains and as such is minimally used by the community. The project sought to enhance the area through greening by the installation of planters that would be planted out with a variety of plants including ornamentals as well as herbs etc. that can be utilized for cooking. This micro-project was implemented by the community members during the period, January 7 – 14, 2022. A total of seven (7) community members, four (4) females and three (3) males who range in age from 20 to 60 years were intimately involved in this activity. They undertook the labour to clear and prepare the area, to build the concrete bench planters, placed and painted the tire planters, filled the planters with black soil and planted out the area. Technical support was provided by Go Green Eat Clean Belize, an organization based in Belize City that offers consulting services to establish organic urban gardens. The result is an area that is now transformed from an unused, empty, concrete-dominated space to a vibrant, attractive green space that the entire community can access and utilize in a variety of ways.

The second micro-project implemented by the community members was the greening of a public space with the aim of fostering environmental stewardship and securing tangible community benefits in a sustainable manner. The Belize Association of Planners (BAP) identifies four best practices that significantly contributed to the success of this project and should be applied in replicating and upscaling this project in other communities across Belize. These are as follows:

1. **Community Engagement** – BAP has utilized a participatory approach with the ‘Between the Canals’ community from the very beginning, that is, throughout the process of developing the Climate Resilient Action Plan.
2. **Integrating Technology** – BAP has integrated technology into its work with the BTC community in various ways. For example, BAP utilized drone technology to develop aerial images of the community.
3. **Tangible Community Benefits** – It is essential that in implementing small projects like these in urban communities that are facing a plethora of social issues; ensuring that the community is able to see tangible benefits is key to building community trust and confidence, credibility and to sustaining interest and engagement.
4. **Partnerships** - Levering key partnerships were an indispensable aspect of implementing a project of this nature with limited funding yet ensuring that all the objectives were met.

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Caribbean Recreational Fisheries Exchange 2022

The Ministry of Blue Economy and Civil Aviation and the Belize Fisheries Department welcomed visitors from Cuba, The Bahamas, and the United States on the first day of a 5-day recreational fisheries exchange hosted in partnership with the non-profit organization, Environmental Defense Fund (EDF). The learning exchange aimed to build a community of practice and share knowledge about conservation, sustainable fisheries management, and preparing for climate change. Participants included more than 20 fishing guides, scientists, and resource managers from Cuba, The Bahamas, Belize, and the USA. This exchange builds upon a previous exchange hosted in Belize in 2018 and will help to strengthen the relationship between Belize, Cuba, and The Bahamas. Recreational fisheries are an important part of a sustainable blue economy in Belize and throughout the Caribbean. Before the pandemic, fly fishing and guiding in Belize provided over \$100 million to the national economy each year. Working together can ensure that those opportunities return while also improving conservation to ensure that future generations have the same access to the livelihoods and cultural benefits of sustainable recreational fisheries (Caribbean Regional Fisheries Mechanism, 2022)

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