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Report on the Workshop to Review the Findings of Phase I and Initiate Phase II of the Adaptation: Rapid Institutional Analysis (ARIA) Study

DRAFT

September 27th, 2013

Laventille, Trinidad and Tobago

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1 INTRODUCTION

1.1 Background

The Caribbean Natural Resources Institute (CANARI) in collaboration with the World Resources Institute (WRI) and the Saint Lucia National Trust has undertaken a research project to assess climate change adaptation readiness in Trinidad and Tobago and Saint Lucia. The project seeks to address the need for civil society engagement in policy and institutional analysis for climate change adaptation and involves pioneering the use of the WRI's Adaptation: Rapid Institutional Analysis (ARIA) toolkit in the Caribbean. The ARIA toolkit aims to enhance access to environmental information, public participation, and access to justice in national-level climate change adaptation, with the goal of improving the quality of adaptive actions by the Governments of Saint Lucia and Trinidad and Tobago, the private sector, and public citizens.

The specific objectives of the project are: (i) to build civil society capacity by facilitating and supporting participatory research by civil society on climate change adaptation policy, institutions and actions; (ii) to analyze the current state of policy, institutions and actions; (iii) to identify high-priority and low-cost "next steps"; (iv) to engage government institutions and influence policy and adaptation processes by providing credible research that can serve as a baseline for ongoing improvements; (v) to catalyze, facilitate and support opening of decision-making processes and action to greater participation of civil society. This project is being funded by the Climate and Development Knowledge Network (CDKN).

On September 27th, 2013 CANARI facilitated a *Workshop to Review the Findings of Phase I and Initiate Phase II of the ARIA Study*. Representatives from five agencies attended the workshop. These were the Council of Presidents of the Environment (COPE), Trinidad and Tobago Meteorological Service (TTMS), Trinidad and Tobago Unified Fisherfolk (TTUF), Trinidad and Tobago Tour Guides Association, and the Agricultural Society of Trinidad and Tobago.

This workshop followed an Orientation Workshop held on April 4th and 5th 2013, which was jointly facilitated by CANARI and the WRI, an Informational Meeting facilitated by CANARI held on May 1st, 2013, and the conducting of Phase I of the ARIA survey during May and July 2013.

1.2 Objectives of the Workshop

The objectives of the workshop were to: (i.) re-familiarise participants with the ARIA Project (ii.) review and discuss the findings and recommendations of the Phase I ARIA Study (iii.) identify the three priority areas for focused research in Phase II and (iv.) train partners in the use of the Phase II ARIA Workbook.

Workshop Proceedings

2 WELCOME AND INTRODUCTION OF PARTICIPANTS

The facilitators for the workshop were Mr. Terrence Phillips, Senior Technical Officer (STO), CANARI, and Ms. Keisha Sandy; Technical Officer (TO), CANARI.

The workshop began with a brief welcome and overview of the agenda¹. A full list of the workshop participants and the organisations they represented is appended to this report².

3 OVERVIEW OF THE ARIA PROJECT

An overview of the ARIA Project³ was presented to re-familiarise participants who had taken part in the previous workshops and survey, and to inform any new representatives. Participants were informed of the goals, specific objectives, expected outputs and approach of the ARIA Study in Trinidad and Tobago. Each Phase, Phase I to Phase III, was also outlined. Phase I, which has been completed, involved a macro-level analysis of national policies and institutions with regard to climate change adaptation, using the ARIA Workbook I. Three potential priority areas for further study were also identified in this phase. Phase II, which will be the next phase to be implemented, will involve a more in-depth analysis of the three priority areas using ARIA Workbook II. Once Phases I and II have been completed, and the reports for each phase have been finalized, Phase III will commence. This final Phase will involve the drafting of an academic paper of the study, and will include the results and recommendations of a participatory analysis of the ARIA tool undertaken by an Advisory Panel and the civil society organisations (CSOs) involved in the project. Synthesis research conducted by CANARI and WRI to facilitate cross-national comparison will also be included in this phase.

3.1 The Advisory Panel

In the project overview presentation, the role of the Advisory Panel was explained. The Advisory Panel, which will consist of persons from the public sector and national, regional and international civil society organisations from Trinidad and Tobago, St. Lucia and other islands in the Caribbean, will:

“Provide technical advice on the research and recommendations and promote implementation of the findings. Panel members will serve as technical advisors, quality controllers, champions and networkers.”

CANARI was in the process of contacting the potential Panel members to determine their interest and availability.

¹ See Appendix 1 – Workshop Agenda

² See Appendix 2 – List of Participants

³ See Appendix 3 – Power Point presentation: Overview of ARIA Project

4 PHASE I ARIA STUDY: KEY FINDINGS, AND RECOMMENDATIONS FOR TRINIDAD AND TOBAGO

The key findings and recommendations for the three priority areas coming out of Phase I of the study were presented⁴, along with a brief re-cap of the format of the Phase I ARIA Workbook, including the five (5) main functional areas regarding climate change adaptation that were analysed, namely: *assessment, prioritisation, coordination, information management, and mainstreaming*.

Desk reviews and interviews with key organisations were the main sources of data acquisition. Of the thirty (30) organisations approached for information, only ten (10) responded favourably. It was indicated that two organisations, the Environmental Management Authority (EMA) and the Trinidad and Tobago Meteorological Service, which were identified as key informants, did not participate in the survey, although the latter was trained in the use of the Phase I Workbook during a previous workshop. A brief synopsis of the major points and findings under each functional area is presented below (Please refer to Appendix 4 for additional information):

- **Assessment:** There were few assessments conducted in Trinidad and Tobago on climate change. Existing assessments tended to be project based and did not take on a national scope. No inventory of climate change projects existed in Trinidad and Tobago.
- **Prioritisation:** There was no apparent process to set national priorities for climate change adaptation in Trinidad and Tobago, although some organisations have developed their own tools to set priorities for adaptation. For example, such adaptation efforts were taking place in South West Tobago as this was the most densely populated area of the island with two main income generating activities, tourism and fishing, prevalent there.

There was no national budgetary allocation specifically for climate change adaptation, although it was noted that the Government of Trinidad and Tobago received funding for a climate change adaptation project through an Inter-American Developmental Bank (IDB) loan. It was also mentioned that climate change adaptation projects undertaken by government agencies may be funded through budgetary allocations of the Public Sector Investment Programme (PSIP).

- **Coordination:** Coordination for climate change adaptation at the national level did not exist, although the Office of Disaster Preparedness and Management (ODPM) had recently been mandated with this responsibility. The ODPM was still in the process of incorporating this new mandate into its normal processes.

It was noted that the Multilateral Environmental Agreements Unit (MEAU), falling under the Ministry of Environment and Water Resources, has the responsibility to coordinate Trinidad and Tobago's submissions to the United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol and so they have some coordinating functions. The MEAU also chairs a multi-stakeholder committee that advises on climate change related activities in the country.

- **Information Management:** Information regarding climate change was collected by various agencies but was not always publicly available. An example of one such agency is the Forestry Division falling under the Ministry of Housing, Land and Marine Affairs. This agency collected

⁴ See Appendix 4 –PowerPoint Presentation: Findings of Phase 1

data that could be used to inform climate change adaptation; however, this information was not shared. There was no national platform for information sharing regarding climate change adaptation that currently existed.

It was pointed out that some institutions were moving in the direction of creating official platforms for information sharing. For example, the MEAU indicated their intention to use the list of climate change focal points to develop a network where information could be shared, while the ODPM opined that its National Disaster Risk Reduction Committee (NDRRC) could be used as a platform to share information on climate change adaptation.

- **Mainstreaming:** The Integrated Coastal Zone Management (ICZM) component of the IDB loan, mentioned under the Prioritisation functional area above, was seen as the avenue to mainstream climate change adaptation into national policies, programmes and projects.

4.1 Selection of the three (3) Priority Areas

It was indicated that Phase I of the study did not provide adequate information to identify the three priority areas. So, it was decided that the best option to select the three areas for Phase II would be to examine areas that presented the best opportunities to input into ongoing climate change processes in Trinidad and Tobago. The criteria used were:

- (i) the priority area was important, but advocacy would be needed for climate change adaptation;
- (ii) research or action was ongoing; and
- (iii) some information existed and could be accessed.

The areas identified were (i) coastal zone of Trinidad and Tobago; (ii) food production; and (iii) tourism, with the rationale being given below.

Coastal zone of Trinidad and Tobago: Under the *IDB/GORTT Program to Support the Climate Change Agenda I*, the ICZM component appeared to be the one that is solely focussed on climate change adaptation. The aim of the Program is to support Trinidad and Tobago in strengthening and modernizing the regulatory, institutional and policy framework to integrate climate change and its impacts into national economic development. Coastal zone management is an area in which work was being done, so information should be available.

Food production: This is a critical area in terms of food security. However, food prices were increasing and there was an increasing dependence on imported products. The ECLAC study identified food production in Trinidad and Tobago as a critical area in which climate change adaptation was needed. There was little information for this area in Phase I of the study, so it was seen as an area that might require advocacy.

Tourism: Tourism is an area in which work was being done in climate change; however climate change adaptation advocacy would be needed.

Participants were given the opportunity to share their opinions and make recommendations regarding the findings of the project, and the final selection of the priority areas for Phase II.

4.2 Comments on findings of the Phase I Study

- It was mentioned that the failure to obtain information from organisations in Phase I could have been due to the wrong officers being approached, and that the participants attending the various workshops could have been used as possible contacts.
- In response to a query as to whether climate change adaptation strategies for other countries such as Dominica and Guyana were reviewed during Phase I, it was pointed out that the current project was using Saint Lucia and Trinidad and Tobago as pilots in the study. However, based on the results of the study, the ARIA toolkit could be refined and used by other countries. This would also provide the opportunity for comparisons among countries in the region.
- In providing clarification on the composition of the multi-stakeholder committees mentioned under the Coordination functional area, it was explained that these committees were composed of government agencies, the Institute of Marine Affairs (IMA) as well as civil society organisations. As to whether these committees had the potential to share information and did so formally or informally, it was explained that the IMA only shared information during meetings⁵ while the ODPM indicated that multi-stakeholder committee meetings were held quite regularly and they were hoping to establish a formal information sharing platform. It was pointed out that they may now be developing these multi-stakeholder committees to share information and have communication available more widely. However, one of the participants indicated a lack of awareness of any such committee being established under the ODPM. It was mentioned that this committee was convened only for a particular project.

The participants agreed that:

- The research revealed the reality of climate change adaptation in Trinidad and Tobago.
- The recommended priority areas should be used for Phase II of the study.

The participants did not identify other gaps in the research.

5 PHASE II ARIA WORKBOOK TRAINING SESSION

The use of the ARIA Workbook for Phase II was outlined. The layout of the workbook was discussed in terms of the five (5) main functional areas (assessment, prioritisation, coordination, information management, mainstreaming) for assessing policies and institutions for climate change adaptation in the priority areas. It was explained that Workbook II is similar to Workbook I but its focus is on the Priority Areas. Worksheet 1A was used as an example.

6 IDENTIFICATION OF PRIORITY AREA SUB-GROUPS

Due to the small number of participants present, it was decided that, in plenary, the participants would identify the critical agencies and possible contact information that would be useful in helping to gather information for each priority area. Agencies, contacts and a back-up contact were identified by the participants for each priority area and the information was recorded.⁶

⁵ Note: Based on subsequent feedback from the Advisory Panel, it was learnt that information can be requested from the IMA's Director and from the organisation's library.

⁶ See Appendix 5 – Table of contacts

7 NEXT STEPS IN PROJECT

The next-steps of the project were presented⁷, outlining the likely activities, expected outputs and deadline dates for the entire project. It was noted that the Phase II data collection stage, which should end on October 31st, 2013, could also be used to clarify information from previous interviewees, especially as some responses were unclear or conflicting. The Phase II Report using the ARIA Workbook II is expected to be drafted and finalised by October 31st, 2013.

7.1 Comments on next steps

- It was pointed out that Phase II of the survey should have been done by CSOs, but due to the limited time available and the difficulty in accessing information from agencies in Phase I, it was decided to contract a consultant to do Phase II.
- It was indicated that WRI's expectation was that civil society organisations could take the lead in utilizing the workbooks, especially in regard to giving feedback for how the tool could be modified to be more applicable in a Caribbean context. The representative from COPE, therefore volunteered to take the Phase II Workbook to his organization for review. The other participants also requested workbooks and copies of the presentations delivered at the workshop.

8 WRAP- UP

The meeting ended with the completion of all agenda items. Participants were informed that any requested documents and the workshop presentations would be circulated.

9 RECOMMENDATIONS FROM PARTICIPANTS

- The three (3) recommended priority areas (Coastal Zone of T&T, Tourism and Food Production) should be used for the Phase II study.
- The Project team should make better use of the workshop group's contacts in Phase II of the study to help improve participation by more organisations in the study.
- The Project team should agree on a definition for the Coastal Zone of Trinidad and Tobago for Phase II of the ARIA study before hand.
- The Consultant should use the Phase II data collection stage to clarify information from previous interviewees in Phase I.

⁷ See Appendix 6 – PowerPoint Presentation: Next Steps

APPENDIX 1 – WORKSHOP AGENDA

Analysing climate change policy and institutions in Saint Lucia and Trinidad and Tobago: Piloting a Caribbean process

Workshop to review the findings of Phase I and initiate Phase II of the Adaptation Rapid Institutional Analysis (ARIA) Study

Friday 27 September 2013

Agenda

Venue:

CANARI's Conference Room
Unit 8, Building 7
Fernandes Business Centre
Eastern Main Road, Laventille
Trinidad, W.I.

Specific objectives of the workshop:

1. To re- familiarise participants with the project.
2. To review and discuss the findings and recommendations of the Phase I: ARIA Study
3. To identify the three priority areas for focused research in Phase II
4. To train the partners in the use of the Phase II ARIA Workbook

Time	Agenda item	Resource person/Facilitator
9:00am – 9:15am	Welcome and introduction of participants <i>The specific objectives of the workshop will be outlined.</i> <i>Participants will be invited to introduce themselves and their organisations.</i>	Terrence Phillips
9:15am – 9:30am	Overview of the project <i>An overview of the project, including the role of the Advisory Panel, will be provided.</i>	Terrence Phillips

Time	Agenda item	Resource person/Facilitator
	<p><i>The project is funded by the Climate and Development Knowledge Network (CDKN) and is being implemented in Trinidad and Tobago and Saint Lucia, with project partners, the World Resources Institute (WRI) and the Saint Lucia National Trust (SLNT).</i></p>	
9:30am – 11:00am	<p>Phase I: ARIA Study – key findings and recommendations for Trinidad and Tobago</p> <p><i>The key findings and recommendations of Phase I of the ARIA Study, which included national assessment, prioritisation, coordination, information management, and mainstreaming of adaptation policy will be provided Participants will be provided and discussed, with the three priority areas for focused research in Phase II being identified.</i></p>	Keisha Sandy
11:00am – 12:00noon	<p>Phase II: ARIA Workbook and identification of priority area sub-groups</p> <p><i>The basic elements of the Phase II: ARIA workbook will be presented and discussed.</i></p> <p><i>Based on the three priority areas for focused research, three sub-groups will be identified.</i></p>	Keisha Sandy
12:00noon- 12:30pm	<p>Next steps in the project</p> <ul style="list-style-type: none"> • <i>Timeline for completion of Phase II of the Study</i> • <i>Discussion of the expected communication products from the research e.g. academic/technical report, policy brief, newspaper article</i> 	Terrence Phillips/Keisha Sandy
12:00noon – 12:45pm	LUNCH	
12:45pm - 1:45pm	<p>Priority areas sub-groups</p> <p><i>Based on the priority area for focused research, each group will review the Workbook and determine the best approach to achieving the expected output.</i></p>	Keisha Sandy/Terrence Phillips
1:45pm – 2:30pm	<p>Wrap up</p> <ul style="list-style-type: none"> • <i>Sub-group presentations</i> • <i>Confirmation of the activities and timeline for Phase II</i> 	Terrence Phillips/Keisha Sandy

APPENDIX 2 – LIST OF PARTICIPANTS

Name	Organisation	Contact Information
Ms. Joanne Fitz-Andrews	Agricultural Society of Trinidad and Tobago.	868-745-3177 868-321-2137 myers_joanne@gmail.com
Mr. Ivan Charles	Trinidad and Tobago Tour Guides Association	868-685-6205 charlo74@hotmail.com ierenatureadventures@hotmail.com
Mr. Louis Guy	Council of Presidents of the Environment	868-622-2322 cfca.neg.tt@gmail.com copett2011@gmail.com
Mrs. Arlene Aaron-Morrison	Trinidad and Tobago Meteorological Service	868-669-5465 arleneaaron@gmail.com
Mr. Joslyn Lee Quay	Trinidad and Tobago Unified Fisherfolk/ Caribbean Network of Fisherfolk Organisation	868-481-0181 868-374-7520 joslee_56@outlook.com leequayj@yahoo.com
Ms. Melanie Andrews (Consultant)	CANARI -Consultant	868-782-6364 kadine.andrews@gmail.com
Mr. Terrence Phillips	CANARI - Senior Technical Officer	868-626-6062 Terrence@canari.org
Ms. Keisha Sandy	CANARI -Technical Officer	868-626-6062 Keisha@canari.org

APPENDIX 3 – POWERPOINT PRESENTATION: OVERVIEW OF ARIA STUDY



Analyzing climate change policy and institutions in Saint Lucia and Trinidad and Tobago: Piloting a Caribbean process

Workshop to review the findings of Phase I and initiate Phase II of the Adaptation Rapid Institutional Analysis (ARIA) Study

27 September 2013

Project overview



Introduction

- A changing climate adds another layer of complexity to the existing challenges of sustainable development by increasing uncertainty, directional change and extremes in natural settings
- Strongest efforts for planning and action for climate change adaptation have taken place at the international and, to a more limited extent, at the community level
- For adaptation actions to have their greatest effect, there needs to be a focus on the national and sectoral levels, where institutional and legal frameworks shape the quality of decisions at all levels and the processes must be transparent, accountable, and inclusive
- Because it has been internationally driven and at the national level, government-led, civil society tends to lack ownership for adaptation policy and action



Introduction cont'd

The ARIA Caribbean project seeks to address the need for civil society engagement in policy and institutional analysis for climate change adaptation.

ARIA toolkit provides for a two-phase approach:

Phase I of the research assesses institutional capacity and state of play on key adaptation and developmental decision-making.

The outputs generated in the first phase provide the foundation for Phase II in which key priority sectors will be identified for further research and analysis.

Phase II assessments will provide evidence and guidance to key stakeholders within these sectors on the main issues that need to be addressed through appropriate reforms in laws, institutions and practices.



Introduction cont'd

In the next phase of the research, planned communication pathways will initiate the process of engagement between government and civil society.

The result should stimulate evidence-based advocacy and a greater participatory approach and effort in policy development, institutional strengthening and participatory decision-making.



- 1 year project: January (started March/April) – December 2013
- Funded by the Climate and Development Knowledge Network (CDKN): US\$90,000
- Implementation partners:
 - Caribbean Natural Resources Institute (CANARI) – lead regional NGO
 - World Resources Institute (WRI) - international capacity building and comparative research, ARIA tool
 - Saint Lucia National Trust - lead NGO in Saint Lucia.
- Locations: Saint Lucia and Trinidad and Tobago



Goal and overall objective

Goal:

- to improve the capacity of Caribbean islands to develop and implement effective climate change adaptation policy and action.

Overall objective:

- to pilot a rigorous and participatory research process in Saint Lucia and Trinidad and Tobago that builds understanding of effective climate change adaptation policy, institutions and actions and improves capacity for participatory climate change policy design and adaptation implementation in Caribbean SIDS.



Specific objectives

- facilitate and support participatory research by civil society on climate change adaptation policy, institutions and actions
- analyse the current state of policy, institutions and actions
- identify high-priority and low-cost “next steps”
- influence policy and adaptation processes
- catalyse, facilitate and support opening of decision-making processes and action to greater participation of civil society
- develop island-specific approaches to vulnerability assessment.



Expected outputs

- Technical reports on policy and institutional arrangements
- Recommendations for reform in policies, institutions and action in priority areas
- Advocacy products and civil society action to influence policy
- Knowledge products to build awareness
- Recommendations for a process for vulnerability assessment and planning in Caribbean SIDS.



Approach

Phase I

- Orientation/training and application of the ARIA “National Level Workbook” to national level policy
- ARIA: indicator-based survey of existing policies and practices in climate change adaptation, applied by civil society organizations to their national situations
- Workbook provided guidance and semi-structured research questions (through 17 worksheets) which were applied to key national documents, policies (including law), and to officials through interviews.
- Areas covered included national vulnerability assessment, national prioritisation processes, interagency coordination, information management systems and adaptation mainstreaming .



Approach cont'd

Phase 1 cont'd

- Research involved *desk reviews, interviews, and focus groups.*
- Hold a multi-stakeholder "Priority Areas Workshop" which will identify three priority areas for work in Phase II
- These priorities will be determined at the national level and may include, but are not limited to vulnerable populations, ecosystems, infrastructure, economic sectors or ministries
- Advisory Panel will review research and recommendations for accuracy and relevance.



Approach cont'd

Phase II

- Apply the "Priority Areas Workbook" to the three selected high-priority areas for action. CANARI as the regional lead organization will work to support partners at the local level in obtaining research documents and interviews and will ensure quality control
- Research results and analysis will be reviewed by the project partners as well as the Advisory Panel to ensure quality of data and analysis



Approach cont'd

Phase III

- All NGOs involved will take part in launch events to be tailored to the specific media and policy environment of their country.
- A participatory evaluation of the ARIA tool will be conducted with the Advisory Panel and CSOs involved. Recommendations will be made on the use of ARIA and other approaches in the Caribbean context.



Advisory Panel

Purpose: to provide technical advice on the research and recommendations and to promote implementation of the findings. Panel members will serve as technical advisors, quality controllers, champions and networkers.

Composition:

Persons from public sector agencies and civil society organisations (national, regional and international) from Saint Lucia and Trinidad and Tobago (primarily) and other regional experts.

Activities

- review the Phase I ARIA Workshop Report, including the report of the phase I ARIA research and recommendations on the three Priority Areas for focus in Phase Two of the project
- review the report from Phase Two research for validation of results and agreement on proposed target audiences for communication of findings
- propose communication pathways and products for development for sharing the findings of the research
- assist in promoting of the implementation of the findings of the research.



For more information contact CANARI

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<http://www.canari.org/cm2.asp>



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Workshop to review the findings of Phase I and initiate Phase II of the Adaptation Rapid Institutional Analysis (ARIA) Study

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The outputs generated in the first phase provide the foundation for Phase II in which key priority sectors will be identified for further research and analysis.

Phase II assessments will provide evidence and guidance to key stakeholders within these sectors on the main issues that need to be addressed through appropriate reforms in laws, institutions and practices.



Introduction cont'd

In the next phase of the research, planned communication pathways will initiate the process of engagement between government and civil society.

The result should stimulate evidence-based advocacy and a greater participatory approach and effort in policy development, institutional strengthening and participatory decision-making.



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Approach cont'd

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Approach cont'd

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- Research results and analysis will be reviewed by the project partners as well as the Advisory Panel to ensure quality of data and analysis



Approach cont'd

Phase III

- All NGOs involved will take part in launch events to be tailored to the specific media and policy environment of their country.
- A participatory evaluation of the ARIA tool will be conducted with the Advisory Panel and CSOs involved. Recommendations will be made on the use of ARIA and other approaches in the Caribbean context.



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- propose communication pathways and products for development for sharing the findings of the research
- assist in promoting of the implementation of the findings of the research.



For more information contact CANARI

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APPENDIX 4 – POWERPOINT PRESENTATION: FINDINGS OF PHASE I



Analysing climate change policy and institutions in Saint Lucia and Trinidad and Tobago: Piloting a Caribbean process

Findings from the Phase I research



Data collection

- May 2013 – July 2013
- Interviews
- Desk review
- ARIA Phase I workbook
the tool used



Understanding the workbook

WORKSHEET 1A: VULNERABILITY AND IMPACTS ASSESSMENT

Indicator	There is a comprehensive assessment of vulnerability and impacts at the national level? If not, and only subnational or sectoral assessments exist, review these using a worksheet for each assessment. Then, evaluate the qualities considering all of these available assessments. For instance, Quality 3 could only be given a "Yes" if the assessment, in aggregate, covered all sectors and regions. (If there are no assessments, explain that there is not, mark "N/A" in the qualities table and move to next worksheet.)			
Qualities of the indicator	Yes	Limited	No	N/A
1. Assessment(s) include(s) socioeconomic and political drivers of vulnerability. (Comprehensiveness)				
2. Assessment methodology is made transparent. (Transparency & Participation)				
3. Broad set of stakeholders were engaged in assessment development. (Transparency & Participation)				
4. Assessment (if national) includes review of existing subnational assessments, including community-based assessments. (if reviewing subnational)				

Quality



Understanding the workbook

Recommended method for each quality

Quality 1 Description

This quality asks whether the existing vulnerability and impacts assessment includes socioeconomic and political drivers of vulnerability—issues of wealth and credit access, governance, social stratification, gender impacts, etc. An interview with an expert could go a long way to helping to critique the degree to which the government has included this in the assessment.

Findings:

Legal Research	Research Documents	Interviews
General: N/A	General: Find the vulnerability and impacts assessment for the country if it exists.	General: Contact relevant agencies to confirm/locate assessments if needed.
Q1: N/A	Q1: Review existing vulnerability and impacts assessment(s) and any supporting documents, especially those pertaining to methodology of assessing vulnerability.	Q1: (Optional) Interview at least 1 representative of the responsible government agency, an implementing organization, or an academic with an understanding of your country's vulnerability assessment.
Q2: (Optional) Are there legal requirements, administrative guidelines, or rules that require disclosure of the methods for vulnerability and impacts?	Q2: Websites, method documents, etc. supporting the VSA assessment.	Q2: (Optional) Interview a representative of the civil society or an academic to explain the methodology behind the national vulnerability assessment.

Description of each quality



Findings from the Phase I research

- **Assessments**
 - Few assessments conducted in T&T on climate change adaptation
 - There is no inventory of climate change adaptation efforts existing yet
 - ODPM was mandated to address climate change adaptation as part of its functions.
 - Any other organisations mandated to do the same?



Findings from the Phase I research

- **Prioritisation**
 - There is no process to set national priorities for climate change adaptation in T&T
 - GORTT has not set a budget particularly for climate change adaptation



Findings from the Phase I research

- **Coordination**
 - Coordination for climate change adaptation at the national level does not exist.
 - ODPM mandated as the coordinating body for adaptation



Findings from the Phase I research

- **Information management**
 - Information relevant to climate change collected in different sectors but not always publicly available
 - No platform to share information



Findings from the Phase I research

- **Mainstreaming**
 - Integrated coastal zone management component of the IDB loan seen as the avenue to mainstream climate change adaptation into policies, programmes and projects.



The research revealed that....

- Adaptation is ad hoc.
- There is little or no information management or coordination among organisations in climate change adaptation
- Climate change mitigation receives more attention than climate change adaptation in T&T



Choosing the three priority areas

- Three priority areas chosen based on
 1. Importance nationally;
 2. Information exists; and
 3. Needs advocacy for climate change adaptation
- The priority areas:
- Coastal zone of T&T
 - Food production in T&T
 - Tourism in T&T



Questions?

- Did the research reveal the reality of climate change adaptation in T&T?
- Were there gaps in the research?
- Given the information collected, are the three priority areas ones that we can move forward with in Phase II? Are there other areas we can consider?



Analysing climate change policy and institutions in Saint Lucia and Trinidad and Tobago: Piloting a Caribbean process

Findings from the Phase I research



Data collection

- May 2013 – July 2013
- Interviews
- Desk review
- ARIA Phase I workbook the tool used



Understanding the workbook

WORKSHEET 1A: VULNERABILITY AND IMPACTS ASSESSMENT				
Indicator	There is a comprehensive assessment of vulnerability and impacts at the national level? If not, and only subnational or sectoral assessments exist, review these using a worksheet for each assessment. Then, evaluate the qualities considering all of these available assessments. For instance, Quality 3 could only be given a "Yes" if the assessment, in aggregate, covered all sectors and regions. (If there are no assessments, explain that there is not, mark "N/A" in the qualities table and move to next worksheet.)			
Qualities of the indicator	Yes	Limited	No	N/A
1. Assessment(s) include(s) socioeconomic and political drivers of vulnerability. (Comprehensiveness)				
2. Assessment methodology is made transparent. (Transparency & Participation)				
3. Broad set of stakeholders were engaged in assessment development. (Transparency & Participation)				
4. Assessment (if national) includes review of existing sub-national assessments, including community-based assessments. (if reviewing subnational				

Quality



Understanding the workbook

Recommended method for each quality

Legal Framework	Research Documents	Interview
General: N/A	General: Find the vulnerability and impacts assessment for the country if it exists	General: Contact relevant agencies to confirm/validate assessments if needed
Q1: N/A	Q1: Review existing vulnerability and impacts assessment(s) and any supporting documents, especially those pertaining to methodology of assessing vulnerability	Q1: (Optional) Interview at least 1 representative of the responsible government agency, an organizing organization, or an academic with an understanding of your country's vulnerability assessment
Q2: (Optional) Are there legal requirements, administrative guidelines, or rules that require disclosure of the methods for vulnerability and impacts?	Q2: In reports, method documents, etc. supporting the V&IA assessment	Q2: (Optional) Interview a representative of the civil society or an academic to explain the methodology behind the national vulnerability assessment

Quality 1 Description

This quality asks whether the existing vulnerability and impacts assessment includes socioeconomic and political drivers of vulnerability – issues of wealth and credit access, governance, social stratification, gender impacts, etc. An interview with an expert could go a long way to helping to critique the degree to which the government has included this in the assessment.

Findings:

Description of each quality



Findings from the Phase I research

• Assessments

- Few assessments conducted in T&T on climate change adaptation
- There is no inventory of climate change adaptation efforts existing yet
- ODPM was mandated to address climate change adaptation as part of its functions.
 - Any other organisations mandated to do the same?



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Questions?

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- Given the information collected, are the three priority areas ones that we can move forward with in Phase II? Are there other areas we can consider?

APPENDIX 5 – LIST OF CONTACTS FOR PRIORITY AREAS

Agency	Coastal Zone	Food Production	Tourism	Contact	Contact 2	Reports
Ministry of Food Production (Info Data Section/ Planning Div)	x	X	X	Vanessa Hyacinth-Ash , Statistician (See Arlene Morrison)		
Ministry of Tourism	x	X	X	Simone Medina, Research Officer II		
TDC	x		X	Carla Cupid-Greene		
Min of Environment and Water Resources	x	X	X	David Persad		
MEAU	x	X	X	Jewel Batchasingh, Climate Change Specialist, MEAU		
IMA	X	X aquaculture		Dr. Rahanna Juman, Principal Research Officer	Dr. Junior Darsan, Oceanographer	
EMA	x	X	X	Ms. Marcia Tinto, Senior Education Officer		
CARDI		X		Dr. Arlington Chesney (See Terrence Phillips)	Bruce Laucknar (See Terrence Phillips)	Check to see what research done
Min of Local Gov	x			See Phase I Report		

Agency	Coastal Zone	Food Production	Tourism	Contact	Contact 2	Reports
(community disaster preparedness)						
ODPM	x	X	X	Candice Ramkissoon, Project Coordinator	Shelly Bradshaw Mitigation Manager	
Fisheries Div	x	X		Recardo Mieux, Fisheries Officer		
TTUF	x	X		Joslyn Lee Quay		info
Fishermen and Friends of the Sea (FFOS)	x	X		Terrence Bedoe (See Joslyn Lee Quay)	Gary Aboud (See Joslyn Lee Quay)	info
COPE	x	X	X	Pat McGraw (See Louis Guy for information)	Louis Guy	
Met Office	x	X	X	Marlon Noel, Director dirmet@tstt.net.tt	Arlene Aaron-Morrison Kenneth Kerr	
WRA	x	X	X	David Samm, Senior Hydrologist		

Agency	Coastal Zone	Food Production	Tourism	Contact	Contact 2	Reports
FAO	x	X		Lisa Martinez Lisaj.martinez@fao.org		
UNDP	x	X	X			
Centeno Research	x	X				
IICA		X		Greg Rawlins	Dianne Francis	Regional agri and food security policies
UWI (agriculture and coastal)	X	X		Michelle Mycoo		
UWI seismic research	X			Stacy Edwards (Contact Ivan Charles for further info)		
Min of Energy and Energy Resources	x					
Energy Chamber	x					
Forestry Div	x	X	X	John Radgman Northern Range Reforestation Programme	Carlton Roberts	
GWP	x	X		Avril Alexander	Nathalie Boodram	In case no WRA and for

Agency	Coastal Zone	Food Production	Tourism	Contact	Contact 2	Reports
						other info on adaptation
Ministry of Health	x	X				
TTRC	x	X	X	See Phase I Report		(clarify some of the info from Phase I)
Ministry of Community Development	x	X	X	Director of Community Dev		
UN ECLAC	x	X	X			Online reports that we may access

*Agencies highlighted in yellow are considered primary agencies that should be contacted in the data acquisition stage of Phase II.

APPENDIX 6 – POWERPOINT PRESENTATION: NEXT STEPS



Analyzing climate change policy and institutions in Saint Lucia and Trinidad and Tobago: Piloting a Caribbean process

Workshop to review the findings of Phase I and initiate Phase II of the Adaptation Rapid Institutional Analysis (ARIA) Study

27 September 2013

Next steps in the project



Next steps:

- Report of the Workshop to review the findings of Phase I and initiate Phase II of the Adaptation Rapid Institutional Analysis (ARIA) Study, including the recommendations for priority areas - **September 30, 2013**
- Conduct the second Phase of the survey (desk reviews focus groups, interviews) on three priority areas using the ARIA Workbook II, including compilation of the completed Phase II ARIA Workbook survey - **October 24, 2013**
- Draft and finalise (based on feedback from CANARI technical staff and Advisory Panel) the Phase II Report using the ARIA Workbook II, with recommendations; and the summary of the Phase II Report using the ARIA Workbook II – **October 31, 2013**



Next steps cont'd

- Prepare advocacy and communication products – **November 1, 2013**
- Prepare the final project report - **December 31, 2013**



For more information contact CANARI

terrence@canari.org
<http://www.canari.org/cm2.asp>



Analyzing climate change policy and institutions in Saint Lucia and Trinidad and Tobago: Piloting a Caribbean process

Workshop to review the findings of Phase I and initiate Phase II of the Adaptation Rapid Institutional Analysis (ARIA) Study

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Next steps cont'd

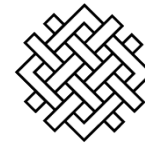
- Prepare advocacy and communication products – **November 1, 2013**
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For more information contact CANARI

terrence@canari.org
<http://www.canari.org/cm2.asp>

APPENDIX 7- DRAFT PHASE I ARIA REPORT



WORLD
RESOURCES
INSTITUTE

ARIA Phase I Research Report

Trinidad and Tobago

September 2013

This report represents the compilation of responses from stakeholders and desk reviews in Trinidad and Tobago from application of the Adaption: Rapid Institutional Analysis (ARIA) tool, in Phase One of the Climate and Development Knowledge Network (CDKN) - funded project entitled "Analysing climate change policy and institutions in Saint Lucia and Trinidad and Tobago: Piloting a Caribbean process", which is being conducted by the Caribbean Natural Resources Institute (CANARI) in partnership with the World Resources Institute (WRI) and the Saint Lucia National Trust (SLNT). The research was conducted over a two month period, from May to July 2013.

List of Acronyms

ARIA	Adaptation: Rapid Institutional Assessment
CANARI	Caribbean Natural Resources Institute
CDB	Caribbean Development Bank
CEC	Certificate of Environmental Clearance
CDKN	Climate and Development Knowledge Network
CIDA	Canadian International Development Agency
CORE	Communities Organised and Ready for Emergencies
DFID	UK Department for International Development
DNRE	Department of Natural Resources and Environment
EMA	Environmental Management Authority
FOIU	Freedom of Information Unit
GORTT	Government of the Republic of Trinidad and Tobago
IDB	Inter-American Development Bank
IMA	Institute of Marine Affairs
MEAU	Multilateral Environmental Agreements Unit
NAC	National Adaptive Capacities
ODPM	Office of Disaster Preparedness and Management
PNM	People's National Movement
PP	People's Partnership
SLNT	Saint Lucia National Trust
TCPD	Town and Country Planning Division
THA	Tobago House of Assembly
TTRCS	Trinidad and Tobago Red Cross Society
UNDP GEF SGP	United Nations Development Programme Global Environment Facility Small Grants Programme
UNFCCC	United Nations Framework Convention on Climate Change
WRI	World Resources Institute

1. INTRODUCTION

In January 2013, the Caribbean Natural Resources Institute (CANARI) initiated a project in partnership with the World Resources Institute (WRI), with funding from the Climate and Development Knowledge Network (CDKN) Caribbean Research Call. This project, entitled "*Analysing climate change policy and institutions in Saint Lucia and Trinidad and Tobago: Piloting a Caribbean process*" is being undertaken in Trinidad and Tobago and Saint Lucia. CANARI contracted the Saint Lucia National Trust (SLNT) to assist in project implementation in Saint Lucia.

This project seeks to research the degree to which there is institutional readiness in each of these islands to undertake climate change adaptation actions. Specifically, the project looks at 'readiness' in terms of five main functions as derived from the National Adaptive Capacities (NAC) Framework designed by the WRI. The NAC Framework identifies the national-level functions that all countries should perform if they are to effectively adapt over time. These functions are whether there have been national vulnerability assessments, prioritization, co-ordination, information management and efforts at mainstreaming.

In each island the research is being undertaken in two phases: Phase One researches these functions using a Phase One Workbook designed by the WRI which forms one part of the ARIA, or Adaptation: Rapid Institutional Assessment tool. Phase Two of the research will involve a deeper study of three priority areas which should emerge from the Phase One research, and which would be critical areas for advocacy action. In Phase Two, local civil society groups will be offered the opportunity to partner with CANARI (and the SLNT in Saint Lucia) to conduct this study, using a Phase Two Workbook, the other part of the ARIA tool. The intended outcome is that civil society groups will build their knowledge of the critical aspects of climate change adaptation needs in these three priority areas and motivation for advocating for improved focus on action at the national and institutional level.

In April 2013, both CANARI and SLNT benefited from a training workshop facilitated by the WRI on the use of this tool. Teams of staff from CANARI and SLNT then undertook the Phase One ARIA research from May to July 2013.

This report on the Phase One ARIA survey begins by setting the context in the country in which the research is being conducted. It describes the method used to conduct the research. Then, provides results, discussion and recommends the possible priority areas for further study in Phase Two.

2. COUNTRY CONTEXT

2.1 Political landscape

[Trinidad and Tobago](#) is a [unitary state](#) regulated by a [parliamentary democracy](#) modelled on that of [Great Britain and Northern Ireland](#), from which the country gained its independence in 1962. Under the 1976 [Constitution](#), the [British monarch](#) was replaced as [head of state](#) by a [President](#) chosen by an [electoral college](#) composed of the members of the [bicameral Parliament](#), comprising of the [Senate](#) and the [House of Representatives](#).

In 2010, a coalition of four political parties popularly referred to as the "People's Partnership" (PP) came into power as the new administration after the General Elections held on 24th May. The mix of political ideologies contributed to the formulation of a guiding document/manifesto entitled "*Prosperity for All*" which saw the country's economic growth being set upon 'seven pillars of interconnected development'. The manifesto's promises were detailed in a three-year (2011-2014) Medium-Term Policy Framework⁸ based on five priority areas', namely: crime and law and order; agriculture and food security; healthcare services and hospitals; economic growth, job creation, competitiveness and innovation; and poverty reduction and human capital development.

This was a departure from the fifteen-year Draft National Strategic Development Plan 2005-2020 ("*Vision 2020*"), which was developed under the leadership of the People's National Movement (PNM) government, which last formed the Government during the period 2002 - 2010. The "*Vision 2020*" document set the tone for a development model based on five interconnecting parts: developing innovative people, nurturing a caring society, governing effectively, enabling competitive business, investing in sound infrastructure and environment.

The change in Government saw some re-organising of Ministries, and the shifting of departments among Ministries. The national climate change focal point, the responsibility of the Multilateral Environmental Agreements Unit (MEAU), was housed in the Ministry of Public Utilities and Environment under the PNM regime. In 2010, a Ministry of the Environment and Water Resources was created into which the MEA was placed. At this time, the National Climate Change Policy (2011) was being finalised with the hosting of public consultations.

In October 2013, the country will undertake Local Government elections which will enable the selection of representatives to lead municipal councils (regional corporations and county councils) which manage infrastructural works at the local level in districts across Trinidad and

⁸ GORTT. 2011. Innovation for Lasting Prosperity: Medium-Term Policy Framework, 2011-2014, Ministry of Planning and the Economy, October 2011. <http://www.finance.gov.tt/content/Medium-Term-Policy-Framework-2011-14.pdf>

Tobago. In 2008, a Disaster Management Unit⁹ was established in the Ministry of Local Government, the role of which, according to information on the Ministry's website, is "to facilitate and maintain a robust disaster risk reduction capability at the local government level". General Elections are constitutionally due in Trinidad and Tobago in 2015.

a. Present and ongoing sectoral planning processes

Trinidad and Tobago is a signatory to the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol. The country is therefore expected to pursue a development pathway which seeks to reduce greenhouse gas emissions. This is challenging in the context of being an oil and gas producing economy, however, *The National Climate Policy, 2011*¹⁰ (GORTT, 2011) has set out some guidance steps for the development of administrative and legislative frameworks for cross-sectoral climate change mitigation measures.

Reflective of this, *The Medium-Term Policy Framework, 2011-2014* (GORTT, 2011) outlines an intention to carry out policy reforms that will establish an approach to reducing greenhouse gas emissions, having low carbon development and promotion of clean alternative energy and conservation across all sectors.

In October 2012, the Multilateral Environmental Agreements Unit held consultations for "Policy and Legislative Review on Mainstreaming Climate Change into the National Development Goals of Trinidad and Tobago"¹¹. The stakeholders' brief prepared for this series of consultations identified key sectors of climate change impacts - agriculture, human health, human settlements, coastal zones and water resources. The document noted that successful implementation of the National Climate Change Policy would require revision of existing associated legislation and administrative policy in the short term and the development and or consolidation of new laws and policies in the long term.

Prior to this, in November 2008, a Renewable Energy Committee was set up by Cabinet to advise and make recommendations on the development of renewable energy resources and systems in Trinidad and Tobago in order to be consistent with the objectives of the then Draft National Climate Change Policy and to deal with already depleting and less globally attractive non-renewable energy resources.

⁹ Disaster Management Unit information on Ministry of Local Government website:
<http://www.localgov.gov.tt/About%20the%20Ministry/Units.aspx>

¹⁰ GORTT. 2011. National Climate Change Policy 28pp. Government of the Republic of Trinidad and Tobago

¹¹ GORTT. 2012. Stakeholders brief: Policy and Legislative Review on Mainstreaming Climate Change into the National Development Goals of Trinidad and Tobago. 11 pp. (unpublished)

The Committee produced the report entitled *"Framework for the development of a renewable energy policy for Trinidad and Tobago"*¹² in January 2011. The report noted that four key factors are necessary for a renewable energy thrust in the country, namely: capacity building and awareness, including public awareness activities, an enabling environment, including provision of incentives, promotion of energy efficiency and conservation, and institutional arrangements. On the latter point, the setting up of a Renewable Energy and Energy Efficiency Agency was proposed.

The Government of Trinidad and Tobago received a loan from the Inter-American Development Bank (IDB) in 2011 for a project entitled *"Program to support the climate change agenda I"*¹³ (TT L-1022). The main objective of the program was the mainstreaming of climate change mitigation and adaptation into national development planning and sector policies. A first component focused on the development of policy and institutional framework for mainstreaming. A second component focused on support for adaptation in terms of reducing vulnerability and risks associated with climate impacts identified in the Climate Change Policy. A third component focused on carbon reduction.

The Institute of Marine Affairs (IMA) is currently chairing a Steering Committee to develop an Integrated Coastal Zone Management Policy Framework, Strategies and Action Plan for Trinidad and Tobago. Through this process, a thematic working group was set up to look at coastal vulnerability and climate change adaptation. The working group will collate and analyse existing data on natural hazards and identify vulnerable coastal areas.

The report of the working group will contribute to a vulnerability assessment being proposed by the Inter-American Development Bank (IDB) as part of a technical cooperation project entitled *"Integrating Coastal Zone Management and Climate Change Adaptation in south-west Tobago"*¹⁴ which is also being executed by the Institute of Marine Affairs. A vulnerability assessment for south-west Tobago is to be conducted by consultants and is expected to be completed by the end of 2013.

Currently, the Office of Disaster Preparedness and Management (ODPM) is conducting a National Preliminary Vulnerability Assessment, looking at vulnerability by category (Environmental, Physical, Socio-Cultural, and Economic). This project is currently in the data collection stage and is expected to feed into a country risk evaluation.

¹² Ministry of Energy and Energy Affairs. 2011. *Framework for Development of a Renewable Energy Policy for Trinidad and Tobago*. Report of the Renewable Energy Committee. 74pp.
<http://energy.gov.tt/content/266.pdf>

¹³ TT L-1022 Program to support the climate change agenda I.
<http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=36415552>

¹⁴ Newspaper advertisement 2013: Request for expressions of interest *"Piloting the integration of coastal zone management and climate change adaptation in Tobago"*. <http://photos.state.gov/libraries/port-of-spain/19452/public/EOI%20IMA%20Integration%20of%20Costal%20Zone%20Mgt%20Climate%20Change.pdf>

The country risk evaluation is being conducted as part of a project being undertaken by the ODPM and funded by IDB (technical assistance grant, TT T-1017) entitled "*Improving the delivery of comprehensive disaster management in Trinidad and Tobago*"¹⁵. Other components of this project are the institutional strengthening and capacity building of the ODPM and a national institutional capacity assessment. The consultants have drafted a national hazard assessment report and will be updating several disaster indicators.

In August 2012, another loan was approved by the IDB for a program for institutional strengthening of the Environmental Management Authority (EMA) in order to improve its coordinating role in mainstreaming environmental management and climate change related priorities into all development sectors¹⁶ (technical cooperation agreement, TT T-1035).

b. Plans and programs relevant to community resilience-building and disaster risk reduction

The regional body which co-ordinates the Caribbean response to climate change is the Caribbean Community Climate Change Centre (CCCCC or 5Cs). This body has developed a document entitled "*Developing transformational change 2011-2021*"¹⁷ which represents the regional implementation plan for the "*Regional Framework for Achieving Development Resilient to Climate Change*"¹⁸ (the Regional Framework) which was approved by CARICOM heads in 2009 as the strategic approach for coping with climate change.

The implementation plan is described as a 'roadmap for action by [CARICOM] member states and regional organisations over the period 2009-2015' which build upon work already undertaken by governments, non-governmental organisations, regional organisations and academic institutions in assessing the impacts of climate change with the support of various funding institutions/donors.

The report places special emphasis on the role of non-governmental organisations and community based organisations in execution of the Implementation Plan. Specifically it notes their specialised roles in "advocacy, community and social development; disaster response and

¹⁵ TT T-1017 Comprehensive disaster risk management in support of public sector transformation.

<http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=35247300>

¹⁶ TT T-1035 Institutional strengthening of the EMA in relation to climate change.

<http://www.iadb.org/en/projects/project-description-title,1303.html?id=TT-T1035>

¹⁷ CCCCC. 2011. *Delivering transformational change 2011-21. Implementing the CARICOM 'Regional framework for achieving development resilient to climate change'*. 215 pp.

Accessible on page: <http://www.caribbeanclimate.bz/ongoing-projects/2009-2021-regional-planing-for-climate-compatible-development-in-the-region.html>

¹⁸ CCCCC. 2009. *Climate change and the Caribbean: a regional framework for achieving development resilient to climate change (2009-2015)* 41pp. Accessible on page:

<http://www.caribbeanclimate.bz/ongoing-projects/2009-2021-regional-planing-for-climate-compatible-development-in-the-region.html>

management; protected areas and environmental management; and public awareness and education” and the need for engagement and mobilisation of people on climate change.

The Office of Disaster Preparedness and Management (ODPM)¹⁹, an agency of the Ministry of National Security, has an established link with the Ministry of Local Government in order to effect necessary infrastructural development and improvement works in critical areas related to disaster management, through its CORE (Communities Organised and Ready for Emergencies) programme²⁰. This is a community-based disaster mitigation and education system, in which the ODPM also partners with community groups, non-governmental organisations and first-responder agencies.

The Ministry of Food Production offers a range of subsidies for farmers and fishers. These are outlined in the 2011 Ministry of Food Production, Land and Marine Affairs farmers' incentive programme document²¹. The following subsidies match recommended climate adaptation strategies:

- Water for Agriculture: establishing ponds, wells and dams; irrigation equipment
- Soil conservation: contour drains; storm drains; check dams
- Agro forestry: establishment of various tree crops - citrus, cocoa, coffee
- Agricultural systems: establishment of shade houses
- Post-harvest equipment and facilities
- Aquaculture systems

Trinidad and Tobago has a national environmental fund known as the Green Fund. The Fund is intended to provide grants to non-governmental organisations and other groups that are undertaking activities that focus on 'remediation, reforestation or conservation of the environment'. According to information available on the website of the Chamber of Commerce²²:

The Green Fund was first established under the Finance Act 2000 through the Miscellaneous Taxes Act, Chapter 77:01 Part XIV – Green Fund Levy – by the Government of the Republic of Trinidad and Tobago (GoRTT). This was amended by Act No. 5 of 2004 and was followed by the Green Fund Regulations, 2007 and the Green Fund (Amendment) Regulations 2011. The Fund is capitalized by a tax of 0.1% on the gross sales or receipts of

¹⁹ Office of Disaster Preparedness and Management website: <http://www.odpm.gov.tt/node/163>

²⁰ Communities Organised and Ready for Emergencies
<http://www.news.gov.tt/archive/index.php?news=7841>

²¹ Ministry of Food Production, Land and Marine Affairs 2011. *Incentive Programme* 12 pp. Ministry of Food Production, Land and Marine Affairs, Trinidad.
[http://www.news.gov.tt/sites/default/files/IncentiveBookletFINAL06July2011_119546169%20\(2\).pdf](http://www.news.gov.tt/sites/default/files/IncentiveBookletFINAL06July2011_119546169%20(2).pdf)

²² Trinidad and Tobago Chamber of Commerce website: *A look at the Green Fund*.
<http://chamber.org.tt/articles/a-look-at-the-green-fund/>

companies carrying on business in Trinidad and Tobago. The levy is payable quarterly in each year of income i.e. March 31st, June 30th, September 30th, and December 31st.

The implementation of the Green Fund became operational through the establishment of the Green Fund Executing Unit (GFEU) and the appointment of a Green Fund Advisory Committee (GFAC) in 2008 by the then Ministry of Planning, Housing and the Environment.

Currently, there are two local projects being executed with financial support of the Green Fund which are directly linked to climate change mitigation and adaptation:

- “Nariva Swamp Restoration, Carbon Sequestration and Livelihoods Project” managed by the Environmental Management Authority; and
- “Water Harvesting in the Northeastern Region of Trinidad” managed by the Toco Foundation.

The local office of the United Nations Development Programme (UNDP) administers projects funded through the Global Environment Facility Small Grant Programme (GEF SGP) in Trinidad and Tobago. These projects, which are undertaken in the six focus areas of the SGP, are funded up to USD 50,000. Since 2006, six projects were funded with grants in the climate change focus area, including a pilot project on building community resilience to climate change in the Caura Valley watershed in east Trinidad, which was implemented by CANARI in 2012-2013. Currently, the GEF Programme also provides funds drawn from the AUSAid initiative, which was introduced in the region in 2012, and through which eligible organisations can undertake projects in community adaptation.

In addition, funding for community adaptation work is accessible through the Caribbean Development Bank (CDB) Community Disaster Risk Reduction Fund²³, which was established with joint financing from the Canadian International Development Agency (CIDA) and the United Kingdom's Department for International Development (DFID). This fund supports work in vulnerable communities which addresses disaster risk reduction (DRR) and climate change adaptation (CCA) in the CDB borrowing member countries.

c. Important environmental planning tools and processes

All development projects in Trinidad and Tobago are guided by The Certificate of Environmental Clearance (CEC) Rules 2001 that assess the foreseeable positive and negative environmental effects of the activities. If there are significant impacts on human health and the environment, environmental impact assessments (EIA) are required²⁴. EIAs most often take the likely effects of climate change into account. Applications for the CEC and decisions on projects for which EIAs are required are both assessed by the Environmental Management Authority, a state body whose mandate is to write and enforce laws and [regulations for environmental management](#),

²³ Caribbean Development Bank Community Disaster Risk Reduction Fund website:
<http://www.caribank.org/cdrr-proposals/the-community-disaster-reduction-fund-first-call-for-proposals>

²⁴ An overview of the EIA and CEC process website:
http://www.ema.co.tt/cms/index.php?option=com_content&task=view&id=121&Itemid=122

to [educate the public about the nation's environmental issues](#) and to [control and prevent pollution](#), as well as conserve natural resources.²⁵

The Town and Country Planning Act, administered by the Town and Country Planning Division (TCPD), is the principal legal instrument for regulating land-use in Trinidad and Tobago²⁶. The Act makes provision for the orderly and progressive development of land in both urban and rural areas²⁷. An application seeking permission from the TCPD must be submitted for approval in advance of any land development activity in Trinidad and Tobago. Other core functions of the TCPD include, *inter alia*, to²⁸:

- Develop and keep, under review, a comprehensive policy framework, a national physical development planning framework, regional plans and local area plans to guide decision making on the use and development of land
- Enforce planning controls
- Assist in the preparation and review of relevant planning legislation
- Provide an up-to-date database of land use planning data and information for decision making on land use and land development.

d. Major existing policies and laws relating to freedom of information

The Freedom of Information Act (1999) came into full effect on August 30th 2001. "The Act gives any person or organisation the right to access information held by public authorities and the right to amend personal information that is incorrect, incomplete, misleading or not relevant to the purpose for which the document is held". The Freedom of Information Unit (FOIU)²⁹ is based within the Office of the Prime Minister. Access to information is requested by completing a Freedom of Information request form and through statements published by public authorities in the Trinidad and Tobago Gazette.

State agencies are encouraged to be proactive in their disclosure of information through the use of websites, publications, press releases and other communication media, however, the FOIU also promotes the standard of responding to public requests within a thirty (30) calendar day period and public authorities are also required to advise applicants who request information of their rights to appeal if not satisfied with the responses.

²⁵ The website of the Environmental Management Authority: [http:// www.ema.co.tt](http://www.ema.co.tt)

²⁶ Water Resources Agency. 2001. National Report on Integrating the Management of Watersheds and Coastal Areas in Trinidad and Tobago.
<http://www.oas.org/reia/iwcam/pdf/trinidad%20and%20tobago/trinidad%20and%20tobago%20national%20report.pdf>

²⁷ Ministry of Legal Affairs. Laws of Trinidad and Tobago. Town and Country Planning Act Chapter 35:01.
http://rgd.legalaffairs.gov.tt/laws2/alphabetical_list/lawspdfs/35.01.pdf

²⁸ Ministry of Planning and Sustainable Development. Divisions. TCPD.
<http://www.planning.gov.tt/divisions>

²⁹ Freedom of Information Unit website: <http://www.foia.gov.tt>

At the end of each (calendar) year, the line Minister with responsibility for the Unit (Minister of Information) is required to lay in the Parliament a report on the administering of the Freedom of Information Act and the activities associated with its implementation. Ministers with responsibility for the public authorities within their portfolios are required to contribute information to the preparation of this annual report.

2.2 Mechanisms to ensure stakeholder involvement and engagement in national planning and policy-making processes

Several pieces of legislation in Trinidad and Tobago make provision for stakeholder consultations or stakeholder involvement. The Environmental Management Act 2000 requires consultations and public comments as part of environmental impact assessments (EIAs). The Town and Country Planning Act also requires that the public comment on planned developments.

A public consultation process was adopted for some of the recently approved policy documents such as: National Climate Change Policy (2011), National Protected Areas Policy (2011), and National Forest Policy (2011). Consultations recently ended for the development of a National Wildlife Policy.

Public consultations were also undertaken in various communities in Trinidad and Tobago in early 2013 for constitutional reform, and a round of public consultations for the development of an Integrated Coastal Zone Management Policy is intended to take place in 2013. Apart from these public meetings, the various co-ordinating agencies for these consultations provide opportunities for in-person and online submission of recommendations and views. The GORTT has also convened multi-stakeholder committees for the various sectors as needed on projects and issues. For example, there is a multi-stakeholder steering committee that is convened to develop an Integrated Coastal Zone Management Policy Framework, Strategies and Action Plan for Trinidad and Tobago.

2.3 The country's budgeting process

A national budget is presented by the Minister of Finance in the Parliament of the Government of Trinidad and Tobago at the beginning of each fiscal year (generally in the month of September). This draft budget document is debated in the House of Representatives and the Senate before ratification. The National Budget sets out the fiscal plan for the country for the next financial year and the allocations to the various Ministries, agencies and institutions of Government including allocations to the Tobago House of Assembly are established at that time.

The Tobago House of Assembly (THA) presents its own budget for the administration of the various Divisions which make up the THA and which is limited by the provisions of the National Budget. The THA budget is presented to the Assembly by the Finance Secretary of the THA, generally in the month of June.

The Minister of Finance normally holds consultations with key stakeholders including Government Ministers, staff of various Ministries and agencies, and representatives from the

private sector (e.g. Chambers of Commerce, professional bodies, and business and trade associations) in advance of preparing the annual budget statement. The Budget Division of the Ministry of Finance supports the Minister of Finance in the preparation of the Annual Budget, and also provides 'financial advice to other Ministries, Departments and Agencies of Government'. The Division is responsible for monitoring of revenue, recurrent expenditure, and other activities of Government Ministries to ensure proper fiscal operation of the Central Government. The Budget Statement delivered for the 2013-2014 fiscal year was TTD 61.4 billion.

The Public Sector Investment Programme (PSIP)³⁰ represents Government's investment in major capital projects and programmes in the social and economic sectors across various Ministries, to enable future long-term benefits. Current PSIP project investments are aligned to Government's Medium Term Policy Framework; however, in order to ensure that this alignment is very close, the Ministry of Planning and Sustainable Development is currently undertaking a review and refinement of the PSIP. The allocation under the 2012 PSIP was TTD 7,629.8 million of which 4.2% was assigned to Tobago.

3. METHOD

The research conducted in Trinidad and Tobago in Phase One was carried out between May and July 2013 with the assistance of personnel from various government departments and some non-governmental organisations and other individuals who are aware of and involved in climate change focal points within various Ministries and institutions.

Some of these respondents benefited from an introduction to the project and exposure to the Phase One Workbook (Appendix 1) by participating in the initial training workshop mentioned above. Those that did not participate in the workshop were guided in their completion of the Workbook through interviews with CANARI staff. The Workbook is divided into the five functions. Each function has several indicators that ask the researcher to investigate either an output or the institution responsible for the function. The indicators are further divided into qualities. The qualities address four areas- (i) comprehensiveness; (ii) transparency and participation; (iii) accountability; and, (iv) capacity. Answers to qualities may be 'yes', 'no', 'limited' or 'not applicable'.

The list of Ministries, institutions, agencies and individuals that were interviewed and completed the Phase One Workbook are attached as Appendix 2.

³⁰ Ministry of Planning and Sustainable Development. 2012. *Public Sector Investment Programme 2013*. 189pp. <http://www.finance.gov.tt/content/PSIP-2013.pdf>

4. RESULTS

The raw data responses are provided below under the five functions: (1) assessment, (2) prioritisation, (3) co-ordination, (4) information management and (5) mainstreaming.

It should be noted that these are the responses received from the survey respondents, with limited editing to grammar, if required.

a. Assessment

<p>Worksheet 1a. There is a comprehensive assessment of vulnerability and impacts at the national level? If not, and only sub-national or sectoral assessments exist, review these using a worksheet for each assessment. Then, evaluate the qualities considering all of these available assessments.</p>	
<p>Findings: No. There is no national assessment for Trinidad and Tobago. The Ministry of Environment and Water Resources is developing a Terms of Reference to allow for execution of a national vulnerability assessment. There is little information on sub-national assessments or sectoral assessments. For example, there is an assessment of the impact of climate change on the fishing and tourism industries in SW Tobago. The Office of Disaster Preparedness and Management (ODPM) is conducting a national preliminary vulnerability assessment (currently in data collection phase) looking at vulnerability in four categories: environmental, physical, socio-cultural and economic. The Institute of Marine Affairs is chairing a national Integrated Coastal Zone Management Steering Committee under which a working group has been set up to collate and analyse existing data on natural hazards and identify vulnerable coastal areas.</p>	
Respondent	Response
Fisheries Division	Has no such assessment for the sector. Respondent indicated that the Integrated Coastal Zone Management project being undertaken will have some assessments of the fisheries sector in it.
Environment Tobago (ET)	An assessment is being done with the University of Calgary looking at the impact of climate change on tourism and fishing sectors on SW Tobago (particularly Plymouth to Pigeon Pt.). Partners include CARIBSAVE, DNRE and other organisations in Tobago.
Department of Natural Resources and Environment (DNRE)	No assessment done for Tobago but the Draft National Climate Change Policy speaks about conducting an assessment for the country.
Office of Disaster Preparedness and Management (ODPM)	Currently, the ODPM is conducting a National Preliminary Vulnerability Assessment, looking at vulnerability by category (Environmental, Physical, Socio-Cultural, and Economic). This Project is currently in the data collection stage and is expected to feed into the country risk evaluation mentioned below.

	<p>A Country Risk Evaluation is being conducted as part of a project undertaken by the ODPM and funded by IDB (Technical assistance grant) to 'Improve the Delivery of Comprehensive Disaster Management' in the country. Consultants CIMNE have drafted a national hazard assessment report and will be updating several disaster indicators.</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> • <i>Indicator qualities 1-4 are fully met and indicators 5 and 6 are limited;</i> • <i>Limited PVA results are available from the ODPM website and stakeholder listings are available from the ODPM's National Disaster Risk Reduction Committee (NDRRC); however others which are not engaged could be considered an untapped resource.</i>
<p>Ministry of the Environment and Water Resources – Multilateral Environmental Agreements Unit</p>	<p>The Ministry is working on a Terms of Reference to allow for the execution of vulnerability assessment.</p>
<p>Institute of Marine Affairs</p>	<p>The Institute of Marine Affairs (IMA) is Chairing a Steering Committee to develop an Integrated Coastal Zone Management Policy Framework, Strategies and Action Plan for Trinidad and Tobago. Through this process a thematic working group was set up to look at coastal vulnerability and climate change adaptation. The working group would collate and analyse existing data on natural hazards and identify vulnerable coastal areas.</p> <p>This working group report would feed into a vulnerability assessment being proposed by the Inter-American Development Bank (IDB) as part of a technical cooperation project.</p> <p>The Institute of Marine Affairs is the executing agency for an IDB technical cooperation project titled 'Integrating Coastal Zone Management and Climate Change Adaptation in SW Tobago'. One of the activities under this project is a vulnerability assessment for SW Tobago to be conducted by consultants. This is expected to be completed by the end of 2013</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> • <i>Indicator qualities 1 and 4 are limited.</i> • <i>Indicator qualities 2,3,5 and 6 the response is yes</i>
<p>Trinidad and Tobago Red Cross</p>	<p>In 2009, climate change was integrated into the</p>

(TTRC)	Vulnerability Capacity Assessment (VCA) tool that is executed at a community level. The information gathered is used to develop a response plan for dealing with disasters.
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References

Antoine, Julianna. Environment Tobago. Interview by Keisha Sandy. Skype. June 25, 2013.

Hakim, Denise. Ministry of the Environment and Water Resources. Interviewed by Farzaana Baksh. July 10th 2013.

Inter-American Development Bank. 2011. *Loan proposal: Program to support the climate change agenda I (TT-L1022)*

Kishore, Stephan. Trinidad and Tobago Red Cross Society. E-mail to Farzaana Baksh. July 07th 2013.

Mieux, Recardo. Fisheries Division. Interview by Keisha Sandy. Skype. July 02, 2013.

Robin, Howard Mario. Department of Natural Resources and the Environment. Interview by Keisha Sandy. Telephone. June 26, 2013.

Worksheet 1b. Is there an inventory of existing adaptation efforts nationally? If not, and only sub-national or sectoral inventories exist, review these using a worksheet for each inventory.	
Findings: There is no inventory of existing adaptation efforts nationally. The MEAU however hopes to develop a database of climate change adaptation focal points that will eventually lead to the creation of an inventory of adaptation efforts.	
Respondent	Response
Environment Tobago	Representative was not sure and could offer no information.
Department of Natural Resources and Environment	No. There are efforts being undertaken in Tobago that are not classified as climate change adaptation but can be classified as such. These include efforts in infrastructure and coastal development.
Office of Disaster Preparedness and Management (ODPM)	N/A
Institute of Marine Affairs	As part of the technical cooperation with the IDB, a gap analysis would be conducted.
Ministry of the Environment and Water Resources – Multilateral	The Ministry of the Environment is currently creating a database of climate change adaptation focal points, which

Environmental Agreements Unit	started in September 2012. When the formation of the network of focal points is completed, the development of an inventory will begin.
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References

Antoine, Julianna. Environment Tobago. Interview by Keisha Sandy. Skype. June 25, 2013.

Hakim, Denise. Ministry of the Environment and Water Resources. Interviewed by Farzaana Baksh. July 10th 2013.

Inter-American Development Bank. 2011. *Loan proposal: Program to support the climate change agenda I (TT-L1022)* http://www.iadb.org/en/projects/project-description-title_1303.html?id=TT%2DL1022

Robin, Howard Mario. Department of Natural Resources and the Environment. Interview by Keisha Sandy. Telephone. June 26, 2013.

Worksheet 1c. An institution (or institutions) has/have a mandate to produce a vulnerability and impacts assessment and/or a national inventory of adaptation efforts iteratively over time.	
Findings The Office of Disaster Preparedness and Management has the mandate to produce these assessments.	
Respondent	Response
Environment Tobago	Although ET is Tobago's NGO climate change focal point, the organisation does not have a mandate to produce assessments.
Department of Natural Resources and Environment	DNRE is the climate change focal point for Tobago and is not aware of a mandate to produce vulnerability assessments. The Comprehensive Economic Development Plan (CEDP) for Tobago speaks to strengthening key institutions such as DNRE and Department of Marine Resources and Fisheries to assist the Environment and Climate Change Committee in developing and carrying out mandates on sustainability.
Office of Disaster Preparedness and Management (ODPM)	The Office of Disaster Preparedness and Management's mission statement reads: <i>"To build national Disaster Risk Management and Climate Change Adaptation capabilities with our partners and coordinate response and recovery operations in order to protect the people, environment and economy and ensure a disaster resilient nation."</i> The ODPM is currently conceptualising a programme and official stance with respect to climate change and climate change adaptation issues. ODPM recognises a

	<p>comprehensive inventory is needed and has initiated research to address this and inform the above mentioned programme. The approach is to collaborate with those entities with mandate for and/or already undertaking substantial work in the subject area.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> • <i>Indicator qualities 1, 3, and 4 are fully met and indicator quality 2 is limited.</i> • <i>The assessment will briefly identify agencies undertaking climate change projects and used for internal purposes only, to guide the work of the ODPM. As such the assessment will not be presented to a specific body or authority; however its findings can be used to influence a plethora of legal/official documents, such as national plans, policies and even legislation.</i> • <i>There have been efforts for collaboration and coordination with other agencies, the main platform for this being the National Disaster Risk Reduction Committees and Sub Committees.</i> • <i>There are currently no allocations in the budget for this, but there is the option for grant funding, etc.</i> • <i>An inventory of existing adaptation efforts is necessary if the researcher is to properly capture the information. ODPM staff is given training to ensure that they are familiar with these topics.</i>
Institute of Marine Affairs	[The institution with the mandate is] the Office of Disaster Preparedness and Management (ODPM).
Ministry of the Environment and Water Resources – Multilateral Environmental Agreements Unit	This Unit of the Ministry is currently not mandated to, but has been working on developing a network of climate change adaptation focal points, which started in September 2012. When the formation of this network is completed, an inventory formulation process will begin.

References

Antoine, Julianna. Environment Tobago. Interview by Keisha Sandy. Skype. June 25, 2013.

Hakim, Denise. Ministry of the Environment and Water Resources. Interviewed by Farzaana Baksh. July 10th 2013.

Kairi Consultants Limited. 2012. *Comprehensive Economic Development Plan (CEDP) 2013-2017 Volume 1 CEDP 2.0: Redoubling the effort*. Kairi Consultants Limited, Tunapuna, Trinidad

Robin, Howard Mario. Department of Natural Resources and the Environment. Interview by Keisha Sandy. Telephone. June 26, 2013.

b. Prioritisation

<p>Worksheet 2a. There is a process for identification of priority populations, geographies, or sectors for adaptation in the country. If multiple processes exist in different institutions, describe the process (or lack of) coordination and integration of priorities.</p>	
<p>Findings No such process currently exists at the national level. TTRC uses its own selection tool to determine communities to work with in Trinidad and Tobago. The MEAU will develop processes for priority area identification at the national level when TORs are completed.</p>	
Respondent	Response
Environment Tobago	In the University of Calgary lead project, priorities (SW T'go, fishing and tourism) were chosen because i) most densely populated area of island; ii) area where most economic activities located; iii) highest income earners in T'go. The project is not island-wide.
Department of Natural Resources and Environment	No. Prioritisation does not specifically target climate change but other socio-economic factors, practices and problems. Responses are not necessarily because of climate change.
Office of Disaster Preparedness and Management (ODPM)	<p>N/A: Identification and analysis of priorities is piecemeal, project based and therefore limited in comprehensiveness, in addition to lack of centralized repository for the relevant information. Need for clear champion/coordinating body. Mainstreaming in sectors is also needed to ensure crosscutting issues as climate change adaptation are adequately recognized and to facilitate integration across sectors</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> • <i>Indicator quality 1: Different ministries and agencies have focused on different aspects through various initiatives and projects but there has been no clear, overall assessment of priorities for the country i.e. at a national level</i>
Ministry of the Environment and Water Resources – Multilateral Environmental Agreements Unit	The MEAU is developing a Terms of Reference document to be disseminated and used for climate change adaptation projects. A process for identifying priority populations, geographies or sectors will be developed but only after the Terms of Reference document is complete.
Ministry of Planning and Sustainable Development	There may be plans within the Town and Country Division of the Ministry to develop a prioritisation process; however

	no one from the Division confirmed this.
Trinidad and Tobago Red Cross (TTRC)	The TTRC utilises a Community Selection tool, which is a global tool used by National Societies to select communities for VCA exercises.

References

Antoine, Julianna. Environment Tobago. Interview by Keisha Sandy. Skype. June 25, 2013.

Hakim, Denise. Ministry of the Environment and Water Resources. Interviewed by Farzaana Baksh. July 10th 2013.

Kishore, Stephan. Trinidad and Tobago Red Cross Society. E-mail to Farzaana Baksh. July 07th 2013.

Mayrhoo, Rayadh. Ministry of Planning and Sustainable Development. Interviewed by Farzaana Baksh. June 26th 2013.

Robin, Howard Mario. Department of Natural Resources and the Environment. Interview by Keisha Sandy. Telephone. June 26, 2013.

2b. Budgetary processes exist to channel finance to adaptation institutions.	
Findings: Funding for climate change adaptation projects are normally sought through resource mobilisation for grants from donor agencies.	
Respondent	Response
Ministry of the Environment and Water Resources – Multilateral Environmental Agreements Unit	Working with the Institute of Marine Affairs (IMA) to have the IMA become accredited to allow for access to USD 10 million annually by institutions, NGOs and CBOs from the UNFCCC Adaptation Fund. This accreditation process may be completed by the end of 2013. Finances for climate change projects are currently sought from the International Development Bank (IDB) and the United Nations Development Program (UNDP). However, this is done on a projects basis and there is no annual allocation.
Trinidad and Tobago Red Cross (TTRC)	Funding for climate change projects are sought through funding agencies on an individual basis.

References

Hakim, Denise. Ministry of the Environment and Water Resources. Interviewed by Farzaana Baksh. July 10th 2013.

Kishore, Stephan. Trinidad and Tobago Red Cross Society. E-mail to Farzaana Baksh. July 07th 2013.

Worksheet 2c. A time period and process have been set for revisiting priorities set forth in official prioritization decisions.	
Findings: No. These have not been identified.	
Respondent	Response
Fisheries Division	No. At the regional level, priorities are being developed for the sector and have not been completed. These have not yet been translated to the national level.
Environment Tobago	N/A. The project looking at climate change impacts in SW Tobago was very specific. Historical data identified geographies and sectors that can be used in the survey. Project recommendations may however be heavily mitigation based.
Department of Natural Resources and Environment	N/A
Office of Disaster Preparedness and Management (ODPM)	N/A
Ministry of the Environment and Water Resources – Multilateral Environmental Agreements Unit	Awaiting completion of the vulnerability and impacts assessments. Until the completion of these assessments, no prioritisation decisions will be made.
Ministry of Planning and Sustainable Development	Did not identify whether a time period or process exists for revisiting prioritisation decisions.

References

Antoine, Julianna. Environment Tobago. Interview by Keisha Sandy. Skype. June 25, 2013.

Hakim, Denise. Ministry of the Environment and Water Resources. Interviewed by Farzaana Baksh. July 10th 2013.

Mayrhoo, Rayadh. Ministry of Planning and Sustainable Development. Interviewed by Farzaana Baksh. June 26th 2013.

Mieux, Recardo. Fisheries Division. Interview by Keisha Sandy. Skype. July 02, 2013.

c. Co-ordination

<p>Worksheet 3a. Coordination needs for effective adaptation have been identified for key sectors, services and activities and have been made publicly available.</p>	
<p>Findings: Coordination exists for disaster preparedness and management and needs have been identified by the ODPM, UNDP and UWI. These do not exist for climate change adaptation. TTRC does not make its coordination plans publicly available.</p>	
<p>Respondent</p>	<p>Response</p>
<p>Environment Tobago</p>	<p>No coordination among stakeholders. No needs identified.</p>
<p>Department of Natural Resources and Environment</p>	<p>N/A. The coordination needs have not been fully identified in Tobago but work is ongoing in Trinidad and Tobago in the ICZM project. Respondent was concerned that information does not get to his organisation as quickly as it should. (The CEDP mentions establishing a committee to coordinate environment and climate change needs in Tobago.)</p>
<p>Office of Disaster Preparedness and Management (ODPM)</p>	<p>N/A. It is noteworthy that coordination exists for disaster and emergency preparedness, response and mitigation for a number of hazards however climate change adaptation is not fully formalised.</p> <p>Co-ordination needs have been identified by the ODPM, UNDP and UWI.</p> <p>Main co-ordinating needs:</p> <ul style="list-style-type: none"> • Integrated policy framework development for climate change adaptation. Including micro-level adaptation strategies • Mainstreaming climate change adaptation into national level planning • Social and economic vulnerability and adaptation assessments to inform adaptation priorities • Mainstreaming of gender equity strategies into adaptation policy frameworks • Increase focus and investment in strategic, less recognized areas like legislative aspects, coordination, advocacy and financial cooperation <p>Individual capacities located within donor partners and other non-state actors (NGOs, CBOs, private sector and research institutions) ought to be harnessed to support</p>

	<p>national adaptation needs.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> • <i>Indicator qualities 1 and 2 are limited</i> • <i>Vertical coordination is indeed key and there have been numerous attempts to establish and coordinate these relationships. It has however fallen short of the mark.</i> • <i>The discussions have started and climate change adaptation strategies and best practice have been shared by UNECLAC with the ODPM for the sectors identified under the UNECLAC's "Development of economic frameworks in support of an assessment of the economic and social impacts of climate change in the Caribbean " report.</i> • <i>The existing policies and international agreements outline clearly what needs to be done, however there is varying support from Government and limited execution capacity.</i>
Ministry of the Environment and Water Resources – Multilateral Environmental Agreements Unit	Process will come after the Terms of Reference and the vulnerability assessments are completed.
Ministry of Planning and Sustainable Development	Could not identify whether coordination exists and are publicly available.
Trinidad and Tobago Red Cross (TTRC)	Coordination ³¹ on climate change adaptation activities attempt to support the greater national needs for climate change adaptation as it relates to disaster risk reduction. However these are not made public. There is no long term climate change adaptation strategy within the organisation.

References

Antoine, Julianna. Environment Tobago. Interview by Keisha Sandy. Skype. June 25, 2013.

Hakim, Denise. Ministry of the Environment and Water Resources. Interviewed by Farzaana Baksh. July 10th 2013.

Kishore, Stephan. Trinidad and Tobago Red Cross Society. E-mail to Farzaana Baksh. July 07th 2013.

Mayrhoo, Rayadh. Ministry of Planning and Sustainable Development. Interviewed by Farzaana Baksh. June 26th 2013.

³¹ Based on feedback from the Advisory Panel, it was noted that the TTRC is a member of the International Federation of Red Cross and Red Crescent Societies (IFRC) which has a long-term Climate Change Adaptation Strategy. The TTRC has benefited from this association and has access to financial and technical support as it relates to climate change adaptation.

Robin, Howard Mario. Department of Natural Resources and the Environment. Interview by Keisha Sandy. Telephone. June 26, 2013.

Worksheet 3b. There is an established, authoritative, coordinating body or council tasked with adaptation coordination.	
Findings: The ODPM is mandated to address climate change adaptation in Trinidad and Tobago. The Environmental Management Authority (EMA) was the recipient of a technical cooperation project from the IDB to “support the strengthening of [its] capacity to fully perform its legally mandated coordinating role to mainstream the priorities set forth by climate change into environment and natural resources management in the context of all development sectors.’	
Respondent	Response
Office of Disaster Preparedness and Management (ODPM)	<p>The Office of Disaster Preparedness and Management is mandated to address climate change adaptation in Trinidad and Tobago.</p> <p>Coordination is organised by ODPM, Ministry of Environment and Water Resources - Environmental Policy and Planning Division, UWI, UTT, UNDP</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> • <i>Indicator quality 1 is limited and Indicator qualities 2 - 5 the response is no.</i> • <i>For quality 1 description: Agreed on both points. Currently the ODPM represents the former: an organisation with two very critical responsibilities i.e. National Disaster Risk Management and Climate Change Adaptation. Climate change is not often easily measurable. It is therefore common that it is de-prioritised in comparison to emergency response and management.</i> • <i>For quality 2 description: The budget is reflective of political will. At present there is a marginal annual budget to address climate change issues.</i> • <i>For quality 3 description: It is agreed that the appropriate composition is key. It is often not necessarily possible and capacity building and reform is required.</i> • <i>For quality 4 description: Monitoring mechanisms are needed. These should also be outlined in the National Climate Change Policy - EPPD.</i> • <i>For quality 5 description: Trinidad and Tobago’s culture strongly influences prioritisation of prevention and preparedness approaches to climate change hazards. There have not been significant losses of life and property due to this hazard to date; unfortunately, this translates</i>

	<i>to a lower risk awareness and very low priority of concern.</i>
Ministry of the Environment and Water Resources – Multilateral Environmental Agreements Unit	Climate change adaptation within the MEAU is spearheaded by Mr. Kishan Kumarsingh who is the head of the Multilateral Environmental Agreements Unit and f Ms. Jewel Batchasingh who is the Climate Change Specialist at the Unit.

References

Hakim, Denise. Ministry of the Environment and Water Resources. Interviewed by Farzaana Baksh. July 10th 2013.

Worksheet 3c. To what extent is the coordinating body functioning effectively?	
Findings: ODPM's effectiveness has been improving because of ratification of international policies and agreements.	
Respondent	Response
Environment Tobago	N/A
Department of Natural Resources and Environment	N/A
Office of Disaster Preparedness and Management (ODPM)	<p>Functions: The coordinating bodies function with limited effectiveness. This effectiveness has increased steadily over the past five (5) years due to the ratification of international polices and agreements and the development of new guiding documents.</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> • Indicator quality 1 and 2 the response is no and Indicator quality 3 the response is yes. • Quality 1 description: The co-ordinating body is moderately active. Limited incentives and a reasonable accountability system are in place. • Quality 2 description: Continuous monitoring and assessment are required.

References

Antoine, Julianna. Environment Tobago. Interview by Keisha Sandy. Skype. June 25, 2013.

Robin, Howard Mario. Department of Natural Resources and the Environment. Interview by Keisha Sandy. Telephone. June 26, 2013.

d. Information management

Worksheet 4a. Climate change adaptation-relevant monitoring systems are regularly maintained and updated with data relevant for the country.	
Findings: No. Monitoring is ad hoc where it exists.	
Respondent	Response
Forestry Division	No. Forestry Division has monitoring equipment in the forest that monitors climate related data such as temperature and humidity but it is not being done systematically.
Environment Tobago	No.
Department of Natural Resources and Environment	N/A. DNRE has purchased equipment to monitor climate related data in the forest and hopes to purchase equipment to monitor sea level rise in the near future.
Office of Disaster Preparedness and Management (ODPM)	<p>No. Monitoring systems, not only for climate change are required and/or need improvement where they exist. Private sector undertakes more effective monitoring, but this is limited to particular areas and/or sectors e.g. the energy sector, and often linked to their business continuity and economic/financial resilience.</p> <p>Information on the whole related to climate change adaptation is ad-hoc and exists in pockets; may have been project based</p> <p>Notes:</p> <ul style="list-style-type: none"> • Information category- climate observation Types of data needed: <ul style="list-style-type: none"> ✓ Hydro-Meteorological data – rainfall, sunshine hours etc., severity/frequency of hydro-met events ✓ Climate modelling - Climate trends and patterns over at least 10 year or other relevant period. Caribbean-specific data ✓ Climate impacts – temporal and spatial comparisons e.g. land cover analysis <p>Limited gathering of data by: Trinidad and Tobago Meteorological Services, Caribbean Institute of Meteorology and Hydrology (CIMH) and UWI</p> <ul style="list-style-type: none"> • Information category - Demographic information Types of data needed: <ul style="list-style-type: none"> ✓ Critical populations – potential impact, impacted ✓ Population data disaggregated by gender, age

	<p>and other relevant criteria</p> <p>Data gathering has been limited; assumptions made that coastal populations fall in this category. The Central Statistical Office (CSO) gathers statistical information but not related specifically to climate change. This data can however be overlaid with data from other agencies to provide context e.g. population data overlaid on vulnerable communities</p> <ul style="list-style-type: none"> • Information category: Environmental information Types of data needed: <ul style="list-style-type: none"> ✓ Land cover changes (linked to climate change) ✓ Coastline / shoreline measurements (bathymetric data) ✓ Storm surge and inundation modelling ✓ Impacts (actual/projected) on biodiversity <p>Data gathering is limited as in most other cases, no comprehensive assessment or evaluation of environmental features; resources or assets at risk to climate change impacts have been conducted. Existing data may be project based and therefore limited. Data gathering by the Environmental Management Authority (EMA), the Institute of Marine Affairs (IMA) and UWI.</p> <ul style="list-style-type: none"> • Information category: Local/indigenous knowledge Types of data needed: <ul style="list-style-type: none"> ✓ Local knowledge/experiences of changes over time /temporal data ✓ Livelihood impacts ✓ Community based solutions/adaptation activities <p>Data gathering limited; carried out by CANARI/UWI during participatory 3 dimensional modelling (P3DM) project</p> <ul style="list-style-type: none"> • Information category: Other Types of data needed: <ul style="list-style-type: none"> ✓ Assets and critical infrastructure vulnerable to climate change impacts <p>Data is available but had not been collected specifically for this purpose. The appropriate analysis can be executed and data can be overlaid. Critical infrastructure data gathering by public utilities agencies, energy sector etc.</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> • <i>Indicator qualities 2, 3, 4 and 6 are limited; indicator quality 2 and 5 the response is no.</i>
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- *Quality 1 description: The Meteorological Office collects hydro-met data. Limited analysis is done locally to compile climate scale data for the country. No central agency is mandated to collate and analyze information for the country. There is collaboration with regional bodies – CIMH. Needed: Climate products need to be identified and the relevant tools and applications developed to facilitate their wide use*
- *Quality 2 description: Spatial development plans exist per regional corporation in the country which detail most of the above and the projected development plan for each area (reference: Local government website). More collaboration is needed between agencies responsible for the above noted datasets and further for policy development. Those responsible for population centred policies need to give greater consideration to and integrate cross-cutting issues as disaster risk management and climate change adaptation*
- *Quality 3 description: An environmental vulnerability index was done through EMA some years ago. Indices need to be re-evaluated/updated. Collection and monitoring of environmental quality data is achieved via CEC/EIA process and other project based work and is therefore limited in its comprehensiveness for the country. Named datasets are also the responsibility of different agencies/Ministries, with no one single data repository, no standard methodology or approach/format for collection.*
- *Quality 4 description: Challenge exists in terms of a clear champion for the above and a coordinating body to ensure standard and cohesive methodology is developed and agreed upon in the first instance. Stakeholder mapping exercise is critical as well as definition, identification and analysis/understanding of target audiences and the appropriate mediums for participation*
- *Quality 5 description: Raw data (in general) is usually not publicly available due to the time and cost factors associated with collecting same. In addition, 'fitness for purpose' needs to be considered – raw data may have been collected for a particular purpose or exercise. Disclaimers become essential. While free scientific exchange and review of data is ideal, proper measures and controls must be put in place to ensure data is used appropriately. National (spatial) data infrastructure has potential to provide a single repository which can improve issues of access and also assist in ensuring standards are in place, but this is a long term consideration. Alternatively,*

	<p>agencies can release versions of data which can be accessed by public and other stakeholders for specifically identified uses/application; consultations are needed to facilitate this</p> <ul style="list-style-type: none"> • <i>Quality 6 description: Local/indigenous knowledge needs to be captured in a more consistent manner. These sources of information can be critical in validating scientific studies and provide important input for decision support and future planning. Recommendation to establish criteria for capturing indigenous knowledge - can provide necessary guidance and increase the frequency with which local knowledge systems are engaged</i>
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References

Antoine, Julianna. Environment Tobago. Interview by Keisha Sandy. Skype. June 25, 2013.

Phillips, Raynaldo. Forestry Division. Interview by Keisha Sandy. Telephone. June 25, 2013.

Robin, Howard Mario. Department of Natural Resources and the Environment. Interview by Keisha Sandy. Telephone. June 26, 2013.

<p>Worksheet 4b. An institution (or institutions) has a mandate to analyze climate-adaptation-relevant information for the country in a way that is useful for key stakeholder groups.</p>	
<p>Findings: The ODPM recently added climate change adaptation information to its functions.</p>	
<p>Respondent</p>	<p>Response</p>
<p>Office of Disaster Preparedness and Management (ODPM)</p>	<p>Climate change adaptation has only recently been added and given greater consideration in the ODPM's program of work with the move from a response-centric approach and advent of comprehensive disaster management, so the research and coordination activities are at minimum at present</p> <p>Environmental Policy and Planning Division within Ministry of Environment and Water Resources does some work related to climate change. Specific mandate to be clarified.</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> • <i>Quality 1 description: Aware that Environmental Policy and Planning Unit under the Ministry of Environment and Water Resources is addressing some climate change issues (policy etc) but unaware of specific mission/ vision/ mandate/tasks/objectives etc</i> • <i>Quality 2 description: ODPM collects and analyzes hazard incidence and impact data however specific</i>

	<p><i>linkages to climate change have traditionally not been made.</i></p> <ul style="list-style-type: none"> • <i>Quality 3 description: From ODPM standpoint, baseline is currently being established by IDB Country risk evaluation and PVAs in a limited way (i.e. not specifically focused on climate change adaptation) but it is the intention that there will be established review period and metrics and that climate change issues can be incorporated</i>
Ministry of the Environment and Water Resources – Multilateral Environmental Agreements Unit	Analysis is currently done on a project basis only.
Ministry of Planning and Sustainable Development	Analysis is currently done on a project basis only.

References

Hakim, Denise. Ministry of the Environment and Water Resources. Interviewed by Farzaana Baksh. July 10th 2013.

Mayrhoo, Rayadh. Ministry of Planning and Sustainable Development. Interviewed by Farzaana Baksh. June 26th 2013.

Worksheet 4c. There is an institution(s) in charge of centralizing climate change information and analysis that is stakeholder-driven and transparent.	
Findings: N/A	
Respondent	Response
Environment Tobago	No. ET and DNRE identified as such institutions in Tobago but have not been functioning as such.
Department of Natural Resources and Environment	N/A
Office of Disaster Preparedness and Management (ODPM)	N/A

References

Antoine, Julianna. Environment Tobago. Interview by Keisha Sandy. Skype. June 25, 2013.

Robin, Howard Mario. Department of Natural Resources and the Environment. Interview by Keisha Sandy. Telephone. June 26, 2013.

Worksheet 4d. There is a platform or network for sharing information on adaptation to diverse information users.

Findings:

There is no such established platform in Trinidad and Tobago although the ODPM believes that the National Disaster Risk Reduction Committee (NDRRC) can be used for this purpose. TTRC shares its information with the ODPM through the NDRRC. The MEAU is developing a network of climate change adaptation focal points that will be used to share information.

Respondent	Response
Fisheries Division	No. The recently started Integrated Coastal Zone Management project will be used to share information among stakeholders but there is none currently in existence.
Environment Tobago	No.
Department of Natural Resources and Environment	No. Information sharing, though ongoing, is not structured.
Office of Disaster Preparedness and Management (ODPM)	N/A. Platform/network for the specific purpose mentioned does not currently exist. The ODPM's National Disaster Risk Reduction Committee (NDRRC) can be leveraged for same; however, this need to be explored further as it may be limited in terms of stakeholder reach, intent and objectives. <u>Notes:</u> <ul style="list-style-type: none"> • Indicator quality 1 and 2 response is no and Indicator quality 4 response is limited
Ministry of the Environment and Water Resources – Multilateral Environmental Agreements Unit	The network of climate change stakeholders will enable information sharing among stakeholders but this network is still being developed.
Trinidad and Tobago Red Cross (TTRC)	Yes, information on climate change adaptation is shared at TTRC activities but through the Office of Disaster Preparedness and Management (brochures, etc.).

References

Antoine, Julianna. Environment Tobago. Interview by Keisha Sandy. Skype. June 25, 2013.

Hakim, Denise. Ministry of the Environment and Water Resources. Interviewed by Farzaana Baksh. July 10th 2013.

Kishore, Stephan. Trinidad and Tobago Red Cross Society. E-mail to Farzaana Baksh. July 07th 2013.

Mieux, Recardo. Fisheries Division. Interview by Keisha Sandy. Skype. July 02, 2013.

Robin, Howard Mario. Department of Natural Resources and the Environment. Interview by Keisha Sandy. Telephone. June 26, 2013.

e. Mainstreaming

Worksheet 5a. Are there systems for integrating climate change risk and adaptation into project development?	
Findings: There are no specific standards but climate risk and adaptation measures are sometimes alluded to in projects. For some projects, CEC processes will require the completion of EIAs and at this level climate change impacts on an activity is sometimes analysed but this may be limited.	
Respondent	Response
Fisheries Division	No systems in place but awareness of risks are there. Other risks are integrated that may have implications for climate change adaptation such as concerns for buildings on the coast.
Office of Disaster Preparedness and Management (ODPM)	At present, there are no specific standards; however the principles of the Hyogo Framework for Action are implemented in the work of the ODPM. Therefore, inextricably, climate change risk and adaptation are always integrated into project development. <i>Notes:</i> • <i>Indicator 1 quality response is no.</i> Quality 1 description: N/A. This is limited and has occurred in an ad hoc manner. Climate change risks and future impact scenarios are being integrated in land use, urban and other planning scenarios but currently in a limited manner. No current law or regulations stipulating that adaptation measures must be adopted in project development. CEC/EIA process may touch on this but in a limited manner
Tourism Development Company	No such processes for project development
Trinidad and Tobago Red Cross (TTRC)	The TTRCS uses a two pronged approach to accomplish this. The first is risk identification through our VCA programme and the adaptation plan is accomplished through our Community Disaster planning program.

References

Cupid- Greene, Carla. Tourism Development Company Limited. Interview by Keisha Sandy. Telephone. July 08-09, 2013.

Kishore, Stephan. Trinidad and Tobago Red Cross Society. E-mail to Farzaana Baksh. July 07th 2013.

Mieux, Recardo. Fisheries Division. Interview by Keisha Sandy. Skype. July 02, 2013.

Worksheet 5b. Are there systems for integrating climate change risk and adaptation into planning of critical sectors?³²	
Findings: No, but the Integrated Coastal Zone Management project will be used to mainstream climate change adaptation measures in many sectors.	
Respondent	Response
Fisheries Division	It is not a requirement from the Ministry of Planning that climate risks are included in projects submitted for funding.
Office of Disaster Preparedness and Management (ODPM)	N/A. This has traditionally not been done. Some sectors, e.g. the energy sector, however are paying more attention as there is potential impact on profitability. Others, such as fisherfolk and farmers are also now more vocal on livelihood impacts. There is therefore opportunity for standards to be developed perhaps initially for critical sectors. <u>Notes:</u> <ul style="list-style-type: none"> Climate change risks and future impact scenarios are being integrated in land use, urban and other planning scenarios but currently in a limited manner. The main responsibility for this is under the purview of Ministry of Planning and Sustainable Development. For example, they are currently executing a project through the IDB called – “Emergent and Sustainable Cities Platform” in Port of Spain, Trinidad.
Tourism Development Company	No
Institute of Marine Affairs	The Government of T&T has adopted a Climate Change Policy. Through a policy-based loan from the IDB the government is trying to mainstream climate change adaptation into development. The ICZM is being used as a mechanism for mainstreaming climate change adaptation in various sectors.

References

³² Based on feedback from the Advisory Panel, it was noted that the Caribbean Community Climate Change Centre’s website has two tools, the VCA Manual/ Methodology and CCORAL, which can be used for integrating climate change risk into planning of critical sectors.

Cupid- Greene, Carla. Tourism Development Company Limited. Interview by Keisha Sandy. Telephone. July 08-09, 2013.

Mieux, Recardo. Fisheries Division. Interview by Keisha Sandy. Skype. July 02, 2013.

Worksheet 5c. Are there systems for integrating climate change risk and adaptation into policies and programs?	
Findings: No such systems currently exist in Trinidad and Tobago.	
Respondent	Response
Fisheries Division	New national fisheries policy has very limited mention of climate change with no real reference to the impacts of climate change on the fishing sector or adaption measures that will be implemented.
Office of Disaster Preparedness and Management (ODPM)	N/A
Tourism Development Company	No such systems. The strategic plan mentions climate change without specifying how risk and adaptation will be integrated into policies and programmes.
Trinidad and Tobago Red Cross (TTRC)	The TTRC is legally mandated to support activities of the government and its authorities that deal with climate change adaptation activities. As such we follow the lead of organisations that have primary mandates for adaption work.

References

(2012) Policy and Legislative Review on Mainstreaming Climate Change into the National Development Goals of Trinidad and Tobago - Stakeholder's Brief

Cupid- Greene, Carla. Tourism Development Company Limited. Interview by Keisha Sandy. Telephone. July 08-09, 2013.

Kishore, Stephan. Trinidad and Tobago Red Cross Society. E-mail to Farzaana Baksh. July 07th 2013.

Mieux, Recardo. Fisheries Division. Interview by Keisha Sandy. Skype. July 02, 2013.

f. Other sources of information

A report produced by UNECLAC (UNECLAC, 2011a) focused on climate impacts on agriculture in Trinidad and Tobago, used scenario modelling to determine possible rainfall and temperature conditions over the next forty-year period to 2050. Impacts on root crop, fisheries and vegetable production were considered. Fish catch and agricultural productivity were considered

to be heavily impacted if no adaption strategies are employed, due to temperature rises ranging from 1.34 - 1.37 °C and rainfall exceeding the mean optimal level for crops.

While the impacts were mixed for each vegetable type, there is an expected overall loss of crop and catch yield, resulting in heavy economic loss, and consequent impacts on food security and livelihoods. The report notes that the agricultural sector in 2000 employed approximately 50,000 persons in Trinidad and Tobago, some 8.7% of all employed persons.

This report also proposed potential adaptation options including water management systems (harvesting, storage, drainage) as well as agricultural management systems (crop calendars, soil technology, greenhouses) to address possible impacts.

It is unclear whether there has been uptake of any of the report's recommendations since its release, and CANARI did not receive a response from the Ministry of Food Production for completion of the Workbook.

UNECLAC also produced a report which focused on climate change impacts on the health sector (UNECLAC, 2011b), noting in particular the impacts on key diseases: gastroenteritis, dengue fever, malaria, food-borne illnesses, and rat borne diseases including leptospirosis. With climate change predicted to lead to an increased incidence of extreme rainfall events and increased temperature, the links between these conditions and disease incidence (such as with dengue fever) require closer attention.

Disease vectors, the populations of which were already impacted by negative human behaviour and practices, may well increase in numbers due to climatic changes that enhance conditions for breeding (e.g. flooding). The report noted possible vulnerability of the human population due to increased incidence of food-borne, vector-borne and water-borne diseases and an increased risk of diarrhoeal illness. Factors such as age, nutritional status, and poverty levels of people may also affect levels of vulnerability to these diseases.

The report pointed to a lack of information management regarding health issues; this may hamper efforts at properly quantifying risks for instance, lack of national data sets on asthma in a country which is regularly impacted by annual migrations of Sahara dust from East Africa.

Recommendations:

- improvement in access to clean water and proper water storage
- proper sanitation - infrastructural improvements
- change in behaviour and attitudes

A third report produced by UNECLAC (UNECLAC, 2011c) focused on climate change impacts on the energy sector. This sector has traditionally been the lifeblood of Trinidad and Tobago, being a major facet of the islands' economy. Due to the nature of climate change, alternatives to the use of fossil fuels have been favoured over the 'oil and gas' of this country, and therefore the impact of climate change on the energy sector is largely a financial one. Trinidad and Tobago is

a major exporter of petroleum and liquefied natural gas (LNG) and one of its main importers is the United States of America which is also promoting alternatives to fossil fuels and so the decline in these imports continues in the face of climate change.

The National Climate Change Policy (2011) reflects this global focus, in that the emphasis in the document has been towards mitigation efforts to reduce the level of greenhouse gas emissions, albeit in a country where fossil fuel extraction, refinement and export remain a major economic activity. There has been a thrust for the use of compressed natural gas in the automobile industry, and additionally, the policy notes the need to conserve natural carbon sinks, to apply incentives for the use of alternate energy sources, and use of cleaner production technologies.

The sector is also impacted by some of the physical impacts of climate change, notably sea level rise and extreme weather events and these may affect exploration and production activities. The IDB loan proposal document referred to earlier referenced vulnerability assessment carried out by PETROTRIN (Singh and Fouladi, 2005) for their facilities on the west coast and noted possible impacts on energy infrastructure and severe land loss due to possible storm surge scenarios at that location.

References:

Communications company initiative for natural disaster preparedness:

<http://www.tstt.co.tt/news/disaster-preparedness-keeps-tt-open-business>

Energy Sector Security Initiative newspaper report: <http://www.guardian.co.tt/business/2013-07-10/tt-us-team-protect-energy-sector>

Foreshore Area; Phase 2 Vulnerability Assessment Study for Exploration and Production Development Works in the Oropouche Field; Detailed Vulnerability Assessment Survey and Storm Surge Modelling of the West Coast of Trinidad: *Vessigny to Cap-de-Ville* Quadrant. Government of the Republic of Trinidad and Tobago (2011) National Climate Change Policy

Ministry of Food Production, Land and Marine Affairs 2011. *Incentive Programme* 12 pp. Ministry of Food Production, Land and Marine Affairs, Trinidad.

Singh, B. and El Fouladi, A. 2005. Phase 2 Vulnerability Assessment Survey for the *Pointe-a-Pierre*

UNECLAC. 2011a. *An assessment of the economic impact of climate change on the agricultural sector in Trinidad and Tobago* 78pp. UN Economic Commission for Latin America and the Caribbean, Sub-regional Headquarters for the Caribbean, Port of Spain, Trinidad.

UNECLAC. 2011b. *An assessment of the economic impact of climate change on the health sector in Trinidad and Tobago* 165pp. UN Economic Commission for Latin America and the Caribbean, Sub-regional Headquarters for the Caribbean, Port of Spain, Trinidad.

UNECLAC. 2011c. *An economic assessment of the impact of climate change on the energy sector of Trinidad and Tobago*. 55pp. UN Economic Commission for Latin America and the Caribbean, Sub-regional Headquarters for the Caribbean, Port of Spain, Trinidad.

5. DISCUSSION

a. Assessments

Few vulnerability assessments have been conducted on climate change impacts in Trinidad and Tobago. Where these exist, they tend to be ad hoc. The TTRC conducts community based vulnerability capacity assessments which integrates climate change into risk assessments. There is also no inventory of adaptation efforts but the ODPM was recently mandated to address vulnerability and adaptation in the country. The MEAU plans to develop an inventory of adaptation efforts after the creation of a network of climate change adaptation focal points.

Efforts to address climate change in Trinidad and Tobago are mainly mitigation based possibly because Trinidad and Tobago is an oil and natural gas producer and the national economy is heavily reliant on the energy sector. After being labelled as a high producer of greenhouse gases per capita, attempts are being made to address climate change mitigation through the actions of various state institutions.

Several interviewees pointed to the Integrated Coastal Zone Management (ICZM) project that is funded by an IDB loan as the main thrust of climate change adaptation. The IDB loan has several components to mainstream climate change into policies; the ICZM project is the only component focussed on climate change adaptation.

b. Prioritisation

There is no process at the national level to set priority areas though several organisations have their own tools or processes to determine priority areas for climate change adaptation. There is no budget set by the government of Trinidad and Tobago specifically for climate change adaptation; however, projects that include adaptation may be funded by the government through its normal budgetary processes. Other organisations seek funding from donor agencies for adaptation work. The IMA is also seeking to become accredited so that organisations in Trinidad and Tobago can access funding from the UNFCCC Adaptation Fund.

c. Coordination

Climate change coordination does not exist at the national level. Needs for disaster preparedness and management have been identified at the national level; those for climate change adaptation however, have not been identified. Other organisations may identify climate change adaptation needs but these are not always made available to the public.

The ODPM was recently mandated as the adaptation coordinating body in Trinidad and Tobago and is still fully integrating this into its normal processes. The MEAU is responsible for coordinating Trinidad and Tobago's submission to the UNFCCC, so, informally; they have partially assumed a coordination role.

The Environmental Management Authority (EMA) was given an IDB loan to strengthen that institution to fully perform its legally mandated coordinating role to mainstream the priorities set forth by climate change into environment and natural resources management in the context of all development sectors. There is no information on how the EMA's legally mandated role is coordinated with the ODPM's mandated role. The EMA did not participate in the Phase I research.

d. Information management

Information management was one of the weaker areas in the study. There seems to be adaptation relevant information in different sectors but these are not shared. Monitoring is ad hoc. There is no institution that is charged with centralising climate change information and analysis. There is no accessible platform to share information though the MEAU hopes to use the database of climate change focal points being created as a network through which this type of information could be shared.

e. Mainstreaming

Trinidad and Tobago is using the ICZM project to mainstream climate change adaptation into policies, programmes and projects. Individual organisations have begun to recognise the importance of addressing climate change adaptation but this is project based. Some organisations like the TTRC have incorporated climate change adaptation into their assessments.

Climate change adaptation is not given priority in Trinidad and Tobago but there are instances of adaptation efforts at the project level and in some institutions. Evidence of mitigation is more prevalent.

6. CHOOSING THE PRIORITY AREAS

The results of the Phase One research were intended to identify priority areas for deeper study in Phase Two of the project. However, the study revealed many gaps particularly in the areas of coordination, information management and mainstreaming. This made choosing three priority areas difficult. It was therefore decided that the best option to select the three areas for Phase II would be to examine areas that presented the best opportunities to input into ongoing climate change processes in Trinidad and Tobago. The criteria used were:

- (i) the priority area was important, but advocacy would be needed for climate change adaptation;
- (ii) research or action was ongoing; and
- (iii) some information existed and was easily accessible.

The areas identified were (i) coastal zone of Trinidad and Tobago; (ii) food production; and (iii) tourism.

Coastal zone of Trinidad and Tobago: Under the *IDB/GORTT Program to Support the Climate Change Agenda I*, the ICZM component appeared to be the one that is solely focussed on climate change adaptation. The aim of the Program is to support Trinidad and Tobago in strengthening and modernizing the regulatory, institutional and policy framework to integrate climate change and its impacts into national economic development. Coastal zone management is an area in which work was being done, so information should be available.

Food production: This is a critical area in terms of food security. However, food prices were increasing and there was an increasing dependence on imported products. The ECLAC study identified food production in Trinidad and Tobago as a critical area in which climate change adaptation was needed. There was little information for this area in Phase I of the study, so it was seen as an area that might require advocacy.

Tourism: Tourism is an area in which work was being done in climate change, however climate change adaptation advocacy would be needed.

DRAFT

ADAPTATION:

RAPID INSTITUTIONAL ANALYSIS

Based on the National Adaptive Capacities Framework

Version 2.0

April, 2013

Phase I Workbook

DRAFT

1. INTRODUCTION

The “Adaptation: Rapid Institutional Analysis” (ARIA) is an indicator-based toolkit designed to help civil society organizations across the world assess national-level institutional quality and governance in climate change adaptation. The ARIA toolkit is based on the National Adaptive Capacities (NAC) Framework, which was developed in 2009 by WRI in collaboration with its international partners. ARIA has adapted the “functions-based” approach of the NAC, which identifies key functions that national institutions will need to perform to build adaptive capacity to climate change. However, whereas the NAC is designed for governments to use to assess their own institutional capacity, ARIA is specifically designed for civil society groups to develop a credible tool to use to advocate for improved adaptation planning and implementation.

ARIA is broken into two phases. Both phases contain the five functions of analysis: Assessment, Prioritization, Coordination, Information Management, and Mainstreaming. In Phase I, the assessment covers the entire national institutional context and selects three main priority areas on which to focus in Phase II. Phase II, which expands the research group to include a larger set of civil society partners, is a more concise and focused institutional assessment of the priority areas selected in Phase I.

The assessment is structured as follows:

Indicator: The indicator at the top of the page checks the existence of an institution or process. The box below allows for the researcher to briefly describe it, or explain that it does not exist.

Qualities of the indicator: The qualities of the indicator describe key aspects of the institution that are likely to lead to better climate change adaptation governance. They are grouped under the following categories: **capacity, transparency and participation, accountability and enforcement, and comprehensiveness**. The indicator qualities are where most of the research will take place. After conducting some combination of legal research, overview of publications and reports, and interviews, the research team should be able to provide a detailed analysis of each indicator quality. They can then mark in the table whether the quality is fully present (“Yes”), somewhat present (“Limited”), or not at all (“No”). If the indicator does not exist at all—if there is no institution in charge of coordinating adaptation efforts as an example—then the researchers would simply mark “N/A” and move to the next worksheet.

Research Guidelines: This section provides more description and explanation for the indicator.

Recommended Research Methods and Sources: This table provides recommendations for how the research team may find the necessary information. It is divided into 1) legal research, 2) research documents, and 3) interviews. *Note: Interviewees may serve as sources for information*

across multiple indicators and functions. Researchers can save time by coordinating their interviews and planning questions accordingly.

Documenting sources/Citation: This section provides guidance on how to document sources and WRI's use of the Chicago manual of style.

Qualities: This section provides a more detailed description and background for each quality. Researchers fill in the results of their research below each quality.

Appendices:

- A. Country Context worksheet:** This worksheet is intended to help ARIA users develop the national political, institutional, policy, and budgetary contexts in which adaptation planning and implementation is occurring. Depending on the researchers' background, these contexts may already be well understood. However, it is important to remember that publications resulting from the assessment will read by an international audience, for whom these contexts are critical to understanding the barriers and opportunities for climate change adaptation in your country.

The timeline for completing the worksheet is at the discretion of the research team. Those who may find it useful to gather a basic understanding prior to undertaking more in depth research may complete it at beginning. Others may find it more helpful to do before commencing the Phase II priority area research.

- B. Interview Organizer:** Interviews with certain officials may be difficult to arrange and be conducted under time constraints. With that in mind, this appendix is designed to be used by the researchers to match the indicator qualities with the interview targets who may best be able to respond to them. Since it is likely that some officials will be able to answer questions related to multiple indicators, planning ahead can save time and maintain good relationships.

1. ASSESSMENT

a. Worksheet 1a: Vulnerability and Impacts Assessment

Indicator	There is a comprehensive assessment of vulnerability and impacts at the national level? If not, and only sub-national or sectoral assessments exist, review these using a worksheet for each assessment. Then, evaluate the qualities considering all of these available assessments. For instance, Quality 5 could only be given a “Yes” if the assessment, in aggregate, covered all sectors and regions. (If there are no assessments, explain that there is not, mark “N/A” in the qualities table and move to next worksheet.)
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Brief Summary of past or ongoing assessments

Assessment made by	Government	NGO/ Community	Academic Institution	Industry	Other
Name					

Qualities of the indicator	Yes	Limited	No	n/a
1. Assessment(s) include(s) socioeconomic and political drivers of vulnerability. (Comprehensiveness)				
2. Assessment methodology is made transparent. (Transparency & Participation)				
3. Broad set of stakeholders were engaged in assessment development. (Transparency & Participation)				
4. Assessment (if national) includes review of existing sub-national assessments, including community-based assessments. If reviewing sub-national assessments, are assessments coordinated in some way and do they use comparable methodologies? (Comprehensiveness/Capacity)				

5. Assessment(s) covers all sectors and regions. (Comprehensiveness)				
6. Assessment(s) includes exposure to climate impacts. (Comprehensiveness)				

Impacts Assessed (examples)³³:

Biophysical	Economic	Social	Health
Melting Glaciers/earlier snowmelt	Impacts on assets or properties from more intense storms, forest fires, and flooding	Temporary or permanent displacement from extreme weather or permanently altered living conditions (eg. Sea level rise)	Human casualties and injuries from extreme weather, including heat waves
Sea level rise			
Temporal and spatial shifts in terrestrial ecosystems (earlier blooming, northward shift of species)	Agricultural and livestock production losses from heat waves and droughts	Loss of livelihoods, particularly those sensitive to ecosystem impacts such as fisheries and rain-fed agriculture	Reduced air quality and increased incidence of cardio-respiratory diseases, especially among vulnerable segments of population
Biophysical alterations in freshwater and marine ecosystems			
			Waterborne diseases from flooding
			Malnutrition/lack of freshwater

Source: IPCC, 2007

Research Guidelines

This refers to an evaluation of climate impacts and vulnerabilities for the country. A vulnerability and impacts assessment is carried out to help decision-makers identify needs, priorities, and options for adaptation. Vulnerability and impacts are likely to vary across sectors, geographies, and populations.

While some countries may have completed national assessments, others may have a

³³ M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds), *Contribution of Working Group II to the 4th Assessment Report on the Intergovernmental Panel on Climate Change, 2007*, (Cambridge University Press, 2007).

patchwork of regional, local or sector-based assessments. They may also be part of a larger report on sustainability/environment, health, economic development, etc. In some cases, it may not be produced by a government authority at all, but by an NGO, academic institution, or even private industry. While these can still be useful (and potentially better), they may or may not carry a mandate to be comprehensive in analyzing climate change impacts across diversity of people, sectors, and areas.

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
General: N/A	General: Find the vulnerability and impacts assessment for the country if it exists.	General: Contact relevant agencies to confirm/locate assessments if needed.
Q1: N/A	Q1: Review existing vulnerability and Impacts Assessment(s) and any supporting documents, especially those pertaining to methodology of assessing vulnerability.	Q1: (Optional) Interview at least 1 representative of the responsible government agency, an implementing organization, or an academic with an understanding of your country's vulnerability assessment.
Q2: (Optional) Are there legal requirements, administrative guidelines, or rules that require disclosure of the methods for vulnerability and impacts?	Q2: Websites, method documents, etc. supporting the V&A assessment.	Q2: (Optional) Interview a representative of the civil society or an academic to explain the methodology behind the national vulnerability assessment.
Q3: (Optional) Are there legal requirements, administrative guidelines, or rules that require consultation broadly or with certain groups on developing the methods for vulnerability and impacts assessment?	Q3: Websites or records of broad consultation, such as lists of individuals and organizations consulted with by preparers of V&A assessment, attendees at participatory events, or online participation platforms.	Q3: (Optional) Interview at least 1 representative of the civil society or an academic to explain the opportunities for involvement in the country's vulnerability assessment.

Q4: N/A	Q4: Consult the existing V&I assessment(s) at the national level for citations of ongoing assessments and work on adaptation at the sub-national and local levels.	Q4: N/A
Q5: N/A	Q5: Review assessment with advisory panel and research team to determine if any major sectors or regions were not included.	Q5: Unless there is not expertise on climate change impacts on the research team or advisory panel, an interview is not necessary
Q6: N/A	Q6: Review assessment to determine whether exposure to climate change impacts is comprehensively covered and if research is up to date.	Q6: N/A

Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses the Chicago Manual of Style:*
http://www.chicagomanualofstyle.org/tools_citationguide.html

Key Terms Defined:

Vulnerability and impact assessment: An integrated and multi-sectoral assessment at the national level that helps decision-makers to identify adaptation needs, priorities and options.

Exposure: A 2012 IPCC report defines exposure as “the presence of people; livelihoods; environmental services and resources; infrastructure; economic, social or cultural assets in places that could be adversely affected”.³⁴ As the definition indicates, exposure is determined by location. This could be confined to a floodplain or as widespread as a country. It is possible to be exposed to climate impacts, but not be vulnerable to them (if adaptive capacity is sufficient enough to mitigate risks).

Vulnerability: The IPCC defines vulnerability as the “propensity or predisposition to be adversely affected”. Vulnerability depends on social, economic, cultural, demographic, institutional, governance, geographic, and environmental factors. Vulnerability may be hazard-specific—in other words, a population may be more vulnerable to new disease vectors than to hurricanes, but socioeconomic vulnerabilities such as poverty and poor social network support can aggravate vulnerability no matter the hazard. Key to adaptation and development policy, the IPCC also notes that there is *high agreement* and *robust evidence* that high vulnerability and exposure are mainly an outcome of “skewed development processes, including...environmental mismanagement, demographic changes, rapid and unplanned urbanization, failed governance, and scarcity of livelihood options for the poor” (IPCC, 2012). Ecosystem vulnerabilities, such as ocean acidification or new plant disease vectors, may be linked to socio-economic vulnerabilities.

Quality 1 Description

This quality asks whether the existing vulnerability and impacts assessment includes socioeconomic and political drivers of vulnerability – issues of wealth and credit access, governance, social stratification, gender impacts, etc. An interview with an expert could go a long way to helping to critique the degree to which the government has included this in the assessment.

Findings:

Quality 2 Description

Assess whether or not the methods for assessing both impacts and vulnerability are made transparent – publicly available, appropriately disseminated, and understandable.

³⁴ C.B. Field, V. Barros, T.F. Stocker, Q. Dahe, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, P.M. Midgley, *Managing the risks of extreme events and disasters to advance climate change adaptation: Special Report of the Intergovernmental Panel on Climate Change*, IPCC (Cambridge University Press, 2012) 582 pp.

Findings:

Quality 3 Description

A vulnerability assessment that does not involve representatives of different stakeholder groups may overlook key vulnerabilities and impacts or may fail to consider who or what might be impacted. It may also miss opportunities to gather key information or improve implementation.

Consider key organizations, individuals, and government offices that should be involved in adaptation decisions for the national level. This will differ from country to country. These may include:

- Provincial-level governments
- Representatives of local governments and tribal governments or indigenous organizations
- NGOs
- Key industries
- Members of the scientific community

Findings:

Quality 4 Description

This indicator assesses whether the existing V&I assessment takes into account local and sub-national assessments that have already been completed or are underway. These assessments and activities could provide a cost-effective means of integrating local and rural voices and may help to correct for a bias towards large infrastructure projects where other types of intervention may be necessary.

Findings:

Quality 5 Description

A national vulnerability and impacts assessment should consult with stakeholder groups, local governments and experts from different regions and sectors across the country to ensure that the product is thorough, considers how impacts may be interrelated, and lays a path for comprehensive adaptation planning.

Findings:

Quality 6 Description

Evaluate whether the assessment(s) include impacts based on current climate modelling predictions on exposure to climate impacts and whether these are up to date and consistent with widely-used forecasts. In the case of multiple sub-national assessments, check for consistency in forecasts used.

Findings:

b. Worksheet 1b: Inventory of Ongoing Adaptation Efforts

Indicator	Is there an inventory of existing adaptation efforts nationally? If not, and only sub-national or sectoral inventories exist, review these using a worksheet for each inventory. (If not, explain that there is not, mark "N/A" in the qualities table and move to next worksheet.)
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Brief Summary of existing inventory(ies)

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Inventory created by	Government	NGO/Community	Academic Institution	Industry	Other
Name					

Research Guidelines

This indicator assesses whether there is a national inventory of ongoing efforts at adaptation at any level within the country. Without an institutional history of mistakes, successful projects, and ongoing projects and programs, planning may run the risk neglecting previous lessons learned. For example, many countries will already have programs to extend drought-resistant crops, improve emergency warning systems, and to prevent flooding.

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
None	Consult the existing V&I assessment(s) for citations of ongoing assessments and work on adaptation at the sub-national and local levels. Alternately, this may be located elsewhere, in sector level planning or industry-level documents.	Interview an official to find out the extent that ongoing assessments and adaptation efforts are being integrated into national assessments and adaptation plans.

Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses Chicago style citation:*

http://www.chicagomanualofstyle.org/tools_citationguide.html

C. Worksheet 1c: Assessment Institution

Indicator	An institution (or institutions) has/have a mandate to produce a vulnerability and impacts assessment and/or a national inventory of adaptation efforts iteratively over time. (If not, explain that there is not, mark “N/A” on the qualities table) and move to next worksheet.)
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Brief Summary of existing institution(s)

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Qualities of the indicator	Yes	Limited	No	n/a
1. The mandated institution reports to an appropriate authority. (Accountability & Enforcement)				
2. The mandated institution coordinates appropriately with other institutions and stakeholders. (Accountability & Enforcement)				
3. Sufficient budget is provided for ongoing assessments. (Capacity)				
4. Staff carrying out assessment has sufficient skill and knowledge. (Capacity)				

Research Guidelines

<p>This indicator measures whether there is a body or organization tasked with reviewing and revising the assessment over time to incorporate new information and lessons learned.</p>
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Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
General: Are there legal requirements, administrative guidelines, or rules that require an institution to produce a vulnerability and impacts assessment and a national inventory of adaptation over time?	General: N/A	General: N/A
Q1. Are there legal requirements, administrative guidelines, or rules that require the presentation of the vulnerability and impacts assessment and the	Q1. N/A	Q1. Interview a knowledgeable representative from an agency participating in the assessment to see if there is upward accountability.

inventory of adaptation efforts to national authorities?		
Q2. N/A	Q2. N/A	Q2. Interview 2-3 representatives from implementing agencies or ministries to determine whether coordination is occurring in practice (will likely need to not attribute sources for interviews).
Q3. N/A	Q3. Assess whether the documents were produced and where funding came from.	Q3. Interview an official involved in the assessment and/or the inventory in order to assess whether they had a sufficient budget to complete the assessment and inventory.
Q4. N/A	Q4. Briefly review the qualifications of lead staff and supporting staff in the responsible agencies.	Q4. Interview at least 1 independent scientist or an academic who has reviewed the qualifications of members of the national assessment team.

Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses Chicago style citation:*

http://www.chicagomanualofstyle.org/tools_citationguide.html

Quality 1 Description

This indicator assesses whether there is a strong line of accountability for producing a report on adaptation in vulnerability. Researchers are encouraged to consider whether a vulnerability and impacts assessment is presented to an authoritative body within the government. In some countries, this would mean a president’s office or an agency head, while in others this would be a sufficiently powerful representative body such as a parliament or congress. Ensuring that the results reach decision-makers has the effect of legitimizing concerns of climate change adaptation and creating political ownership of policies.

Findings:

Quality 2 Description

This indicator assesses whether the institution in charge of preparing the vulnerabilities and impacts assessment has coordinated its efforts with other relevant agencies and institutions. For example, one agency may be expanding solar power to reduce dependence on increasingly unreliable hydropower, but has done so without consulting the Ministry responsible for regulating impacts on wildlife. Meanwhile the ministry of wildlife is working to ensure adaptation to protect biodiversity. The two agencies may be working at cross-purposes rather than collaborating to minimize impacts and maximize adaptation.

Findings:

Quality 3 Description

This indicator assesses whether there are sufficient and reliable financial resources to review, revise, and update the national assessment and inventory of adaptation efforts.

Findings:

Quality 4 Description

The process of developing an inventory of existing adaptation efforts requires the involvement of officials, communities and individuals from multiple parts of society. Staff involved with conducting a national vulnerability and impacts assessment must be able to understand the biological, economic and social elements of climate impacts and vulnerability.

Findings:

2. PRIORITIZATION

Worksheet 2a: Establishment of Priorities

Indicator	There is a process for identification of priority populations, geographies, or sectors for adaptation in the country. If multiple processes exist in different institutions,
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	describe the process (or lack of) coordination and integration of priorities. (If none exist, explain that there is not, mark “N/A” on qualities table and move to next worksheet.)
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Brief Summary of Process, if it exists

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Prioritization(s) made by	Government	NGO/Community	Academic Institution	Industry	Other
Name					

Priorities Specify	Geographies	Populations	Sectors	Ecosystems	Infrastructure	Agencies

Qualities of the indicator	Yes	Limited	No	n/a
1. Identification of priorities considers critical sectors, geographic regions, vulnerable populations, ecosystems, and infrastructure. (Comprehensiveness)				
2. Process for identification of priorities is transparent and publicly available. (Transparency & Participation)				
3. Broad set of stakeholders were engaged in identification process– including vulnerable and marginalized groups – in order to assure that priorities are informed by a broad range of perspectives. (Transparency & Participation)				
4. Institutional needs are identified in relevant general planning documents, such as sectoral strategies or regional development plans. (Comprehensiveness)				
5. Prioritization uses cost-benefit analysis that is stakeholder-driven. (Capacity/Transparency and Participation)				

Research Guidelines

Policy-makers will identify priority projects or key sectors, regions, or populations vulnerable to climate change. This indicator seeks to identify some documentation of such a decision-making process.

Note the level of detail and ability of the plan to be implemented. For example, is the prioritization document a list of projects, or a list of key industries or impacts? If it is the latter, does it include an implementation plan with major program and project components included? While the desirability of each format will vary between depending on the particular sector, it is important to note the level of specificity in each. If there are multiple prioritization processes, determine, through interviews, the extent of coordination and integration of the processes. (i.e. are they mutually reinforcing and complementary or redundant and contradictory?)

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
General: N/A	General: Identify any record of prioritization. This may include specific plans, laws, or approved budgets.	General: In the absence of clear documentation of consideration of priorities, interview at least 1 individual involved in the decision-making process to identify whether there was a broad consideration of potential priorities before arriving at a final decision.
Q1. (Optional) Some countries have a requirement to consider a minimum set of factors beyond impacts. In such cases, document the legal requirements for consideration of multiple priorities as prescribed by the law. This may be in a national climate change law or it might be in a specific guideline or policy for a particular agency.	Q1. Review documents prepared by the responsible institution(s) to establish priorities in the key area. Assess the extent to which the documents available inform the reader of the priority areas considered before the final decision was made.	Q1. In the absence of clear documentation of consideration of priorities, interview at least 1 individual involved in the decision-making process to identify whether there was a broad consideration of potential priorities before arriving at a final decision.
Q2. N/A	Q2. Find the consultation	Q2.N/A

	documents and the final prioritization. Note whether the document is available on the internet free of charge and is easily found by a non-specialist.	
Q3. Are there legal requirements, administrative guidelines, or rules that require consultation broadly or with certain groups on development of priorities? If there are no such requirements for adaptation specifically, are there such requirements generally? Are they often invoked or carried out by the agency?	Q3. Find the consultation documents and the final prioritization. Note whether the prioritization document identifies the groups consulted in establishment of priorities. If the prioritization is multi-sectoral or multi level, identify whether such documents are available from the various agencies.	Q3. Interview individuals involved in the establishment of priorities for the country to find out how many and what type of consultation took place
Q4. (Optional) Are there legal requirements, administrative guidelines, or rules that require or support identification of institutional needs in the prioritization process. (Ex. Capacity building for sub-national governments or NGOs, etc.)	Q4. Consult the existing prioritization document or supporting action plans for identification of institutional needs.	Q4. (Optional) In the absence of identification of needs, ask an individual involved in the prioritization process for the relevant documents or what the existing process for identification of institutional needs is, if any.
Q5. Review whether stakeholder-driven cost-benefit analyses are required in prioritization processes.	Q5. Review prioritization documents for methods used.	Q5. (Optional) Interview 1 person involved in prioritization process to understand if cost-benefit analysis was employed in prioritization and what stakeholders were involved.

Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses Chicago style citation:*

http://www.chicagomanualofstyle.org/tools_citationguide.html

Quality 1 Description

This indicator assesses whether the prioritization process has considered a wide range of areas for assessment, beyond merely prioritizing impacts.

Prioritization may often begin by focusing on direct impacts, but may miss out on key aspects of needs for adaptation in doing so. Consideration of other approaches is critical to responsive planning. A national process may consider:

- critical sectors of the economy within the country (for example, a major industry or subsistence farming)
- geographical regions (e.g. a highly variable watershed, coral reef areas)
- particularly vulnerable populations (for example, indigenous populations, the isolated elderly, etc.)
- ecosystems that provide important habitat or environmental services infrastructure (e.g. rural roads or communication infrastructure)

Findings:

Quality 2 Description

This indicator assesses whether there is a transparent and well-publicized process and documentation of the prioritization process.

At a minimum the prioritization document and the documents on the process for prioritization should be (1) publicized, (2) available at no cost, and (3) sufficiently understandable by members of the public.

Are there legal requirements, administrative guidelines, or rules that require publication and dissemination of:

- 1) proposed priorities?
- 2) the structure of the decision-making process?
- 3) opportunities to participate in the decision-making process?
- 4) the final results of the prioritization process?

Findings:

Quality 3 Description

Members of the public should be involved in the establishment of priority projects and programs. This contributes to the legitimacy, accountability, enforceability, and relevance of the established priorities. Best stakeholder engagement processes will vary based on the

location of the prioritization decision-making. In order for meaningful participation to occur, the public should be informed ahead of time through appropriate channels. Participation should be low-cost, occurring at times in which stakeholders can be reasonably expected to be able to participate.

Findings:

Quality 4 Description

This indicator measures whether adaptation-planning documents describe the specific capacities public and private institutions will need in order to carry out adaptation activities.

In a number of countries, areas have been identified as priorities for adaptation activities, but the specific activities and the responsible institutions have not been spelled out either in the decision documents or in supporting documents (such as action plans, budgets, or appropriations).

Researchers should seek to identify where institutional needs for carrying out adaptation priorities are identified. In cases where such documents are underway, identify the process used for identification of institutional needs and assess whether this process will address the needed mandates, funding, and abilities such institutions will need.

Findings:

Quality 5 Description

Decision-makers need to evaluate the costs and benefits of potential adaptation actions over time. Without understanding what the tradeoffs are between different actions, it is difficult to make good decisions with limited resources. However, valuation that considers ecosystem services, cultural valuations and social impacts is critical. Equity issues may arise if valuation focuses on assets to the detriment of communities and livelihoods.

Findings:

d. Worksheet 2b: Budget Processes

Indicator	Budgetary processes exist to channel finance to adaptation institutions. (If not, explain that is the case, indicate “N/A” in the qualities table and move to the next worksheet)
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Brief summary of processes, if they exist

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Budget set by	Government	NGO/Community	Academic Institution	Industry	Other
Institution Name					

Priorities in planning documents (list major items)	Reflected in budget? (y/n)
1.	
2.	
3.	
4.	
5.	

Qualities of the indicator	Yes	Limited	No	n/a
1. Alignment: Budgetary priorities reflect priorities for adaptation described in strategic documents. (Comprehensiveness)				
2. Cohesiveness and efficiency: Budgetary institutions effectively appropriate funding from central budgets to priority programs, projects, and sectors. (Comprehensiveness)				
3. Harmonization: Budgetary institutions are able to centralize international finance to promote alignment and harmonization. (Comprehensiveness)				
4. Budgetary processes meet international standards for transparency and participation. (Transparency and Participation)				

Research Guidelines

This indicator assesses whether national budgeting and appropriations sufficiently meet the demands for priority adaptation programs and projects, and whether these processes are harmonized and transparent. Transparency in budgeting process allows members of the public and officials advocating for action on climate change adaptation to push for adequate funding for adaptation activities.

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
General: Review official budgets and the process for making budgetary processes transparent in a timely manner.	General: Find the budget and identify whether the projects and programs described in the prioritization are currently be funded	General NA
Q1. NA	Q1. Evaluate the priorities laid out in the relevant adaptation plans and compare these to the approved budget(s) for the most recent fiscal year.	Q1. Interview 1-3 relevant agency personnel anonymously or an independent third-party expert to determine the extent to which priorities are being reflected in budget.
Q2. NA	Q2. See above	Q2. See above
Q3. NA	Q3. Refer to relevant documents on harmonization of finance, including OECD-DAC's website on Paris Principles for Aid Effectiveness, and your own country's budget documents.	Q3. See above, as necessary.
Q4. Review transparency standards for budgeting at major steps in the process. This may include parliamentary rules on appropriations and oversight.	Q4. Identify and review evidence of budgets being released to public.	Q4. (Optional) Interview 1 representative from stakeholder watchdog group and 1 agency personnel to verify transparency and participation

Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should

include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses Chicago style citation:*

http://www.chicagomanualofstyle.org/tools_citationguide.html

Quality 1 Description

Budgetary priorities should reflect priorities for adaptation described in strategic documents. It is critical that budgets reflect the adaptation priorities laid out by key institutions in the priority area. Countries often face two challenges: that of donor-driven “drift” and fragmentation or overlapping of priorities. Such issues may result in a lack of country-level ownership and reduce the chance of successful implementation. For that reason, budgets, as much as possible, should reflect sector-wide priorities already established.

Findings:

Quality 2 Description

Budgetary institutions effectively channel finance from central budgets to priority programs, projects, and sectors.

In some countries, there may be perfect alignment between agencies or ministries, but the agency or ministry in charge of disbursement of finance may not disburse funding at the rate that is necessary for effective implementation. Such problems can result in unpredictable finance, wasteful spending due to cramped budget cycles, or rededication of finance to non-priority areas.

Findings:

Quality 3 Description

Budgetary institutions are able to centralize international finance to promote alignment and harmonization.

Findings:

Quality 4 Description

Budgetary processes meet international standards for transparency and participation. In many countries, budgets at the national level do not meet an appropriate degree of

transparency, clarity, standardization, or usefulness.

The International Budget Project (IBP) has set forward guidance on best practices for integrating transparency and participation throughout the budget cycle including:

- **Formulation**—when the executive branch puts together the budget plan
- **Approval**—when the legislature debates, alters (if it has the power to do so), and approves the budget plan
- **Execution (implementation, monitoring, and control)**—when the government implements the policies in the budget
- **Oversight (auditing and legislative assessment)**—when the national audit institution and the legislature account for and assess the expenditures made under the budget

More details can be found here: <http://internationalbudget.org/>

It is possible that an IBP assessment already exists for your country which can shed some light on central, national level processes. Within a given sector, however, researchers should find budget proposals, *with justifications* for major items which are submitted by individual ministries to the central budget proposal made by the executive. Additionally, members of the public should have access to the final budget approved by the parliament or an equivalent budgeting body.

Findings:

Worksheet 2c: Prioritization Institutions

Indicator	A time period and process have been set for revisiting priorities set forth in official prioritization decisions. (If not, mark “N/A” in qualities table, explain that there is not and then skip to next worksheet.)
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Brief summary of process, if it exists

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Qualities of the indicator	Yes	Limited	No	n/a
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1. The mandated institution reports to an appropriate authority. (Accountability & Enforcement)				
2. The mandated institution coordinates appropriately with other institutions. (Accountability & Enforcement)				
3. Decisions made in prioritization documents can be enforced by officials and members of the public. (Accountability & Enforcement)				
4. Resources have been allocated to support needed changes. (Capacity)				

Research Guidelines

This indicator measures whether there is a body or organization tasked with reviewing and updating the adaptation priorities with an established process for reviewing priorities. Because of heightened variability and uncertainty, decision-making for climate change adaptation should be responsive, proactive, flexible, durable and robust (WRI 2011). To cope with uncertainty and build flexibility, adaptation priorities should be revisited by integrating new information and making adjustments to priorities through a stakeholder-driven process.

There should be a body responsible for establishing adaptation priorities in the country, or at least in relevant policy areas. Such a body may be governmental, non-governmental, or a hybrid (ex. quasi-governmental think tank). In the strongest situations, such an organization will have a legal mandate to establish priorities. In cases where the assessment is non-governmental, the mandate might be to ensure that advisory documents are regularly prepared and submitted to the appropriate institutions.

Ideally, such an institution would revisit priorities on a periodic basis. In some cases, there might be an ongoing process, whereas in others, it would be annual, perhaps in conjunction with budget processes. In many, it will be over a regular period, such as every five years, or annually. Partners should use judgment in deciding whether the frequency of assessments is sufficient.

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
General: Review existing laws, administrative guidelines, or rules that	N/A	N/A

require the integration an institution to review and revise priorities in your chosen policy area. Identify timelines for this process in the law.		
Q1. Are there legal requirements, administrative guidelines, or rules that require the presentation of the national prioritization documents to sufficiently responsible and democratic authorities?	N/A	N/A
Q2. Review laws, regulations, and guidelines for approval of documents with coordinating agencies and other levels of government.	Q2. Review existing prioritization documents for coordination with other agencies. This may include co-authorship by major agencies or may include official endorsements or letters of approval attached to official decisions.	(Optional) Interview at least one relevant agency representative to assess level of coordination.
Q3. Review relevant laws (climate change law, administrative procedures act, etc.) and precedents authorizing administrative review procedures, judicial review, and citizen suit. Identify any restriction to standing in relevant laws (climate change law, legal precedent, or judicial organic acts) and identify disincentives to participate in the same laws.	N/A	N/A
N/A	Q4. Review the national budget or appropriations. If the budget is primarily	Q4. (Optional) Interview officials from agencies responsible for implementation of agency plans

	<p>at the sub-national level, identify where this might be. Alternatively, review budget for 3 priority areas.</p>	
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Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses Chicago style citation:*
http://www.chicagomanualofstyle.org/tools_citationguide.html

Quality 1 Description

<p>This indicator assesses whether the institution responsible is accountable to an authority (such as a parliament or executive office).</p> <p>Lines of “upward” accountability ensure that established adaptation priorities have sufficient political clout and democratic legitimacy to be implemented. Examples of such accountability include submission by the prioritizing body of priorities to the parliament or the president’s office for approval.</p> <p>In assessing the degree to which an institution should be upwardly accountable, researchers will need to decide whether an appropriate balance has been struck between the need for accountability and the need for autonomy.</p>
<p>Findings:</p>

Quality 2 Description

<p>Institution or institutions responsible for prioritization will need to ensure that there is ownership and input from other institutions that will be responsible for adaptation planning and implementation.</p> <p>Examine the priorities established in adaptation prioritization documents for the country (if these exist). Identify whether the agencies relevant to major priorities have been identified, consulted, and agreed to coordination or shared priorities.</p> <p>In some countries, this will mean that such agencies have been explicitly delegated particular responsibilities (ex. Forest adaptation may go to a minister of forests) and in</p>
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others, this means that such agencies have approved sectoral adaptation plans.

Findings:

Quality 3 Description

This indicator assesses whether officials and members of the public can review decisions for priorities.

First, they may challenge procedural elements of prioritization. For example, if a climate change law requires a minimum of transparency or participation (or a broader law requiring adaptation such as a notice and comment rule) and this has not been met, members of the public or interested agencies should be able to enforce such rules through legal means. In other cases, there may be an obligation for certain entities (such as a local government) to make a water conservation plan.

Second, they may call for review of decisions, actions, and failure to act. If an institution prioritizes an action for climate change adaptation, but fails to implement it, or carries out maladaptive actions contrary to law and established priorities, then interested parties may be able to bring suit to courts or tribunals to enforce such priorities.

Standing to challenge and review enforcement of such priorities should be broad, with a minimum of obstacles of cost and risk for affected communities.

Findings:

Quality 4 Description

This indicator assesses whether sufficient resources have been allocated to the various institutions responsible for instituting policies for adaptation.

For purposes of rapid analysis, researchers can review the national budget, a ministerial budget, or appropriations for activities identified in the prioritization documents. In cases where such analysis might be cumbersome, researchers can interview members of select agencies tasked with implementation whether sufficient funding has been allotted to the agency to implement priorities. However, if at all possible, this should be balanced against the perspective of an independent expert outside the government.

Findings:

DRAFT

3. COORDINATION

e. Worksheet 3a: Coordination Needs Identification

Indicator	Coordination needs for effective adaptation have been identified for key sectors, services and activities and have been made publicly available. (If not, Indicate "N/A" in the table below and move on to the next worksheet.)
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Brief summary of document, if it exists

Coordination needs identified by	Government	NGO/Community	Academic Institution	Industry	Other
Institution Name					

Main coordination needs (list)

Qualities of the indicator	Yes	Limited	No	n/a
1. Vertical coordination needs have been considered and are described in a publicly available document. (Comprehensiveness and transparency and participation)				
2. Coordination needs across sectors and ministries have been considered and are described in a publicly available document. (Comprehensiveness and transparency and participation)				

Research Guidelines

This indicator assesses whether planning documents identify the areas where multiple agencies/organizations) need to coordinate and the types of coordination needed (information sharing, shared funding, program cooperation).

Many, if not most, adaptation actions will require coordination across agencies, sectors (civil society, government, and the private sector), and and/or levels of government. In some cases, adaptation activities will cross jurisdictions, as is often the case with watershed management, for example.

Coordination needs may vary. Some systems will only need to carry out information sharing, while others will find it necessary to share resources or carry out joint programs and projects.

Coordination may also require “sign off” of one agency plans and programs by another. This may occur at the project or program level. For example, the geologic service may need to review the plans of the agency responsible for permitting dams and levees to ensure that, given greater water flow variability, seismic considerations in construction are still sufficient.

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
General: (Optional) If coordination documents for adaptation planning are legal in nature, review requirements of law(s), guidelines, or rules on adaptation for requirements on development of interagency, intersectoral, and multilevel planning within or affecting the country.	General: Review recommendations for interagency, intersectoral, and multilevel planning in documents relevant to coordination mechanism, if they have been written.	N/A
Q1. Determine whether there are legal	Q1. Review publicly available documentation	(Optional) Interview relevant agency representative to

requirements, administrative guidelines, or protocols that require a process to determine coordination needs at different levels of government.	of vertical coordination needs.	determine whether coordination decisions have been made, but not made publicly available
Q2. Determine whether there are legal requirements, administrative guidelines, or protocols that require a process to determine coordination needs across sectors or ministries.	Q2. Review publicly available documentation of coordination needs across sectors or ministries.	N/A

Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses Chicago style citation:*

http://www.chicagomanualofstyle.org/tools_citationguide.html

Quality 1 Description

There is publicly available documentation describing the vertical coordination needs to effectively implement adaptation options. Vertical coordination refers to coordination mechanisms between national and sub-national governmental agencies. It can include interagency or intra-agency coordination.

Coordination documentation should be (1) publicized, (2) available at no cost, and (3) sufficiently understandable by affected members of the public.

For example, if a coordinated plan has been set out by the government for adaptation to climate change in the coffee export sector, small-scale and large-scale farmers, transport owners, and export owners should have access to any major planning documents.

Findings:

Quality 2 Description

There is publicly available documentation describing the horizontal coordination needs (across sectors, regions or ministries) needed for successful adaptation planning and implementation. Adaptation planning for water conservation, vulnerable community disaster planning and climate proofing infrastructure is likely to require coordination across agencies, regions and sectors. Horizontal can decrease the likelihood of overlooked actions, increase efficiency and leverage knowledge and financing towards integrated adaptation problem solving.

Findings:

f. Worksheet 3b: Coordination Institution

Indicator	There is an established, authoritative, coordinating body or council tasked with adaptation coordination. (If not, explain that there is not, mark “N/A” on the qualities table below and move to the next worksheet.)
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Brief summary of body, if it exists

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Coordination organized by:	Government	NGO/Community	Academic Institution	Industry	Other
Institution Name					

Qualities of the indicator	Yes	Limited	No	n/a
1. The coordination body has a clear mandate and reports to an appropriate authority. (Accountability and Enforcement)				
2. Sufficient resources have been appropriated for coordination activities. (Capacity)				
3. Coordination body has appropriate membership and skill sets. (Capacity)				

4. There is a system for monitoring and review of the coordination process. (Accountability and Enforcement)				
5. Officials and members of the public have mechanisms to ensure that actions for coordination have been undertaken. (Accountability & Enforcement)				

Research Guidelines

Description	<p>This indicator reviews the institutional design of the coordinating body to assess its capacity to carry out its functions effectively.</p> <p>Within each country, many different agencies, private sector actors, and levels of government may be engaged in coordination. For example, the agency responsible for human health may be in charge of directing other agencies, whereas the agency in charge of human settlements may be able to exercise a veto on building plans that sit in a 100-year flood plain. On the other hand, a multi-stakeholder process with government and members of a sensitive industry may direct multi-sector approaches to adaptation.</p> <p>Different political systems will require different models of coordination. For this reason, deciding how “authoritative” an authoritative body must be will be the responsibility of researchers. Some systems have a great deal of autonomy in many institutions and a history of collaboration and coordination. In others, there will need to be more explicit about aligning goals and directing shared resources.</p> <p>The stronger a legal mandate an organization has, the better a chance it has of being able to implement its decisions and being held accountable.</p>
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Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
Review existing laws, administrative guidelines, or rules that require the integration an institution to review, revise, and implement country adaptation coordination strategies.	N/A	N/A

<p>Q1. Consult laws, guidelines, and rules for the body to identify what powers it has to incentivize coordination between agencies, sectors, and levels of government.</p>	<p>Q1. Find any documentation (online or otherwise) that clearly defines the coordinating body's mandate, how it was created, and to whom it reports.</p>	<p>Q1. N/A</p>
<p>Q2. N/A</p>	<p>Q2. Identify the budget for the coordination body.</p>	<p>Q2. (Optional) Interview officials from agencies responsible for implementation of coordination to gain perspective on funding levels.</p>
<p>Q3. Review laws, guidelines, and rules as to the quorum and make-up of the prioritization body.</p>	<p>Q3. Review documentation of prioritization institution's membership rules and member qualifications (e.g., CVs or appointment proceedings)</p>	<p>Q3. N/A</p>
<p>Q4. Review administrative rules, guidelines and procedures requiring the periodic monitoring and review of the coordination mechanism</p>	<p>Q4. Determine whether there are publicly available reports on the results of monitoring and review—either from internal sources or external groups.</p>	<p>Q4. N/A</p>
<p>Q5. Review relevant laws (climate change law, administrative procedures act, etc.) and precedents authorizing administrative review procedures, judicial review, and citizen suit.</p> <p>Identify any restriction to standing in relevant laws (climate change law, legal precedent, or judicial organic acts) and analyze the same laws to identify disincentives to participate.</p>	<p>N/A</p>	<p>N/A</p>

Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses Chicago style citation:*

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Quality 1 Description

The starting point for a either a new body or an existing body with an amended mission is a clear mandate with an accountability mechanism. If the coordinating body is an existing agency with other responsibilities, coordination may be de-prioritized without a clear line of accountability. A new body will likely lose momentum without a mandate or accountability.

Findings:

Quality 2 Description

A coordination body with no budget would not be likely to survive or be able to provide incentives for cooperation. At a minimum, the coordination body needs money to hold meetings. Ideally, it would be able to pay the salaries of full-time members and to have a budget dedicated to creating incentives for interagency cooperation.

Findings:

Quality 3 Description

Who sits on a coordination body will determine its success. A coordination body will need to have an appropriate composition, which may include high level officials, members of civil society, representatives from various sectors, and representatives from sub-national governments. These individuals should be competent in identifying needs and prioritizing among those needs. Ideally, members’ qualifications and backgrounds should be made public.

Researchers can use their judgment as to whether such qualifications are adequate, as the level of expertise available in each country may vary. Alternately, expertise may not be the primary qualification for a coordinating institution. Other values such as political clout, public legitimacy, or representativeness may also be important.

Findings:

Quality 4 Description

Periodic monitoring and review ensures that initiatives are performing as expected, that there are no unintended consequences, and that funding, staffing and accountability is sufficient. It is not a failure if adjustments have to be made, but without a system of monitoring and review, there is no way to account for performance and effectiveness.

Findings:

Quality 5 Description

“Downward accountability”, or the accountability of an institution to the people it serves, starts with providing access to information on the coordination mechanism, membership and activities. If the coordinating body is not fulfilling its mandate, civil society members should be able to petition or participate meaningfully to advocate for change.

Failure to respond in situations of climate change adaptation can result in loss of life or livelihood. In such cases, it is essential that liability for negligence in decision-making can be established. Cases of weak “answerability” of officials are, to a certain degree inevitable, but clear coordination and delegation of responsibilities at the highest levels can serve to minimize finger pointing and evasion of blame.

Standing to challenge and review enforcement of sector level priorities should be broad, with a minimum of obstacles of cost and risk for affected communities.

Findings:

g. Worksheet 3c: Coordination Oversight Institution

Indicator	To what extent is the coordinating body functioning effectively? (If there is no coordinating body, mark “N/A” in qualities table and move to next worksheet)
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Brief summary of process, if it exists

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Coordination organized by:	Government	NGO/Community	Academic Institution	Industry	Other
Institution Name					

Qualities of the indicator	Yes	Limited	No	n/a
1. The coordinating body meets with enough regularity to effectively maintain coordination. (Capacity)				
2. Findings from coordination reviews are adopted by relevant agencies. (Capacity)				
3. Coordinating body participants indicate that coordination has and continues to improve. (Capacity)				

Research Guidelines

This indicator measures the effectiveness of the coordinating body. Measuring the qualities of this indicator will very likely require interviewing members of the coordinating body or those closely involved, if at all possible.

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
N/A	N/A	N/A
Q1. N/A	Q1. Review any available reports or minutes of coordination meetings.	Q1. Interview 2-3 representatives of coordinating body members to see if the coordination processes if meetings are scheduled.
Q2. N/A	Q2. N/A	Q2. Interview 2-3 members of the coordinating committee to gather examples of decisions that were adopted by participating organizations
Q3. N/A.	Q3. N/A	Q3. Interview 2-3 coordination

		body members “not for affiliation” to attempt to gain candid insight into success of coordination efforts.
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Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses Chicago style citation:*

http://www.chicagomanualofstyle.org/tools_citationguide.html

Quality 1 Description

Is the coordinating body active? Is there an incentive and/or accountability system to ensure that meetings (at reasonable intervals) continue?
Findings:

Quality 2 Description

Has the coordinating body made recommendations to agencies to improve coordination and if so, is there proof that they were adopted?
Findings:

Quality 3 Description

In an interview where the source will be referred to anonymously, what is the overall perception of participating members on the effectiveness of the coordination body?
Findings:

4. INFORMATION MANAGEMENT

h. Worksheet 4a: Data gathering

Indicator	Climate change adaptation-relevant monitoring systems are regularly maintained and updated with data relevant for the country. (If not, mark "N/A" in the qualities table and move to next worksheet.)
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Brief summary of systems, if they exist

Information Category	Major types of data needed	Has it been gathered	Who gathers? (Institution)	Link
Climate observation				
Demographic information				
Environmental information				
Local/indigenous knowledge				
Other				

Qualities of the indicator	Yes	Limited	No	n/a
1. Climate observation/monitoring systems are regularly maintained and updated with relevant data. (Comprehensiveness)				
2. Demographic information systems relevant to climate change are regularly maintained and updated as				

needed, including forecasts where possible. (Comprehensiveness)				
3. Environmental monitoring/observation systems are regularly maintained and updated as is relevant, including forecasts where possible. (Comprehensiveness)				
4. Methods for data gathering are made transparent and publicly available. (Transparency & Participation)				
5. Data is publicly available in raw form. (Transparency and Participation)				
6. Traditional and/or local climate knowledge and observations are gathered. (Transparency and Participation)				

Research Guidelines

In order to carry out basic planning for adaptation, it will be necessary to maintain key data sets. For this indicator, it is critical to analyze each individual component in the “Qualities” section as it is relevant to this sector. For the “Findings” section, enter a summary text about the general quality of data gathering for adaptation. You will need to identify which systems (water, weather, crop yields, etc.) need to be monitored most closely.

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
N/A	N/A	N/A
N/A	Q1. Review documents prepared by the responsible organization. Examine regular reports on climatic and weather conditions issued to identify whether information relevant to the priority sector has been collected.	Q1. Interview one key official from a relevant agency, civil society organization, or private sector actor and inquire about: the type of information collected, the regularity of the collection, the accuracy of the information, for how long the information has been collected and available, and the specificity of the data. (Optional) Corroborate with an interview from a non-governmental scientist.

<p>Q2. (Optional) Consult laws that are relevant for climate change adaptation or for the ministries of health, human settlements or the census.</p>	<p>Q2. Examine regularly published statistics of relevance to adaptation. Some of these may be published by NGOs, while others may be official or released by private sector organizations.</p>	<p>Q2. (Optional) Interview one key official from relevant agencies, NGOs, or industry groups and inquire about the mandate, the type of information collected, the regularity of the collection, the accuracy of the information, for how long the information has been collected and available, and the specificity of the data.</p> <p>(Optional) Corroborate with an interview from a non-governmental scientist.</p>
<p>Q3. (Optional) Examine laws relating to the environment and natural resources such as rivers, lakes and protection of species and forest laws. Examine the mandate and identify institutions that are required to collect key environmental information relating to forests, wildlife, water resources, air and land. Examine if the mandate requires the agency to collect and disseminate that data.</p>	<p>Q3. Review annual reports and other reports published by the identified agencies, organizations, industries, or sectors. Check if the needed data is being collected and reported.</p>	<p>Q3. (Optional) If you are unable to locate reports, interview one key official from each identified agency or organization to inquire about the mandate, the type of information collected, the regularity of the collection, the accuracy of the information, for how long the information has been collected and available, and the specificity of the data.</p>
<p>Q4. NA</p>	<p>Q4. Check the website of the relevant agencies or organization. Review documents prepared by the responsible agency to see if the collection methods are revealed. Assess the extent to which the documents available inform the public of the various methods used for data</p>	<p>Q4. (Optional) Interview at least 1 representative of the responsible government agency or organization and verify if the methods for data collection are made available to the public and other scientists and peers.</p>

	collection.	
Q5. (Optional) Consult Freedom of Information Acts (FOIAs) or equivalent laws including the laws establishing the related agency or mandating the collection of the data and whether such data must be proactively made available to members of the public.	Q5. Check the website of the agency. Review documents prepared by the responsible agency to see if the raw data is revealed. Assess the extent to which the documents available inform the public of the raw data.	Q5. (Optional) Interview at least 1 representative of the responsible government agency and verify if the raw data is available to the public and other scientists and peers.
Q6. Are there rules or guidelines requiring the integration of local knowledge in climate system monitoring?	Q6. Do reports from relevant agencies indicate a collection of local/indigenous knowledge in regards to climate impacts?	Q6. Interview key agency personnel who may have been involved with coordinating data collection and maintenance.

Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview.** *WRI uses Chicago style citation:*

http://www.chicagomanualofstyle.org/tools_citationguide.html

Quality 1 Description

Climatic and weather related information within the country and in the region are generally collected by a meteorological agency. The Central agency will then collate this information and analyze it to develop annual climate data for the country and its internal regions. It would also probably use satellite and other internally available information to verify and supplement local data.

Findings:

Quality 2 Description

Each country will need relatively accurate population, health, and other demographic statistics in order to prioritize responses and set out key objectives. For example, future population growth patterns, current patterns of migration, employment, young and elderly, number of disabled persons, and the differential impacts among different groups. Population-centered policies will need to assess the scale of the risks, “hot spots” with concentrated populations, and complementary economic and health data.

Findings:

Quality 3 Description

Regular environmental quality data is essential. This should include major sets of indicators such as: water flow and quality data, forest area, greenhouse gas emissions projected crop yields, species and vector migration, and other relevant biophysical, economic, or hydrological indicators.

Findings:

Quality 4 Description

Scientists, individuals, and organizations concerned with a developing and implementing adaptation policy will need to understand and critique the methods for data collection and analysis. Basic explanations of methodologies should be available to the public on the internet.

A transparent data collection method would be publicly available to whoever wished to see it free of cost. Additionally, officials would have the responsibility to present the method to bodies capable of peer review (universities, science academies, or independent think tanks). Finally, the data collection methods would, to the greatest extent possible be made understandable to members of the concerned public.

Findings:

Quality 5 Description

Some data will be controversial. In order to ensure transparency and openness, raw data should be freely accessible to any organization or individual that wishes to analyze climate impacts and demographic patterns independently. This allows for free scientific exchange and review of data. Additionally, public availability of data allows the government to shift some of the burdens of analysis onto other institutions and individuals.

As you complete this indicator, look to see that the raw data on climate, demographics and ecosystems are publicly available and free of charge either on the website of the responsible organizations or at an accessible place. One way to check if the information is available is to make a formal request or to make a request using the freedom of information law (if there is one).

Findings:

Quality 6 Description

Natural resource-dependent communities that have long traditions in a location often have built up extensive local knowledge of climate variability and change. Farmers, in particular, are familiar with risk management and often have developed adaptation and mitigation strategies. In addition, these communities may have traditional monitoring systems that could help corroborate scientific models or be referenced to help communicate climate risks. While climate change will likely introduce new extremes and increased variability to what has been historically experienced, these local knowledge systems have been recognized as important contributors to adaptation strategies.³⁵

Findings:

³⁵ A. Nyong, F. Adesina, B. Osman Elasha, "The value of indigenous knowledge in climate change mitigation and adaptation strategies in the African Sahel," *Mitigation and Adaptation Strategies for Global Change* (2007) 12:787-797. <http://ies.lbl.gov/iespubs/8nyong.pdf>

i. Worksheet 4b: Information Analysis Institutions

Indicator	An institution (or institutions) has a mandate to analyze climate-adaptation-relevant information for the country in a way that is useful for key stakeholder groups. (If not, explain that there is not, mark “N/A” and move to the next worksheet.)
------------------	---

Brief summary of institution, if it exists

Major Data set	Information gathered by:	Government, NGO, Academic, private sector, Community
1.		
2.		
3.		
4.		
5.		

Qualities of the indicator	Yes	Limited	No	n/a
1. The institution(s) undergoes a regular, public process of review and revision of its approach to data analysis. (Accountability & Enforcement)				
2. Sufficient budget is provided for ongoing information analysis. (Capacity)				
3. The status of vulnerable ecosystems and populations/communities is periodically analyzed. (Capacity)				
4. Climate scenarios are developed using all available projections and their uncertainty estimates. (Capacity)				

Research Guidelines

An organization needs a clear mandate to develop climate-adaptation relevant analysis and to disseminate it to key stakeholder groups. This is important both for reasons of capacity building but also ensuring accountability for information. Key stakeholders in the country such as industry or farming communities will need climate-adaptation information in a timely manner. Is there an organization with a clear mandate to provide these stakeholders with this information? An agency or quasi-governmental office may have this mandate, but non-governmental actors, such as private contractors, a university, or several NGOs, may carry out the actual analysis.

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
General: Consult laws establishing or regulating the organization identified.	General: A mandate might exist in practice though not in the law. An organization might have created an internal mandate to serve stakeholders and provide them with this information. The organization could be a Government agency or university or private think tank.	General: (Optional) Interviewing a key official will be necessary if the mandate and organization are not identifiable in the law.
Q1. (Optional) Examine the law relating to the identified institution. See if there is a mandated peer review process and whether the professionals who are selected to do the reviews are chosen in a fair and open manner based on qualifications and skills. The law may not contain this detail and it may become necessary	Q1. Documents published by or available at the institution may contain clues as to whether there is such a peer review process.	Q1. (Optional) Interviewing at least one key official of the agency should throw light on this indicator. The official should be able to say if such a review happens. Who does the review? How are they selected? What measures are in place to guarantee their independence? Does the institution revise the analysis following review? Are there examples of such revisions?

to examine regulations, rules, guidelines or administrative decisions made under the law to obtain this detail.		
Q2. (Optional) Examine the laws creating the service or institution. The law may contain budgetary provisions indicating the provision of funds or assurances thereof from the government. Examine also the relevant budget and the appropriate laws through which funds are allocated to institutions.	Q2. (Optional) Often, the adequacy of budgets and funds will be found in internal agency documents or in annual reports or reports to the legislature made by the agency.	Q2. Often the best way to find out information to respond to this indicator will be an interview with a key agency/service/institution official that will have knowledge about institutional funding, their sources and adequacy.
Q3. Does the institution have a legal mandate or administrative rule requiring periodic review of the vulnerability status of ecosystems and communities?	Q3. Determine through reports or publications whether these analyses are conducted at certain time intervals.	Q3. (Optional) If information is not available publicly, ask a representative what the rules are for reviewing and updating vulnerability information.
Q4. N/A	Q4. Review reports and publications and compare against recent climate change science literature.	Q4. (Optional) This should not be needed unless it's not clear which projections are being considered.

Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses Chicago style citation:*

http://www.chicagomanualofstyle.org/tools_citationguide.html

Quality 1 Description

If there is an organization charged with the task of analyzing climate change relevant data (most likely in concert with other data) for the country, do its methods undergo a process of review by independent and qualified peers?

Peer review of data analysis activities by independent and qualified and skilled professionals ensures that the institution is accountable for the analysis it performs. It also ensures that critical evaluations of the analysis are being done to ensure the rigor and integrity of data analysis.

Findings:

Quality 2 Description

If there is an organization charged with the task of analyzing climate change relevant data for the country, does it have a sufficient budget?

Findings:

Quality 3 Description

Is there a formal process for iterative assessments of potentially vulnerable groups or ecosystems? In order to be adaptive in policy and management, and responsive to new environmental or socioeconomic information, vulnerability assessments should be reviewed and revised periodically. This may occur when new data become available, or at a reasonable interval of time. This helps provides flexible adaptation planning.

Findings:

Quality 4 Description

Is the institution responsible for data analysis and climate change adaptation information management comprehensive in its assessment of climate change predictions and scenarios? Uncertainty is inherent in all climate models and robust and flexible adaptation options should account for a wide variety of potential warming and impact scenarios.

Findings:

j. Worksheet 4c: Information Access and Transparency

Indicator	There is an institution(s) in charge of centralizing climate change information and analysis that is stakeholder-driven and transparent (If not, explain that there is not, mark “N/A” on the qualities table and move to the next worksheet.)
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Brief summary of platform, if it exists

Information Category	Major information needs	Has relevant analysis been disseminated	Who disseminates? (Institution)	Link
Climate Scenario Information				
Potential Impacts				
Other (economic, etc.)				

Qualities of the indicator	Yes	Limited	No	n/a
1. Priorities for analysis are set through a process of broad stakeholder consultation. (Transparency & Participation)				
2. Analysis is comprehensible to the public. (Transparency and Participation)				
3. There is consolidation and analysis of relevant climate information in the form of publicly available reports or online sources. (Transparency and Participation)				

Research Guidelines

This indicator evaluates whether this institution in charge of collecting and analyzing climate change adaptation-relevant data makes decisions that engage stakeholders, sets priorities based on vulnerabilities that are, at least in part, identified by stakeholders, and produces information that is available and usable for the public.

Information and data and analysis should be publicly available and free of charge on the website of the responsible organizations. Citizens should have the opportunity to publish and read opinions from participating organizations, agencies, and individuals.

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
General: (Optional) Consult agency mandates, executive orders, laws or policies that require the publication of climate change information and analysis and provide stakeholders with opportunities to participate in prioritization.	General: Review agency websites for publications, assess the accessibility of the information and evaluate to see if any stakeholder processes were used.	General: Interview 1 person from the institution in charge of analysis and 1 person from a non-governmental organization who could speak to the level of stakeholder engagement.
Q1. (Optional) Is there a legal mandate obligating the institution to involve stakeholders.	Q1. Identify any document, likely internal to the relevant agency or organization, which identifies those groups that helped inform any adaptation strategy relevant to the national circumstances.	Q1. Interview at least 1 representative of the responsible government agency or organization who may help inform who was consulted during the process of identifying key adaptation information. (Optional) Identify a representative of a key stakeholder group and identify whether they have been contacted for opportunities for consultation.
Q2. N/A	Q2. Review documents presenting analysis of climate change adaptation-relevant data.	Q2. N/A

N/A	Determine if publicly available reports exist.	
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Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses Chicago style citation:*

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Quality 1 Description

A consultation process that does not involve representatives and individuals from different segments of society and levels of government may overlook key impacts or considerations. Broad stakeholder consultations also serve to increase the legitimacy of the prioritization.

Consider key organizations and individuals who should be involved in prioritizing adaptation related issues for analysis. This will differ from country to country. At a minimum, a good vulnerability and impacts assessment will include consultation with:

- Relevant provincial-level governments
- Representatives of local governments and tribal governments or indigenous organizations
- NGOs
- Key industries
- Members of the scientific community

Findings:

Quality 2 Description

Stakeholders involved in planning and service delivery for adaptation need to have climate analysis in terms that they can understand so that they may make appropriate adjustments to ongoing activities. This includes other relevant government organizations, other levels of government, and locally implementing NGOs.

Findings:

Quality 3 Description

In order to develop, implement, and monitor climate relevant data, there needs to be consolidated, decision-relevant analysis. Ideally, such data would be analyzed and consolidated in a fashion that would make it relevant to the key stakeholder groups. Key data on fisheries, for example should be understandable to sub-national governments with a mandate for fisheries mandates, traditional fishing organizations, and relevant unions or similar organizations.
Findings:

k. Worksheet 4d: Information Dissemination Institutions

Indicator	There is a platform or network for sharing information on adaptation to diverse information users. (If not, explain that there is not, mark “N/A” in the qualities table and move to next worksheet.)
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Brief summary of institution, if it exists

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Qualities of the indicator	Yes	Limited	No	n/a
1. There is a system for monitoring and evaluation of information dissemination, as well as revision of dissemination strategies. (Accountability & Enforcement)				
2. Sufficient budget is provided for ongoing information dissemination. (Capacity)				
3. The mandated institution coordinates appropriately with other institutions. (Capacity)				
4. There is an efficient and fair means for individuals and organizations to demand climate-relevant information.				

(Accountability & Enforcement)				
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Research Guidelines

Is there an organization with a clear responsibility to make sure that citizens are receiving information about ongoing climate impacts, plans, and projects?

For some countries, information-sharing platforms have been established, often by NGOs, business associations, or international organizations. However, these platforms have not necessarily become “institutionalized;” country ownership may be low, or officials might not use online platforms in their regular decision-making.

The mandate of such a platform for participation can better contribute to decision-making if it has the force of law and if planning efforts must be tied to such a platform.

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
General: Examine laws, rules, and administrative guidelines for establishment of an agency or institution responsible for information dissemination of climate change adaptation broadly.	General: N/A	General: N/A
Q1. N/A	Q1. Identify any record of consultation for an access to information plan. This may include “a method” section or records of consultation.	Q1. An official involved in development of an access to information plan or its equivalent should be able to identify where there has been public consultation in development and review of an information dissemination platform.
Q2. (Optional) Examine the laws creating the service or institution (if they exist).	Q2. (Optional) Often, the adequacy of budgets and funds will be found in internal agency documents or in annual reports or reports to the legislature made by the	Q2. Often the best way to find out information to respond to this indicator will be an interview with a key agency/service/institution official that will have knowledge about institutional funding, their sources and adequacy.

	agency or organization.	
Q3. N/A	Q3. N/A	Q3. Interview a member of sub-national government <i>or</i> of another agency who is supposed to or ought to receive information and analysis from a lead agency or office. (Optional) Interview a member of the lead agency to understand plans and means of communicating to other agencies and governments with a stake in such plans.
Q4. Identify whether climate adaptation relevant data is subject to freedom of information laws or equivalent rules and guidelines (possibly at the agency level).	Q4. NA	Q4. Interview a member of the public, an NGO, or an official who has made a request for information. Find out if this has been successful.

Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses Chicago style citation:*

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Quality 1 Description

If there is a platform tasked with disseminating information for adaptation or its equivalent charged with the task of analyzing climate change relevant data, does it undergo a process of review by members of the public and interested parties?

Findings:

Quality 2 Description

Does the institution responsible for climate change information dissemination have

sufficient funds to maintain staff, infrastructure and capacity and to do outreach?

Findings:

Quality 3 Description

This indicator assesses whether information is shared among the various agencies, levels of government, and organizations tasked with carrying out adaptation activities and policy.

Most adaptation interventions will fall outside of the jurisdiction of a single agency or level of government. As a result, they will need to share information among one another. While platforms for public participation are important, members of government must also share such information. Assess whether members of local or other sub-national governments and agencies with overlapping jurisdictions are receiving relevant information about expected climate impacts as well as plans for policies, projects, and programs to address vulnerability to these impacts.

Findings:

Quality 4 Description

If there is an organization responsible for dissemination of information, does it respond well to requests for information? Are such requests subject to a reasonable review? Do key stakeholder groups have access to the information that they need? This may be governed by an internal system, established by administrative guidelines or by a national freedom of information act.

Findings:

5. MAINSTREAMING

I. Worksheet 5a: Mainstreaming in Projects

Indicator	Are there systems for integrating climate change risk and adaptation into project development? (If not, explain that there is not, mark “N/A” in the qualities table and move to the next worksheet)
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Brief summary of standards, if they exist

Qualities of the indicator	Yes	Limited	No	N/A
1. There are standards and procedures for integrating climate risk management comprehensively, not just a few sectors. (Comprehensiveness)				

Research Guidelines

This indicator assesses whether basic procedures are in place to take climate change impacts into account in the development and implementation of projects. Consider permitting processes, Environmental Impact Assessments, etc. In a country with requirements for regulatory impacts analysis, such analysis would include a “no action” alternative which takes into account the impacts of climate change.

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
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General: Check legal requirements (law, rules, and administrative guidelines) of regulatory analysis for policy making. These may be specifically mandated in disaster legislation or environmental legislation.	General: None.	General: Interview at least 1 representative of the institution responsible for developing such procedures. Identify the approach to integrate climate change adaptation into all areas of public policy making, if any?
Q1. Assess whether there are laws, policies, or rules requiring consideration of climate change impacts in project development and implementation.	Q1. Check to see if there are mandates or reports from agencies or executive offices requiring adaptation consideration project development.	Q1. Ask a representative from an environmental ministry if these considerations are being used.

Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview.**

WRI uses Chicago style citation:
http://www.chicagomanualofstyle.org/tools_citationguide.html

Quality 1 Description

Are considerations of climate change impacts integrated into project development and planning? For instance, are there regulations requiring adaptation measures in project development? If so are these piecemeal, or is there a comprehensive mainstreaming of climate change adaptation into government projects?
Findings:

m. Worksheet 5b: Mainstreaming Adaptation in planning

Indicator	Are there systems for integrating climate change risk and adaptation into planning of critical sectors? (If not, explain so below, mark “N/A” in the qualities table and move to the next worksheet)
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Brief summary of standards, if they exist

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Qualities of the indicator	Yes	Limited	No	N/A
1. There are standards and procedures for integrating climate risk management comprehensively, not just a few sectors. (Comprehensiveness)				

Research Guidelines

This indicator assesses whether basic procedures are in place to take climate change impacts into account during sectoral or ministerial planning. Best practice would be that guidelines for major plans take into account climate impacts. Some countries may have administrative guidelines or laws which require integration of impacts of climate into major planning documents or require submissions of such plans in certain key ministries or agencies.

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
General: Check legal requirements (law, rules, and administrative guidelines) of regulatory analysis for policy making. These may be specifically mandated in disaster legislation or environmental legislation.	General: None.	General: Interview at least 1 representative of the institution responsible for developing such procedures. Identify the approach to integrate climate change adaptation into all areas of strategic planning, if any?

Q1. Assess whether there are laws, policies, or rules requiring consideration of climate change impacts in planning.	Q1. Check to see if there are mandates or reports from agencies or executive offices requiring adaptation consideration in planning.	Q1. Ask a representative from an environmental ministry if these considerations are being used.
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Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses Chicago style citation:*
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Quality 1

Are climate change risks and future impact scenarios required to be integrated into sectoral, land-use, urban, or other planning scenarios? If not, are there sectors that are proactive? If so, what are these sectors and what are examples?
Findings:

n. Worksheet 5c: Adaptation Mainstreaming at the Policy Level

Indicator	Are there systems for integrating climate change risk and adaptation into policies and programs?
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Brief summary of standards, if they exist

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Qualities of the indicator	Yes	Limited	No	N/A
There are standards and procedures for integrating climate risk management comprehensively, not just a few sectors.				

(Comprehensiveness)				
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Research Guidelines

This indicator assesses the extent to which there are guidelines to consider climate change impacts in socio-economic policies and programs.

Recommended Research Methods and Sources

Legal Research	Research Documents	Interviews
General: Check legal requirements (law, rules, and administrative guidelines) of regulatory analysis for policy making. These may be specifically mandated in disaster legislation or environmental legislation.	General: None.	General: Interview at least 1 representative of the institution responsible for developing such procedures. Identify the approach to integrate climate change adaptation into all areas of public policy making, if any.
Q1. Assess whether there are laws, policies, or rules requiring consideration of climate change impacts into socioeconomic development or other social programs.	Q1. Check to see if there are mandates or reports from agencies or executive offices requiring adaptation consideration in policies or programs.	Q1. Ask a representative from a relevant agency to see if these considerations are being used.

Documenting sources/Citation

Be sure to include the **name and organization** of the researcher and the **document title, author(s), chapter, page, publishers and URL** for any research document. Interviews should include **name and title** (unless interviewed “not for affiliation), **agency, date, and location of interview**. *WRI uses Chicago style citation:*

http://www.chicagomanualofstyle.org/tools_citationguide.html

Definitions and explanations:

Environmental impacts assessment – any process for evaluating the human, economic, or environmental impacts of a proposed action and its alternatives. Such an analysis should include

the effects of mitigation measures within the analysis.

No-action alternative – During an impacts analysis, most systems require the effects of not acting. This is critical for adaptation, as some processes may increase resilience, while others may make communities more vulnerable.

Cumulative impacts scenarios – For purposes of this assessment, cumulative impacts scenarios are a section of impact assessments which outline potential impacts of planned, ongoing, or reasonably foreseeable projects, decisions, and events in the affected area.

Quality 1 Description

If the approach is comprehensive, explain what it requires and how it is applied. If it is not comprehensive, explain how different approaches have come about, what policies or programs they are part of, and any impacts they have had thus far.

Findings:

2. APPENDIX A: COUNTRY CONTEXT WORKSHEET

This worksheet is intended to help ARIA users develop the national political, institutional, policy, and budgetary contexts in which adaptation planning and implementation is occurring. Depending on the researchers' background, these contexts may already be well understood. However, it is important to remember that publications resulting from the assessment will read by an international audience, for whom these contexts are critical to understanding the barriers and opportunities for climate change adaptation in your country.

The timeline for completing the worksheet is at the discretion of the research team. Those who may find it useful to gather a basic understanding prior to undertaking more in depth research may complete it at beginning. Others may find it more helpful to do before commencing the Phase II priority area research.

Political Landscape

What is the relevant national political context in which adaptation decisions may be taking place? This could include an upcoming election, a new five-year plan, a reorganization of government agencies, or major upcoming legislation. This can be brief, but consider barriers and opportunities for adaptation policy.

What are the major processes, either already in place or ongoing/upcoming, relating to sectoral planning? Examples could include an agricultural or rural development plan, national energy policy, or coastal resources plan. Again, these can be briefly outlined.

What major policies, plans, or programs, either established or upcoming, relate to poverty reduction or community resilience-building? What institutions are responsible for funding and implementing them?

What major policies, plans, or programs, either established or upcoming, relate to disaster risk reduction? This could be wide-ranging and include infrastructural improvements, programs to ensure resilience of ecosystem services or better coordination between agencies. What institutions are responsible for funding and implementing them?

List any important environmental planning tools or processes (e.g. sustainable development plan, EIA procedures, SEA, etc.) Can they be considered influential or impactful?

What are the major existing policies and laws relating to freedom of information?

What mechanisms are in place to ensure stakeholder involvement and engagement in national planning and policy-making processes?

Briefly describe the country's budgeting process. When and how does national budgeting occur? What institutions are involved in allocating and distributing funds to ministries and sub-national governments?

4. GLOSSARY

Vulnerability and impact assessment: An integrated and multi-sectoral assessment at the national level that helps decision-makers to identify adaptation needs, priorities, and options.

Exposure: A 2012 IPCC report defines exposure as “the presence of people; livelihoods; environmental services and resources; infrastructure; economic, social or cultural assets in places that could be adversely affected” (IPCC, 2012). As the definition indicates, exposure is determined by location. This could be confined to a floodplain or as widespread as a country. It is possible to be exposed to climate impacts, but not be vulnerable to them (if adaptive capacity is sufficient enough to mitigate risks).

Vulnerability: The IPCC defines vulnerability as the “propensity or predisposition to be adversely affected”. Vulnerability depends on social, economic, cultural, demographic, institutional, governance, geographic, and environmental factors. Vulnerability may be hazard-specific—in other words, a population may be more vulnerable to new disease vectors than to hurricanes, but socioeconomic vulnerabilities such as poverty and poor social network support can aggravate vulnerability no matter the hazard. Key to adaptation and development policy, the IPCC also notes that there is *high agreement* and *robust evidence* that high vulnerability and exposure are mainly an outcome of “skewed development processes, including...environmental mismanagement, demographic changes, rapid and unplanned urbanization, failed governance, and scarcity of livelihood options for the poor” (IPCC, 2012). Ecosystem vulnerabilities, such as ocean acidification or new plant disease vectors, may be linked to socio-economic vulnerabilities.

Prioritization – the process of developing a list of high-priority areas for action on climate change adaptation; some lists may include specific projects while others identify priority sectors or demographics.

Institutional needs – Institutions (in this case governmental, non-governmental, and private organizations) will need to enhance their ability to address the challenges of adaptation. This includes having a clear (or expanded) mandate and sufficient budgetary and human resources.

Upward accountability – transparency, answerability, and removability of members of an institution to a higher, democratically elected institution.

Downward Accountability – Accountability of institutions to the people that they serve through mechanisms of feedback, complaints, and grievances.

Regulatory impacts analysis – any process for evaluating the human, economic, or environmental impacts of a proposed action and its alternatives. Such an analysis should include the effects of mitigation measures within the analysis.

Rule-making – a process for executive branch interpretation of the law. In many countries, rule-making has procedures for public notice and comment, justification of the rule, consideration of alternatives, and predicted impacts.

No-action alternative – During an impacts analysis, most systems require the effects of not acting. This is critical for adaptation, as some processes may increase resilience, while others may make communities more vulnerable.

Cumulative impacts scenarios – For purposes of this assessment, cumulative impacts scenarios are a section of impact assessments which outline potential impacts of planned, ongoing, or reasonably foreseeable projects, decisions, and events in the affected area.

Strategic Environmental assessment - SEA refers to a range of “analytical and participatory approaches that aim to integrate environmental considerations into policies, plans and programmes and evaluate the inter linkages with economic and social considerations”

DRAFT

APPENDIX 2: CONTACT INFORMATION FOR THE INTERVIEWEES

Interviewee name	Affiliation	Contact information	Indicator
Howard Mario Robin	Department of Natural Resources and Environment	Glen Road, Tobago Tel: (868) 639 2273 E-mail: hwrdrobin@gmail.com	1A, 1B, 1C, 2A, 2C, 3A, 3C, 4A, 4C, 4D
Julianna Antoine	Environment Tobago	11 Cuyler Street, Uptown Scarborough Tel: (868) 660-7462 E-mail: envirtob@tstt.net.tt Skype: julianna.antoine	1A, 1B, 1C, 2A, 2C, 3A, 3C, 4A, 4C, 4D
Recardo Mieux	Fisheries Division	35 Cipriani Blvd. Newtown, POS Tel: (868) 623-5989 E-mail: recardomieux@yahoo.com Skype : recardo.mieux	1A, 2C, 4D, 5A, 5B, 5C
Raynaldo Phillips	Forestry Division	29 Farm Road St. Joseph Trinidad Tel. (868) 662-5114 E-mail: raynaldo.phillips@gmail.com	4A
Rahanna Juman	Institute of Marine Affairs	Hilltop Lane, Chaguaramas, Trinidad Tel: (868) 634-4291 E-mail: rjuman@ima.gov.tt	1A, 1B, 2C, 3B, 4A, 4C, 5C
Rayadh Mayrhoo	Ministry of Planning and Sustainable Development	Level 14 Eric Williams Financial Complex Independence Square, Port-of-Spain, Trinidad, W.I Tel: 627-9700 ext 2060 Rayadh.Mayrhoo@planning.gov.tt	2A, 2C, 3A, 4B.

Interviewee name	Affiliation	Contact information	Indicator
Denise Hakim	Ministry of the Environment and Water Resources	Level 26, Tower D, International Waterfront Centre #1A Wrightson Road, Port of Spain, Republic of Trinidad and Tobago. Tel: (868)623-3158 ext 227 Fax: (868)624-2455 Email: Denise.Hakim@gov.tt	1A, 1B, 1C, 2A, 2B, 2C, 3A, 3B, 4B, 4D.
Candice Ramkissoon	Office of Disaster Preparedness and Management	4A Orange Grove Road, Trincity, Tacarigua, Republic of Trinidad and Tobago Tel: (868) 640-1285 ext 14404 E-mail: cramkissoon@mns.gov.tt	1A, 1B, 1C, 3B, 3C, 4C, 4D, 5A, 5B, 5C
Carla Cupid-Greene	Tourism Development Company Limited Ministry of Tourism	Level 1, Maritime Centre # 29 Tenth Avenue, Barataria Trinidad and Tobago Tel: 868 675 7034-7 E-mail: ccupid-greene@tdc.co.tt	5A, 5B, 5C
Stephan Kishore	Trinidad and Tobago Red Cross Society	#7a Fitzblackman Drive Wrightson Road Extension Port of Spain, Trinidad, W.I. Cell - (868) 396-9815 Office - (868) 627-8215 Fax - (868) 627-8813 stephan.kishore@ttrcs.org	1A, 2A, 2B, 3A, 4D, 5C

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