



## Key messages

- Policy and governance arrangements at the national level are vital for climate adaptation. Local action is important but is insufficient in isolation.
- National governments provide strategic oversight and access to climate finance, and have the capacity and authority to drive climate action.
- Climate change considerations should be integrated into policies and plans across government departments. The CCORAL tool allows decision-makers to do this.
- Institutional arrangements are vital to help translate government policy into action. Governments can use the ARIA toolkit to assess their institutional adaptive capacity as a first step to strengthening these frameworks.
- Government institutions are vital in stimulating action at the local level. Networked governance arrangements can help to build movements for climate resilience that translate national priorities into local action and integrate local needs into national policy.

## Authors:

Will Bugler and Olivia Palin, Acclimatise

## Driving, connecting and communicating: The many roles of national government in climate adaptation planning

**Climate change is one of the most significant challenges to the Caribbean's future prosperity. The impacts of climate change on economically important sectors such as tourism, agriculture and fishing threaten Caribbean nations' ability to achieve their economic and social development goals. By 2050, the costs to the region are expected to reach US\$22 bn each year; this represents 10% of regional gross domestic product, based on 2004 figures.<sup>1</sup> Paying for recovery efforts after natural disasters causes significant budgetary pressures and diverts funds from other pressing development issues such as health and education. However, responding to climate challenges is highly complex. Climate change has cross-cutting impacts that span sectors and spatial scales, and involves multiple stakeholders. Delivering effective climate change adaptation is therefore a question of governance.**

Bottom-up, community-level approaches are important in meeting the challenges that climate change poses, but in isolation they are insufficient. National governance frameworks must foster community action, but also provide the enabling environment for large investments and transformative change at scale. The challenge that national governments face is to coordinate adaptation interventions at both national and local levels by engaging multiple organisations and individuals.

Targeted primarily at Caribbean policy-makers, this *Policy Brief* draws on the experience of three CDKN-funded projects that have taken place in the

region over the last decade. It identifies 'best practice' lessons on governance, highlights examples from applied case studies in Caribbean countries, and recommends tools and methods that can be applied to make governance frameworks more effective at delivering climate compatible development. It is also a gateway to the reports and tools that have been produced under these CDKN-funded projects; see Table 1 (page 8) for the full list.

In summary, this *Policy Brief* explains:

- why national governments and policy frameworks are important for effective adaptation
- how climate considerations can be

integrated into national policies, plans and programmes

- how to assess and build institutional capacity for coordinating and delivering effective resilience-building programmes
- how best to translate national policies into action at the local level.

## Projects featured in this Policy Brief

This *Policy Brief* draws upon the following CDKN-funded projects:

1. **The Global Islands' Vulnerability Research, Adaptation Policy and Development (GIVRAPD) project.** This focused on community adaptation to climate change in Jamaica<sup>2</sup> and Saint Lucia.<sup>3</sup> The project aimed to understand the multi-scale socioeconomic, governance and environmental conditions that shape vulnerability and capacity to adapt to climate change within and between small and medium-sized coastal communities. The GIVRAPD project holds important lessons about the importance of state institutions and how they relate to other important stakeholders operating at subnational levels.<sup>4</sup>
2. **The Caribbean Climate Online Risk and Adaptation Tool (CCORAL).**<sup>5</sup> This is a web-based decision-support tool aimed at policy-makers and other decision-makers, helping them to integrate climate change considerations into their decision-making processes such as planning, programming and budgeting.
3. **The Caribbean Research Call.**<sup>6</sup> This project funded research proposals that aligned with research needs identified in the Caribbean Community (CARICOM) Implementation Plan for the Regional

Framework for Achieving Development Resilient to Climate Change.<sup>7</sup> It supported five research projects in Belize, Jamaica, Saint Lucia and Trinidad and Tobago.

## National government and policy as drivers for action

The reasons why national governments are important for driving climate adaptation are well established:

1. They are crucial for stimulating and directing finance flows.<sup>8</sup>
2. They provide strategic oversight to ensure that resources are distributed to the most pressing areas, and that other sustainable development challenges are not overlooked.
3. They cooperate to fund expensive, ambitious projects. These include projects that advance scientific research to produce regional climate data, such as the CDKN-funded CARibbean Weather Impacts Group (CARIWIG) data project.<sup>9</sup>
4. They create regulatory certainty around climate change action, giving confidence to investors to fund innovation.
5. They ensure that governance arrangements are fair and transparent.
6. They have the institutional capacity and authority to stimulate action and bring diverse stakeholder groups together.

These factors were re-affirmed by the GIVRAPD project. GIVRAPD research indicates that an important way for governments to drive adaptation actions is to integrate climate considerations into national policies and plans. This includes responding to the needs of multiple stakeholders across a range of scales. This also aligns with the United Nations Framework Convention on Climate Change's

(UNFCCC) national adaptation planning objective to facilitate this type of integration.<sup>10</sup> This integration will be crucial if countries are to achieve the adaptation goals laid out in their respective Nationally Determined Contributions (NDCs) under the Paris Agreement.<sup>11</sup>

Caribbean governments have made good progress in publishing climate change-specific policies, strategies and plans at both regional<sup>12</sup> and national scales.<sup>13</sup> They are also starting to integrate climate change into sectoral policies and plans, such as national development strategies and health sector plans.

## Integrating climate resilience into national policy

CDKN-funded research indicates that, for climate change to be effectively integrated into policy, governments need to ensure that it is integrated into the appropriate documents (e.g. sectoral documents) and facilitate effective inter-sectoral coordination.

Research undertaken on Belize's tourism industry in 2014<sup>14</sup> found that, despite Belize having several framework documents on climate change at the national level (e.g. its 3rd National Communication to the UNFCCC<sup>15</sup> and its NDC<sup>16</sup>), "very few legal documents consider climate change, adaptation to climate change, or building resilience to climate change".<sup>17</sup> The research also found that a lack of integrated climate change planning at the sectoral level held back progress on climate resilience-building in the tourism sector. Unless climate change is included in national sectoral plans (e.g. tourism plans), there is little incentive for stakeholders in the sector to consider it.<sup>18</sup>

Figure 1 shows the sectoral inter-dependencies between climate-sensitive sectors in the Caribbean. Effective integration of climate policies and coordination can help to increase inter-ministerial understanding of climate change as an issue that is relevant to the future development of many different sectors.

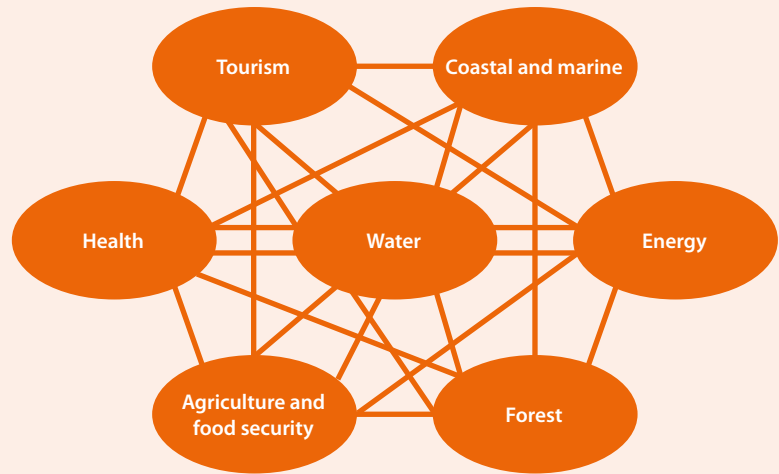
Integrating climate change into climate-sensitive sectors requires a long-term commitment from national governments. In the Caribbean, governments are supported by innovative tools and methods that can help them.

One such resource is the CCORAL tool<sup>20</sup> (see Box 1), which is being used across the region to help decision-makers from all sectors understand whether their laws, policies, strategies, plans, programmes, projects and budgets are climate-influenced, and how best to consider climate change in their design.

CCORAL is supported by the report *Achieving development resilient to climate change: A sourcebook for the Caribbean water sector*, which provides methods and approaches to help planners and decision-makers identify and implement actions that increase water security and climate resilience in the region.<sup>21</sup> As Figure 2 outlines, this sourcebook guides users through a four-stage process to help them to:

1. **understand the problem**, which includes how to assess existing and future climate risks and make a strong case for action
2. **identify and appraise adaptation options**, which helps users to understand the principles of building resilience, build on existing work to identify adaptation options and prioritise them for implementation
3. **deliver effective solutions**, which helps users to secure finance for

**Figure 1. Inter-dependencies between sectors**



Source: CCCCC (2012)<sup>19</sup>

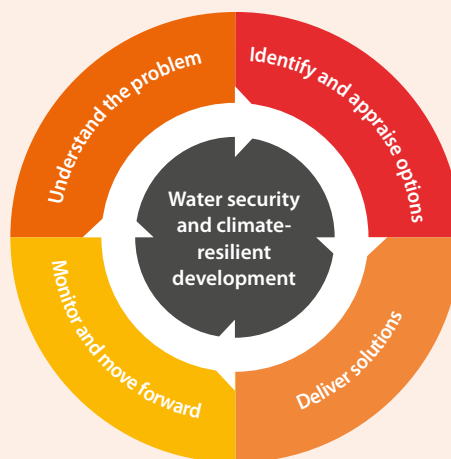
- investable projects and take options forward for implementation
4. **monitor and improve existing processes**, which helps decision-makers to monitor and evaluate the impacts of investments in climate change.

in the face of uncertainty. This is important, given that uncertainties exist around the specific nature of climate impacts at the local level, and the fact that climate data at the regional level is subject to a greater degree of error than that at the global scale.

CCORAL and the sourcebook are particularly instructive on how to take effective decisions about climate change

A separate policy brief<sup>23</sup> illustrates how decision-makers can invest in adaptation

**Figure 2. The decision-making phases used to integrate climate change adaptation into the water sector**



Source: CCCCC (2014)<sup>22</sup>

### Box 1. Using CCORAL to integrate climate change into decision-making processes

Developed by the Caribbean Community Climate Change Centre (CCCCC) and with funding from CDKN, 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 available online at: <http://ccoral.caribbeanclimate.bz>



The CCORAL homepage

options that are 'no regret' and 'low regret'. This can deliver benefits in the near term as well as laying the foundations for addressing future climate challenges.

### The line of best fit: Assessing and building institutional capacity

No matter how well designed a nation's climate policy framework is, it will remain ineffective unless it is supported by an institutional structure that facilitates ongoing adaptation. Effective institutions are at the heart of a country's ability to respond to climate change. Research in the Caribbean has found that governments play a crucial role in assessing and building institutional capacity across scales.<sup>24</sup>

With respect to assessing capacity, CDKN-funded work demonstrates the value of applying the World Resource Institute's Rapid Institutional Analysis for Adaptation (ARIA) toolkit. ARIA supports policy-makers in analysing and recording the state of institutional capacity and readiness to implement climate change adaptation policies. It also helps governments to identify the strengths and weaknesses of current institutional arrangements, identify and fill gaps in policy and practice, establish a baseline for monitoring, and gather and synthesise resources (see Box 2).<sup>25</sup>

When the ARIA toolkit was applied in Trinidad and Tobago<sup>26</sup> and Saint Lucia,<sup>27</sup> researchers identified the following areas where institutional readiness was lacking and needs to be strengthened:

- Many barriers to exist to effective climate change adaptation readiness. These include inadequate vulnerability assessments, inadequate sector-specific adaptation policy integration, insufficient funding, inefficient data and information management, and limited cross-sectoral coordination.
- National climate change adaptation planning and investment needs to do more to engage civil society in its decision-making processes.
- Coordination, collaboration and communications on climate change impacts and adaptation measures between key public sector agencies and civil society need to be improved to support national adaptation efforts.

Another CDKN-funded project examined the use of institutional collaboration in Saint Lucia<sup>28</sup> and distilled best practices on building institutional capacity. The case study focused on the Soufriere Marine Management Area (SMMA), a protected marine reserve on Saint Lucia's west coast, and how the SMMA has successfully managed marine conservation in the face of competing interests from a wide range of stakeholders, including the tourism industry, fishers and conservation groups.<sup>29</sup>

The research found that government institutions were crucial for facilitating communications and building trust between stakeholders. To do this, the government actively built institutional capacity by fostering three key areas of adaptive governance:

1. **Collaborative decision-making processes**, encouraging decision-making processes that include multiple actors from a variety of scales. The SMMA successfully achieved this by mapping stakeholder

## Box 2. The ARIA toolkit for assessing institutional adaptive capacity

The ARIA toolkit uses a comprehensive workbook to assess the quality of five critical functions for climate change adaptation:

1. **Assessment**, including a national assessment of vulnerabilities and impacts; an inventory of current adaptation efforts; and institutions to carry out assessments and inventories.
2. **Prioritisation**, including documentation of adaptation priorities; and developing systems to revise and implement priorities.
3. **Coordination**, including coordination plan for ministries and organisations; institutions with a mandate for coordination; and an institution to review coordination.
4. **Information management**, including data-gathering; data analysis; and a national platform for sharing adaptation policy and science (dissemination).
5. **Climate risk reduction**, including a mandate to incorporate climate impacts into all levels of decision-making (such as policy, planning, projects); and systems to review and revise processes to incorporate climate impacts into decision-making.

The following is an example of an ARIA assessment table for budgetary process indicators for coastal zone management in Trinidad and Tobago.<sup>30</sup>

Indicator	Qualities	Evaluation	Findings
Budgetary processes exist to channel finance adaptation institutions or initiatives for the priority area.	The agency (ies) most closely tied to the priority area reflect adaptation initiatives in their annual budgets. (Comprehensiveness)	Yes	The work of the National Steering Committee for ICZM is being partially funded by the IDB. The funding lends support to a Cabinet appointed Committee in the execution of its mandate and so is aligned with established national priorities. The Committee also receives budgetary support from approved recurring funds under the IMA.
	Budgetary information for adaptation activities in the priority area is available and accessible. (Transparency & Participation)	Yes	Information regarding the budgetary grant from the IDB is available on the IDB's website at <a href="http://www.iadb.org/en/projects/project-description-title_1303.html?id=TT-T1038#_UmXmxXBzCFA">http://www.iadb.org/en/projects/project-description-title_1303.html?id=TT-T1038#_UmXmxXBzCFA</a> . A detailed breakdown of the project budget is also available at the website above.

networks and bringing them together to discuss the management of the marine area around a shared vision. Its long-term sustainability was

ensured by ensuring that the process is periodically revisited, so that new stakeholders can be identified and engaged.

2. **Institutional variety**. Collaborative decision-making is only successful when it includes the views of a wide

range of institutions and stakeholders. The SMMA included organisations of different sizes, from different sectors and with a wide range of agendas and interests. Gaps in institutional variety (e.g. a lack of non-governmental organisations) should not be an excuse for ignoring these perspectives. Instead, local champions or community groups should be identified.

3. **Bridging organisations**. Institutions should be identified that can act as a connection between different organisations. This can be horizontal bridging (i.e. between stakeholders from different sectors) or vertical bridging (i.e. between organisations operating at different scales). Government bodies often make excellent bridging organisations, as they are trusted as mediators between groups and operate across scales. The SMMA case study shows that having multiple bridging organisations at different scales is beneficial as long as they communicate effectively with each other to ensure that they work in synergy.

These findings are instructive for governments that are looking for ways to improve national capacity for climate adaptation.

## Translating national policy into local action

Climate change impacts play out at the local level. It is therefore imperative that governments have systems in place that foster action at this scale. Much of the research undertaken as part of the GIVRAPD<sup>31</sup> project and the Caribbean Research Call<sup>32</sup> focused on translating national policy into local-level action. This highlighted the importance of government engagement at the subnational level.

For example, GIVRAPD research<sup>33</sup> undertaken in the agriculture, fisheries and tourism industries in Jamaica and Saint Lucia found that state bodies were essential to overcoming barriers to adaptation by using participatory approaches to decision-making. Researchers noted that “not only were [government bodies] among the most well-connected stakeholders, they also have high influence over the implementation of adaptation actions”.<sup>34</sup> In fact, all practical steps that were identified by the research participants included national ministries as responsible parties for driving action.

The research presents the following ways in which government institutions can support organisations at the local level.<sup>35</sup>

- They can act as a **‘bridge’ for information between scales**. In many sectors, government intervention was deemed necessary to stimulate information flows from national to local levels, particularly where there is a lack of existing institutional capacity.
- They can **empower communities and community-based organisations** to be bridge actors, and to access adequate support and resources from all levels and sectors for implementation.
- They can facilitate **long-term strategic planning** among stakeholder groups including the private sector for public and community partnerships.
- They can **provide a legislative environment** that promotes collaborative partnerships.
- They can **foster a holistic perspective** for tackling change across climate-sensitive sectors, recognising that there are many drivers of change, both climatic and non-climatic.

But how can governments best deliver this support? Research from Jamaica<sup>36</sup> suggests that taking a networked approach to decision-making can foster the enabling environment for these elements to take hold. Researchers found that network-building allows for better coordination of local approaches to climate resilience and strengthens vertical coordination between government agencies and stakeholder groups.<sup>37</sup>

Climate change issues can be used to connect diverse actors around shared goals. If carefully designed, public–private partnerships can be a good way of doing this. In Whitehouse, Jamaica, for example, the Division of Fisheries established a co-management arrangement with the Sandals Foundation (the philanthropic arm of Sandals Resort International). This gave rise to the Sandals Whitehouse Special Fishery Conservation Area (SFCA).<sup>38</sup>

Identifying and connecting stakeholders around issues of collective importance to local stakeholders is a good way of allowing co-management networks to emerge. These networks may start because of a single issue or shared concern (as with the SFCA), but once they are established, they can be powerful agents for change locally.

Once linked to the regional and national level with ‘bridging’ organisations or individuals (which are often governmental), these networks can contribute effectively to national policy-making on climate change issues, as well as translate national priorities into local action. Box 3 shows some lessons for national governments from Jamaica for building local actor networks.

## Conclusions

CDKN-funded research in the Caribbean has provided many important lessons for national governments to help them build climate change resilience. National government institutions play a vital role in doing this across multiple scales. While community-level projects are important for stimulating action, in isolation they are insufficient to provide the scale of change necessary to combat climate change. Government bodies are vital to oversee the strategic direction of climate policy and to access finance.

Effective climate policy at the national level is crucial to provide the enabling environment for action. Integrating climate change considerations into national policy and planning across departments is essential. Tools such as CCORAL can help governments achieve this.

Strong, flexible, transparent and accountable institutions are a vital element of good governance. Attention should be paid to developing channels for interagency communications between organisations at the national level, and across scales. The ARIA tool provides governments with a useful process for assessing institutional adaptive capacity, identifying strengths, weaknesses and actions to strengthen institutional frameworks.

Finally, CDKN-supported research clearly shows that national governments are a very important actor at the local level, with state institutions playing a crucial role supporting the development of multi-stakeholder actor networks that form around collective goals.

Table 1 provides a directory of the useful reports and tools on which this *Policy Brief* is based. This acts as a toolkit for effective governance aimed at national government stakeholders.

### Box 3. Developing local actor networks in Jamaica to allow national priorities to become local realities

Government departments and agencies play a central role in the design and implementation of adaptation interventions, but in many cases, there is a lack of institutional capacity and leadership at the local level.<sup>39</sup> To overcome this, governments can nurture social networks and encourage local community champions to engage with issues that support climate-resilient development.

To do this, government bodies, preferably in conjunction with civil society groups working at the local level, can work to:

- **Identify existing organisations and individuals** that can form part of a local network around a shared goal. The goal should preferably have a clear link to climate change, although it is important to remember that climate change may not be the best way of engaging some members of the network. It is important to understand the many different interests that local stakeholders have and engage them in the area closest to that interest.
- **Map the network of actors** involved in managing the shared resource or issue. This means understanding the existing relationships between actors, mapping the connections and identifying organisations or individuals that can act as 'horizontal bridges' (connecting actors at the local level) and 'vertical bridges' (connecting actors at the local level with those at the regional or national level).
- **Build trust and interaction between stakeholders**, using participatory workshops and meetings. Develop a shared vision among the various stakeholders for co-management around a common goal or objective. In Jamaica, interagency committees were important for bringing stakeholders together at regular intervals. The mandate and focus of these committees were often not directly concerned with climate change adaptation, but they provided a regular forum and platform for face-to-face interactions for actors to exchange knowledge and perspectives while addressing emerging issues.<sup>40</sup>
- **Consider official public-private partnerships** to bring organisations from the private sector into the conversation, opening new networks and mobilising often untapped resources.

Organisations in Jamaica are explicitly acknowledging these roles. For example, the Ministry of Water, Land, Environment & Climate Change announced that it would establish a Climate Change Focal Point Network comprised of ministries, departments and agencies across the government. The Ministry of Local Government and Community Development stated that it plays an important role in ensuring that "there is an effective vertical flow of information from the national level to the Parish and community level".<sup>41</sup>

## Resources for policy-makers

**Table 1. Summary of the research from the Caribbean from CDKN that was used to write this policy brief**

Resource name	Type	Country	Project	Details	Website
<b>Integrating climate change into policies, plans and programmes</b>					
Caribbean Climate Online Risk and Adaptation Tool (CCORAL)	Web tool	Regional	CCORAL	CCORAL is a decision-support tool specifically designed for decision-makers who are working on laws, policies, strategies, plans, programmes, projects or budgets that might be affected by climate change. These decision-makers can use the tool to see whether their work is vulnerable to climate impacts and, if so, what steps they can take to increase resilience.	<a href="http://ccoral.caribbeanclimate.bz/">http://ccoral.caribbeanclimate.bz/</a>
Achieving development resilient to climate change: A sourcebook for the Caribbean water sector	Report	Regional	CCORAL	This sourcebook guides planners, project developers and water sector practitioners on the main elements to be considered in the planning and execution of actions aimed at improving water resources management practices, and building the resilience of the water sector to the impacts of climate variability and change.	<a href="http://cdkn.org/resource/report-achieving-development-resilient-climate-change-sourcebook-caribbean-water-sector">http://cdkn.org/resource/report-achieving-development-resilient-climate-change-sourcebook-caribbean-water-sector</a>
Summary of the sourcebook	Information brief	Regional	CCORAL	This brief outlines what to expect in the sourcebook.	<a href="http://cdkn.org/resource/information-brief-summary-sourcebook">http://cdkn.org/resource/information-brief-summary-sourcebook</a>
Using the CCORAL in the context of water management	Information brief	Regional	CCORAL	This brief outlines the elements of the sourcebook that relate to using CCORAL to enhance the resilience of water-related management.	<a href="http://cdkn.org/resource/brief-information-brief-2-using-ccoral-context-water-management">http://cdkn.org/resource/brief-information-brief-2-using-ccoral-context-water-management</a>
Financing climate resilience in the water sector	Information brief	Regional	CCORAL	This brief shows how to overcome one of the key barriers to building climate resilience in the water sector: finance.	<a href="http://cdkn.org/resource/information-brief-financing-climate-resilience-water-sector">http://cdkn.org/resource/information-brief-financing-climate-resilience-water-sector</a>
No and low regrets investment options for climate resilience	Information brief	Regional	CCORAL	This brief is about no- and low-regret options for resilience investments in the water sector. It is useful for policy-makers needing to understand how to make decisions in the face of uncertainty.	<a href="http://cdkn.org/resource/information-brief-no-low-regrets-investment-options-climate-resilience">http://cdkn.org/resource/information-brief-no-low-regrets-investment-options-climate-resilience</a>
Identification of climate-compatible tourism development in Belize	Information brief	Belize	Research Call	This is an overview brief detailing some of the key considerations relating to tourism in Belize and how it will be affected by climate change. It includes information about why national policy is important to stimulate climate action in the sector.	<a href="http://cdkn.org/wp-content/uploads/2014/04/WWF_Belize_climate_compatible_tourism_brochure.pdf">http://cdkn.org/wp-content/uploads/2014/04/WWF_Belize_climate_compatible_tourism_brochure.pdf</a>
Climate compatible tourism project: Key summary findings from policy analysis	Information brief	Belize	Research Call	This is a summary of the policy findings from a project on climate change adaptation building for the Belize tourism industry. It includes information about why national policy is important to stimulate climate action in the sector.	<a href="http://cdkn.org/resource/policy-brief-climate-compatible-tourism-project-key-summary-findings-policy-analysis">http://cdkn.org/resource/policy-brief-climate-compatible-tourism-project-key-summary-findings-policy-analysis</a>



Resource name	Type	Country	Project	Details	Website
<b>Developing institutional capacity</b>					
Climate change and governance in a coastal marine context: Saint Lucia	Working paper	Saint Lucia	GIVRAPD	This paper examines the relationship between institutional adaptive capacity and governance fit for climate change, using a case study of the SMMA in Saint Lucia.	<a href="http://cdkn.org/resource/working-paper-reflecting-climate-change-governance-coastal-marine-context-case-st-lucia">http://cdkn.org/resource/working-paper-reflecting-climate-change-governance-coastal-marine-context-case-st-lucia</a>
Governance fit for climate change in a Caribbean coastal marine context	Journal article	Saint Lucia	GIVRAPD	The concept of institutional adaptive capacity is used to explore how governance processes and institutional arrangements can be adapted to match the scale and extent of climate change in a case study of the SMMA in Saint Lucia.	<a href="http://www.sciencedirect.com/science/article/pii/S0308597X14002255">http://www.sciencedirect.com/science/article/pii/S0308597X14002255</a> [PAYWALL]
Making adaptation work: An institutional analysis of climate change adaptation in Trinidad and Tobago and Saint Lucia	Report	Saint Lucia, Trinidad and Tobago	Research Call	The ARIA institutional analysis of climate change adaptation in Saint Lucia and Trinidad and Tobago has provided researchers with a snapshot of how well key institutional functions are performing and enabling effective adaptation policy implementation.	<a href="http://cdkn.org/resource/technical-paper-making-adaptation-work-institutional-analysis-climate-change-adaptation-trinidad-tobago-saint-lucia/">http://cdkn.org/resource/technical-paper-making-adaptation-work-institutional-analysis-climate-change-adaptation-trinidad-tobago-saint-lucia/</a>
ARIA Phase II: Priority areas report Trinidad and Tobago	Report	Trinidad and Tobago	Research Call	This report examines the degree to which there are enabling factors to support the development of climate adaptation policy and strategies in three critical sectors in Trinidad and Tobago: coastal zone management, food production and tourism.	<a href="http://cdkn.org/resource/report-aria-phase-ii-research-report">http://cdkn.org/resource/report-aria-phase-ii-research-report</a>
Strengthening institutional arrangements in Trinidad and Tobago to facilitate climate change adaptation policy formulation and execution	Information brief	Trinidad and Tobago	Research Call	This brief summarises the institutional and governance shortcomings of Trinidad and Tobago with regards to climate resilience.	<a href="http://cdkn.org/resource/strengthening-institutional-arrangements-in-tt-climate-adaptation">http://cdkn.org/resource/strengthening-institutional-arrangements-in-tt-climate-adaptation</a>
Enabling civil society in Saint Lucia to adapt to the impacts of climate change	Information brief	Saint Lucia	Research Call	This brief summarises the institutional and governance arrangement for Saint Lucia, with a focus on government interactions with civil society.	<a href="http://cdkn.org/resource/policy-brief-enabling-civil-society-saint-lucia-adapt-impacts-climate-change">http://cdkn.org/resource/policy-brief-enabling-civil-society-saint-lucia-adapt-impacts-climate-change</a>

Resource name	Type	Country	Project	Details	Website
<b>Bridging between national policy and local action</b>					
Can multilevel governance facilitate coastal climate change adaptation in Jamaica?	Working paper	Jamaica	GIVRAPD	This paper identifies the conditions that enable and/or constrain governance strategies and institutional arrangements that respond to climate change vulnerabilities and promote climate change adaptation in coastal marine environments.	<a href="http://cdkn.org/resource/working-paper-can-multilevel-governance-facilitate-coastal-climate-change-adaptation-jamaica">http://cdkn.org/resource/working-paper-can-multilevel-governance-facilitate-coastal-climate-change-adaptation-jamaica</a>
Policy brief: Multilevel governance	Information brief	Saint Lucia, Jamaica	GIVRAPD	This brief summarises the governance elements of the GIVRAPD project. It addresses the importance of multilevel governance arrangements to build resilience and provides case studies from Jamaica and Saint Lucia.	<a href="http://cdkn.org/resource/policy-brief-multi-level-governance-adaptation-caribbean">http://cdkn.org/resource/policy-brief-multi-level-governance-adaptation-caribbean</a>
Policy brief: Reconciling national adaptation policies	Information brief	Jamaica, Saint Lucia, (Mauritius, Seychelles)	GIVRAPD	This brief indicates mechanisms for bridging the gap between national-level adaptation policies and plans with local-level implementation.	<a href="http://cdkn.org/resource/policy-brief-reconciling-national-adaptation-policies-local-level-implementation-sids-insights-replication">http://cdkn.org/resource/policy-brief-reconciling-national-adaptation-policies-local-level-implementation-sids-insights-replication</a>
Policy brief: Lessons from Jamaica	Information brief	Jamaica	GIVRAPD	This case study on applying resilience-building methods in Jamaica focuses on developing community resilience and networks.	<a href="http://cdkn.org/resource/policy-brief-lessons-jamaica-promoting-resilience-institutional-arrangements-social-networks-community-empowerment">http://cdkn.org/resource/policy-brief-lessons-jamaica-promoting-resilience-institutional-arrangements-social-networks-community-empowerment</a>
Identifying and lifting climate adaptation barriers in Jamaica using a participatory approach	Working paper	Jamaica	GIVRAPD	This paper presents an innovative and participatory methodology to identify and overcome climate adaptation barriers, with an example of its application in Jamaica.	<a href="http://cdkn.org/resource/working-paper-identifying-lifting-climate-adaptation-barriers-jamaica-using-participatory-approach">http://cdkn.org/resource/working-paper-identifying-lifting-climate-adaptation-barriers-jamaica-using-participatory-approach</a>
Identifying and lifting climate adaptation barriers in Saint Lucia using a participatory approach	Working paper	Saint Lucia	GIVRAPD	This paper presents an innovative and participatory methodology to identify and overcome climate adaptation barriers, with an example of its application in Saint Lucia.	<a href="http://cdkn.org/resource/working-paper-identifying-lifting-climate-adaptation-barriers-st-lucia-using-participatory-approach">http://cdkn.org/resource/working-paper-identifying-lifting-climate-adaptation-barriers-st-lucia-using-participatory-approach</a>

## Endnotes

- 1 Bueno, R., Herzfeld, C., Stanton, E.A. and Ackerman, F. (2008) *The Caribbean and climate change: The costs of inaction*. Medford: Tufts University ([https://sei-us.org/Publications\\_PDF/SEI-CaribbeanAndClimateChange-08.pdf](https://sei-us.org/Publications_PDF/SEI-CaribbeanAndClimateChange-08.pdf)).
- 2 GIVRAPD (2014) 'Jamaica profile'. Christ Church: Global Islands' Vulnerability Research Adaptation Policy and Development (<http://givrapd.org/sites/jamaica>).
- 3 GIVRAPD (2014) 'Saint Lucia profile'. Christ Church: Global Islands' Vulnerability Research Adaptation Policy and Development (<http://givrapd.org/sites/st-lucia>).
- 4 CDKN (2013) 'Project: Supporting risk-based decision-making in the Caribbean (CARIWIG)'. London: Climate and Development Knowledge Network (<http://cdkn.org/project/caribbean-weather-impact-group-supporting-risk-based-decision-making-carwig>).
- 5 CDKN (2014) 'Project: The Caribbean Climate Online Risk and Adaptation Tool (CCORAL)'. London: Climate and Development Knowledge Network (<http://cdkn.org/project/the-caribbean-climate-online-risk-and-adaptation-tool-ccoral>).
- 6 CDKN (2014) 'Project: Caribbean Research Call'. London: Climate and Development Knowledge Network (<http://cdkn.org/project/caribbean-research-call>).
- 7 CCCCC (2009) 'Planning for Climate Compatible Development in the Caribbean'. Belmopan: Caribbean Community Climate Change Centre ([www.caribbeanclimate.bz/ongoing-projects/2009-2021-regional-planning-for-climate-compatible-development-in-the-region.html](http://www.caribbeanclimate.bz/ongoing-projects/2009-2021-regional-planning-for-climate-compatible-development-in-the-region.html)).
- 8 INTASAVE and CARIBSAVE (2015a) 'Reconciling national adaptation policies with local level implementation in SIDS: Insights for replication'. Policy Brief. Christ Church: CARIBSAVE ([https://cdkn.org/resource/policy-brief-reconciling-national-adaptation-policies-local-level-implementation-sids-insights-replication/?loclang=en\\_gb](https://cdkn.org/resource/policy-brief-reconciling-national-adaptation-policies-local-level-implementation-sids-insights-replication/?loclang=en_gb)).
- 9 CARIWIG (no date) 'The CARIWIG portal'. Newcastle: Caribbean Weather Impacts Group ([www.cariwig.org/ncl\\_portal/#info](http://www.cariwig.org/ncl_portal/#info)).
- 10 Least Developed Countries Expert Group (2012) *National Adaptation Plans. Technical guidelines for the national adaptation plan process*. Bonn: United Nations Framework Convention on Climate Change Secretariat.
- 11 CDKN (2016) *CDKN Planning for NDC implementation: A quick-start guide*. London: Climate and Development Knowledge Network ([www.cdkn.org/ndc-guide/book/planning-for-ndc-implementation-a-quick-start-guide/adaptation](http://www.cdkn.org/ndc-guide/book/planning-for-ndc-implementation-a-quick-start-guide/adaptation)).
- 12 Such as the Regional Strategy and the Implementation Plan.
- 13 Such as National Adaptation Plans, National Adaptation Programmes of Action and National Communications to the UNFCCC, as well as other national plans for specific sectors, in some cases.
- 14 CARIBSAVE (2014) *Climate-compatible tourism project: Key summary findings from policy analysis*. Christ Church: CARIBSAVE.
- 15 UNFCCC (2016) *Belize Third National Communication to the UNFCCC*. Bonn: United Nations Framework Convention on Climate Change ([https://unfccc.int/essential\\_background/library/items/3599.php?rec=j&priref=7845#beg](https://unfccc.int/essential_background/library/items/3599.php?rec=j&priref=7845#beg)).
- 16 UNFCCC (2015) *Intended Nationally Determined Contribution (INDC) Belize*. Bonn: United Nations Framework Convention on Climate Change ([www4.unfccc.int/submissions/INDC/Published%20Documents/Belize/1/Belize%20INDCS.pdf](http://www4.unfccc.int/submissions/INDC/Published%20Documents/Belize/1/Belize%20INDCS.pdf)).
- 17 CARIBSAVE (2014) Op. cit.
- 18 CARIBSAVE (no date) 'Identification of climate-compatible tourism development in Belize'. Policy brief. Christ Church: CARIBSAVE ([https://cdkn.org/wp-content/uploads/2014/04/WWF\\_Belize\\_climate\\_compatible\\_tourism\\_brochure.pdf](https://cdkn.org/wp-content/uploads/2014/04/WWF_Belize_climate_compatible_tourism_brochure.pdf)).
- 19 CCCCC (2012) *Delivering transformational change 2011–21: Implementing the CARICOM Regional Framework for achieving development resilient to climate change*. Belmopan: Caribbean Community Climate Change Centre ([http://cms2.caricom.org/documents/13414-delivering\\_transformation\\_change.pdf](http://cms2.caricom.org/documents/13414-delivering_transformation_change.pdf)).
- 20 CCCCC (2014) 'The Caribbean Climate Online Risk and Adaptation Tool (CCORAL)'. Belmopan: Caribbean Community Climate Change Centre (<http://ccoral.caribbeanclimate.bz>).
- 21 GWP-C and CCCCC (2014) *Achieving development resilient to climate change: A sourcebook for the Caribbean water sector*. Trinidad and Tobago: Global Water Partnership-Caribbean. (<http://www.gwp.org/Global/GWP-C%20Files/Sourcebook%20-%20WV.pdf>).
- 22 CCCCC (2012) Op. cit.
- 23 GWP-C and CCCCC (2014) Op. cit.
- 24 Worker, J., Nadres, M., Phillips, T., Tulsie, B. and Simmons, S. (2014) *Making adaptation work: An institutional analysis of climate change adaptation in Trinidad and Tobago and Saint Lucia*. London: Climate and Development Knowledge Network ([https://cdkn.org/wp-content/uploads/2014/04/ARIA\\_Technical\\_paper161214.pdf](https://cdkn.org/wp-content/uploads/2014/04/ARIA_Technical_paper161214.pdf)).
- 25 WRI (2013) *ARIA Phase 1*. Washington, DC: World Resources Institute ([www.wri.org/sites/default/files/uploads/aria\\_phase\\_i\\_workbook\\_2.0.pdf](http://www.wri.org/sites/default/files/uploads/aria_phase_i_workbook_2.0.pdf)).
- 26 Worker et al. (2014) Op. cit.; CANARI (2014) *Strengthening institutional arrangements in Trinidad and Tobago to facilitate climate change adaptation policy formulation and execution*. Laventille: Caribbean Natural Resources Institute.
- 27 CANARI (2015) *Enabling civil society in Saint Lucia to adapt to the impacts of climate change*. Laventille: Caribbean Natural Resources Institute.
- 28 Pittman, J., Armitage, D., Alexander, S., Campbell, D. and Alleyne, M. (2015) 'Climate change and governance in a coastal-marine context', *Marine Policy* 51(C): 486–498.
- 29 Ibid.
- 30 CANARI and WRI (2013) *ARIA Phase II: Priority areas report Trinidad and Tobago*. Washington, DC: World Resources Institute (<http://cdkn.org/wp-content/uploads/2014/04/ARIA-Phase-II-Priority-areas-report-Trinidad-and-Tobago290315.pdf>).
- 31 INTASAVE and CARIBSAVE (2015b) 'Multi-level governance to adaptation in the Caribbean'. Policy Brief. Christ Church: CARIBSAVE ([https://cdkn.org/wp-content/uploads/2017/02/2GIVRAPD\\_Policy\\_Brief-Multi-level-governance.pdf](https://cdkn.org/wp-content/uploads/2017/02/2GIVRAPD_Policy_Brief-Multi-level-governance.pdf)).

- 32 CDKN (2014) Op. cit.
- 33 Bonjean Stanton, M.C. and Downing, T.E. (2014) 'Identifying and lifting climate adaptation barriers in Jamaica using a participatory approach'. GIVRAPD Working Paper. Oxford, UK: Global Climate Adaptation Partnership.
- 34 Ibid.
- 35 INTASAVE and CARBISAVE (2015b) Op. cit.
- 36 INTASAVE and CARBISAVE (2015c) 'Lessons from Jamaica: Promoting resilience through institutional arrangements, social networks and community empowerment'. Policy Brief. Christ Church: CARIBSAVE (<https://cdkn.org/resource/policy-brief-lessons-jamaica-promoting-resilience-institutional-arrangements-social-networks-community-empowerment>).
- 37 Ibid.
- 38 Ibid.
- 39 Alexander, S.M., Armitage, D., Pittman, J. and Campbell, D. (no date) Can multilevel governance facilitate coastal climate change adaptation in Jamaica? Christ Church: Global Islands' Vulnerability Research Adaptation Policy and Development (<http://cdkn.org/wp-content/uploads/2017/02/Working-Paper-Can-multilevel-governance-facilitate-coastal-climate-change-adaptation-in-Jamaica.pdf>).
- 40 Ibid.
- 41 Ibid.

## About CDKN

The Climate and Development Knowledge Network (CDKN) aims to help decision-makers in developing countries design and deliver climate compatible development. We do this by providing demand-led research and technical assistance, and channelling the best available knowledge on climate change and development to support policy processes at the country level.

## About Acclimatise

Acclimatise is a specialist consulting, communications and digital application company providing world-class expertise in climate change adaptation and risk management. Founded in 2004, our mission is to help our clients understand and adapt to climate risk, and take advantage of the emerging opportunities that climate change will bring. For more information, please visit: [www.acclimatise.uk.com](http://www.acclimatise.uk.com)



Funded by:



Ministry of Foreign Affairs of the Netherlands

[www.cdkn.org](http://www.cdkn.org)

e: [enquiries@cdkn.org](mailto:enquiries@cdkn.org)

t: +44 (0) 207 212 4111

This document is an output from a project commissioned through the Climate and Development Knowledge Network (CDKN). CDKN is a programme funded by the UK Department for International Development (DFID) and the Netherlands Directorate-General for International Cooperation (DGIS) for the benefit of developing countries. The views expressed and information contained in it are not necessarily those of or endorsed by DFID, DGIS or the entities managing the delivery of the Climate and Development Knowledge Network, which can accept no responsibility or liability for such views, completeness or accuracy of the information or for any reliance placed on them. This publication has been prepared for general guidance on matters of interest only, and does not constitute professional advice. You should not act upon the information contained in this publication without obtaining specific professional advice. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and, to the extent permitted by law, the entities managing the delivery of CDKN do not accept or assume any liability, responsibility or duty of care for any consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it. Management of the delivery of CDKN is undertaken by PricewaterhouseCoopers LLP, and an alliance of organisations including Fundación Futuro Latinoamericano, LEAD Pakistan, the Overseas Development Institute and SouthSouthNorth.