Preparing for Durban – Pertinence and Persistence – The Caribbean’s Position

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Order of Presentation

- Overview of Key Climatological Evidence
- Caribbean Economies and Climate Change: What are the facts?
- Past and Current Initiatives to address Climate Change
- Policy Positions for Durban
What are the Key Climate Observations with relevance for the Caribbean Region?

Climate Has Changed

Carbon Dioxide and Methane Concentrations Over the Last 10,000 Years

Atmospheric concentrations of carbon dioxide (in parts per million) and methane (in parts per billion) over the last 10,000 years (large panels) and since 1750 (inset panels). Measurements are shown from ice cores (symbols with different colors for different studies) and atmospheric samples (red lines). Source: IPCC, 2007
Recent research and observations suggest sea level rise will range from a minimum of 20 inches to a possible maximum of 39 inches by 2100.
Climate Is Changing (1 of 3)

Illustration of low scenario work

**CO₂ concentration**

- **Business-as-usual** (IPCC SRES A1B)
- **Current proposals under Copenhagen Accord**
- **2°C Stabilization**
- **RCP3PD scenario** (IPCC AR5)
- **Zero in 2016**

- Low-emission scenario with negative CO₂ emissions from upper half of literature range in 2nd half of 21st Century

- **Coral reefs start dissolving**
- **Coral reefs stop growing**
- **Long-term limit for reefs**
Illustration of low scenario work

Ocean Acidity

- Low-emission scenario with negative CO₂ emissions from upper half of literature range in 2nd half of 21st century
- Zero in 2016
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Approximate 2010 level

21st century

Ocean Acidity (pH)

1800 1900 2000 2100 2200 2300
Climate Is Changing - Results from PRECIS I

(3 of 3)

Annual Temperature

- Mean Regional Warming 2.3-3.4°C;
- Rise in temperature by 1°C over the past 50 years (average global increase is 0.7°C over the last 150 years!)
- Greater warming over land areas (forest fires, droughts)

Annual Precipitation

- Mean changes 2.9 - 11%;
- High consensus of rainfall decrease in almost all islands except Cuba, Bahamas and Dominica Republic
What are the Key Climate Observations for the Region?

- According to the IPCC IV Assessment
  - An increase in extreme events, inclusive of tropical cyclones in the North Atlantic, El Nino and La Nina events since the 1970s
  - The intensity of tropical cyclones since 1970 correlates strongly with increases in sea surface temperature.
  - The 350 ppm concentration of CO$_2$ would result in an averaged rise in global temperature well in excess of 2$^\circ$C by 2100
  - The 450 ppm would result in a rise in excess of 5$^\circ$C
  - Already the CO$_2$ concentration is in excess of 390 ppm
Warmer Sea Temperature and Impacts on Marine Life

- Most extensive and severe bleaching of corals occurring in the Caribbean.
- In Belize live coral cover on shallow patch reefs has decreased from 80% in 1971 to 13% in 1999
- Loss of a source to attenuate wave energy in a region that experiences severe hurricanes
- Loss of habitat for non-commercial and protected species
- With 10°C rise in temperature, many commercial fish species will migrate to more favourable environments
Other Impacts of Climate Change on Caribbean Economies

- Increased floods and droughts, i.e., Guyana lost 60% of GDP in 2006 due to floods
- More negative impacts on agriculture and food security
- Growth in the incidence of tropical diseases like malaria and dengue
Confounding Factors (1 of 2)

- **Caribbean Economies - Challenges**
  - Small islands and low-lying States
  - High levels of debt to GDP ratio, in some cases above 115% of GDP that limits deployment of adequate adaptation resources
  - Extremely open and previously preference dependent economies with openness indices above 100 in many instances
  - Low adaptive capacity
  - High levels of relative poverty that range between 20% - 35% of national populations
Confounding Factors (2 of 2)

• Caribbean Economies – Challenges
  – Massive emigration of skilled personnel
  – A regional food import bill of over US$4 billion in 2010
  – Net importers of fossil and high energy costs
  – Low levels of technology transfers
Overview of Caribbean Economies – Potential Opportunities

- Caribbean Economies – Opportunities
  - Relatively large land masses and forests (Guyana, Suriname and Belize)
  - Abundance of freshwater (Guyana, Suriname and Belize)
  - Knowledge of farming under difficult conditions, inclusive of indigenous knowledge
  - Greater emphasis on protected agriculture and a complete system’s approach (CARDI)
  - Increased emphasis between agricultural development and food security (CARICOM)
  - Good understanding of adaptation possibilities
Initiatives Pursued By the Centre

**Programmes**

- Caribbean Planning Adaptation to Climate Change (CPACC)
- Adapting to Climate Change in the Caribbean (ACCC)
- Mainstreaming Adaptation to Climate Change (MACC)
- Special Pilot Adaptation to Climate Change (SPACC)

**Major Achievements**

- Capacity Building
- Improving global sea level observatory systems
- Further Capacity Building
- Developed the modalities for the establishment of the 5Cs
- Development of Regional Strategy
- Conduct of vulnerability and impact assessments
- Implementation of actual adaptation pilots

Building Resilience to Climate Change Impacts
The Caribbean Regional Framework for Achieving Development Resilient to Climate Change

The Framework provides a Roadmap for action by member states and regional organizations over the period 2009-2015, while building on the groundwork laid by the Caribbean Community Climate Change Centre.
The Strategic Elements of the Framework (1 of 3)

- **Element 1:** Mainstreaming climate change adaptation strategies into the sustainable development agendas of CARICOM States

- **Element 2:** Promote the implementation of specific adaptation measures to address key vulnerabilities in the CARICOM region.
The Strategic Elements of the Framework (2 of 3)

- **Element 3:** Promote actions to reduce greenhouse gas emissions through fossil fuel reduction and conservation, and switching to renewable and cleaner energy

- **Element 4:** Encouraging action to reduce the vulnerability of natural and human systems in CARICOM countries to the impacts of a changing climate
The Strategic Elements of the Framework (3 of 3)

- **Element 5:** Promoting actions to derive social, economic, and environmental benefits through the prudent management of standing forests in CARICOM countries.
Coral Nursery and Re-growth - Scoping: “mother colonies”

- Healthy, thriving despite all adversities
- “Fragments of Opportunity”
- Rescue; knocked over, predation.
- End result: high genetics diversity.
Mangrove Reforestation in Guyana and Suriname - 65,000 MANGROVE SEEDLINGS PLANTED ALONG 3.9 KM COASTLINE

INDICATOR FOR 2013  10KM REPLANTED
Recent Initiatives

Development of an Implementation Plan for the Regional Framework

The IP seeks to deliver transformational change actions in the following priority areas:

- Building low carbon climate resilient economies in the Region
- Development of a risk management ethic in decision making
- Improved financial, technical and human resource capacity including improved access to climate change funding mechanisms
- Building effective partnerships with national, regional and international stakeholders
- Expanding the Region’s understanding and application of climate science through building on available information, knowledge and expertise
- Working collectively through a regional support structure such as CARICOM
- Strengthening the Caribbean’s international negotiating position and its long-term capacity to plan

The IP will deliver transformational change as regional leaders and policymakers recognise that ‘business as usual’ will result in permanent recession in the economies of the CARICOM Member States
Recent Initiatives

- GCCA Regional and Bilateral Programmes (Enhancing Ensemble Modelling, GCOS, GOOS, vulnerability and impact studies)
- AusAID Institutional Strengthening Programme
- PPCR (Haiti, Jamaica, St. Vincent and the Grenadines, St. Lucia, Grenada and the Commonwealth of Dominica)
- DFID/CDB/5Cs programme
  - Developing a suite of ready to fund adaptation projects
- CDKN Project — (Developing a risk management tool)

BUT THERE IS A LIMIT TO ADAPTATION AND ADAPTATION IS EXPENSIVE!!!
ANALYSIS SHOWS THAT UNLESS THE PRIVATE SECTOR RECEIVES CONCESSIONAL LOANS THEY WILL BE SLOW IN ADAPTING
The Caribbean therefore reiterates its position adumbrated under the Liliendaal Declaration of 2009 that:

- We aim for atmospheric GHG concentration to be stabilised at 350 ppm of CO$_2$ or less.
- The international community seek to limit the rise of the global averaged surface temperature to no more than 1.5 °C above the pre-industrial levels by 2100.
- Global greenhouse gas emissions peak by 2015 and
- Global CO$_2$ reductions of greater than 95% by 2050
The Caribbean:

- Re-affirm the need for developed countries to improved disbursements and honour their financial pledges.
- Note with concern that the developed world pledges would only limit warming to a rise of 4°C!!!
  - The implications for the survival of many Caribbean peoples are therefore bleak.
- Note that after 5 years of discussion, the developed countries are yet to submit their quantified emission reduction targets for further commitment.
- Implore all parties of the UNFCCC make efforts to reduce their emission level within their capability and capacity.
- Encourage the successful conclusion of the negotiations on technology in Durban after the establishment of the Technology Mechanism in Cancun last year.
Thank You!