Climate adaptation in the Caribbean: Climate data

1. Users can access historical climate data
   - Weather stations provide historical data for two 30-year time periods. Climate variables include...
     - Temperature
     - sunshine duration and number of dry days
     - Wind speed
     - Vapour pressure
     - Rainfall

2. The portal also provides future projections
   - Data from 2 Global Climate Models (GCMs) is downscaled...
     - to drive a Regional Climate Model (RCM) that provides climate projections at a 25km resolution across the Caribbean

3. The portal provides data simulations that can help decision makers better understand climate risks to the region
   - Weather Generator (WG)
     - This tool provides daily weather time series that can be used in impact assessment. Projections can be generated at single locations at the site of available weather stations
     - In Belize the tool was used to assess how climate change might affect dengue fever
   - Tropical Storm Model (TSM)
     - The TSM allows users to run simulations of tropical storms over pre-defined storm tracks. The model generates precipitation rates and wind speeds on grids at 15 minute intervals
     - In Jamaica the model was used to assess river discharge in the event of a category 5 hurricane
   - The CARiDRO drought tool
     - CARiDRO allows users to process observed and modelled climate data to assess both atmospheric and hydrological drought
     - In Cuba the model was used to assess the frequency of drought under climate change

4. Climate projections are a useful tool for decision makers, but uncertainty over the nature of climate impacts is inevitable. CDKN-funded research provides guidance on how to make decisions under uncertainty
   - Research found that the number of days when minimum temperatures exceed 18°C is likely to increase. This suggests conditions for dengue fever could become more favourable
   - The study found that peak discharge of the river is likely to occur around 14 hours after the onset of the storm. Different tracks and storm strengths yield different discharge rates
   - According to the research, Cuba’s Las Tunas province can expect between 12-18 moderate to extreme droughts between 2011 and 2050

To learn more and access the Caribbean research on which this infographic is based visit: www.CDKN.org/caribbean

The CARiWIG Weather Impacts Group (CARIWIG) is composed of Newcastle University (UK), the Caribbean Community Climate Change Centre (Belize), University of East Anglia (UK), University of the West Indies (Jamaica) and the Institute of Meteorology (Cuba)

To access CARiWIG data and simulations visit: cariwig.caribbeanclimate.bz and caridro.caribbeanclimate.bz. To access CCORAL visit: ccoral.caribbeanclimate.bz

References for the data and information in this infographic can be found in the related policy brief at https://cdkn.org/2017/03/feature-climate-data-caribbean

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