



## Achieving Development Resilient to Climate Change: A SOURCEBOOK FOR THE CARIBBEAN WATER SECTOR

### Using CCORAL to enhance resilience of water-related decision making

*The Caribbean Climate Online Risk and Adaptation Tool (CCORAL) is a Caribbean-specific web-based platform. It is used to screen policies, legislation, plans, budgets and projects to assess climate risks and to identify options to enhance climate resilience. CCORAL can be applied by all sectors and is particularly relevant for water-related or water-dependent decision making. CCORAL is available online at <http://ccoral.caribbeanclimate.bz/>*

#### KEY MESSAGES

- CCORAL is used to identify climate risks and build resilience into development activities
- CCORAL can be used to screen water related policies, legislation, plans, budgets and projects.
- CCORAL is most effectively applied when projects are being developed or plans are being reviewed. It can feed directly into the decision making process.
- CCORAL can be applied by water sector professionals who are not experts in climate change.

#### How does CCORAL work?

CCORAL takes a decision making process as its starting point. This can be a policy, legislation, plan, project or budget. Application is straight-forward and includes three core steps (see Figure 1):

- a set of 10 basic questions which broadly define whether the process is influenced by climate variability
- if the answer is yes, then completing a workbook with a series of more detailed questions helps to further understand climate vulnerabilities and options to enhance resilience
- finally, the user can undertake more detailed risk management analyses supported by a Toolbox of methods and approaches

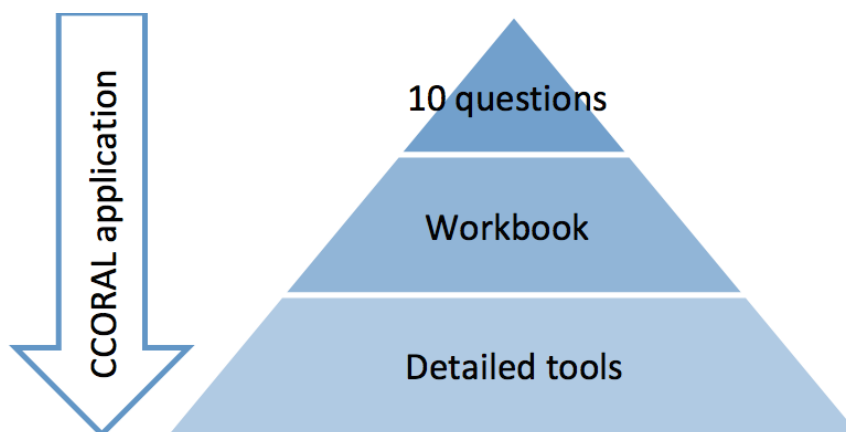


Figure 1 - Overview of CCORAL process

## CCORAL in the context of the water sector

This section highlights some of the key considerations when applying CCORAL in the context of water management. Further information on the use of CCORAL for water related decision making can be found in the Sourcebook for the Caribbean Water Sector (GWP-C & CCCCC, 2014).

### Water policies and strategies

**Examples of policies and strategies:** Policies relating to water resources allocation and abstraction management, land management and development planning as well as water dependent sectoral policies for agricultural development and municipal supplies.

**Key questions for climate resilience:** *How do water-related policies integrate with other policies (e.g. land management, climate change, agriculture, tourism and disaster risk reduction), and how do they address concerns related to climate variability and change?*

### Water-related legislation and regulations

**Examples of legislation and regulation:** Legislation governing water resources and allocation including: municipal suppliers of water and sanitation services, the use of water for agricultural purposes, and private and industrial water abstraction and discharge. This can also include development planning guidance.

**Key questions for climate resilience:** *What are the legal and regulatory tools for managing water resources and how do these interact with related tools such as those for land use planning, agricultural development and environmental protection?*



## Water management and supply plans

**Examples of planning activities:** Strategic investment planning, water supply and demand balance plans, business continuity plans and plans addressing specific risks such as drought and disaster response.

**Key questions for climate resilience:** *How are water resources allocated and supply and demand balances planned and managed? How do plans take account of long-term changes in climate and demand for water?*



**Figure 2** - The CCORAL interface allows users to select their country or the Caribbean region as a whole. This allows CCORAL to provide the most nationally relevant guidance. Accessible at <http://ccoral.caribbeanclimate.bz/>



### Water department financial planning and budgeting

**Examples of budgetary processes:** Annual or medium term budget proposals for water management, environment and agricultural departments and service providers. Financial planning of major investments are also a relevant process for screening in CCORAL.

**Key questions for climate resilience:** *How are water resources management and services financed, how sustainable is this financing, and what additional activities or actions require financing to increase the resilience of water resources management?*

### Water-related projects, programmes and operational activities

**Examples of projects:** 'Hard' infrastructure investments with long lifetimes for example: reservoirs, intakes, treatment works, pipelines and other assets. 'Soft' investments such as technical studies, data collection and other information services which underpin planning activities.

**Key questions for climate resilience:** *How are climate risks such as droughts, floods, sea level rise and storm damage considered during infrastructure project preparation?*



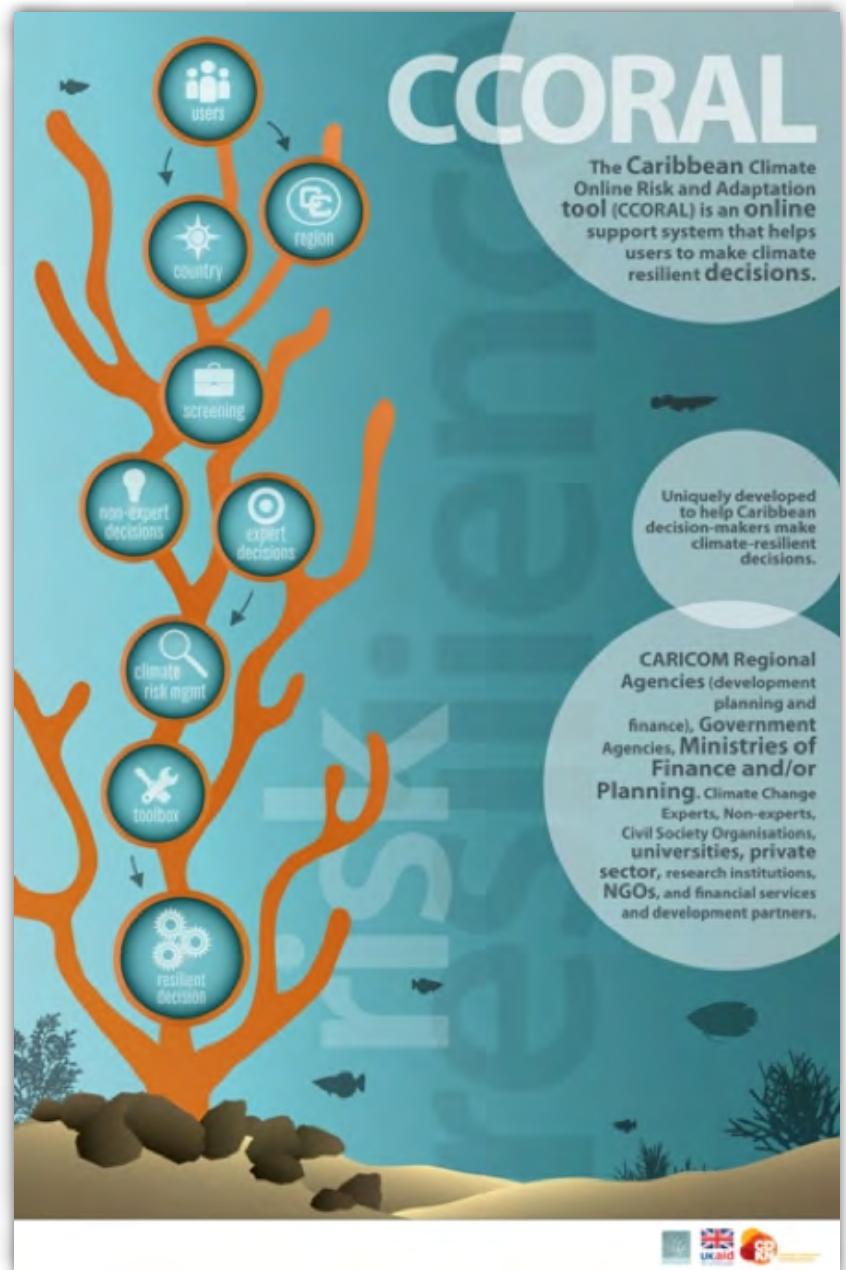
## When to use CCORAL?

The use of CCORAL can be initiated at any time when a decision making activity is being undertaken for example:

- During the revision or development of a new policy, legislation, plan, budget or project
- As part of an organisational review or specific project aimed at building resilience
- As part of proposal development to make the case for additional investment for resilience

## Who can use CCORAL?

CCORAL has been designed for use by non specialists as well as climate specialists, and most value will be gained by applying CCORAL in a participatory environment bringing together a range of stakeholders.



**Figure 3** - CCORAL infographic highlighting the main processes involved in the application of CCORAL (reproduced from the CCORAL website)

## References

Caribbean Community Climate Change Centre (CCCCC). 2013. CCORAL – *the Caribbean Climate Online Risk and Adaptation tool*. CCCCC, Belize. Available online at <http://ccoral.caribbeanclimate.bz/>

Global Water Partnership Caribbean (GWP-C) and Caribbean Community Climate Change Centre (CCCCC). 2014. *Achieving Development Resilient to Climate Change: A Sourcebook for the Caribbean Water Sector*. Global Water Partnership-Caribbean. Available at [www.gwp-caribbean.org](http://www.gwp-caribbean.org)

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