Review of Current and Planned Adaptation Action: West Africa

The Gambia

November 2011
About the Adaptation Partnership

The Adaptation Partnership was formed in May 2010 in response to a recognized need for development practitioners to share information and lessons on adaptation efforts. Chaired by Costa Rica, Spain and the United States, the goal of the partnership is to encourage effective adaptation by serving as an interim platform to catalyze action and foster communication among the various institutions and actors engaged in the effort to scale up adaptation and resilience around the world, particularly in the context of fast start finance. The Partnership synthesizes lessons learned and good practices, highlighting needs and priorities, and identifying opportunities for cooperation and alignment of support to build resilience to the adverse effects of climate change. It is also enhancing communities of practice engaged in the adaptation effort.

Adaptation Partnership
Website: http://www.adaptationpartnership.org/

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**Foreword**

In response to a growing awareness of the potential adverse effects of climate change and the particular vulnerability of developing countries to this process, a significant increase in adaptation action has been witnessed in recent years in Africa, Asia-Pacific, and Latin America and the Caribbean. These actions are providing opportunities to: increase understanding of the implications of climate change for the achievement of development objectives in the near and long terms; identify strategies and measures that can be taken to reduce climate vulnerability; communicate and build awareness of climate risks, opportunities and potential solutions; and begin implementing actions on the ground that build capacity to adapt to a changing climate.

Although the recent global upsurge in adaptation action is a welcome development, the emergence of a diverse array of efforts initiated by multiple actors within numerous jurisdictions has the potential to create confusion, lead to duplication of effort and limit the potential for sharing good practice guidance based on past efforts. Enhanced coordination among expanding networks of adaptation actors is needed to ensure resources are deployed quickly and effectively. To this end, the Adaptation Partnership was formed in 2010. Chaired by Costa Rica, Spain and the United States, the goal of the Adaptation Partnership is to encourage effective adaptation by serving as an interim platform to catalyze action and foster communication among the various institutions and actors engaged in the effort to scale up adaptation and resilience around the world.

Toward this goal, the Adaptation Partnership initiated a Review of Current and Planned Adaptation Action in the fall of 2010. Its purpose is to provide a baseline understanding of who is doing what on adaptation in three developing regions—Africa, Asia-Pacific, and Latin America and the Caribbean—and in priority adaptation sectors. Based on available resources, it seeks to provide a rapid assessment of: priority interests and adaptation needs; efforts by governments to support adaptation though policy and planning; the scope of international support for adaptation efforts in different countries and sectors; and potential gaps in adaptation efforts at the country and regional levels.

For additional information including regional profiles, methods and more please visit [http://www.adaptationpartnership.org](http://www.adaptationpartnership.org).
The Gambia

- **DSFNRE**: Department of State for Fisheries, Natural Resources and the Environment (The Gambia)
- **GEAP**: Gambia Environmental Action Plan
- **GEF**: Global Environment Facility
- **GOTG**: Government of The Gambia
- **LDC**: Least Developed Country
- **LDCF**: Least Developed Countries Fund
- **NAPA**: National Adaptation Programme of Action
- **NGO**: non-governmental organization
- **UNEP**: United Nations Environment Programme
- **UNESCO**: United Nations Educational, Scientific and Cultural Organization
- **UNFCCC**: United Nations Framework Convention on Climate Change

The Gambia occupies a land area of 10,690 sq. km, making it the smallest country in mainland Africa. Classified as a LDC and ranked at 151 out of 169 countries in 2010 with respect to its level of human development, The Gambia faces specific challenges associated with its small size, low level of human development and average environmental sustainability index (GOTG, 2007). The Gambia also has a naturally high level of climate variability that further increases its vulnerability and challenges its adaptive capacity.

**A. Adaptation Needs and Priorities**

The Gambia is a low-lying country; its highest point of elevation is only 53 meters above mean sea level. Nearly half of the country is less than 20 meters above mean sea level; a further one-third is at or below 10 meters above sea level, and between 10 to 20 per cent of its land area floods seasonally or diurnally (GOTG, 2007). It has about 70 kilometers of open ocean coastline, along with 200 kilometers of sheltered coastline along the edge of the Gambia River (Jallow, Barrow and Leatherman, 1996). The country’s open ocean coastline includes the entirety of the capital city of Banjul, which is less than one meter above sea level. The Gambia’s low elevation puts it at significant risk from sea level rise.
The country is also vulnerable to changing temperature and rainfall patterns. Current climate variability, including a negative trend in rainfall since the late 1960s, has placed tremendous pressure on natural resources and ecosystems in The Gambia (GOTG, 2007). As these trends continue due to climate change, it is expected that changes in precipitation and higher temperatures are likely to negatively impact growth parameters and grain weight for most crops produced in The Gambia and to result in a decline of forest regeneration rates (GOTG, 2007). Such impacts are likely to affect the short cropping period, which is the main source of employment and food supply for 80 per cent of the population (DSFNRE, 2003). In the fisheries sector, climate change is likely to precipitate the collapse of some pelagic fish populations, further threatening food security (GOTG, 2007).

In the energy sector, changes in mean rainfall and temperature, as well as increased climate variability, are expected to reduce the potential for hydroelectric power and biomass energy production. It is anticipated that this change will result in the increase of The Gambia’s energy dependence (GOTG, 2007). In the water sector, the combination of sea level rise, rising average temperatures and changes in rainfall patterns could impact freshwater resources qualitatively and quantitatively (GOTG, 2007).

In the health sector, behavioral responses (e.g. going outside to keep cool) could increase the incidence of malaria, dengue and yellow fever (GOTG, 2007). The Gambia’s NAPA provides more location-specific details regarding the potential impact of climate change on the health of Gambians and on other sectors.

The Gambia’s National Communication submitted in 2003 highlights some key vulnerable sectors for the country and potential adaptation measures (DSFNRE, 2003). This analysis was augmented in The Gambia’s NAPA, submitted in 2007, which identifies adaptation needs in these and other key vulnerable sectors. These sectors include:

- **The economic sectors:** agriculture, fisheries and energy;
- **The natural resources sectors:** water resources, forests, woodlands, rangelands and sensitive coastal environments;
- **The social sector:** health (GOTG, 2007).

In addition to seven potential adaptation measures identified in The Gambia’s National Communication, The Gambia’s NAPA submitted ten priority adaptation actions (see Table 3 below). Projects in the NAPA portfolio seek to address urgent and significant climate threats.

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1 By 2075, mean temperature of The Gambia is projected to increase by 3°C to 4.5°C. The projected impact of climate change on precipitation is less clear; models suggest that rainfall could either decrease (by 59 percent, 17 percent or 15 percent) or increase (by 29 percent or 15 percent) by 2100 compared to the 1951 to 1990 average rainfall amount (DSFNRE, 2003).
through actions that: deliver immediate adaptation benefits; contribute to building local and national adaptive capacities; and create awareness and build foundations for maximizing long-term adaptation benefits.

B. National Level Policies and Strategic Documents

Mainstreaming of adaptation into development policy and planning at every level has been identified by The Gambia as a key element of its efforts to lower its vulnerability to the impacts of climate change. According to The Gambia’s NAPA, an important first step towards mainstreaming adaptive activities is their integration into the national budget framework, and their association with sectoral priorities to help ensure adequate funding from multiple sources (GOTG, 2007).

Within its Initial National Communication, The Gambia proposed a strategy for implementation of mitigation and adaptation measures (DSFNRE, 2003). These actions are to be coordinated by the National Climate Committee and the National Climate Change Focal Point. The Department of State for Fisheries, Natural Resources and the Environment, the Department of Water Resources and other relevant departments are to implement Sectoral Plans in collaboration with concerned institutions particularly the NGOs, local government authorities and community-based organizations.

Table 1: Key Government Policies and Reports reflecting Adaptation Needs, Priorities and Planned Actions

<table>
<thead>
<tr>
<th>Name of Policy Action</th>
<th>Government Division Responsible</th>
<th>Status</th>
<th>Summary description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Gambia Environmental Action Plan (GEAP) (GOTG, 2007)</td>
<td>The National Environmental Agency</td>
<td>First phase implemented from 1992 to 2001; the second phase (2009 - 2018) is being implemented</td>
<td>The GEAP is based on utilitarian principles, which weigh the benefits of improved economic performance and quality of life against societal costs created by particular developmental actions/strategies. Thus, the principal goal of the GEAP is to ensure sustainable development. Although the GEAP does mention adaptation to climate change, the GEAP and NAPA have overlapping interests in agriculture and livestock, natural resources and coastal zone management (GOTG, 2007).</td>
</tr>
<tr>
<td>2. National Communication on Climate Change</td>
<td>Department of State for Fisheries, Natural Resources and the Environment</td>
<td>Released in 2003</td>
<td>This document describes the steps The Gambia is taking and envisages undertaking to implement the UNFCCC. It underlines key vulnerabilities (agriculture/food security, coastal zones and marine ecosystems, water resources, public health) as well as potential adaptation measures.</td>
</tr>
<tr>
<td>3. National Adaptation Program of Action on Climate Change</td>
<td>Government of The Gambia</td>
<td>Released in 2007</td>
<td>The NAPA identifies national and regional climate change impacts and climate change adaptation measures to address those impacts. A total of 10 priority interventions have been identified.</td>
</tr>
</tbody>
</table>
C. Current Adaptation Action

Compared to other West African countries, a low number of projects are currently underway in The Gambia. The focus of these initiatives is on disaster risk management and coastal zone management, reflecting the considerable vulnerability of the country to the impacts of sea level rise. One of the projects currently underway, “Strengthening of The Gambia’s Climate Change Early Warning Systems,” is a priority project identified in the country’s NAPA.

Table 2: Current Adaptation Actions in The Gambia

<table>
<thead>
<tr>
<th>Name</th>
<th>Objectives</th>
<th>Funder(s)</th>
<th>Implementing Agency(s)</th>
<th>Type of project</th>
<th>Duration</th>
<th>Priority Sector(s)</th>
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<tr>
<td>National Action</td>
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<tr>
<td>1. Strengthening of The Gambia’s Climate Change Early Warning Systems²</td>
<td>The objective is to reduce vulnerability to climate change through enhanced capacity for science-based decision making and planning for affected populations to respond to climate change through a strengthened early warning and informational mechanisms. This project seeks to implement The Gambia’s top priority as identified in its NAPA.</td>
<td>LDCF; Government of The Gambia Budget: US$2,583,500</td>
<td>UNEP; Ministry of Fisheries, Water Resources and National Assembly Matters</td>
<td>Capacity building; Assessment; Knowledge communication</td>
<td>2011 – 2014</td>
<td>Disaster risk management</td>
<td>National</td>
</tr>
<tr>
<td>Participation in Regional and Global Projects</td>
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<tr>
<td>2. Adaptation to Climate Change: Responding to coastline change and its human dimensions in West Africa through Integrated Coastal Area Management³</td>
<td>The overall objective of the project is to mainstream adaptation to climate change into Integrated Coastal Area Management planning in the participating countries through the development and implementation of pilot adaptation activities in response to shoreline change. This will involve the development of strategies, policies and measures, based on technical/scientific information and appropriate policy instruments. A major preliminary objective will therefore be to pilot</td>
<td>GEF Trust Fund</td>
<td>UNDP-GEF, UNESCO/IOC</td>
<td>Policy formation and integration; Field implementation</td>
<td>2006 – 2010</td>
<td>Coastal zone management</td>
<td>Regional: Cape Verde, The Gambia, Guinea-Bissau, Mauritania, Senegal</td>
</tr>
</tbody>
</table>

² GEF, http://gefonline.org/projectDetailsSQL.cfm?projID=3728
³ http://www.gefonline.org/projectDetailsSQL.cfm?projID=2614
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<td>3. Adapting Fishing Policy to Climate Change with the Aid of Scientific and Endogenous Knowledge 4</td>
<td>This project aims to improve fishing practices and policies in the face of climate change in six countries. It will do so by facilitating twice-yearly meetings at three levels (sub-regional, national and local), bringing together political decision-makers, researchers, representatives of fisher associations and managers of projects and programs. The researchers will gather scientific and endogenous knowledge that will allow the participants to explore together various possible scenarios and evaluate different adaptation strategies.</td>
<td>Canada</td>
<td>IDRC; Environment and Development Action in the Third World</td>
<td>Capacity building; Policy formation and integration; Research</td>
<td>2008 – 2011</td>
<td>Fisheries</td>
<td>Regional: Cape Verde, Gambia, Guinea, Guinea-Bissau, Mauritania and Senegal</td>
</tr>
<tr>
<td>4. West African Science Service on Climate and Adapted Land Use 5</td>
<td>The project aims at generating knowledge and developing analytical capabilities in West Africa to cope with climate change by the design of resilient land-use systems and the development of measures to conserve or restore healthy ecosystems that allow sustainable development. It relies upon cooperation between the West African research community and the expertise existing in Germany on climate change and adapted land management.</td>
<td>German Federal Ministry of Education and Research</td>
<td>University of Bonn</td>
<td>Research</td>
<td>2010 – 2011</td>
<td>Agriculture; Ecosystem conservation</td>
<td>Regional: Benin, Burkina Faso, Cote d’Ivoire, Gambia, Ghana, Mali, Niger, Nigeria, Senegal and Togo</td>
</tr>
</tbody>
</table>

5 [http://www.lap.uni-bonn.de/research/research-projects/wascal/set_language=en](http://www.lap.uni-bonn.de/research/research-projects/wascal/set_language=en)
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<td>Evolution of Protected Area systems with regard to climatic, institutional, social, and economic conditions in the West Africa Region 6 (also known as Climate Proofing Protected Areas in West Africa)</td>
<td>The project will focus on developing science-based national- and regional-scale tools to support improved management of protected area systems in response to climate and other change impacts. Opportunities for transboundary collaboration will play a large part in the project activities, as these might offer some of the most effective solutions.</td>
<td>GEF; co-financing</td>
<td>UNEP World Conservation Monitoring Centre</td>
<td>Capacity building</td>
<td>2009 – 2015</td>
<td>Biodiversity; Ecosystem conservation</td>
<td>Regional: Core: Chad, The Gambia, Mali, Sierra Leone, and Togo Plus: Burkina Faso, Côte d’Ivoire and Ghana</td>
</tr>
</tbody>
</table>

### D. Proposed Adaptation Action

In addition to seven potential adaptation measures identified in The Gambia’s National Communication (DSFNRE, 2003), its NAPA submitted ten priority adaptation actions (GOTG, 2007). As indicated previously, the first of these NAPA priorities is now being implemented. It is expected that projects proposed in the NAPA will be implemented through the existing institutional arrangements that assisted with the preparation of the NAPA for The Gambia. These institutional arrangements include three levels:

- at the central level through the Policy Focal line Department of State for UNFCCC (i.e. the Department of State for Forestry and the Environment and the National Climate Committee);
- at the regional level through the Divisional Development Committee and the Climate Change Committee; and
- at the community level through the Ward Development Committees and the Village Development Committees.

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6 [http://www.unep-wcmc.org/protected_areas/cppawa.htm](http://www.unep-wcmc.org/protected_areas/cppawa.htm)
### Table 4: Priority projects identified in The Gambia’s National Communication and NAPA (GOTG 2007)

<table>
<thead>
<tr>
<th>Name</th>
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<th>Project Type</th>
<th>Priority Sector(s)</th>
<th>Geographic focus (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Improvement of fresh water availability</td>
<td>The overall objective of the project is to ensure adequate supply of fresh water and the reduction of the negative impacts of natural disasters.</td>
<td>Field implementation</td>
<td>Freshwater supply</td>
<td>National</td>
</tr>
<tr>
<td>2. Diversification and intensification of agricultural production, processing, and marketing</td>
<td>The main objective of the project is to enhance food security, nutrition and socioeconomic livelihoods through agricultural diversification and intensification under increasing concentration of greenhouse gases in the atmosphere.</td>
<td>Capacity building</td>
<td>Agriculture</td>
<td>Central River, North Bank, Upper River, Lower River, Western Regions</td>
</tr>
<tr>
<td>3. Expansion of community participation in the management of forests and protected areas</td>
<td>The global objective of the project is to enhance the management of forest resources for continuous supply of products for sustainable livelihood.</td>
<td>Capacity building; Field implementation</td>
<td>Forestry</td>
<td>North Bank, Lower River, Western, Upper River and Central River Regions</td>
</tr>
<tr>
<td>4. Expansion and intensification of agro-forestry and re-forestation activities</td>
<td>The global objective of the project is to enhance the contributions of properly restored forest ecosystems to forest-based poverty alleviation and more broadly to other national economic goals; reduce the vulnerability of the affected stakeholders and increase their resilience to cope with climate change.</td>
<td>Capacity building; Community Based Adaptation; Field implementation</td>
<td>Forestry</td>
<td>North Bank, Lower River, Western, Upper River and Central River Regions</td>
</tr>
<tr>
<td>5. Briquetting and carbonization of groundnut shells</td>
<td>The general objective is to ensure greater energy security in project area and to reduce the pressure on forest resources and thereby reduce vulnerability to climate change.</td>
<td>Knowledge communication; Field implementation</td>
<td>Energy</td>
<td>Western Region, Banjul Municipality</td>
</tr>
<tr>
<td>6. Reduction of climate change related diseases</td>
<td>The overall objective is to enhance national emergency and disaster preparedness to climate change hazards in relation to human health.</td>
<td>Knowledge communication; Field implementation</td>
<td>Human health; Disaster risk management</td>
<td>Kanifing Municipality, Central River and Upper River Regions</td>
</tr>
<tr>
<td>7. Improved livestock and rangeland management for food security and environmental sustainability</td>
<td>The overall objective is to enhance livestock-based livelihoods to counter the threat from climate change.</td>
<td>Knowledge communication; Field implementation</td>
<td>Agriculture</td>
<td>North Bank, Lower River, and Upper River Regions</td>
</tr>
<tr>
<td>8. Restoration/protection of coastal environments</td>
<td>The overall objective is to strengthen integrated coastal zone management and the protection of physical infrastructure, economic and cultural assets located within</td>
<td>Field implementation</td>
<td>Coastal zone management</td>
<td>Banjul and Kanifing Municipalities</td>
</tr>
</tbody>
</table>
The main objective of the project is to make a positive contribution to poverty reduction, livelihood security and national food security.

E. Assessment

- The Gambia’s NAPA is quite detailed and most of the priorities identified in it are targeted by the selected priority projects.
- Although only a small number of projects are being implemented in The Gambia, the NAPA-identified project “Strengthening of The Gambia’s Climate Change Early Warning Systems” (see Table 3) marks significant progress towards implementing effective adaptation action in the country. This project may benefit several of the key vulnerable sectors identified in The Gambia’s NAPA.
- The limited amount of adaptation action in the country means that a number of other key vulnerable sectors, including energy, human health, gender and forestry, are not currently being supported. The only other priority sectors being addressed are coastal zone management and agriculture through regional projects.
- It is anticipated that The Gambia will focus on removing the barriers identified in its NAPA and on attracting financing in order to implement the planned adaptation actions. Concerning the obstacles to effective adaptation, The Gambia considers the lack of research on the linkages between climate and biophysical processes as a barrier to the implementation of adaptation actions. Bureaucratic red tape is also identified as a key organizational barrier as it delays the delivery of project outputs.
- At the policy level, adaptation mainstreaming in sectoral policies is expected to result in progress towards the effective implementation of adaptation measures in various sectors. The Gambia also considers participatory processes, capacity building, sectoral linkages and adaptation mainstreaming into development policy and planning at every level as key elements for achieving successful and effective implementation of adaptation action.
References:

