

# Integrating Climate Change into National Biodiversity Strategies and Action Plans: Adaptive Management

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# Importance of NBSAPs

- Parties hold primary responsibility for implementation
- NBSAPs are central to achieving the objectives of the Convention
- These are the vehicles which drive the implementation of the decisions of the Conference of the Parties at the national level.

# **CBD** Programmes of Work

- Agricultural biodiversity
- Biological Diversity of Dry and Sub-Humid Lands
- Forest Biological Diversity
- Inland Water Biodiversity
- Marine and Coastal Biodiversity
- Mountain Biodiversity
- Island Biodiversity

# Conference of the Parties (2002)

• Adopted a Strategic Plan "to achieve, by 2010, a significant reduction of the current rate of biodiversity loss at the global, regional and national level, as a contribution to poverty alleviation and to the benefit of all life on earth".

# Framework of Focal Areas for implementing the Convention and the Strategic Plan

- Reducing the rate of loss of the components of biodiversity, including (i) biomes, (ii) habitats and ecosystems, (iii) genetic diversity
- Promoting sustainable use of biodiversity
- Addressing the major threats to biodiversity, including those arising from invasive alien species, climate change, pollution and habitat change
- Maintaining ecosystem integrity, and the provision of goods and services provided by biodiversity in ecosystems, in support of human well-being
- Protecting traditional knowledge, innovations and practices
- Ensuring the fair and equitable sharing of benefits arising out of the use of genetic resources
- Mobilising financial and technical resources, esp. for developing countries, in particular least developed countries and small island developing states among them, and countries with economies in transition.

# Headline Indicators for Assessing Progress Towards the 2010 Biodiversity Targets

- Status and trends of the components of biological diversity
  - Trends in abundance and distribution of selected species
  - Change in status of threatened species
  - Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socio-economic importance
  - Coverage of protected areas
- Ecosystem integrity and ecosystem goods and services
  - Marine trophic index
  - Connectivity fragmentation of ecosystems
  - Water quality of aquatic ecosystems
- Threats to biodiversity
  - Nitrogen deposition
  - Trends in invasive alien species
- Sustainable use
  - Area of forest, agricultural and aquaculture ecosystems under sustainable management
  - Ecological footprints and related concepts
- Status of traditional knowledge, innovations and practices
  - Status and trends of linguistic diversity and numbers of speakers of indigenous languages
- Ensuring the fair and equitable sharing of benefits arising out of the use of genetic resources
  - Indicator of access and benefit-sharing to be developed
- Status of resource transfers
  - Official development assistance (ODA) provided in support of the Convention

# Projected Impacts of Climate Change on Caribbean small island and low-lying coastal states

- Sea level rise
- Increasing air temperatures
- Increasing water temperatures
- Changing precipitation patterns
- Increase in number and intensity of tropical storms/hurricanes



### Adaptation and Mitigation Initiatives

- 1997 2001 The Caribbean Planning for Adaptation to Climate Change (CPACC) Project (Build capacity for vulnerability assessment, and monitoring
- 2001 2004 The Adaptation to Climate Change in the Caribbean Project (further capacity building)
- 2002 2004 Establishment of Caribbean Community Climate Change Centre
- 2004 2008 The Mainstreaming Adaptation to Climate Change (MACC) Project (Mainstreaming adaptation into National Development Plans)
- 2006 2010 The Special Pilot Adaptation to Climate Change (SPACC) Project (Implementation of adaptation measures)

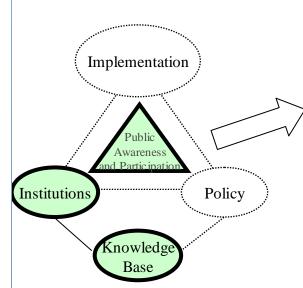
#### **MACC**

Creating an enabling environment for adaptation

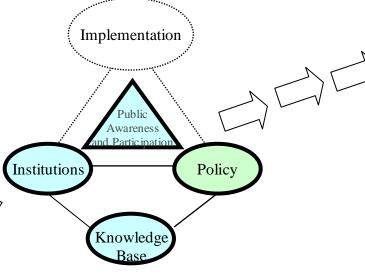
SPACC

#### **CPACC**

Building awareness and strengthening knowledge base

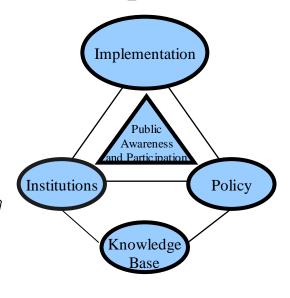


- Building Awareness.
- Building monitoring and analysis capability
- Building planning capacity in institutions



- Developing national policy framework for adaptation.
- Mainstreaming climate change issues into key sector activities.
- Preparation of pilot adaptation projects.
- Further strengthening of awareness and participation.
- Further strengthening of knowledge base

#### Adaptation



- Policy framework for adaptation in place
- Projects being implemented.
- Awareness and participation high.
- Monitoring, analysis and planning integrated throughout all national and sectoral planning.

### What is Adaptive Management (AM)?

- AM is a form of management which facilitates responding to uncertainties and utilises the method of "learning by doing" or research feedback.
- Measures may need to be taken even when some cause and effect relationships are not yet fully established scientifically
- Implementation programmes should be designed to adjust to the unexpected, rather than to take action on the basis of certainties

### Ecosystem Approach and Adaptive Management

- Processes and functions are complex and variable
- Level of uncertainty increases with interaction with social constructs
- Ecosystem approach requires adaptive management to deal with the complex and dynamic nature of ecosystems and the absence of complete knowledge or understanding of their functioning
- Ecosystem management should recognise the diversity of social and cultural factors affecting natural resource use and sustainability

### **NBSAPs** and Adaptive Management

- Need to create room for flexibility in policymaking and implementation in NBSAPs
- Inflexible decisions are likely to be inadequate or sometimes destructive
- Implementing AM in relation to biodiversity and climate change will require the active cooperation of all stakeholders in both areas.
- The Convention also requires that conservation and sustainable use of biodiversity be integrated as far as possible into relevant sectoral and cross-sectoral plans, programmes and policies

# Some Key Sectors/Areas for Engagement in the Caribbean

- Agriculture
- Energy
- Tourism
- Forestry
- Fisheries
- Water management
- Disaster management

