# PROJECT HIGHLIGHTS

### Pursuing Low Regret Climate Adaptation and Disaster Risk Reduction in Djibouti

#### Climate data and community preparedness - cornerstones for climate resilience

**Low-regret climate adaptation** options are those where moderate levels of investment increase the capacity to cope with future climate risks. Typically, these involve over-specifying components in new builds or refurbishment projects. For instance, installing larger diameter drains at the time of construction or refurbishment is likely to be a relatively low-cost option compared to having to increase specification at a later date due to increases in rainfall intensity.

#### Background

Djibouti has been subject to a protracted five year drought showing historic trends of serious flooding followed by long periods of drought. Local communities in this arid, coastal country located in the disasterprone Horn of Africa, have long suffered with climate change impacts, water shortages, pasture scarcity and food insecurity. Hence, additional climatic shock to the nation would be devastating. Fortuitously, a nationally federated climate database is being established to provide better data management across governmental ministries, agencies and institutions in order to increase the reliability and systematization of meteorological, climate and disaster data. Another expected outcome of this database is the improvement of contingency planning for the impact and aftermath of extreme events. Various stakeholders are already being trained to prepare and strengthen institutions and communities for the expected implications of this overall effort.

Even in the absence of climate change, the country is facing a water shortage crisis. Without appropriate adaptation measures, disaster risks are expected to grow. Consequently, after the completion of the postdisaster needs assessment (PDNA) of the 2011 drought, the Government asked the World Bank to organize a South-South Cooperation (SSC) program among African countries with similar hazard risk profiles. The shortage of hydro-meteorological history data during the PDNA revealed the need to create and maintain an exhaustive, federated database to facilitate accurate climate assessments in the future. Thus, the objective of this technical assistance program is to establish cooperation on hydro-meteorological data collection and management; and institutional and community preparedness for droughts and floods among high-risk countries. The SSC identified drought-prone Kenya and flood-prone Mozambique as partners, due to their geographic proximity, their hazard risk similarities, as well as their extensive disaster risk management (DRM) experience. This SSC sets the groundwork for longer-term cross-regional cooperation in integrating climate change adaptation and disaster risk management in development.

#### Challenges

Four main issues have previously hindered climate change adaptation and comprehensive disaster risk management: (i) insufficient meteorological data; (ii) deficient contingency planning for dealing with the impact and aftermath of extreme events; (iii) lack of community preparedness; and (iv) ineffective coordination between ministries. The technical assistance provided for the low regret climate adaptation and disaster risk reduction options helps ameliorate these issues. Low regret actions reduce the adverse effects of climate variability, climate change and natural hazards on Djibouti's vulnerable population. Additionally, they continue to build the ongoing national disaster risk management program by increasing the awareness and capacity of government ministries and communities to deal with climate change and natural hazards. Furthermore, the approach reduces the uncertainty generated by climate change projections and predictions by supporting adaptation, mitigation strategies and hazard-specific response capacity building.

Moreover, the technical assistance activities complement the Djibouti Natural Disaster Risk Assessment and Monitoring System (Djibouti's Country Program), by providing additional national partners with analytical support to strengthen capacity in environmental monitoring, management, analysis and communication. In the shorter-term, the ongoing activities will realize benefits by integrating climate and hazard risk data analysis across sectors, thereby promoting integration of climate adaptation actions and better coordination among national stakeholders.

#### Approach

The Pursuing Low Regret Climate Adaptation and Disaster Risk Reduction Options Technical Assistance addresses the main issues that have, to date, hindered climate change adaptation and comprehensive disaster risk management: insufficient meteorological data, deficient contingency planning for dealing with the

http://go.worldbank.org/DT45JDVOK0

www.gfdrr.org

Region:Middle East and North AfricaCountry:Djibouti

Focus Area: Preparedness Civil protection system; pre-positioning emergency response equipment; early warning systems; contingency planning, etc.



# Highlights

Establishment of a reliable and systematized meteorological data collection system as part of a data management strategy.

Dissemination of climate and disaster data while integrating DRM operations across ministries, relevant agencies, and other institutions.

Leveraging low regret actions to reduce adverse effects of climate variability and climate change and natural hazards.

Build ongoing national DRM programs.

Reduce uncertainty generated by climate change projections and predictions.



#### Region: Middle East and North Africa • Country: Djibouti • Focus Area: Preparedness

impact and aftermath of extreme events, lack of community preparedness, and ineffective coordination between ministries. The objective of the technical assistance is to contribute to the reduction of the adverse effects of climate variability and change and natural hazards on Djibouti's vulnerable population through low regret actions while continuing to build on the ongoing disaster risk management country program. This is being pursued through the enhancement of awareness of and capacity to deal with climate change and natural hazard in the government and local communities.

This approach reduces the uncertainty generated by climate change projections and predictions by supporting adaptation, mitigation strategies, and hazard-specific response capacity building.

#### Results

The project is currently training eighteen Djiboutian officials from ten different agencies in emergency response community preparedness, climate data management and risk mapping, which will have exponential benefits to all phases of implementation. Additionally, the project is designed to obtain five main results:

- 1. Develop a best practice report on data management and community response (through the South-South Cooperation program);
- Systematic dissemination of climate and disaster data across various ministries and relevant agencies/ academic institutions;
- 3. Improved and coordinated contingency planning for dealing with the impact and aftermath of extreme events;
- Organization of the South-South Cooperation in Kenya and in Mozambique from December 1-15, 2012; and
- 5. In early 2013, the organization of regional workshops for Djiboutian ministries, DRM stakeholders, regional committees, Djibouti Ville districts and vulnerable communities.

#### Partnership

GFDRR has chosen Djibouti as one of its priority countries to implement its mandate to reduce risk to natural disasters, as foreseen by the Hyogo Framework for Action (HFA). Djibouti's Government has been invited to present at GFDRR donors' Consultative Group (CG) meetings in May 2013 to start negotiations for Djibouti membership to GFDRR, as well as to have bilateral meetings with GFDRR donors which will enable the organization of a risk management round table in Djibouti later in 2013. Through GFDRR, the World Bank has helped transfer knowledge and has built the capacity of local institutions in the domain of disaster risk management. The World Bank has mobilized resources to support the following activities: (i) development of a natural disaster risk assessment and monitoring system (GFDRR US\$2.5 million); and (ii) pursuing low regret climate adaptation and disaster risk reduction options (US\$200,000 from the Trust Fund for Environmentally and Socially Sustainable Development).

Furthermore and pertinent to this technical project, the World Bank is also partnering with Djibouti's Ministries of Finance, Habitat, Urbanism, Environment and Land Management, Agriculture and Health. Other partners include the University of Djibouti, the National Meteorological Institute, the Djibouti Center for Research Studies, the Executive Secretariat for Disaster Risk Management, the Civil Protection, the Red Cross, the United Nations Development Program (UNDP) and GFDRR.

For the SSC, the Mozambican partner agencies are the National Institute of Disaster Risk Management and the Technical Council for Disaster Management; the Kenyan counterparts are the Inter-Governmental Authority for Development Climate Prediction and Applications Centre, the National Drought Management Authority, the National Drought Contingency Fund and the Kenyan Red Cross.

#### **Next Steps**

The World Bank, in cooperation with the Government of Djibouti, is organizing the SSC program in order to develop a DRM information-sharing and climate data management system, in partnership with the Governments of Mozambique and Kenya. The SSC component of the project has the objective of establishing a long-term partnership among countries within the same geographical area and with similar hazard risk profiles, while sharing best practices in drought mitigation, climate data management and community preparedness. The exchange between Djiboutian, Kenyan and Mozambican DRM stakeholders will yield immediate benefits to the participants by improving their understanding and knowledge of data management and triggering a response to severe climate events. Additionally, this cooperation will give these stakeholders the opportunity to create a sustainable relationship and continue improving their climate resilience in the future.best practices on drought mitigation, climate data management, and community preparedness. The exchange between Djiboutian, Kenyan and Mozambican DRM stakeholders will yield immediate benefits to the participants by improving their understanding and knowledge of data management and triggering a response to severe climate events. Additional DRM stakeholders will yield immediate benefits to the participants by improving their understanding and knowledge of data management and triggering a response to severe climate events. Additionally, this cooperation will give these stakeholders to the participants by improving their understanding and knowledge of data management and triggering a response to severe climate events. Additionally, this cooperation will give these stakeholders the opportunity to create a sustainable relationship and continue improving their climate resilience in the future.



#### CONTACT

Andrea Zanon, Disaster Risk Management Specialist, The World Bank, azanon@worldbank.org

Produced and edited by Andrea Zanon and Christina Irene, The World Bank.



www.gfdrr.org



Building awareness and capacity will prepare local communities against climate change.

"[The PDNA] allows for a better understanding of the cross-cutting issues of drought and provides authorities and likely supportive partners a clear and effective plan for government action..."

Ilyas Moussa Dawaleh Office of Industry and Planning Ministry of Economy and Finance Government of Djibouti

## Lessons Learned

The shortage of hydro-meteorological history data during the PDNA revealed the need to create and maintain an exhaustive, federated database to facilitate accurate climate assessments in the future.

The SCC enables the Djibouti DRM authorities to learn from the difficulties confronted by their counterparts in Kenya and Mozambique when planning an institutional or humanitarian response during an extended drought or flooding.

