NGC Introduces its Climate Adaptation and Resilience Portal (CARP)

In a world of rapidly accelerating climate change and global warming, due in large part to greenhouse gas (GHG) emissions and other manmade changes to ecosystems that affect the planet's ability to effectively absorb and recycle carbon, Small Island Developing States (SIDS) such as those of the Caribbean are particularly vulnerable to climate change impacts. The factors that make the region vulnerable include its geographic location, limited land area, an abundance of sensitive ecosystems such as forests, mangroves, coral reefs and other natural habitats, high population density in coastal areas, economic dependence on climate-sensitive sectors, and limited access to resources for adaptation and resilience-building.

One key vulnerability of SIDS is their exposure to sea level rise. Many SIDS have low-lying coastal areas, making them highly susceptible to inundation and coastal erosion as sea levels continue to rise.

In its 2022 Sea Level Rise Technical Report, the National Oceanic and Atmospheric Administration (NOAA) projected that over the next three decades, sea level rise in the Caribbean is projected to be, on average, 8 - 10 inches (0.2 - 0.25 metres). While this may seem small at first glance, it poses significant risks to infrastructure, settlements, and freshwater resources, as well as to the livelihoods and well-being of the population.

A sea level rise of 8-10 inches could have disastrous consequences on economic activities such as tourism, fishing, agriculture, and farming, threatening the region's ability to withstand planetary warming greater than 1.5 degrees Celsius. Coastal erosion, for example, can lead to the loss of land, property, and infrastructure, impacting the viability of tourism, fisheries, and other coastal-based industries. The economic impacts of coastal erosion can be substantial and may require investments in adaptation measures to protect vulnerable areas.

It is within this context of climate impacts to SIDS, that NGC decided to develop its Climate Adaptation and Resilience Portal (CARP).

CARP seeks to build on the success of NGC's CariGreen website which was launched in 2021. While CariGreen successfully brings together datasets and knowledge on climate change mitigation from around the Caribbean into one central location, CARP focuses on climate adaptation and resilience.

Adaptation, unlike mitigation, refers to the process of adjusting and modifying societal and natural systems to minimise the adverse effects of climate change. It involves developing strategies and implementing measures to reduce vulnerability and enhance resilience in the face of changing climatic conditions. Resilience is the capacity of a system to absorb shocks, adapt and recover from disturbances while maintaining essential functions and structures.

In the first instance, CARP will provide information and alerts on climate change-related risks such as sea level rise, coastal erosion and vulnerability, maritime alerts, bushfires, air quality, deforestation and other emerging threats that can disrupt our way of life in the Caribbean.

Using interactive Geographic Information Systems (GIS) technology CARP will illustrate climate risks using maps, charts, and other interactive tools to assist NGC's employees and members of the public in making more informed decisions in their daily lives considering the evolving environmental conditions associated with climate change.

Figures 1-3: CARP Screenshot Comparison of Climate Projections for Sea Level Rise in Parts of Northwestern Trinidad over the Periods 2021-2040; 2040-2060; and 2061-2100

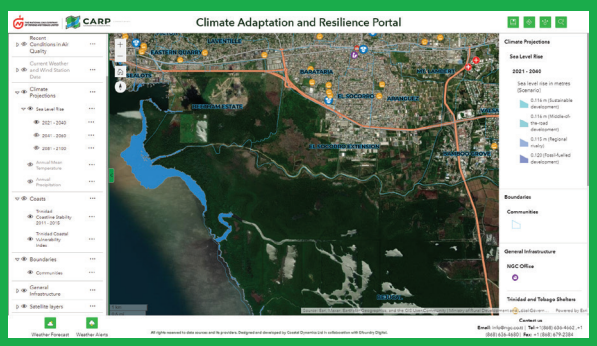

Figure 1: 2021-2040

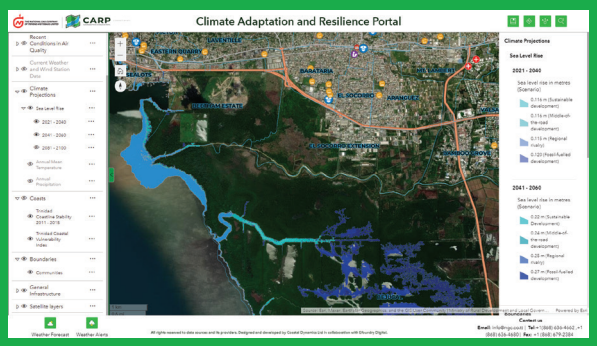

Figure 2: 2041-2060

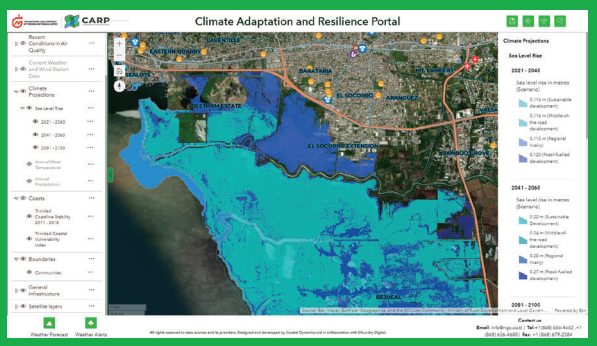

Figure 3: 2061-2100

Why is it important to become aware of and educated on climate change impacts using tools like NGC's CARP?

Education on climate adaptation and the impacts of climate change is crucial for increasing awareness, driving mitigation and adaptation efforts, fostering resilience, creating economic opportunities, promoting social equity, advocating for policy action, and achieving sustainable development. By empowering individuals, businesses, and society with knowledge and understanding, we can more effectively address the challenges of climate change and work towards a sustainable and resilient future.

Here are some key reasons to become more climate-aware and educated using tools like NGC's CARP:

1. **Awareness and Understanding:** By providing accurate and accessible information, individuals can develop a better understanding of the challenges posed by climate change, including the need for adaptation strategies.

2. **Mitigation and Adaptation:** Education is essential for driving both mitigation and adaptation efforts. It helps individuals and businesses understand the importance of reducing GHG emissions and adopting sustainable practices to mitigate climate change. Furthermore, education on climate adaptation equips individuals with the knowledge and skills to prepare for and respond to the impacts of climate change, such as extreme weather events, rising sea levels, and changing ecosystems.

3. **Resilience and Preparedness:** By educating individuals, businesses, and communities on climate adaptation, they can develop strategies to enhance resilience, minimise vulnerabilities, and effectively respond to climate-related risks.

4. **Economic Opportunities:** Education on climate adaptation and the impacts of climate change opens new economic opportunities. It enables businesses to identify and seize opportunities for developing and offering climate-resilient products and services. Additionally, a well-informed workforce can contribute to innovation and the development of sustainable solutions, creating green jobs and promoting economic growth.

5. **Social Equity:** Climate change disproportionately affects vulnerable communities and exacerbates existing inequalities. Education can help address these disparities by promoting equitable access to information, resources, and opportunities for climate adaptation.

6. **Policy Advocacy and Action:** Education enables individuals and communities to advocate for effective climate policies and take collective action. Informed citizens can engage in discussions, participate in decision-making processes, and hold policymakers accountable for implementing climate adaptation measures. Education also fosters a sense of responsibility and collective action, promoting behaviour change and community-based initiatives.

7. **Sustainable Development:** Education on climate adaptation and the impacts of climate change equips individuals and businesses with the knowledge and skills necessary to balance environmental, social, and economic considerations. By integrating climate change education into sustainable development practices, society can work towards a more resilient and environmentally conscious future.

NGC's CARP will be launched soon. Look out for release updates on NGC's website (www.ngc.co.tt) and social media platforms.

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NGC GREEN AGENDA