

THE REPUBLIC OF GUINEA-BISSAU: STRENGTHENING RESILIENCE AND ADAPTIVE CAPACITY TO CLIMATE CHANGE IN THE AGRARIAN AND WATER SECTORS

Issues

The National Adaptation Plan of Action for the Republic of Guinea-Bissau concluded that climate change and weather variability represent a threat to development. Nevertheless, the country is poorly equipped to address the adverse effects of climate change. The natural environment of Guinea-Bissau is vulnerable to increasing desertification and deforestation on the background of increasing domestic fuel demands, overfishing and saltwater intrusion into agricultural areas. Despite an overall decrease in rainfall, rain events are growing increasingly intense and are frequently accompanied by strong winds, particularly during the months of August and September which results in substantial agricultural losses. Because of lower rainfall, there is increased salt-water infiltration into aquifers. Moreover, sea-level rise leads to salt-water flooding of rice paddies and destruction of dykes. For instance, the floods caused by the high tides and rain of 2003, 2004 and 2005 damaged infrastructure, homes and caused the loss of lives and agricultural land in Eastern Guinea-Bissau. Furthermore, as the length of the dry season increases, the savannah vegetation advances and this alters forest composition and the quality of pastures and crops which are affected by dust-laden harmattan winds. Because of changes in the climatic regime, water scarcity is also worsening.



Figure 1: The impacts of climate change on agricultural water resources will affect human health, agricultural production and food security. Source: UNDP.

PROJECT SUMMARY

- Country: the Republic of Guinea-Bissau
- Budget: \$ 4,000,000
- Funding Source: LDCF (GEF)
- Co-Financing: \$ 19,954,000
- Period: 2011–2015
- Implementing partners: State Secretariat for Environment and Sustainable Development/General Direction of Environment, UNDP, GEF
- Targeted area: Pitche and Pirada sectors in Gabú region

There are several obstacles that prevent the sustainable management of resources in Guinea-Bissau. Amongst them, there is the traditional practice of itinerant slash-and-burn agriculture. Also, although water is scarce, its management is far from optimal and investments in the maintenance of water infrastructure are insufficient. What is more, weather and climate information are not satisfactory. Key stakeholders have limited capacity to plan and respond to climate-related risks or to incorporate adaptation measures in the design and implementation of development frameworks: policies, strategies, programmes, projects and initiatives. At the local level, the capacity to implement new measures and utilise improved agricultural and water-management technologies is also underdeveloped. Climate change risk analysis in Guinea-Bissau is still at its early stages and information is not widely available to encourage a shift from a reactive and ad-hoc climate change response paradigm to anticipatory and deliberative practices.

Actions

This project will assist Guinea-Bissau to better plan and have a more systematic approach towards climate change. Interventions will focus on the agrarian and water sectors. The expected outcomes are as follows.

1. Climate change risks and adaptation measures are integrated into key national policies, plans and programs for water, agriculture and livestock management.

Thirty representatives from local government bodies, ministries overseeing the agrarian, water, economic and education sectors and elected parliamentarians have participated at a workshop to improve their knowledge about climate change mainstreaming into public policies. Separate meetings were held with the National Directorate of Agriculture, Livestock and Water Resources and they resulted in agreement for the creation of a National Working Team to support climate change mainstreaming into development plans. In liaison with the Food and Agriculture Organisation of the UN and the National Working Team, the draft of the Agrarian Investment Plan was revised and it now incorporates issues related to climate change. Moreover, the National Institute of Meteorology has increased its climate monitoring capacity following the rehabilitation of seven auxiliary meteorological stations in Eastern Guinea-Bissau and the training of 28 participants, of which 9 women. In addition, Gabu's Regional Meteorological Station has been constructed and equipped.



Figure 2: Few of Guinea-Bissau's freshwater courses are perennial. Therefore, groundwater resources are essential during the dry season. But seawater intrusion decreases water quality during droughts as the water network intersects the coastal plains and is strongly affected by tides as far as Geba. Source: FAO – AQUASTAT 2005. *Disclaimer: The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.*

2. Small and medium scale climate change adaptation practices for water, agriculture and livestock management are demonstrated and implemented in the selected regions.

Farmers have been supplied with short-cycle seeds for maize, rice, peanut and sorghum. Field trainings on climate-resilient agricultural techniques, the prevention of soil erosion, water management and restoration of soil fertility have been

organised in targeted villages. Six villages were equipped with improved cereal banks which contributed to the reduction of post-harvest losses. Livestock farmers started the production of fodder upon receipt of seeds. 24 collective demonstration fields for fodder production were successfully established and 73 hangars for fodder storage were constructed and put to use in 21 villages. A vaccination campaign started and to date, the project has increased the resilience of roughly 13,500 animals against common diseases. Nine villages have now access to potable water as a result of building improved wells and water holes and eleven villages have set up water-infrastructure management committees, of which 50 percent are female members.

3. Lessons learned and best practices from pilot activities, capacity development initiatives and policy changes are disseminated.

A Rural Climate Change Forum was established to promote climate change awareness, provide input on project communications and assess the impact of project activities on peoples' lives. A publication and video-film on climate change was produced and shared. Two success stories from farmers were shared. Ultimately, knowledge items and lessons will be documented and a series of dissemination events and products will target other areas of Guinea-Bissau and the wider West African region.

Expected Impacts

As the first action-oriented and tangible national climate adaptation project in Guinea-Bissau, this project is an initial and important step to assist the country's shift towards a pathway of climate-resilient development. By the end of the project, Guinea-Bissau will have received assistance to transform its policies in that they will include climate change concerns. Ultimately, the agrarian and water sectors will become more resilient to climatic pressures.

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