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TECHNICAL REPORT

NATIONAL ADAPTATION PLANNING

A REPORT ON THREE WORKSHOPS

JUNE 2014

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ACRONYMS

CCRD	USAID Climate Change Resilient Development project
ECOWAS	Economic Community of West African States
GCC	USAID Global Climate Change Office
ICEMS	Integrated Coastal Environment Management Strategy
IPCC	Intergovernmental Panel on Climate Change
LEG	UNFCCC Least Developed Countries Expert Group
MWLECC	Government of Jamaica Ministry of Water, Land, Environment, and Climate Change
NAP	National Adaptation Plan
PIOJ	Planning Institute of Jamaica
SUCCESS	Sustainable Coastal Communities and Ecosystems program
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development

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1. INTRODUCTION

Climate change is one of the many challenges that developing nations face as they plan for the future. The 2014 Intergovernmental Panel on Climate Change (IPCC) reinforces findings that climate change impacts are already being felt and are projected to intensify across all continents. Climate change impacts impose risks to human health, welfare, and ecosystems, and threaten important development goals such as reducing poverty, increasing access to education, improving child health, and managing natural resources sustainably. People – and countries – who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are especially vulnerable to climate change (IPCC, 2014). By addressing climate threats in the context of their development goals, developing countries can build resilience to climate change and improve their development outcomes.

National adaptation planning is a critical component of climate resilient development. While many adaptation actions will be taken at a local level, it is at the national level that priorities for development and adaptation are set, and coordination is conducted with donors. National governments also make many important decisions regarding taxes, expenditures, regulations, land-use, and other aspects of national policy making that can profoundly affect a nation's development path. Thus, developing a national plan presents a critical opportunity for nations to incorporate increased resilience to climate change into national development.

The U.S. Agency for International Development (USAID) works in conjunction with the United Nations Framework Convention on Climate Change (UNFCCC) to support developing countries as they work to build climate change resilience through the UNFCCC's National Adaptation Plan (NAP) process. This report summarizes the approaches used and recommendations generated during three NAP workshops held in Jamaica, Tanzania, and Ghana in 2012 and 2013. These workshops were hosted by national governments and regional institutions, in collaboration USAID, to support the development of NAPs.

THE NAP PROCESS

In 2010, the parties to the UNFCCC established the NAP process under the Cancun Adaptation Framework (see Figure 1). This planning process can be used to integrate the consideration of climate change impacts into the development planning process, and ensure that decisions made today promote short- and long-term climate resilience and do not increase future vulnerability to climate change. NAPs should be based on nationally identified priorities, and coordinated with national objectives, plans, policies, and programs.
The UNFCCC Least Developed Countries Expert Group (LEG) developed NAP guidance in 2012 (UNFCCC, 2014). It presents a flexible, stepwise approach to carrying out national adaptation planning that includes assessing climate risks and vulnerabilities, identifying and prioritizing adaptation options, preparing national adaptation plans and implementation strategies, enhancing capacity, and creating procedures to monitor and report on progress.

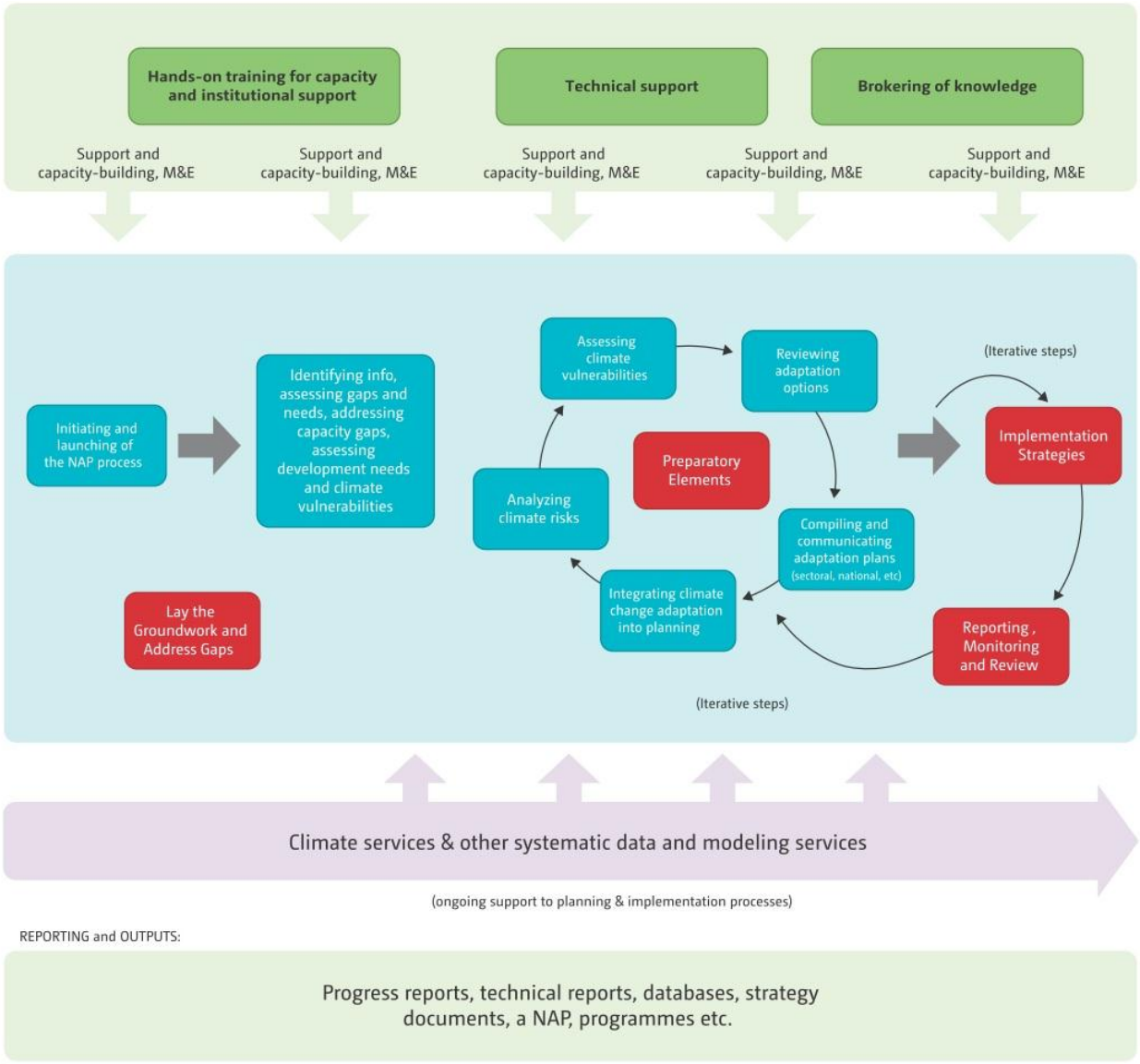


Figure 1. The NAP process. Source: UNFCCC 2012.

USAID CLIMATE-RESILIENT DEVELOPMENT FRAMEWORK AND NAP SUPPORT TO DEVELOPING COUNTRIES

USAID supports developing countries as they advance their NAP processes. USAID's "development first" approach to adaptation planning emphasizes the idea that adaptation efforts must be rooted in the context of broader development goals. USAID's climate-resilient development framework focuses on how to incorporate climate into existing planning and decision-making processes (also referred to as "mainstreaming"). This framework starts with identifying development goals; then identifies climate and non-climate risks that can limit or prevent achievement of the development goals; and finally determines adaptations that will help make development more climate resilient (see Figure 2).

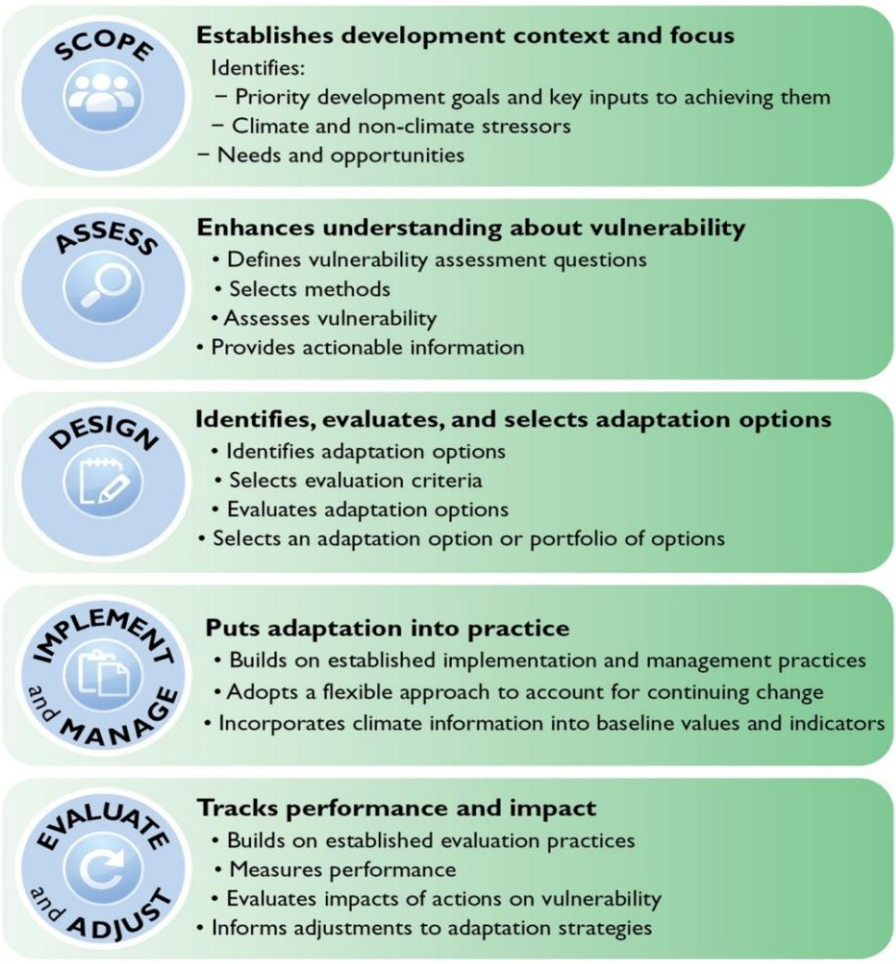


Figure 2. USAID's Climate-Resilient Development Framework.
Source: USAID 2014a.

The USAID approach begins with a workshop attended by a wide range of stakeholders from government agencies and non-governmental organizations to launch a developing country's NAP process. Participants collaborate during the workshop to establish their country's NAP approach by:

- Identifying development priorities
- Assessing climate and non-climate risks and constraints to these development priorities
- Identifying and prioritizing adaptation actions, policies, and institutions that reduce the vulnerability of the development priorities to climate risks.

Throughout the workshop process, participants built ownership of and momentum for their NAP process, and reach agreement on the priorities that will guide next steps and actions.

USAID-SUPPORTED NAP WORKSHOPS

This report summarizes the workshop processes and results from the following three USAID-supported workshops:

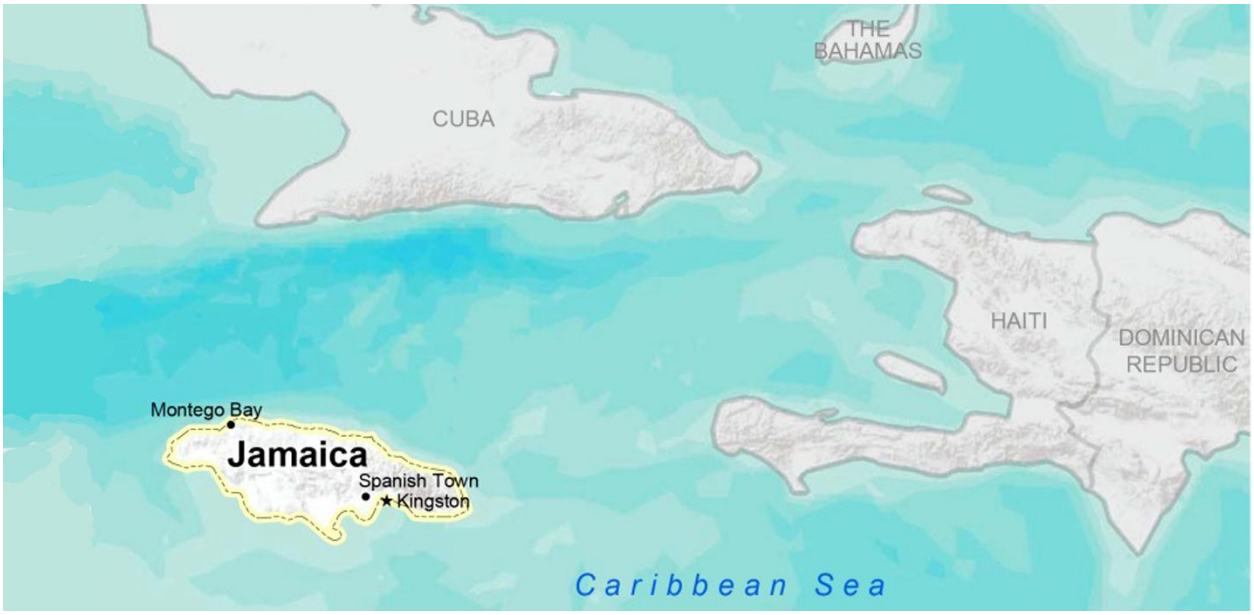
- ***Climate Change: Towards the Development of a Policy Framework for Jamaica*, held in Kingston, Jamaica on July 26-27, 2012.** One hundred and fifty people, including Jamaica government representatives, stakeholders, and development partners, attended the workshop and helped build support for the NAP process. Participants developed inputs for a policy framework that will help Jamaica address climate risks while achieving the goals of its *Vision 2030 Jamaica: National Development Plan* – intended to enable Jamaica to become a developed country by 2030. Building on the momentum from the workshop, Jamaica has developed a national climate policy that shares responsibilities for addressing climate risk across sector ministries; those responsibilities will be codified in updated sector policies.

- ***Tanzania: Coastal Climate Change National Adaptation Workshop*, held in Bagamoyo, Tanzania on March 7-8, 2013.** Tanzania's workshop focused on coastal priorities. Participants came from a number of ministries and departments within the national government, plus a broad array of coastal stakeholders. The workshop laid the groundwork for Tanzania's NAP process and demonstrated an approach for mainstreaming climate considerations into development and sector planning. Since the workshop, Tanzania has prepared a roadmap for its broader NAP process, and key ministries such as the water and agriculture ministries have initiated the development of action plans.

- ***West Africa: Coastal Climate Change National Adaptation Workshop*, held in Accra, Ghana from June 18-20, 2013**. This workshop brought together policymakers from 11 West African coastal countries within the Economic Community of West African States (ECOWAS) to promote national action on adaptation planning and regional cooperation on coastal adaptation. Countries tested the development-first approach for national adaptation planning, began to identify coastal adaptation priorities, and developed a common road map for addressing those priorities in their NAP process.

Chapters 2, 3, and 4 summarize the workshops held in Jamaica, Tanzania, and Ghana, respectively. Each chapter presents workshop objectives, a workshop overview, a detailed description of the workshop sessions, a summary of participant recommendations, and next steps. Chapter 5 provides a brief summary of cross-cutting conclusions. The appendices provide examples of some of the key outputs that were created during the workshops.

2. CLIMATE CHANGE: TOWARDS THE DEVELOPMENT OF A POLICY FRAMEWORK FOR JAMAICA



The workshop *Climate Change: Towards the Development of a Policy Framework for Jamaica*,[1] took place in Kingston, Jamaica, on July 26–27, 2012. The Government of Jamaica's Ministry of Water, Land, Environment, and Climate Change (MWLECC) hosted the workshop in collaboration with USAID. More than 150 individuals from government and private and civil sectors attended.

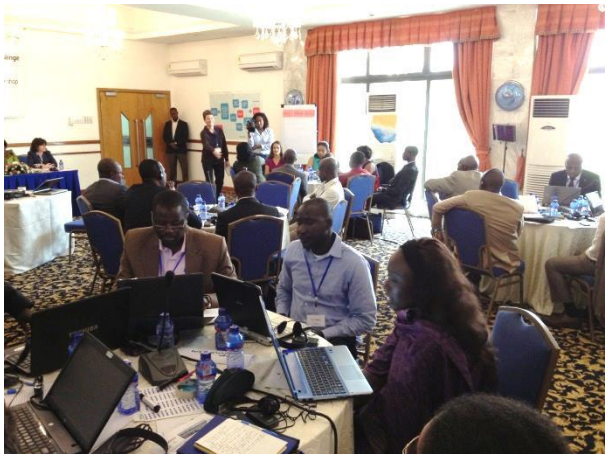
2.1. WORKSHOP OBJECTIVES

The workshop's main objective was to develop inputs for a policy framework to enable Jamaica to achieve the national development goals articulated in its *Vision 2030 Jamaica – National Development Plan* (Vision 2030) (PIOJ, 2010) in the context of climate change. The workshop aimed to capitalize on local knowledge and foster discussion among participants with experience in a wide range of sectors. The purpose of these discussions was to identify ways in which climate change and other threats can hinder Jamaica's long-term

1. This chapter is based on the USAID report on the *Climate Change: Towards the Development of a Policy Framework for Jamaica* workshop (USAID 2012).

development goals, and to identify measures and institutions that can be used to respond to these threats. Workshop organizers also planned to help coordinate donor-supported climate change activities in Jamaica.

The workshop sessions were designed to build on ongoing environmental, planning, and development initiatives in Jamaica, helping ensure that the recommendations and successes of previous efforts were captured while recognizing the need to integrate climate change considerations into existing development plans to make them more resilient.



Workshop participants during a breakout session

2.2. WORKSHOP OVERVIEW

Jamaica's *Vision 2030* national development framework serves as its main strategic development guide to help Jamaica reach its goal of developed country status by 2030. Climate change, however, could hinder achievement of this goal. The workshop focused on enabling participants to identify key ways in which climate change and other threats could affect Jamaica's long-term development goals, and to identify critical actions, policies, and institutional roles necessary to reduce these threats and help safeguard the country's development vision. The workshop approach was designed to generate input, support, and buy-in for the development of Jamaica's policy framework, raise awareness of the need to integrate climate change into national development planning, and improve coordination by involving a wide group of stakeholders.

The two-day workshop began with presentations from high-level speakers from the Government of Jamaica, who welcomed participants to the event and gave a call to action. Subsequent speakers spurred dialogue by providing details about expected climate change impacts and ongoing planning efforts. The presentations were followed by a series of five breakout group sessions, where participants collaborated to develop maps showing the relationships among key economic sectors, the inputs and conditions they depend on, climate and non-climate threats and constraints to the inputs and conditions, and relevant adaptation activities. The workshop ended with a plenary discussion of the important themes that emerged from the workshop and suggestions for next steps to advance Jamaica's climate change policy framework.

To ensure that diverse perspectives and areas of expertise were represented at the workshop, invitees included representatives from ministries, agencies, and other entities within the Government of Jamaica; NGOs and civil society; academia; the private sector; and international development partners. This institutional and sectoral diversity was critical to identifying cross-sectoral climate impacts, understanding how solutions in one sector can affect another, and facilitating cooperation among institutions and organizations that do not typically work together.

2.3. DESCRIPTION OF WORKSHOP SESSIONS

Following the opening presentations, the workshop focused on five tabletop exercises to examine the potential impacts of climate change on economic sectors that represent critical elements of the *Vision 2030* national outcomes. These small group exercises were designed to be collaborative and dynamic, thereby spurring new insights and capitalizing on interlinking elements. Appendix A presents examples of the outputs or "maps" produced during these exercises by the tourism sector group.

Figure 3. Word map showing the frequency with which specific factors were identified as key inputs to Jamaica's primary economic sectors. Source: USAID 2012.

On the first day, the exercises focused on identifying the key inputs and threats to Jamaica's primary economic sectors, as identified in *Vision 2030*. Each table of participants received two economic sectors to consider, along with the associated *Vision 2030* national outcomes.

During the first exercise, participants developed a map of the relationships among their assigned economic sectors and the economic and environmental inputs and enabling conditions that are required for the success of each sector. They also developed a word map showing the frequency with which the groups mentioned these inputs (see Figure 3). They found that many economic sectors rely on the same inputs and enabling conditions. Among the most common were water, energy, labor, and infrastructure.

For the second exercise, participants identified the most important climate and non-climate threats and constraints to those inputs. Examples of the most commonly identified climate threats include higher temperatures, changes in precipitation, tropical storms and hurricanes, heat waves, flooding, and drought. Non-climate threats include land use change, crime and violence, pollution, and population growth. Discussions highlighted some of the constraints that can prevent key economic sectors from performing optimally, such as the lack of human and social capital and the need for improved governance (e.g., through better implementation and enforcement of existing policies and regulations). Participants also discussed interdependencies among sectors: for example, they noted that tourism depends on a healthy natural environment and the reliable provision of energy and water.

On the second day, a third table-top exercise focused on the actions, policies, and resources needed to cope with the climate threats identified on the first day. Actions discussed in multiple groups included increasing training and capacity building, raising public awareness and enhancing collaboration, conducting research and assessments, undergoing scenario planning, developing management plans, safeguarding infrastructure, and strengthening and enforcing legislation. In terms of needed resources, the most commonly identified resource was financing. Other important resources included information, data management systems, technologies, jobs, and modeling tools. Groups also highlighted the need for general policies (e.g., a climate policy or land policy) as well as more specific policies (e.g., a mining policy or a seed policy).

In the fourth exercise, participants identified gaps in existing activities and listed some of the actions, resources, and policies needed to fill those gaps. They also examined other group's maps of needed actions,

resources, and policies from the third exercise. If participants noticed proposed actions or policies that they knew were actually already underway, they posted a note to that group's map with the relevant details. Participants also took note of actions or policies that were similar to those that their own group had identified, and any actions or policies proposed for another sector that would support adaptation in their own group's sector. For example, participants from the agriculture group found that the water sector group had also proposed actions related to water harvesting. The tourism group concluded that safe and affordable housing is necessary for employees of the tourism industry, and that effective action to make that housing safe and resilient would require cooperation from representatives from the housing, disaster risk management, land use, and crime prevention sectors. They also recognized how activities in one sector could hamper outcomes in another. For example, although the group focused on the transport sector recommended moving roads inland to reduce storm damage, the tourism group pointed out that doing so could inhibit access to hotels and other tourist destinations.

For the final exercise, participants used what they had learned from examining the maps created by the other tables to develop narratives for their economic sectors. Each narrative highlighted the most important inputs and enabling conditions, identified threats and constraints, and emphasized some of the most critical actions and policies needed to mitigate risk within their economic sector. Each table's narrative also showcased linkages to other sectors, explained the resources needed to implement actions and policies, and identified important stakeholders.

During final discussions, participants considered opportunities for climate change mitigation. For example, industries concerned about unreliable power supply could prioritize clean energy technologies to address those shortages, while at the same time reducing Jamaica's CO_2 emissions. Several participants noted the usefulness of working in cross-disciplinary teams during the table exercises, and suggested that they continue to work in this fashion going forward.

2.4. PARTICIPANTS' RECOMMENDATIONS

Toward the end of the workshop, participants submitted recommendations for next steps to advance Jamaica's climate change adaptation planning. Specifically, some participants felt that it was important to:

- Harness momentum from the workshop to produce a coordinated national policy framework, to establish the Government of Jamaica's Climate Change Department in MWLECC, and to develop a widely accepted and integrated five-year climate change action plan.

- Develop an implementation strategy for the five-year action plan, which would identify priority measures, methods of coordination, roles and responsibilities, and would proactively addresses potential problems that could arise.

- Ensure that the new Climate Change Department receives ongoing support and cooperation from various ministries and other government entities, NGOs, civil society, the private sector, and international development partners in order to help ensure the effective implementation of plans.

- Seek adequate funding, capacity building, an adequate enabling environment and enforcement mechanisms, accountability for climate change programs at all levels, and a strategic results framework and baseline to monitor and evaluate progress in building climate resilience.

- Compile a comprehensive list of past and ongoing climate change efforts and identify short-, medium-, and long-term actions to address climate vulnerability in highly vulnerable sectors; and identify actions that have the greatest benefit per cost.[2]
- Perform inter-sectoral impact modeling, policy reviews, and evaluations.
- Facilitate more coordinated program activities and donor engagement, using as an input the geo-referenced list of ongoing climate change efforts that was developed at the workshop.
- Conduct additional data surveys to understand climate trends.
- Produce reference materials, such as a procedures manual for cross-sector use.
- Increase harmonization of activities across sectors.
- Widely disseminate information for all stakeholders through public awareness campaigns.
- Ensure representation of diverse stakeholders – including members of the general public and local communities – on planning and steering committees.
- Consider convening a one-day workshop after the climate change policy framework has been drafted to provide inputs and suggest next steps.

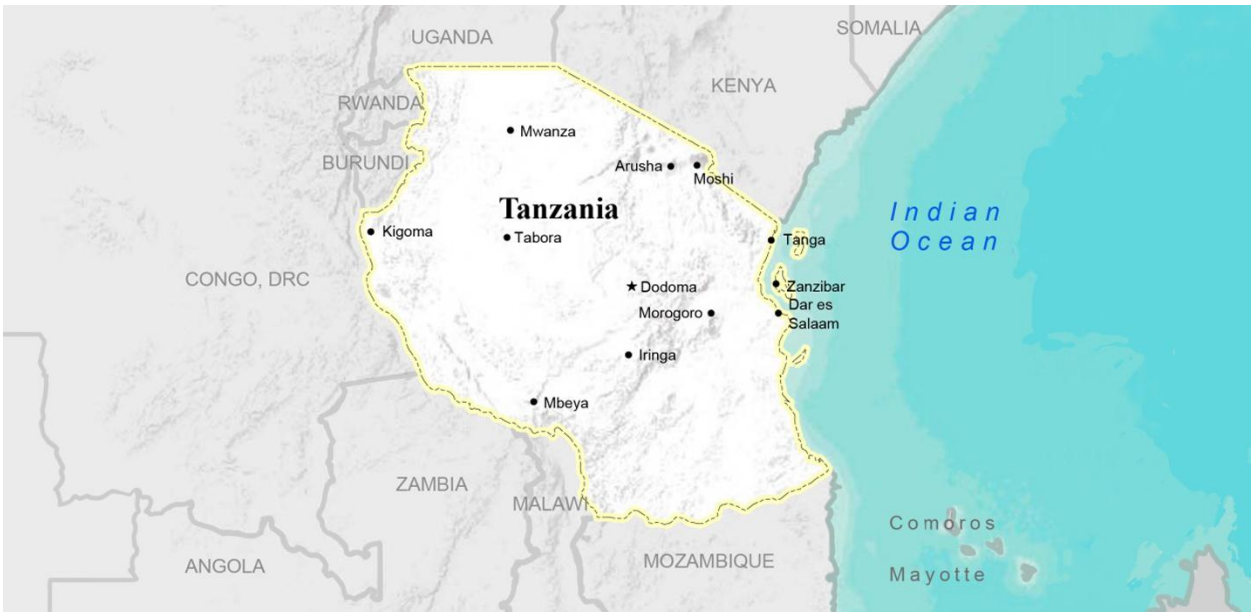
2.5. NEXT STEPS

Building on both the momentum and the findings from the workshop, the Government of Jamaica's MWLECC prepared the country's Climate Change Policy Framework and Action Plan. Among other things, this document identifies roles and responsibilities to integrate climate planning across the government, including roles for each ministry responsible for climate-vulnerable components of the Vision 2030.[3] This work was supported by the Government of Jamaica/United Nations Environment Programme/European Union Climate Change Adaptation and Disaster Risk Reduction Project in collaboration with USAID. A Cabinet-approved "green paper" was submitted to Parliament in November 2013. Once the green paper is approved, the Climate Change Policy Framework and Action Plan will begin to be implemented.

2. During the workshop, participants helped develop a geo-referenced list of ongoing climate change efforts in Jamaica. The results from this exercise will help MWLECC and the Planning Institute of Jamaica (PIOJ) to facilitate more coordinated program activities and donor support.

3. As described in UNFCCC submission by the U.S. (USAID. 2014b).

3. TANZANIA: COASTAL CLIMATE CHANGE NATIONAL ADAPTATION PLANNING WORKSHOP



The *Tanzania Coastal Climate Change National Adaptation Planning* workshop[4] was held in Bagamoyo, Tanzania on March 7–8, 2013. The Government of Tanzania's Vice President's Office, Division of Environment hosted the workshop in collaboration with the University of Rhode Island's USAID/Pwani Project and the USAID Global Climate Change (GCC) Office. More than 40 representatives from ministries, agencies, and other entities with the Government of Tanzania, NGOs, academia, the private sector, international development organizations, and the media attended the event.

3.1. WORKSHOP OBJECTIVES

The overall workshop objective was to build momentum, gain experience, and lay the groundwork for the NAP process to which the Government of Tanzania committed itself under the UNFCCC. The workshop focused on coastal development issues and the related actions and institutions that can help Tanzania adapt to climate change.

4. This chapter is based on the USAID report on the *Tanzania Coastal Change National Adaptation Planning* workshop (USAID 2013b).

Importantly, the workshop aimed to provide a process model for mainstreaming climate change adaptation into development objectives. Based on this model, the Government of Tanzania proposed to (1) demonstrate the inter-sectoral nature of climate change effects and adaptation actions, (2) integrate findings on mainstreaming climate change adaptation into Tanzania's coastal development objectives, and (3) showcase the process model and its relevance to the NAP process to other developing countries.

3.2. WORKSHOP OVERVIEW

As with the Jamaica workshop, Tanzania's three-day workshop used an approach that starts with development objectives and identifies adaptation actions to support those objectives, taking into account the larger context of the critical inputs and climate and non-climate threats that affect coastal development sectors.

Opening comments and presentations during the first morning set the stage for the rest of the workshop and reinforced the importance of bringing climate change to the forefront of development. These comments and presentations showed that Tanzania is not starting from scratch, and that many participants already have substantial experience with vulnerability assessment and adaptation implementation.

The rest of the workshop involved active participant interaction in four breakout sessions and a plenary. The workshop approach enabled participants to identify key ways in which climate change and other threats could affect Tanzania's long-term coastal development goals. Participants then went on to identify and prioritize critical actions and institutional roles necessary to respond to these threats and achieve the country's vision as laid out in its *Development Vision 2025* framework (TPC 2003) and Integrated Coastal Environment Management Strategy (ICEMS) (Tanzania Coastal Management Partnership 1999). This approach helped raise awareness of the need to integrate climate change into national development planning, generate support and buy-in for a cross-sectoral approach to climate change adaptation mainstreaming, and improve coordination by involving a wide group of stakeholders.

To ensure that diverse perspectives and areas of expertise were represented at the workshop, invitees included representatives from a range of government and non-government organizations. This institutional and sectoral diversity was critical to identifying climate impacts across different coastal development sectors, understanding how solutions in one sector can affect another, and facilitating cooperation among institutions that do not typically work together.

3.3. DESCRIPTION OF WORKSHOP SESSIONS

Following the opening presentations and discussions, each table was assigned one of five economic sectors (i.e., fisheries, human settlements, tourism, forestry, and agriculture) that are most critical to coastal development issues in Tanzania. These five sectors formed the foundation of the workshop's four breakout session exercises. Participants selected a sector and worked on that thematic area with other participants throughout the two days.

On the first day, participants mapped the critical inputs and conditions upon which their assigned economic sectors depend. During the second exercise of the day, participants added constraints and climate and non-climate threats as well as strengths, and capacities to their maps of key inputs. Finally, they identified key climate-related impacts.

Figure 4. Word map of the relative frequency with which inputs were mentioned in the five sector groups. Source: USAID 2013b.

One of the key messages emerging from the first breakout session was that many sectors rely on the same inputs and enabling conditions. Water, roads and other infrastructure, and energy were among the most common inputs cited across the five groups (see Figure 4). It was noted that key inputs to one sector depend upon the health and status of other, interrelated sectors. This highlights the importance of inter- and intra-sectoral conditions with respect to development goals. For example, in addition to being its own important economic sector, the water resources sector is a critical input for all five of the key economic sectors examined by the breakout groups (i.e., the fisheries, forestry, tourism, agriculture, and human settlement sectors).

During the second breakout session, participants found that although certain threats and constraints are more common than others, most climate change impacts have significant consequences across many sectors. Increases in temperature, heat waves, changes in precipitation, flooding, and drought were consistently identified as potential threats. Land use change, population growth, and pollution are non-climate threats that were found to be pervasive across sectors. Some of the groups noted that governance is a major constraint, pointing to a need for better implementation of existing policies and regulations. Insufficient political will and social capital were also recognized as major constraints. Examples of strengths and capacities that can help safeguard the identified inputs include credit facilities, Participatory Forestry Management, District Integrated Coast Management Action Plans, the existence of a meteorological system, and robust research data.

Breakout session at five sectoral table stations

Also during the second session, participants identified the impacts of climate stressors on priority inputs and organized these impacts on a continuum of near-term to long-term effects. Commonly identified impacts include the

reduced availability of fresh water resources for numerous sectors as a result of droughts and damage to infrastructure from increasing storm surges and weather events. The list of climate stressors developed during this session is provided in Appendix B.

Facilitated discussions were held to discuss findings, interlinkages, and dependencies, to consolidate all of the impacts, and consider the short- term versus the long-term nature of the impacts identified. Key messages that emerged from the two breakout sessions included the inter-linkages of inputs, threats, adaptation actions, and institutions across sectors (as was also found in Jamaica).

During the third breakout exercise, participants suggested actions, policies, and institutions needed to address the medium- to long-term impacts identified during the earlier session. Actions discussed within the five groups included diversification of livelihoods, early warning systems, better land use planning, and enforcement of existing plans. A complete list of the actions considered for each development sector is provided in Appendix B.

Participants toured the five tables to review the ideas generated and identified potential areas of collaboration or overlap. This activity led to the identification of many cross-sectoral connections, both in terms of the substance of the actions and in terms of participation. For example, participants from the forestry group found that the fisheries group had proposed constructing marine parks and protected coastal wetland areas; these actions can also be important in the forestry sector to protect mangrove ecosystems. Integrating education about climate change into the school curriculum was an action proposed by one group that all of the other groups also found relevant to their sector.

Finally, during the fourth exercise, participants prioritized actions based on criteria developed by each table. Factors such as political will, cost-benefit ratio, multiple benefits, and short-term benefits of adaptive actions were mentioned by more than one group as being key criteria for prioritizing actions. During a plenary exercise, participants assigned priority levels to each action bases on a typology of likelihood of success and level of benefits. When groups plotted their highest-priority actions on a two-dimensional graph from low to high benefit and from low to high likelihood of success, almost all activities were placed in the high benefits zone. A discussion followed of what low priority actions would look like, with participants noting that deciding what *not* to do (saying no) is often more difficult than deciding what to do (saying yes).

3.4. PARTICIPANTS' RECOMMENDATIONS

Several key findings and recommendations emerged from the workshop related to funding, coordination across the sectors, and how to mix science and policy in climate change adaptation planning.

Participants noted that climate change mainstreaming and adaptation are not priorities in the national budget. Consequently, the workshop recommended that each sector should (1) request a small budget from the treasury for climate change and (2) increase the visibility and importance of climate change at the national level.

Participants frequently emphasized a need for coordination and an inclusive adaptation planning process, especially because climate change is a cross-cutting issue. However, they also noted that it will be challenging to actually accomplish this coordination. A recommendation for a coordination process that combines both the necessary pieces of science and management resonated with the participants: the formation of issue-driven science and management panels, composed of groupings of sectors or ecosystems, for adaptation planning. Donors could select which sector or ecosystem groups they want to support and participate in, depending on their interest and priorities.

3.5. NEXT STEPS

Since the workshop, Tanzania has made progress on developing its NAP. The government has formulated a roadmap and technical guidelines for the NAP process, which will guide the sequence of activities and inform

the identification of resources needed to develop the NAP. Tanzania has also begun to develop sector plans for water resources and agriculture.

Next steps in the Tanzania NAP process include:

- Continue to develop sector plans for water resources and agriculture.
- Develop criteria for selecting priority NAP projects;
- Identify thematic/sectoral areas that require further assessment; and
- Assess and develop appropriate medium- and long-term adaptation needs, and proposal of relevant interventions including institutional and policy measures.

4. WEST AFRICA: COASTAL CLIMATE CHANGE NATIONAL ADAPTATION PLANNING WORKSHOP

The *West Africa Coastal Climate Change National Adaptation Planning* workshop[5] took place in Accra, Ghana from June 18–20, 2013. It was hosted by USAID West Africa and ECOWAS, in collaboration with the USAID GCC Office, the GCC Climate Change Resilient Development (CCRD) Project, and the Sustainable Coastal Communities and Ecosystems (SUCCESS) Program.[6] Thirty participants representing 11 coastal ECOWAS countries,[7] academia, and key regional institutions attended, as well as a representative from Tanzania who shared that country's experience with the NAP process.

5. This chapter is based on the USAID report on the *West Africa Coastal Climate Change National Adaptation Planning* workshop (USAID 2013a).

6. The SUCCESS program is an initiative of the University of Rhode Island's Coastal Resources Center, and is supported through an agreement with USAID.

7. Senegal, The Gambia, Liberia, Sierra Leone, Guinea, Côte d'Ivoire, Cape Verde, Ghana, Togo, Benin, and Nigeria.

4.1. WORKSHOP OBJECTIVES

Workshop objectives included to:

- Identify priority issues for coastal adaptation at national and sub-regional levels
- Demonstrate and refine methods for national adaptation planning
- Facilitate the integration of climate change adaptation into development plans, processes, and strategies
- Agree on a road map for a regional plan of action that supports the NAP process in each country
- Document experiences to inform and influence the UNFCCC and other relevant international processes.

Another objective of the West Africa workshop was to build on the lessons learned from the earlier Jamaica and Tanzania workshops. A key purpose was to demonstrate, model, and consolidate best practices on the use of the USAID climate-resilient development framework to integrate climate change into development planning by starting with identification of development objectives prior to assessing vulnerabilities to climate change and identifying adaptation activities. An important aim of the workshop was to support ECOWAS and USAID West Africa in defining an approach toward developing a Regional Development Strategy to address the complexities of integrating climate change adaptation in the coastal zone.

4.2. WORKSHOP OVERVIEW

The workshop focused on the cross-sectoral nature of climate change impacts, specifically on the coastal and marine environment, and actions and institutions that could help West African countries and the region as a whole adapt to these impacts.

The first two days of the workshop included overview presentations about the NAP process (including experiences from the recent workshops in Jamaica and Tanzania) and coastal development objectives and issues in West Africa. These presentations were followed by a series of four breakout group sessions where participants worked together in small groups to discuss five economic sectors that represent the most critical sectors to coastal development issues – infrastructure, water resources, fisheries, tourism, and agriculture/food security.

The third day of the workshop was devoted to planning next steps at the country and regional levels and identifying support from institutions in the region that can benefit countries as they develop their NAP processes. Following closure of the workshop, an afternoon working group session composed of UNFCCC national focal points and regional resource participants consolidated the workshop findings and developed lessons learned for sharing with national, regional, and international forums, including the UNFCCC, going forward.

To engage the individuals who are most intensely involved in their country's NAP process, invitees included the UNFCCC national focal points from each of the 11 coastal ECOWAS countries and another colleague from each country knowledgeable about and involved in coastal climate change adaptation planning at the national level. Resource persons from key institutions in the West Africa region that provide support to countries for coastal development planning and climate change adaptation were also invited to provide critical input on the common challenges facing many of the countries and to highlight opportunities for collaboration in addressing both shared and transboundary issues.

4.3. DESCRIPTION OF WORKSHOP SESSIONS

The workshop began with opening remarks by USAID, ECOWAS, and national government officials, and presentations about the NAP process and coastal development objectives and issues in West Africa. The remainder of the first two days of the workshop was organized around four breakout group sessions. These groups were informed by presentations from regional experts on each theme. Each of the five tables of participants received an economic sector to consider (i.e., infrastructure, water resources, fisheries, tourism, and agriculture/food security). Representatives from two or three countries were assigned to each sector and worked on that thematic area with other participants.

Dr. Johnson Boanuh of ECOWAS addresses the workshop

During the four breakout sessions, participants at each sector table were asked to:

1. Build a map of relationships among coastal economic sectors and the inputs and enabling conditions they depend upon (see Figure 5),
2. Map coastal climate and non-climate threats and constraints to the key inputs and conditions that were identified in Breakout Session 1,
3. Determine the impacts of the climate threats and constraints identified in Breakout Session 2, and
4. Identify measures, policies, and institutions to address the climate impacts identified on its map.

Participants discussed relevant regional and transboundary elements at each step of the process. During the first breakout session, participants noted that many sectors rely on the same inputs and enabling conditions. Resource management, laws and policies, energy, infrastructure, water, skilled workforce, equipment, and funds were among the most common inputs identified. Participants found that some of the inputs were given the status of "sectors," highlighting their importance to coastal priorities. For example, in addition to being its own important economic sector, infrastructure is a critical input for the agriculture and food security, fisheries, water resources, and tourism sectors. Furthermore, a large majority of the inputs and conditions for all sectors was found to be important in supporting sectors more broadly in West African countries. This highlights the similarities between West African countries and hints at the interconnectedness of the West African regional coastal system.

Figure 5. Word map showing inputs and enabling conditions that affect West Africa's coastal economic sectors. Source: USAID 2013a.

When mapping relevant threats and constraints to their priority inputs and enabling conditions, participants in the groups that were concerned with the tourism and infrastructure sectors focused on sea level rise. Threats to the agriculture, water, and fisheries sectors were more focused on drought and changes in temperature and precipitation. When looking at the transboundary and regional context, the climate threats were relatively consistent across the 11 coastal countries. Some of the issues mentioned in regard to regional non-climate threats and constraints included inconsistent policies and enforcement across the region, transboundary water use, and population migration between countries.

Participants found that most of the priority impacts identified for their country are impacts that are either common in other countries in the region and/or are transboundary. This creates opportunities to learn from colleagues throughout the region, and to coordinate actions to address transboundary issues.

Participants also highlighted the cross-sectoral nature of actions, policies, and institutions needed to support a single sector. For example, in The Gambia, the tourism sector needs regional institutional support from ministries that handle finance, planning, disaster risk reduction and response, and other issues.

During the fourth breakout session, participants identified many priority actions for addressing climate change adaptation in the coastal zone at the national, transboundary, and regional levels (see Appendix C). They then engaged in a participatory exercise to prioritize these actions. One objective of this exercise was to demonstrate that prioritization is a necessary, significant, and on-going element of the planning process, especially in the context of least developed and developing countries that have limited capacity and resources.

The 10 most significant actions of regional importance identified during Breakout Session 4 were posted on flip charts and participants each cast three votes among the 10 actions. Table 1 summarizes the results.

Regional Actions	Votes
Mainstreaming climate change into policy	15
Coastal erosion control measures	13
Regional coordination for harmonizing policy	9
Integrated natural resource management (e.g., fisheries and watershed)	8
Regional coordination for sharing data	3
Research and development/adaptation pilots	3
Enforcement of regulation	2
Outreach/communication/awareness	1
Climate proofing infrastructure	0
Risk mitigating measures (e.g., insurance)	0

Table 1. Priority Regional Actions. Source: USAID 2013a.

Participants overwhelmingly chose mainstreaming (i.e., "integrating") climate change into policy and coastal erosion control measures as the most important actions, noting that these actions would encompass other actions such as climate-proofing infrastructure. Others noted that there is often discussion of policy actions, but a tendency to shy away from actual implementation of policy and enforcement. Enforcement is a major problem, and it has not been raised in these priorities. ECOWAS representatives noted that perhaps some of these issues, such as enforcement, are potentially more appropriately addressed at the national than regional level. Note that, due to the limited country representation at the workshop, the prioritizations shown cannot be considered definitive. Instead, the findings could serve as a starting point for further discussion of national and regional priorities.

4.4. PARTICIPANT'S RECOMMENDATIONS

The third day of the workshop was devoted to planning next steps at the country and regional levels, and identifying the types of support that regional institutions can provide to countries during their NAP processes.

Participants representing the West African countries were asked to identify their NAP goals and next steps. Since most of these countries were just starting their NAP process, many of their responses focused on laying the groundwork, and in particular, identifying steps for initiating and launching the NAP process in their countries. Key recommendations provided by country representatives included:

- Representatives will first need to make the case to decision-makers by showing the importance of the NAP process and the need to start working on preparatory elements
- One of the first steps will be to organize a meeting of key stakeholders to determine how to move the process forward
- It will then be necessary to assemble a national body to lead the NAP process
- Another important preliminary step will be to determine a vision for the NAP by soliciting opinions from stakeholders
- As part of framing the vision, it is also crucial for countries to identify key actors/stakeholders, including the public and private sectors and NGOs, and categorize their specific roles in the NAP process
- Raising awareness among stakeholders on the NAP process and country vision is a particularly key element of laying the groundwork. This includes communicating important information to key ministries, such as the finance ministry
- It is also important for countries to identify funding to move the NAP process forward and to ensure sufficient financing to complete the process
- Some countries may use outputs from other UNFCCC initiatives and requirements to begin a stocktaking process, particularly to assess current vulnerabilities of critical sectors.

Participants from regional institutions briefly described ways that they can provide support to the West African countries on development and climate change adaptation in the coastal zones. For example, ECOWAS representatives indicated they can provide support in integrating climate considerations into nation programs and policies at the sub-region level, with a focus on coastal zones, agriculture, and coastal zone management. The African Center for Meteorological Application for Development identified opportunities to work with communities to manage natural disasters, develop disaster response plans, and compile climate data.

A detailed list of each country's NAP needs and next steps, opportunities for regional support, and opportunities for cross-country coordination and collaboration is presented in Appendix C.

4.5. NEXT STEPS

Following the closure of the workshop, an afternoon working group session composed of UNFCCC national focal points and regional resource participants consolidated the workshop findings and next steps, and developed lessons learned for sharing with national, regional, and international forums. The regional institutions identified the following priority next steps they could take to support countries in their NAP processes:

- Define countries' benchmarks in the NAP process. This will help ensure that the countries and regional institutions have a shared understanding of key steps in the NAP process and of the countries' technical and financial needs

- Develop a map of institutions, organizations, forums, and initiatives that are conducting work relevant to coastal climate adaptation. This step will enable the regional institutions to understand the gaps in meeting countries' needs, determine how each organization can provide specialized assistance, and identify opportunities for collaboration with other regional groups.
- Establish a regular call (every six to eight weeks) among the regional institutions
- Set up a regional clearinghouse for research relevant to coastal climate change adaptation.

UNFCCC country focal points engaged in a discussion about concrete next steps their countries can take to initiate the NAP process over the next six months. Specific actions centered around:

- Initiating and launching the NAP process
- Taking stock of available information on climate change impacts, vulnerability and adaptation
- Assessing and addressing gaps and needs to enable the NAP process
- Comprehensively and iteratively assessing development needs and climate vulnerabilities.

Overall, the country focal points noted that it is important for each country to develop its NAP in ways that suit their context, fit their capacity, and are consistent with national development planning activities.

Finally, the country representatives participated in a brainstorming session to identify themes and activities generated during the workshop that could have value for the broader community of countries that are about to embark on the NAP process. Some of these lessons learned included:

- Countries should coordinate with each other on common issues
- Encourage regional coordination of high-level leadership (e.g., Ministries of Finance)
- Think regionally, act locally
- Link local adaptation to transboundary issues
- Involve stakeholders and make sure they feel ownership of the process
- Ensure the NAP process is not centralized in one ministry, but involves diverse stakeholders throughout the entire process. An inter-ministerial steering committee is one way to address to accomplish this.
- Institutionalize the NAP process through a decree or law so that a change in leadership will not delay progress
- Maintain transparency and accountability by developing a reporting process and monitoring progress
- Use creative strategies to obtain buy-in from leadership (e.g., present climate change as an opportunity, not just a challenge; showcase benefits).

Most West African countries are at the very beginning of their NAP processes. The workshop proved to be both timely and practical as countries initiate activities to raise awareness and engage stakeholders in their country's processes.

5. SUMMARY AND CONCLUSIONS

The workshops held in Jamaica, Tanzania, and West Africa provide examples of how USAID is collaborating with developing countries as they take their initial steps forward to develop their NAP processes. Through a combination of introductory presentations, interactive working groups, and facilitated plenary discussions, the participants in these three workshops were able to take the first steps in developing a national adaptation planning process for their countries.

All three workshops employed a development-first process based on USAID's climate-resilient development framework. Participants identified and prioritized their development goals, identified the ways that climate change and other threats can affect these goals, and identified and prioritized critical actions and institutional roles necessary to respond to these threats and achieve their country's development vision.

The key starting point in each workshop involved identifying the economic sectors that are critical to the country's (or region's) development. In Jamaica and Tanzania, these sectors had already been identified as part of national-level planning frameworks (i.e., Jamaica's *Vision 2030* and Tanzania's *Development Vision 2025*). In West Africa, participants discussed their country's coastal development priorities during a group exercise, and identified five economic sectors of importance to all of the West African countries. Once economic goals were identified, the core feature of the NAP workshops involved participation in a series of breakout sessions that examined the selected economic sectors in the context of climate change.

In all three workshops, individual breakout session topics entailed:

1. Building a map of relationships among the economic sectors and the inputs and conditions that the sectors depend on,
2. Identifying climate and non-climate threats and constraints for each sector and mapping these to the map of key inputs and conditions,
3. Identifying actions, policies, and resources to address the threats and constraints within each economic sector.

At each workshop, breakout sessions were conducted with the objective of further defining the impacts of climate threats and constraints, defining gaps in ongoing actions, identifying criteria to prioritize actions, and/or summarizing the findings by economic sector.

A key lesson learned from the workshops was that the approach is very effective in enabling participants to integrate short-term needs with medium- and long-term vulnerabilities and to mainstream climate into their national and sector development planning.

Several other findings emerged from the three workshops, including:

- Many of the key economic sectors that the workshop participants assessed rely on the same inputs and enabling conditions. The most commonly cited inputs and conditions at all three workshops were water, energy, and infrastructure.

- In many cases, the inputs to one sector are themselves considered to be important economic sectors. This highlights the interdependencies among sectors and their importance to national development goals. For example,
  - Participants in the Jamaica workshop discussed how tourism depends on a healthy natural environment and the reliable provision of energy and water.
  - At the Tanzania workshop, participants noted that water resources are an important economic sector, as well as critical inputs for other sectors, such as fisheries, forestry, tourism, agriculture, and human settlements.
  - Similarly, West African workshop participants pointed out that reliable infrastructure is a critical input to the agriculture and food security, fisheries, water resources, and tourism sectors.
- Participants identified many climate stressors that can threaten economic development, including increasing temperatures and precipitation, flooding, drought, and sea level rise.
  - Tanzanian workshop participants noted that these threats have significant consequences across many sectors.
  - West African participants identified sea level rise as a key threat to their tourism and infrastructure sectors, and drought and changes in temperature and precipitation as critical to their agriculture, water, and fisheries sectors.
  - When looking at the transboundary and regional context in West Africa, all the countries are facing similar coastal climate threats.
- The most frequently identified non-climate stressors include land use change, pollution, population growth.
- Critical constraints to economic development included lack of political will and human and social capital. Also frequently mentioned were the need for improved governance and the implementation and enforcement of existing policies and regulations. At the West Africa workshop, participants also noted regional constraints such as transboundary water usage and population migration between countries.
- Participants highlighted the cross-sectoral nature of the actions, policies, and institutions required to support a single sector. For example,
  - West African participants pointed out that in the Gambia, the tourism sector relies on regional institutional support from numerous ministries (e.g., finance, planning, disaster risk reduction and response).
  - Tanzanian participants pointed out that integrating education about climate change into the school curriculum could benefit all of the breakout group sectors.
  - Jamaica participants noted that activities in one sector can also inhibit outcomes in another sector. For example, their transport sector breakout group suggested moving roads inland to reduce storm damage, but the tourism group pointed out that this action could inhibit access to hotels and other tourist destinations
- Participants noted the usefulness of working in cross-disciplinary teams during the breakout sessions and including a wide range of stakeholders in these discussions. They recommended working in this integrated fashion as they move forward.

Overall, the three workshops demonstrate that there are many similarities across countries in terms of the ways that climate change and other stressors can affect development goals and how countries can identify and prioritize the actions, policies, and resources necessary to respond to these threats and achieve their development vision. Thus it is important for countries to share findings, experiences, and lessons learned about integrating climate change into their economic development processes.

The Jamaican, Tanzanian, and West African workshop participants developed recommendations relevant to their country's or region's national adaptation planning issues and status on next steps for moving forward to continue their NAPs. Since the workshops, Jamaica's MWLECC has prepared the country's Climate Change Policy Framework and Action Plan, which was submitted to Parliament for approval in November 2013. The government of Tanzania has formulated a roadmap and technical guidelines for the NAP process and has

begun to develop sector plans for water resources and agriculture. Most West African countries are at the very beginning of their NAP processes. The workshop helped participants understand the process for developing a NAP for their country, provided critical recommendations for next steps, and presented ways that regional organizations and institutions can provide needed support.

The successes from these three workshops demonstrate that the NAP process works best when it is well-coordinated, integrated, and inclusive. Involving relevant ministries, different levels of government, and a broad range of stakeholders produces effective and inclusive policies. Thus, it is important for sufficient capacity, tools, and information to be developed and made available to continue to support the NAP process in these and other developing countries.

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APPENDIX A: EXAMPLES OF JAMAICA WORKSHOP OUTPUTS FOR THE TOURISM SECTOR

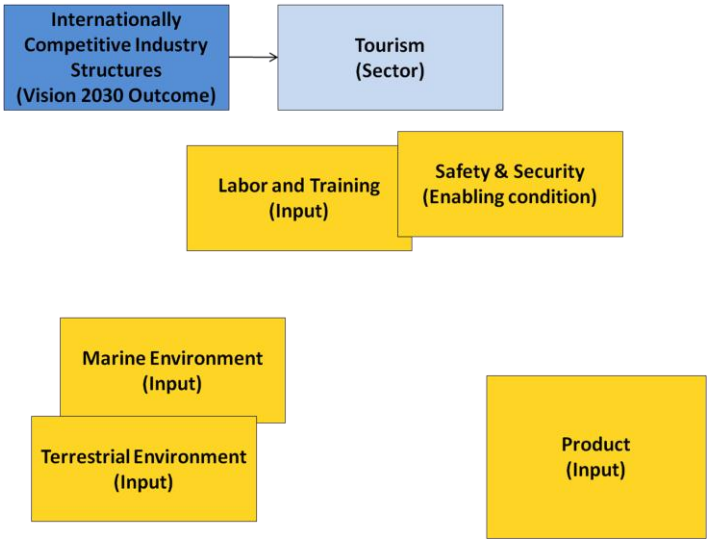

EXHIBIT A.1. EXAMPLE OF EXERCISE 1 OUTCOME: BUILD A MAP OF RELATIONSHIPS AMONG ECONOMIC SECTORS AND THE INPUTS AND CONDITIONS THEY DEPEND UPON.

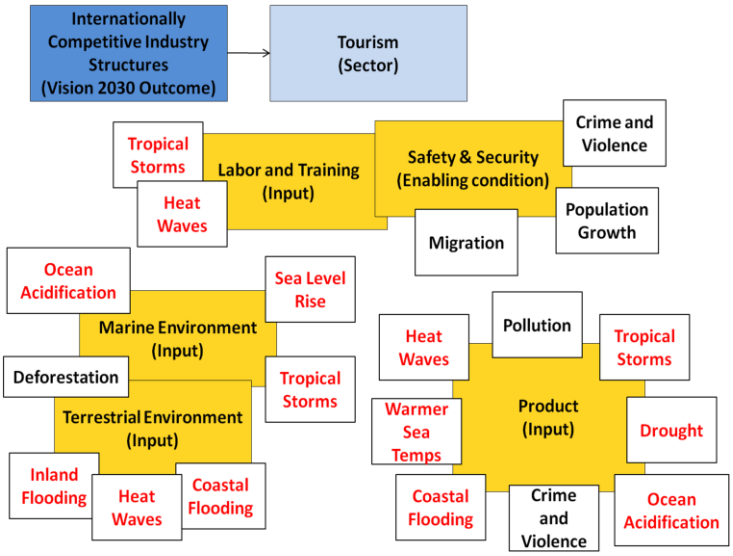

EXHIBIT A.2. EXAMPLE OF EXERCISE 2 OUTCOME: ADD THREATS AND CONSTRAINTS TO THE MAP OF KEY INPUTS AND CONDITIONS.

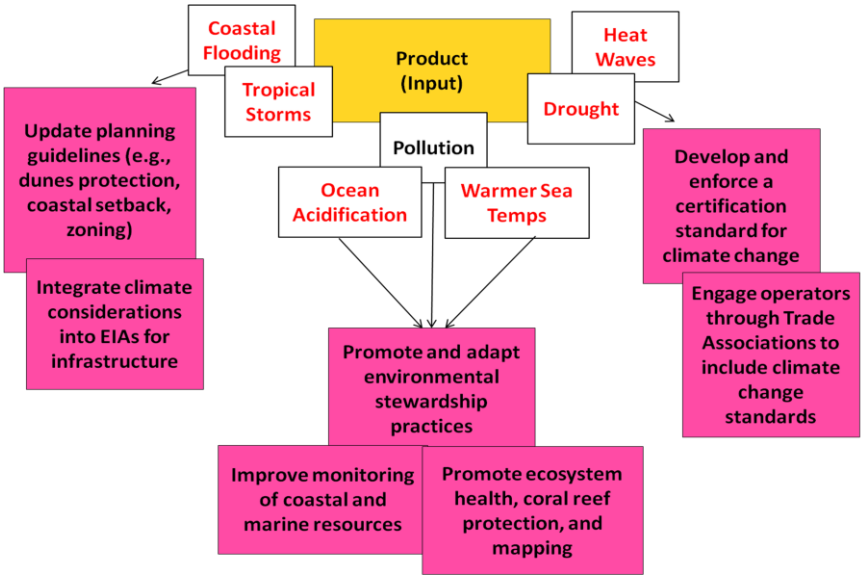

EXHIBIT A.3. EXAMPLE OF EXERCISE 3 OUTCOME: SUGGEST ACTIONS, POLICIES, AND RESOURCES TO ADDRESS THREATS AND CONSTRAINTS.

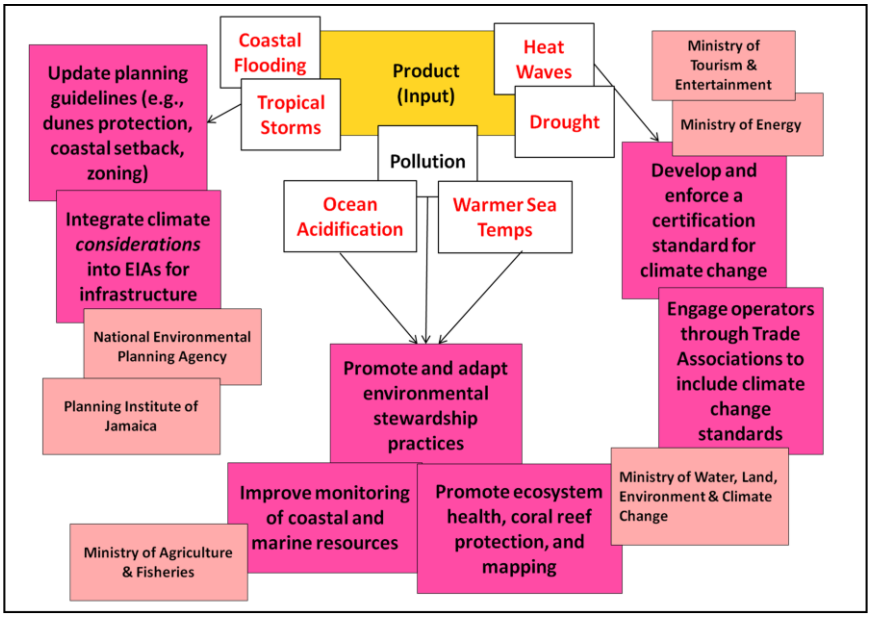

EXHIBIT A.4. EXAMPLE OF EXERCISE 4 OUTCOME: INDICATE ONGOING ACTIVITIES AND/OR GAPS.

EXHIBIT A.5. EXAMPLE OF EXERCISE 5 OUTCOME: CREATE A NARRATIVE OF LESSONS LEARNED DURING THE BREAKOUT GROUP SESSIONS.

The tourism product is important to Jamaica's future economic, social, and environmental development and growth. Specifically, ensuring success for Jamaica's tourism sector is a key component for achieving internationally competitive industry structures. The tourism product is threatened by hurricanes, coastal flooding, warmer sea temperatures, heat waves, drought, and pollution and constrained by public awareness, lack of enforcement, financing, and the cost of energy. To address these threats and constraints, the Government of Jamaica could pursue the following actions: integrate climate change considerations into Environment Impact Assessments for tourism development; update and enforce development orders, zoning laws, and plans; promote the certification of standards (e.g., reducing energy and water consumption); focus on raising public awareness of climate change impacts; and address infrastructure vulnerabilities. We envision that these actions would benefit other sectors, such as agriculture, energy, health, water, security, housing, and labor. Implementation of these actions would require funding, human resources, training, research, access to information, and new technologies and involvement from the Ministry of Tourism and Entertainment, the Ministry of Energy, Jamaica Hotel and Tourist Association, local communities, donor partners, NGOs, and craft vendors, among others.

APPENDIX B: EXAMPLES OF TANZANIA WORKSHOP OUTPUTS

EXHIBIT B.1. IMPACTS OF CLIMATE STRESSORS ON PRIORITY INPUTS.

Fisheries	
Near-Term Impacts	• Changes in precipitation will: reduce freshwater flows to estuaries; increase salinity and damage vegetation and species sensitive to salinity; and, increase runoff (sedimentation/pollution)
Longer-Term Impacts	• Warmer sea temperatures causes coral bleaching and mortality; changes in fish distribution and productivity; seagrass/seaweed die off; stress and disease to marine organisms; increased erosion; and, mangrove loss
Tourism	
Near-Term Impacts	• Coastal erosion is leading to loss and damage to beaches and infrastructure that support tourism. • Drought and floods will cause food, water and energy shortages limiting tourism activities. • Drought and temperatures will reduce water needed by animals causing migration and death of wildlife
Longer-Term Impacts	• Floods and sea level rise will cause damage to tourism related infrastructure • Sea level rise will cause inundation of natural, historical and cultural resources which will prevent tourism in those areas • Rise of sea temperature causes salinization which results in coral bleaching and decreasing mangroves • Changes in seasons due to climate change will affect the length and timing of tourism seasons
Agriculture	
Near-Term Impacts	• Flooding can restrict mobility of extension workers • Flooding can close and damage roads, limiting market access • Flooding can impede use of farming equipment • Coastal flooding can affect germination and/or wash seeds away • Drought can lead to reduced germination percentage • Drought will cause food shortage, which will result in illegal harvesting of resources. This will result in conflict and destruction of natural resources • Intense rainfall can damage storage facilities and destroy crops • Increased intensity of rainfall leads to floods affecting soil erosion decreasing productivity • Higher temperatures may reduce worker productivity
Longer-Term Impacts	• Sea level rise affects land and water quality through saline intrusion

Forestry	
Near-Term Impacts	• Coastal and inland flooding affects infrastructure, causing loss of property and life, reducing labor • Coastal and inland flooding causes need for emergency responses causing diversion of financial resources • Drought affects growth patterns causing loss of forest cover • Drought may cause forest/bush fires resulting in loss of timber/firewood causing loss of community livelihoods
Long-Term Impacts	• Ocean acidification changes growing environment for mangrove causing reduced mangrove area
Human Settlements	
Near-Term Impacts	• Drought will make water resources more scarce for household use and shambas (small crop gardens) • More unpredictable rainfall and more drought will reduce subsistence agricultural production and reduce food security
Longer-Term Impacts	• Increase storm surges will cause increased erosion and damage and disruption to housing • Increase sea temperature and increased drought will lower fisheries productivity and reduce food security

EXHIBIT B.2. ACTIONS DISCUSSED BY BREAKOUT GROUPS.

Fisheries
• Replant mangroves • Enforce land use planning regulations • Include environmental education and climate change in primary school curriculum • Mainstreaming climate change consideration in relevant policies • Strengthen community-based enforcement • Support BMU's and VFC's to take action against illegal fishing • Marine no-take areas
Tourism
• Promote irrigation schemes • Drought resistant crops • Drainage systems • Seasonal forecasting and early warning systems • Use of crop insurance system • Promote alternative source of income • Water harvesting and storage/sustainable use of water extraction
Agriculture
• Promote post-harvest crop processing • Drill well far from the sea • Undertake research on water desalination • Research drought tolerant seed varieties • Enhance irrigation agriculture • Use multiple information communication channels • Strengthen early warning systems • Promote integrated farming systems • Improve drainage systems • Construct dams for rainwater harvesting
Forestry
• Early warning system • Diversification of income generation activities • Proper land use planning • Construction of seawall • Awareness and education on emergency response and disaster preparedness
Human Settlements
• Introduction of drought tolerant crops that don't need too much rain to foster food security and short term crops – drought resistant • Coastal zone land use planning • Introduction of building standards • Promotion of water recycling (for irrigation) • Improve our food storage system and alternative livelihood promotion • Early warning system and weather forecasting • Infrastructure improvement • Diversification of livelihood

APPENDIX C: EXAMPLES OF WEST AFRICA WORKSHOP OUTPUTS

EXHIBIT C.1. ACTIONS DISCUSSED BY BREAKOUT GROUPS.

Development Sector/Country	National	Regional
Infrastructure (Nigeria, Ghana)	• Inter-agency synergy • Ground water monitoring • Capacity building of legal courts • Institution for regional coordination • Grassroots people and community involvement • Knowledge exchange and technology transfer • Medical information outreach network systems	• Data generation and sharing • Enforcement, implementation, and mechanism • Fine, penalty levels review • Coastal laws transboundary harmonization • Regional framework for climate services • Ground water map (update and review), quality and quantity • West Africa Gas pipeline monitoring • Early warning system heat etc. information outreach • Enhanced capacity – information shared and research
Water Resources (Cape Verde, Liberia, Sierra Leone)	• Dam • Dike • Reservoir construction (under or above ground) • Adaptation pilots • Water efficiency in Agriculture • Improve drainage system • Adequate sanitation policies • Groundwater monitoring • Education/sensibilities increased • Energy efficiency increased	• Institutional capacity development • Regional coordination of climate change • Technical assistance • Transfer of technology • Research methods for climate proofing • Enforcement of regional policy • Climate change mainstreamed in water policy • Regional dissemination of information • Response to changes in climate • Early warning systems • Stakeholder engagement awareness and outreach • Integrated resource management

Development Sector/Country	National	Regional
Fisheries (Côte d'Ivoire)	• Sub-Regional Fisheries Commission (CSRP) • EXITE • Political coordination • Cost of impact evaluated • Site for livestock created • Small-scale fishing controlled • Capacity of research organizations strengthened • Education, awareness raising, and information • Institutional capacity strengthened	• Agency for Niger and Volta river basins • Personnel strengthened in equipment and capacity

EXHIBIT C.2. COUNTRY NAP REGIONAL SUPPORT NEEDS AND OPPORTUNITIES.*

Country NAP needs / next steps	Opportunities for regional support (Regional and international institutions, development partners)

• Côte d'Ivoire – forums to discuss key issues with other countries; need for research to inform forums; training of students on how to address erosion, etc.; opportunity to identify shared problems can help to facilitate regional integration
• Togo – mechanism (matrix) for monitoring and evaluation (M&E) to measure progress; can help to motivate progress and provide opportunity for countries to share best practices
• Benin – understand competitive advantage of different regional partners in order to determine best resources for various stages
• Liberia – coordinating mechanism by ECOWAS to help manage support from different regional institutions
• Ghana – require capacity and finances to mainstream climate – need support from regional institutions; common approach to data; coordination mechanism – strengthen ECOWAS, improve data at national and regional levels
• Gambia – support from regional institutions to continue to move NAP process forward
• Nigeria – continued regional coordination; West African Science Center on Adaptive Land Use (WASCAL); identify areas where can draw on existing capacities, resources
• and build on to develop comprehensive program to further progress toward harmonized policy
• Guinea – support needed at both regional and national levels re NAP, as most countries are at the beginning of the process
• Senegal – for effective regional coordination, need to have identified key sectors at national level first
• Cape Verde – need to better access research, data from continent – stocktaking of regional institutions and their capabilities; special considerations as island state
	• USAID – can support broader regional initiatives
	• FAO –
	  ○ EPIC program (political and economic analysis of sectors to facilitate climate smart development)
	  ○ UN REDD+
	  ○ Fisheries support group – production, capture fisheries – climate smart, regional
	  ○ Climate smart agriculture to support food security
	• ACMAD – work with communities to manage climate, natural disasters; put in place disaster response plans; compile climate data
	• UEMOA – regional coastal project; enhance Niger basin; fisheries activities; build on activities that have already taken place
	• ECOWAS – climate change project – integrating climate considerations into national programs/policies in sub-region; focus on coastal zones, agriculture; integrated strategy for coastal zone management;
	• AGRIMET – water availability for rangelands and agriculture; extended to cover marine; masters and doctorate program on climate related areas, WA universities linked to universities in Germany. Currently 80-100 Master's and PhD students currently studying climate sciences, which will be useful in coming years, to help build the scientific capacity of the region. USAID and other regional actors can help build/use this capacity.
	• NGOs: we can also call on national, regional, and international NGOs on the ground to help. They are not represented here at the workshop.

**Opportunities for cross-country coordination, collaboration needs to be considered in next steps at the country and regional level.*

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