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# ADAPTATION: RAPID INSTITUTIONAL ANALYSIS

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Based on the National Adaptive Capacities Framework

Version 2.0

July, 2013

## Phase II Workbook

Priority Area: Coastal Zone

Trinidad and Tobago

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## INTRODUCTION

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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 ARIA Phase II workbook is to be completed by the researchers for each priority area selected at the Phase II workshop. The Phase II research should build upon the Phase I research in the following ways: 1) to help inform priority area selection, 2) to develop an in-depth understanding of how issues identified in the Phase I are manifested at the priority area-level in order to enable case study analysis, and 3) to strengthen advocacy efforts by providing evidence of institutional needs for adaptation in a given priority area.

Phase II begins when the lead research organization holds the Phase II workshop to train civil society partners who have agreed to help carry out the Phase II research\*. In this workshop, the civil society partners are trained in the ARIA method and process as well as given a summary of the Phase I research. The civil society partners often bring their own expertise to research, climate change adaptation, politics or policy, or otherwise that help inform the research for Phase II. The selection of the priority areas is informed by the research from Phase I, but is still a participatory process that involves the partners who will be helping to carry out the research.

\*Please note that, due to limitations on time and funding, Phase II was not carried out by the civil society partners present at the workshop as indicated above. Instead, a consultant was hired to undertake the research for Phase II (refer to method below).

## METHOD:

The research for Phase II of the ARIA study in Trinidad was undertaken by a consultant and conducted between September 27<sup>th</sup> to October 23<sup>rd</sup> 2013. The research period was broken down into four main stages: i) review of the findings of Phase I; ii) background research and desk reviews; iii) interviews with key informants; and iv) completion of the Phase II ARIA workbooks.

The first stage of the research process involved attending a “*Workshop to Review the Findings of Phase I and Initiate Phase II of the ARIA Study*” facilitated by the Caribbean Natural Resources Institute (CANARI) on September 27<sup>th</sup>, 2013 at CANARI’s office in Laventille, Trinidad. At this workshop the findings of the Phase I research undertaken by the previous consultant for the project were reviewed and the three priority areas for Phase II (tourism, food production and coastal zone) were also selected. Background research was then undertaken by the consultant to become familiar with the use of the workbook, in addition to, sourcing relevant documentation for the priority areas. Following the workshop, interviews were conducted with key informants for each priority area. Interview questions were guided by the information required to complete the “indicators” and “qualities” sections of the workbooks. Interviews were administered in-person and via phone and email using a preselected set of questions based on the aforementioned workbook sections. The final stage of the process entailed the completion of the ARIA Phase II workbooks for each priority area by the consultant, using the information acquired from the desk reviews and interviews.

The workbook 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.

**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. **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.

**Priority Area: Coastal Zone**

**Research Conducted by: Melanie Andrews, Consultant**

**Time Period: September 27<sup>th</sup> – October 23<sup>rd</sup>, 2013**

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## 1. ASSESSMENT

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## WORKSHEET 1A: VULNERABILITY AND IMPACTS ASSESSMENT

<b>Indicator</b>	Is there an assessment of climate change vulnerability and impacts for the priority area? This could either be as part of a national-level assessment or separate sectoral assessment. It may come from a source other than a government ministry, however it should still be evaluated using the same Qualities. If there no assessment exists, provide an explanation in the Summary box below.
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### **Brief Summary of past or ongoing assessments**

Overall, there does not appear to be a comprehensive national assessment regarding the vulnerability of coastal zones arising from climate change impacts. In the Second National Communication (SNC) to the United Nations Framework Convention on Climate Change (UNFCCC) (2013), the Environmental Management Authority briefly identified certain coastal areas in Trinidad and Tobago that were experiencing high rates of erosion and hence vulnerable to climate change driven sea-level rise.

The SNC also made reference to vulnerability assessments conducted by PETROTRIN. These studies involved coupling future sea level rise scenarios for three time periods 2031, 2051 and 2071 and examined the potential impacts of sea level rise and storm surges on coastal areas and infrastructure important to the oil and gas industry. Studies were undertaken by PETROTRIN for the Oropouche Oil Field, the Pointe-a-Pierre Foreshore Area and the Vessigny to Cap-de-ville area. Unfortunately, copies of these reports could not be found online for review.

With respect to ongoing assessments:

- i.) A National Steering Committee on Integrated Coastal Zone Management (ICZM), under the chairmanship of the Institute of Marine Affairs (IMA), was created in April 2012 and mandated by Cabinet to recommend a national policy framework, strategy and action plan that would build the foundation for a permanent coastal zone management function in the country. The Steering Committee has organized its work around five thematic areas:
- social and economic development;
  - natural resource assessment;
  - vulnerability assessment and climate change adaptation;
  - public outreach, education and awareness; and
  - legal and institutional assessment (IDB, 2013)

The vulnerability and climate change adaptation working group has completed a report on coastal vulnerability and climate change using available data. The report however needs to be reviewed and finalized before it is available for public circulation.

- ii.) The IMA received funding from the IDB for a project titled "Piloting the Integration of Coastal Zone Management and Climate Change Adaptation in Tobago". Some of the funding for this project was allocated to conduct a Vulnerability and Risk Assessment based on climate change scenarios for south-west Tobago. According to information on IDB's website, this project is currently in the "Implementation"

phase (IDB, 2013).

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

Qualities of the indicator	Yes	Limited	No	n/a
1. The assessment includes both socioeconomic and biophysical aspects of vulnerability and impacts. <b>(Comprehensiveness)</b>				X
2. Assessment methodology is made transparent. <b>(Transparency &amp; Participation)</b>				X
3. Broad set of stakeholders were engaged in assessment development. <b>(Transparency &amp; Participation)</b>				X

#### References:

Inter-American Development Bank (IDB). 2013. *Feasibility Studies for a Risk-Resilient Coastal Zone Management Program* (TT-T1038). 56 pp. Accessed: October 2013  
<http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=38011503>

Environmental Management Authority (EMA). 2013. Second national communication of the Republic of Trinidad and Tobago to the United Nations Framework Convention on Climate Change (UNFCCC). Ministry of Environment and Water Resources, Port-of-Spain, Trinidad.

Juman, Rahanna; Principal Research Officer, Biodiversity and Ecology; Chairman of the ICZM Steering Committee. Institute of Marine Affairs (IMA). Interviewed by Melanie Andrews. Telephone. October 23, 2013.

#### Impacts Assessed: (N/A)

Biophysical	Economic	Social	Health

#### 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., as well as biophysical impacts. Determine whether there are any gaps from research in Phase 1 that need to be addressed



for the priority area.
<b>Findings:</b>

**Quality 2 Description**

Assess whether or not the methods for assessing both impacts and vulnerability at the priority area are made transparent – publicly available, appropriately disseminated, and understandable.
<b>Findings:</b>

**Quality 3 Description**

<p>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.</p> <p>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:</p> <ul style="list-style-type: none"> <li>• Provincial-level governments</li> <li>• Representatives of local governments and tribal governments or indigenous organizations</li> <li>• NGOs</li> <li>• Key industries</li> <li>• Members of the scientific community</li> </ul>
<b>Findings:</b>

## WORKSHEET 1B: INVENTORY OF ONGOING ADAPTATION EFFORTS

<b>Indicator</b>	If a national inventory of existing and past adaptation efforts exists, is the priority area captured within the inventory? If it is not, provide an explanation in the summary box and move to the next indicator.
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### Brief Summary

**According to the findings of Phase I, there is no national inventory of existing and past adaptation efforts (CANARI, 2013). An inventory for the priority area does not exist.**

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

Qualities of the indicator N/A	Yes	Limited	No	n/a
1. Inventory includes initiatives developed by public, private, and civil society sectors. <b>(Comprehensiveness)</b>				X
2. There is a mechanism or process for capturing lessons learned from past initiatives in the priority area. <b>(Comprehensiveness)</b>				X
3. The above information on past initiatives is available, for free, on the internet. <b>(Transparency and Participation)</b>				X

### Reference:

Caribbean Natural Resources Institute (CANARI). 2013. *Adaptation: Rapid Institutional Analysis (ARIA) phase one research report (Draft)*. CANARI Laventille, Trinidad and Tobago. 36 pp.

### Quality 1 Description

If the priority area is marginalized, either due to location, socioeconomic status, or other reason, it may not have been sufficiently included in the vulnerability and impacts assessment.

### Findings:

### Quality 2 Description

Effective adaptation and preparedness measures will require iteration, learning, and flexibility. If ministry leadership is frequently replaced, or institutional knowledge is

otherwise not retained, mistakes may be repeated
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<b>Findings:</b>
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**Quality 3 Description**

This information should be made available for the public concerned, including communities, NGOs, private sector, and academia.
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<b>Findings:</b>
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## 2. PRIORITIZATION

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## WORKSHEET 2A: ESTABLISHMENT OF PRIORITIES

<b>Indicator</b>	There is a process for sequencing adaptation activities within the priority area. If there is not, provide an explanation in the summary box and move to the next indicator.
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### Brief Summary of Process, if it exists

The Government of the Republic of Trinidad and Tobago (GORTT) intends to utilize a participatory approach in the development of a national policy framework, strategy and action plan for integrated coastal zone management in Trinidad and Tobago, which as mentioned before, will include considerations for vulnerability assessments and climate change.

The GORTT has received approval by the IDB for the financing of a Technical Cooperation project\* to assist with the development of the ICZM strategy. The Cabinet appointed National Integrated Coastal Zone Management (ICZM) Steering Committee also serves as the Technical Advisory Committee for the IDB project.

With respect to the process for sequencing adaptation activities, in developing the proposed ICZM policy framework, the Steering Committee will be supported by experts in providing the “quantitative justification and rationale” for its establishment. This will be done through the conduct of a variety of technical assessments and studies. Once these have been completed, priorities will be set and an action plan will be drafted (IDB,2013). The Technical Cooperation will then finance public awareness and consultation activities, including public consultations for the proposed Policy Framework, tailored to the most appropriate modalities for ensuring meaningful engagement of stakeholders in both Trinidad and Tobago (IDB, 2013).

This will serve as a key part of the process for sequencing adaptation activities within the coastal zone. However, seeing that these activities are yet to be undertaken, “N/A” will be filled in for the qualities section for this indicator.

*\*Project: Feasibility studies for a risk-resilient coastal zone management program.*

*The project, which has two components, entails:*

*“the design and analysis of the socioeconomic, financial, environmental and social feasibility of an investment program for the sustainable and resilient development of the coastal zone. The investment program to be designed would consist of coastal engineering works for beach stabilization, baseline data and an information platform for the design and monitoring of coastal investments, and institutional strengthening in coastal zone management, including the mainstreaming of disaster risk management and climate change.”*

The two (2) components are:

- i) Support to Policy Framework and Institutional Sustainability for risk-resilient ICZM.
- ii) Design and feasibility analysis of risk-resilient ICZM investment program (IDB, 2013).

Qualities of the indicator N/A	Yes	Limited	No	n/a
1. Process for sequencing adaptation activities is transparent and publicly available. <b>(Transparency &amp; Participation)</b>				X
2. Broad set of stakeholders were engaged in sequencing process– including vulnerable and marginalized groups – in order to assure that priorities are informed by a broad range of perspectives. <b>(Transparency &amp; Participation)</b>				X

**References:**

Inter-American Development Bank (IDB). 2013. *Feasibility Studies for a Risk-Resilient Coastal Zone Management Program* (TT-T1038). 56 pp. Accessed: October 2013  
<http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=38011503>

**Quality 1 Description**

This indicator assesses there is a process for sequencing adaptation activities at the priority level. If there is, who determines the sequence? How are costs and benefits evaluated? What is the timeframe?

**Findings:**

**Quality 2 Description**

Implementing agencies need to address stakeholder concerns, gather information, and disseminate information in order to plan and successfully implement projects

**Findings:**

## WORKSHEET 2B: BUDGET PROCESSES

<b>Indicator</b>	Budgetary processes exist to channel finance to adaptation institutions or initiatives for this priority area. If there are none, provide an explanation in the summary box, indicate “N/A” in the qualities table and move to the next worksheet.
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### Brief summary of processes, if they exist

The GORTT, through the Ministry of Planning and Sustainable Development, received approval by the IDB for a non-reimbursable grant in the amount of US\$500,000.00 for the aforementioned Technical Cooperation to support the work of the ICZM Steering Committee.

The work of the Committee is also financed from recurring funds under the IMA. Efforts were made to receive funding for the Committee under the Public Sector Investment Programme (PSIP), however, this was unsuccessful.

Budget set by	Government	NGO/Community	Academic Institution	Industry	Other
Institution Name	Institute of Marine Affairs (IMA)				Inter-American Development Bank (IDB)

Priority area initiatives in planning documents	Reflected in budget? (y/n)
1. The ICZM Committee is Cabinet appointed	IDB Funded (US\$0.5M). Also, supported by recurring funding under the IMA.
2.	
3.	
4.	
5.	

Qualities of the indicator	Yes	Limited	No	n/a
1. The agency(ies) most closely tied to the priority area reflect adaptation initiatives in their annual budgets. <b>(Comprehensiveness)</b>	X			
2. Budgetary information for adaptation activities in the priority area is available and accessible. <b>(Transparency and Participation)</b>	X			

3. Budgetary allocations are sufficient to enable adaptation activities to proceed according to plans. (Capacity)				X
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**References:**

Inter-American Development Bank (IDB). 2013. *Feasibility Studies for a Risk-Resilient Coastal Zone Management Program (TT-T1038)*. 56 pp. Accessed: October 2013  
<http://www.iadb.org/en/projects/project-description-title,1303.html?id=TT-T1038#.UmazoXBzCFB>

**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: While the ICZM Policy Framework project is being funded by an international agency, the funding lends support to a Cabinet appointed Committee in the execution of its mandate and so is aligned with established national priorities.**

**The Committee also receives budgetary support from approved recurring funds under the IMA.**

**Quality 2 Description**

Open budgets are a key component of transparency. With the impacts of climate change burdening the most vulnerable, this level of transparency has important equity impacts.

**Findings: Information regarding the budgetary grant from the IDB is available on the IDB’s website at <http://www.iadb.org/en/projects/project-description-title,1303.html?id=TT-T1038#.UmXmxXBzCFA>.**

**Quality 3 Description**

Assess funding levels with the help of Advisory Panel members, if necessary, to determine sufficiency.

**Findings: N/A**



### 3. COORDINATION

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## WORKSHEET 3A: COORDINATION AT PRIORITY AREA LEVEL

<b>Indicator</b>	The priority area is included in national coordination efforts reviewed in Phase I. If not, provide an explanation in the Summary box, mark “N/A” on the qualities table below and move to the next worksheet.)
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### **Brief summary of coordination or lackthereof**

The National Integrated Coastal Zone Management Steering Committee is a multi-sectoral committee comprised of twelve (12) members from various government ministries and state agencies with an interest in the coastal zone. These include: the Ministry of Environment and Water Resources, Ministry of Tourism, Forestry Division, Institute of Marine Affairs (IMA), Environmental Management Authority (EMA), Fisheries Division, Ministry of Works and Infrastructure, Maritime Services Division, Tobago House of Assembly (THA), Town and Country Planning Division, Ministry of National Security, Ministry of Energy and one civil society representative from the Council of Presidents of the Environment (COPE)).

The Committee, which is mandated by Cabinet to recommend a national policy framework, strategy and action plan that would build the foundation for a permanent coastal zone management function in the country, includes a Thematic Working Group to address vulnerability assessments and climate change adaptation (IDB, 2013).

An initiative to improve coordination across all sectors, regarding environmental issues and notably climate change, is also currently being undertaken by the Multilateral Environmental Agreement Unit (MEAU) of the MEWR. According to the Environmental Policy and Planning Division of Trinidad and Tobago (EPPD), in 2012, the MEAU sought to establish MEA Focal Points, nominated from relevant stakeholders in the public sector, NGOs and CBOs, to promote participatory management and decision making on national environmental issues. The key role of the MEA focal point will be to:

- liaise with the Ministry as the National Focal Point in respect of the role and functions of their respective institutions in the context of the national obligations under the various MEA
- provide advice and inputs into strategies and actions to be taken at the national level in the implementation of obligations under the MEA and climate change
- provide inputs, data and information to facilitate reporting requirements of Trinidad and Tobago under the MEA
- provide advice and inputs into work programmes of their respective Ministries/agencies in the context of national obligations under the MEA and climate change
- interface with other relevant stakeholders through relevant networking media to enhance co-operation at various levels

The MEAU hosted a sensitisation and capacity building session in 2012, with a wide cross section of stakeholders representing various sectors, toward the establishment of the

MEA Focal Points, however, to date it has not been formally brought into being.

Participating Institution at Priority area level	Government	NGO/Community	Academic Institution	Industry	Other
Institution Name	<p><b>Ministry of Environment and Water Resources (IMA, EMA)</b></p> <p><b>Tobago House of Assembly (THA)</b></p> <p><b>Ministry of Planning and Sustainable Development</b></p> <p><b>Ministry of Tourism</b></p> <p><b>Fisheries Division</b></p> <p><b>Town and Country Planning Division</b></p> <p><b>Ministry of Planning and Sustainable Development</b></p> <p><b>Ministry of Energy</b></p>	<b>Council of Presidents of the Environment (COPE)</b>			<b>Inter-American Development Bank (Funding Agency)</b>

Qualities of the indicator	Yes	Limited	No	n/a
1. There is horizontal coordination (across ministries) as necessary, to carry out adaptation initiatives for the priority area. <b>(Capacity)</b>	X			

2. There is vertical coordination (global, national, local) as necessary to carry out adaptation initiatives for the priority area. <b>(Capacity)</b>	X			
3. There is intersectoral coordination (between gov't, civil society, and/or business) as necessary to carry out adaptation initiatives for the priority area. <b>(Capacity)</b>	X			

**Reference:**

Inter-American Development Bank (IDB). 2013. *Feasibility Studies for a Risk-Resilient Coastal Zone Management Program* (TT-T1038). 56 pp. Accessed: October 2013  
<http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=38011503>

Environmental Policy and Planning Department of Trinidad and Tobago (EPPD). 2012. MEA Focal Points. <http://eppd-tt.blogspot.com/p/mea-focal-points.html> (Accessed: May, 2014)

Juman, Rahanna; Principal Research Officer, Biodiversity and Ecology; Chairman of the ICZM Steering Committee. Institute of Marine Affairs (IMA). Interviewed by Melanie Andrews. Telephone. October 23, 2013.

**Quality 1 Description**

<p>Different ministries with roles and responsibilities may not be coordinating sufficiently due to a variety of reasons: lack of coordination in institutional culture, poor relationships, competitiveness, etc. These barriers may adversely affect adaptation at the priority area level.</p>
<p><b>Findings: Three main barriers were identified in the functioning of the ICZM Steering Committee:</b></p> <ul style="list-style-type: none"> <li data-bbox="279 1243 1356 1366">i) <b>Not all committee members were familiar with coastal zone management and so time had to be allocated to bring those members up to par regarding knowledge of coastal zone issues.</b></li> <li data-bbox="279 1400 1356 1556">ii) <b>Many of the Committee members are senior officers in their respective agencies and as such have other important roles and responsibilities outside of the Committee. This creates a problem in terms of consistent commitment of time for Committee related duties.</b></li> <li data-bbox="279 1590 1356 1713">iii) <b>Some of the Committee members also recently retired or resigned from their positions in their respective agencies. Approval from Cabinet is still being sought for replacements.</b></li> </ul> <p><b>It should be noted that while these barriers were identified by the interviewee, they did not appear to seriously impede the work of the Committee.</b></p>

**Quality 2 Description**

Multiple funders may fund similar initiative with implementing institutions at different levels. Poor vertical coordination in planning and implementation may lead to waste, inefficiency, and confusion.

**As the work of the ICZM Steering Committee is being partially financed by the Inter-American Development Bank, it falls under the Technical Cooperation Unit of the Ministry of Planning and Sustainable Development. This Unit is responsible for the coordination among donor agencies to ensure there is no overlap of technical cooperation and to minimize gaps. There appears to be some measure of control in preventing duplication of effort and resources in this regard.**

**In general, there does not appear to be an issue concerning duplication of effort and resources, however, in the absence of a comprehensive national/sectoral inventory and information platform this cannot be ascertained.**

### Quality 3 Description

Different sectors may have different technical capacities, social capital, and resources, and therefore may find mutual benefits in coordinating adaptation work.

**Findings: Represented on the ICZM Committee are key government agencies that make policy, manage information, invest in public infrastructure and monitor and assess development in the coastal zone (IDB, 2013). The Committee also has one civil society representative from the Council of Presidents of the Environment (COPE)\*.**

**\*COPE is a grouping of autonomous, not-for-profit, non-governmental organisations (NGOs) and community based organisations (CBOs) representing specialist interests in environmental concerns.**

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## WORKSHEET 4A: DATA GATHERING

<b>Indicator</b>	Actors in the priority area have access to adaptation-relevant information identified in Phase I (If not, mark “N/A” in the qualities table and move to next worksheet.)
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### Summary

**The Trinidad and Tobago Meteorological Service (TTMS) makes data available and in a usable format to key stakeholders.**

### Identify Key Data climate change adaptation-relevant data types for the priority area:

**Key data are rainfall, temperature and wind. The formats which are presented are either in tabular format in excel or word, graphical format (Maps) or wind roses which is a map of wind directions and speeds.**

### Assess Quality—Are they up to date? Relevant? Maintained?

**TTMS data is updated on a monthly basis as soon as it is quality controlled. The data is relevant, yes, however relevance would be based on clients/users needs. The data is maintained.**

Qualities of the indicator	Yes	Limited	No	n/a
1. The MET Office makes data available and usable to key actors in the priority area. <b>(Transparency and Participation)</b>	X			
2. If data is not made readily available, there is a process for submitting a request for information. <b>(Accountability and Enforcement)</b>	X			

### References:

**Morrison-Aaron, Arlene; Chief Meteorologist (Ag.). Trinidad and Tobago Meteorological Service (TTMS). Email correspondence with Melanie Andrews. October 16, 2013.**

### Quality 1 Description

**In addition to managing and maintaining key climate info, the MET is responsible for sharing the information and making it relevant and useful to other ministries, the private sector, and civil society.**

**Findings:**

**Yes, the Trinidad and Tobago Meteorological Service (TTMS) makes data available and in a usable format to key stakeholders.**

**Quality 2 Description**

If data is not readily available, there should be a mechanism to enable other government personnel or members of the public, to request the information.

**Findings:**

**Data is requested through the office of the Director of TTMS either by fax at 669-4009 or email at [dirmet@tstt.net.tt](mailto:dirmet@tstt.net.tt). A formal request is made and it usually takes three (3) working days depending on the nature of the request.**

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## WORKSHEET 4B: INFORMATION ANALYSIS INSTITUTIONS

<b>Indicator</b>	Is there a platform for the exchange of climate information that includes the priority area? If not, provide an explanation in the summary box and move to the next worksheet.
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### Brief summary of platform

**There is currently no platform for the exchange of climate information on the national level (CANARI, 2013). However, one of the expected outputs for the IDB funded “Feasibility studies for a risk-resilient coastal zone management program” project is the drafting of a Terms of Reference for the design of an integrated national coastal risk information platform.**

Qualities of the indicator N/A	Yes	Limited	No	n/a
1. According to key stakeholders, is there sufficient awareness of the platform at the priority area level? <b>(Capacity)</b>				X
2. Does the platform make appropriate use of technology or other media to translate data into useful information? <b>(Capacity)</b>				X
3. Is the platform sufficiently staffed and funded? <b>(Capacity)</b>				X

### References:

Caribbean Natural Resources Institute (CANARI). 2013. *Adaptation: Rapid Institutional Analysis (ARIA) phase one research report (Draft)*. CANARI Laventille, Trinidad and Tobago. 36 pp.

### Quality 1 Description

If there are no awareness building activities, including funding to promote and educate on use of the platform, it will likely go unused, and may be used to justify less transparency in the future.

### Findings:

### Quality 2 Description

The platform should use a range of media to allow the greatest participation that is reasonably possible. These could include web-based platforms, mobile technology, early-alert systems, and community meetings.

**Findings:**

**Quality 3 Description**

Without sufficient and reliable resources and adequate staffing, it's unlikely that the information platform would meet its targets.

**Findings:**

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## WORKSHEET 5A: MAINSTREAMING IN THE PRIORITY AREA

Indicator	There are processes or procedures for integrating climate change risk and adaptation into projects or sectoral planning (if applicable). If not, provide an explanation in the summary box, mark “N/A” in the qualities table and move to the next worksheet
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### Brief summary of examples

There is currently no formal process or procedure for integrating climate change risk and adaptation into projects or sectoral planning.

However, the GORTT received financing from the IDB for the institutional strengthening of the Environmental Management Authority of Trinidad and Tobago to improve its coordinating role in mainstreaming environmental management and climate change related priorities into all development sectors. The purpose of the program is to contribute to the implementation of the mitigation and the adaptation agendas for the country (IDB, 2013).

This includes *inter alia*:

- Support with technical and legal expertise to integrate environmental aspects related to climate change vulnerability, deforestation, erosion and other impacts and adaptation into national development plans and building codes.
- Preparation of a proposal to harmonize the Certificate of Environmental Clearance (CEC) Rules among other supporting regulations to consider Green House Gas (GHG) emissions (This however is related to mitigation and not adaptation).

Additionally the IDB funded project under the Ministry of Planning and Sustainable Development, “*Feasibility studies for a risk-resilient coastal zone management program*”, will include a series of capacity building workshops for the network of agencies active in Integrated Coastal Zone Management, including the agencies represented in the National ICZM Steering Committee, focusing on recent trends in ICZM, including the integration of disaster risk management and climate change adaptation (IDB, 2013).

Qualities of the indicator N/A	Yes	Limited	No	N/A
1. There are guidelines for assessing climate change impact risk in projects or sectoral planning. <b>(Comprehensiveness)</b>				X
2. Relevant ministries, industries, and/or civil society stakeholders’ input was sought during project development. <b>(Transparency and Participation)</b>				X
3. There is an accountability mechanism to ensure that climate change impacts are considered. <b>(Accountability and Enforcement)</b>				X

## References:

Tinto, Marcia; Senior Educational Officer. Environmental Management Authority (EMA). Interviewed by Melanie Andrews. Environmental Management Authority, Elizabeth Street, St. Clair Port of Spain. October 9, 2013.

Inter-American Development Bank (IDB). 2013. *Institutional Strengthening of the EMA in Relation to Climate Change* (TT-T1035). Project Details. Accessed on: <http://www.iadb.org/en/projects/project-description-title,1303.html?id=TT-T1035#.UmWLJnBzCFA>

Inter-American Development Bank (IDB). 2013. *Feasibility Studies for a Risk-Resilient Coastal Zone Management Program* (TT-T1038). 56 pp. Accessed: October 2013  
<http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=38011503>

### 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:

### Quality 2 Description

Were key stakeholders consulted in the mainstreaming process? Were any key groups left out? Is there evidence that their input informed planning or implementation?

### Quality 3 Description

If climate change impacts were not considered, leading to adverse risk for groups, sectors, or individuals, are there grievance mechanisms?

## WORKSHEET 5B: MAINSTREAMING ADAPTATION IN PLANNING

Indicator	The institution(s) tasked with prioritization and coordination have identified barriers for adaptation at the priority area level. (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 examples

**Indirectly, yes. In its Second National Communication (SNC) to the United Nations Framework Convention on Climate Change (UNFCCC) the Environmental Management Authority identified certain policy relevant actions that needed to be taken to effectively deal with issues related to climate change on a national level and within certain priority areas, one of which is the coastal zone.**

Qualities of the indicator	Yes	Limited	No	N/A
1. The responsible institution has examined multiple causes of barriers to adaptation in the priority area <b>(Comprehensiveness)</b>		X		
2. The responsible institution has considered a broad range of solutions. Where relevant, the responsible institution has considered addressing problems of infrastructure, natural resources and social safety nets. <b>(Comprehensiveness)</b>		X		
3. Authorities make publicly available a description of the process for selecting interventions and justify for its selection. <b>(Transparency and Participation)</b>		X		
4. Priority-setting and budgetary process is sufficiently transparent. Broad set of stakeholders were engaged in identification of solutions. <b>(Transparency and Participation)</b>				X

### Quality 1

Adaptation is possible where it encounters few barriers. A wide examination of possible causes of barriers will be necessary if policy makers are to encourage adaptation in the policy area.

For a particular sector, population, or place, sources of barriers to be considered include:

- Policy framework;

- Rates, charges, taxes, permits, or tariffs;
- Zoning regulations;
- Insurance premiums;
- Standards;
- Land tenure or other property rights structures;
- Design of social protection programs;
- Lack of awareness or information;
- Lack of resources;
- Sub-national institutional structure;
- Lack of authority at a particular administrative level or body;
- Market factors;
- Legal harmonization between sections of the law or between levels of government;
- Sources of social inequity.

Ideally, the responsible institution has considered a broad range of players including: government agencies; sub-national government bodies; businesses; households; NGOs; and, community-based institutions

**Findings: The SNC provides a list of actions that need to be taken in terms of improving climate change policy-relevant approaches to adaptation and adaptation planning in major vulnerable sectors in Trinidad and Tobago.**

**These actions, as mentioned, mainly deal with policy interventions and the need for improved technical capacity for data gathering and management of professionals/institutions concerned with the management of coastal resources.**

## Quality 2

Different interventions are appropriate to address different barriers to adaptation. While consideration of such barriers is beyond the scope of the ARIA analysis, this indicator asks whether a variety of interventions were considered before a decision.

Where relevant, the responsible institution should consider addressing problems of infrastructure, natural resources and social safety nets.

- Full consideration of infrastructure-based solutions should include:
  - o A variety of options (“soft” options, “hard” options, ecosystem-based solutions, adjustment/removal of existing infrastructure, or any combination of the above)
  - o Cost analysis, including total costs, cost effectiveness, comparisons of long and short-term options, and issues of benefit distribution across sectors, populations, and regions
- Full consideration of ecosystem-based solutions should include:
  - o A variety of options (“soft” options, “hard” options, ecosystem-based solutions, or a combination of the above)
  - o Cost analysis, including total costs, cost effectiveness,

- comparisons of long and short-term options, and issues of benefit distribution across sectors, populations, and regions
- Full consideration of social safety nets should include:
  - o The full range of policy tools for providing safety nets, including market-based approaches (e.g. insurance) and options that support community-based safety nets.
  - o Cost analysis, including total costs, cost effectiveness, comparisons of long and short-term options, and issues of benefit distribution across sectors, populations, and regions

While few policy processes

**Findings: Mostly policy and technical capacity related interventions were itemized in the SNC.**

### Quality 3

This indicator measures whether there was transparency in the processes for intervention selection in the priority area and whether reasons were presented for such delegation. Identify whether authorities have publicly justified their selection of interventions in light of other options. Such justification may be in rule-making documents, project planning documents, program objectives, reports by Executive offices, or “findings” sections of relevant laws.

**Findings: This could not be determined from the SNC document.**

### Quality 4

This indicator assesses whether the process for development of interventions to support adaptation in the policy area involved a wide range of stakeholders.

Members of the public, organizations, other levels of government and businesses have a legitimate interest shaping how adaptation is encouraged through official interventions.

As officials considered policy interventions, identify whether the public had an opportunity to comment on decision-making procedures. If they did, did they have a reasonable amount of time to comment, sufficient notice that the opportunity was upcoming, and sufficient information to make an informed contribution?



Furthermore, consider whether special effort was made to include members of poor and marginalized communities.

**Findings: This could not be determined from the SNC document.**

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## APPENDIX B: INTERVIEW ORGANIZER

Interviewee name	Affiliation	Title	Sector	Indicator	Quality(ies)
Ms. Marcia Tinto	Environmental Management Authority (EMA)	Senior Education Officer	Environment	1A, 1B, ,	
				3A	
				4B	
				5A	
Dr. Rahanna Juman	Institute of Marine Affairs (IMA)	Principal Research Officer, Biodiversity and Ecology/ Chairman of the ICZM Steering Committee	Coastal Zone	1A	
				2B	
				3B	
Ms. Arlene Aaron-Morrison	Trinidad and Tobago Meteorological Service (TTMS)	Chief Meteorological Officer (Ag.)	Meteorological Service	4A	

## GLOSSARY

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**Vulnerability and impact assessment:** An integrated and multi-sectoral assessment at the national level that helps decision-makers 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”

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