

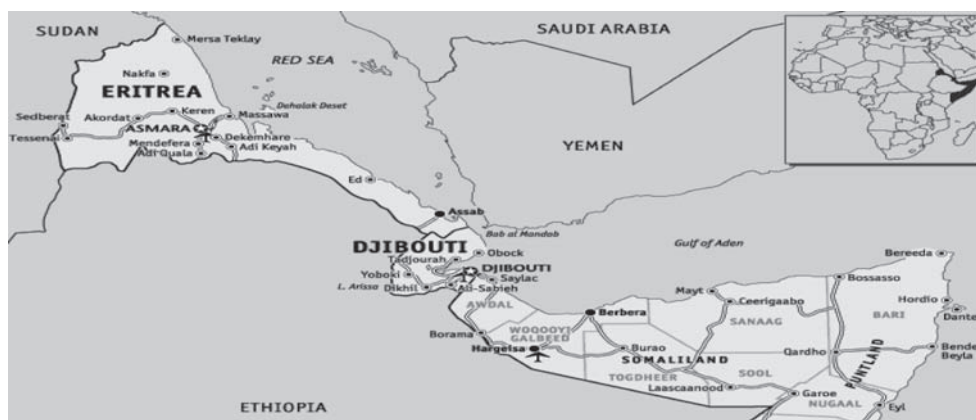
DJIBOUTI

The Djibouti Disaster Risk Management (DRM) program is the result of active collaboration between the World Bank and five leading Djibouti DRM agencies. The following are the national agencies engaged: (i) the Djibouti Center for Study and Research (CERD); (ii) the Executive Secretariat for DRM (SEGRC); (iii) the Ministry of the Habitat, Urbanism, Environment, and Land Management (MHUEAT); (iv) the Meteorology Division of the Airport; and (v) the University of Djibouti.

1. DISASTER RISK PROFILE

Djibouti is a resource scarce country. Measuring 23,000 sq km, it is located at the juncture of the Red and the Aden Sea, which serves as a vital regional and international trans-shipment port. According to 2003 national statistics, the country's population is estimated at 734,000 people, 85 percent of which live in urban coastal areas¹ and roughly 65 percent in Djibouti-ville, the capital city. In 2008 Djibouti's real GDP grew by 5.9 percent, driven mainly by foreign direct investments (FDI) in construction and maritime services. According to the World Bank, Djibouti's strong externally financed public investment and the growing diversification of maritime services will allow Djibouti to decrease its dependence on Ethiopian trade and will support real GDP growth of about 5 percent in 2009.

Figure 1. Map of Djibouti



Djibouti is vulnerable to a range of natural hazards: i) extended dry multi-annual droughts that result in water scarcity for agriculture and domestic uses; ii) frequent intense flash floods with a variable but approximate recurrence of 7 years; iii) frequent earthquakes ranging in magnitude between 4 and 5 on the Richter scale iv) volcanism originating along the Afar rift area; and v) fires fueled by droughts and exacerbated by precarious construction materials.

Data from recent disasters (Table 2) demonstrates that Djibouti's economic growth and sustainable development have been heavily affected by natural disasters. According to the World Bank Natural Disaster Hot Spots Study², Djibouti is characterized by a relatively high economic risk from multiple natural disasters. Approximately 33 percent of its population lives in areas of high risk³, and 35.3 percent of the economy is vulnerable to natural disasters.

1 The majority of Djiboutian population is located near the coast, and is particularly at risk from sea level rise and flash floods (as seen in 1927, 1989, 1994, and lately in 2004).

2 World Bank, Natural Disaster Hotspots: A Global Risk Analysis. 2005.

3 According to UNDP, the drought of 1999 affected more than 150,000 nomadic herdsmen, and the scarcity of rainfalls resulted in the loss of 30 percent of the cattle.

Djibouti's disaster risk vulnerability is worsened by scarce water resources management, insufficient land use planning, non-systematic building codes enforcement, as well as by the country's limited capacity to prevent and respond effectively when a natural disaster occur. Furthermore, at present the country is experiencing a water crisis due to the pressure placed on its renewable freshwater resources by population growth, as well as by climate change. With less than 400 m³/yr/per capita (in 2005), the country is classified as water scarce (according to World Health Organization definition of <1000 m³/yr/per capita) (Table 1).

Table 1. Country snapshots

Index	Djibouti	Morocco	Yemen
Population (1000)	793	31,478	20,975
Growth rate (%)	2.1	1.5	1.1
Water per capita (m ³ /yr)	378	921	195
GDP agriculture (%)	4	16	13
Rural water access (%)	59	56	65

Source: United Nations Statistic Division (2005)

Droughts have been exacerbated by two consecutive failed rainy seasons, which resulted in the insufficient replenishment of water catchments. According to the Emergency Events Database (EM DAT), 2008 drought damage and loss affected roughly 50 percent of the population. As the drought worsened food prices for staples reached record levels, worsening the situation for poorer households. Poor urban households can currently buy only 68 percent of their daily minimum food requirements⁴. According to the Food Security and Nutrition Working Group, 284,000 people (41 percent of total population) are food insecure or at risk of food insecurity due to droughts.

A recent World Bank study indicates that annual economic losses resulting from the April 2004's flash floods at *Oued d'Ambouli*, exceeded DJF 1.8 billion (approximately US\$ 11.1 million), caused 230 fatalities and severely affected about 20,000 households. The flash floods caused grave damage to services, roads, bridges, health facilities, and schools.

Table 2. Main Natural Disasters in Djibouti 1970 – 2007

Natural Disaster	Year	Total Dead	Number of Affected People	Damage US\$ million
Flood	1977		91,000	
Flood	1978		106,000	2,500
Drought	1980	0	145,000	
Flood	1981	25	102,000	
Drought	1984	0	80,000	
Drought	1988	0	30,000	
Flood	1989	10	15,0300	
Flood	1993	0	20,000	1,100
Flood	1994	145	120,000	
Epidemic	1994	10	239	2,119
Wind storm	1995	0	775	
Drought	1996	0	100,000	
Epidemic	1997	50	2,424	

(Cont.)

4 World Bank, Djibouti Economic Monitoring Report, Social and Economic Development Group MNA. April 2008.

Natural Disaster	Year	Total Dead	Number of Affected People	Damage US\$ million
Epidemic	1998	43	2,000	
Drought	1999	0	100,000	
Drought	2000	0	150,000	
Epidemic	2000	4	419	
Flood	2001	0	95,000	
Flood	2004	230	115,000	1,600
Drought	2005	0	42,750	NA
Drought	2007	0	150,000	NA
Drought	2008	0	284,000	NA

Source: UNDP, Disasters for LDCs (2004); GFDRR (2009)

2. ACTIVITIES UNDER THE HYOGO FRAMEWORK OF ACTION

HFA Priority # 1: Institutional Capacity and Consensus Building for Disaster Risk Reduction

Djibouti's main DRM strategy objectives includes the following pillars: (a) increase national leadership and commitment to the sustainability of DRR through the implementation of the HFA; (b) enhance collaboration and coordination among national stakeholders in order to increase DRR knowledge and understanding; (c) increase national commitment to protect disaster vulnerable households; and (d) serve as national focal point in the United Nations International Strategy for Disaster Reduction (ISDR) system, and strengthen links with its secretariat.

Table 3. Djibouti's DRM Legal and Policy Framework

Date	DRM Legislations/Documents
Oct-06	National Action Program for Climate Change Adaptation; Ministère de l'Habitat, de l'Urbanisme, de l'Environnement et de l'Aménagement du Territoire, UNEP, GEF, UNFCCC
Jul-06	Decree No. 2006-0192/PR/MID. Institutional framework for disaster and risk management
Mar-06	Exécution of the National Strategy for DRM; Ministère de l'Intérieur et de la Décentralisation
Jun-05	Coastal Environmental Profile of the Republic of Djibouti; Ministère de l'Habitat, de l'Urbanisme, de l'Environnement et de l'Aménagement du Territoire
Feb-05	Prescription No. 2005-0147/PR. Creation of the Post-Flooding Rehabilitation Program Steering Committee
Aug-04	Prescription No. 2004-0579/PR/MID. Creation of a Technical Committee to prepare and elaborate a national strategy for disaster and risk management
Jun-04	Law No. 58/AN/04/5 ^{ème} L. Creation and status definition of the Civil Protection Bureau
Dec-01	Republic of Djibouti First National Communication to the UNFCCC; Ministère de l'Habitat, de l'Urbanisme, de l'Environnement et de l'Aménagement du Territoire
Jul-01	Study of Vulnerability and Adaptation to Climate Change; Ministère de l'Habitat, de l'Urbanisme, de l'Environnement et de l'Aménagement du Territoire
Dec-00	National Environmental Plan; Ministère de l'Habitat, de l'Urbanisme, de l'Environnement et de l'Aménagement du Territoire

Source: World Bank 2009

DRM is a priority of the Government of Djibouti, and is an integral part of the processes of development planning and poverty reduction. However, disaster prevention, mitigation and preparedness are new to the country and need to be further strengthened. The institutional structure for DRR and DRM is headed by the National Committee,

presided by the First Minister responsible for: (i) policies and strategies formulation; (ii) international aid mobilization, and (iii) integrating DRM activities with poverty reduction.

In 2006 Djibouti's Government established the Executive Secretariat for Risk and Disaster Management (SEGRC). SEGRC advises the National Committee on natural disaster technical matters, coordinates prevention, mitigation, and response activities. Moreover SEGRC controls the crisis center, promotes and coordinate the preparation of sectoral and regional plans for risk and disaster management. Although SEGRC capacity is limited (it consists of three staff members), a plan for its expansion is envisaged, increasing staff members to 6 by the end of 2009.

The National Inspectorate for Civil Protection has been operational since 1970. In 2004 a new law has been approved in order to expand and better define the Civil Protection core DRR competencies. The Civil Protection has two main functions: (a) fire risk management and prevention; and (b) emergencies operational management. The Inspector manages all relief operations either from the command post of the Civil Defense Inspectorate or, in most cases, from the field. The Government of Djibouti has been enhancing the Civil Protection capacity and is currently establishing regional Civil Defense offices.

Djibouti's main think tank is the National Center for Scientific Study and Research (CERD). CERD is a multidisciplinary scientific research development institute which provides policy makers and citizen's access to training, workshops and knowledge on: (i) environmental studies; (ii) social sciences; (iii) international strategic studies; (iv) cartography and geography; and (v) information technologies. CERD has led the first phase of GFDRR technical assistance, and would be one of the key partners in the development of the second phase.

In terms of DRM Institutional Capacity and Consensus Building for DRR, several multilateral organizations are engaged in strengthening DRM capacity in Djibouti. These organizations are: USAID, UNEP, UNDP, UNICEF, and the EC. In addition, the MNA DRM Team is currently seeking to establish regional partnership with IGAD in order to foster disaster preparedness.

HFA Priority # 2: Disaster Risk Assessment and Monitoring

Djibouti has not regularly assessed the country's exposure to natural disaster risk, nor to climate variability. In spite of the country technical sectoral expertise (meteorology, seismology, hydrogeology, geology, and geography) Djibouti lacks risk assessment and evaluation capacity. There have been limited attempts to assess risk in probabilistic and financial terms, and there are no local, national and regional hazard risk maps available. Policy makers have therefore limited access to risk evaluation tools.

The MNA DRM Team has carried out preliminary activities to develop a comprehensive risk assessment system for the country, in partnership with CERD and the MHUEAT and in close coordination with SEGRC. The activities developed are: (i) establishment of detailed TORs for the system; and (ii) undertaking of a detailed inventory of vulnerability data existing in Djibouti.

In 2006 MHUEAT in partnership with GEF, and the United Nations Intergovernmental Panel on Climate Change (UNIPCCC) led the preparation of a national action program for adaptation to climate change: The National Adaptation Program of Action (NAPA)⁵. The key objectives of this report were: (i) establish a climate adaptation framework; and (ii) improve the government effectiveness to tackle climate variability challenges.

Following April 2004 devastating flood that stroke Djibouti-City, the Government applied for USAID funding to establish a flash flood early warning system. In January of 2009 the Government of Djibouti began the installation

⁵ UNEP, GEF, et al. National Adaptation Program of Action. 2006

of a surveillance system in the *Ambouli River Basin*, and several Government officials are currently undertaking training at CERD prior to the system becoming operational in the fall of 2009. SEGRC needs to develop alert and shelter protocols, as well as set up a simulation system in order for the surveillance system to be upgraded to an early warning

system. SEGRC is also working with USAID for the establishment of an additional early warning system for the region of Oued d' Amis.

In 2001 Djibouti developed its first disaster vulnerability, as well as climate change adaptation study on the vulnerability and adaptation to climate change impact.

HFA Priority # 3: Reduce the underlying risk factors

DRR awareness dissemination is limited, and does not comprise university curricula, school training, or text books for primary or secondary education. The SEGRC, with funding from the IDA-financed Flood Emergency Rehabilitation Project, developed some activities to raise awareness, notably training of technical staff from various government agencies, creation and training of regional disaster prevention committees, and launching of general awareness radio emissions. Nevertheless these efforts have been limited in scope and have lacked a framing long-term strategy. The dissemination of disaster and environmental information, best practice and lessons learned in Djibouti has a long way to go. There is a lack of information and knowledge regarding: the country's natural resources; potential natural disaster and environmental impacts. Furthermore, there is no systematic DRR training provided to decision makers, neither is risk knowledge disseminated to vulnerable rural and coastal communities.

HFA Priority # 4: Reduction of the underlying risk factors

Disaster response has improved considerably as a result of combined national and international efforts, as well as because of Djibouti increased financial allocation to disaster planning and emergency response. Nonetheless, DRR is not systematically incorporated into the design and implementation of emergency, response, recovery and rehabilitation processes of the national policy framework. Consequently, risk reduction policies struggle to find due consideration and justification, needed to encourage investment in prevention.

Although some efforts to introduce building codes standards have taken place, law enforcement is limited. DRR elements are not systematically included in land use development plans; additionally technical construction standards are not always elaborated and implemented.

With regard to climate change adaptation, in February 2009 the World Bank, with support from the Bank Netherlands Partnership Program (BNPP), issued a report on climate change risks and adaptation options for the Republic of Djibouti⁶. This report aims to identify Djibouti most climate change vulnerable sectors, and to outline potential priority adaptation measures that could help develop national capacity to understand and adapt to climate change impacts.

HFA Priority # 5: Strengthen disaster preparedness and response at all levels

There are currently limited disaster preparedness and risk transfer activities. However the Government is planning to increase funding for the development of the following activities: (i) creation of a contingency fund; (ii) elaboration of emergency planning at all levels and; and (iii) enhancement of emergency and crisis related institutional capacities.

⁶ Wilby, R. Climate Change Risk and Adaptation Options for the Republic of Djibouti. February 2009

3. INTEGRATION OF DISASTER RISK MANAGEMENT IN DEVELOPMENT STRATEGIES

To address its social and economic challenges, in January 2007 the Government of Djibouti launched the “Initiative Nationale pour le Développement Social (INDS)”, replacing the Poverty Reduction Strategy Paper (PRSP). The INDS will promote access to basic social services and improve the quality and effectiveness of delivery. In terms of DRR, INDS aims to streamline DRR in priority sectors by strengthening DRM institutional capacity, risk mitigation and preparedness.

The current Country Assistance Strategy (CAS) for the Republic of Djibouti (FY 2009-2012) recognizes natural disasters as one of the main causes of poverty. Djibouti CAS proposes to tackle disaster vulnerability by integrating DRR into sectoral activities, increasing investment in the water sector in order to retain water for agriculture, to prevent floods, and to recharge water aquifers. This is very relevant given that most disasters in Djibouti are of water born nature.

UNDAF 2008-2012 emphasized Djibouti’s risks exposure to natural disaster and proposes to strengthen national institutions responsible for poverty reduction, with a special focus on DRR, and epidemics. More concretely UNDAF envisaged a framework for a better management of natural resources. This framework will include the establishment of: (i) an integrated environmental safeguarding strategy; (ii) a framework for fighting desertification; (iii) an early warning system; and (iv) and the active involvement of rural communities in the prevention and management of natural disaster activities.

4. KEY DONOR ENGAGEMENTS

Table 4. Key Donors and International Financial Institutions Engagement

Ongoing Projects	UN, Donor, IFI Cooperation	Indicative Budget (US\$)	HFA Activity Area(s)
Developed Countries Fund (LDCF) project grant	Global Environment Facility (GEF)	10,500,000	HFA 2-4-5
Flood Emergency Rehabilitation Project: Establish SEGRC	World Bank	6,500,000	HFA 5
Preparatory activities and methodology to develop a comprehensive system for risk assessment	Global Facility for Disaster Reduction and Recovery (GFDRR)	70,000	HFA 1-2
Climate modeling and risk management (Multi country project)	GFDRR	43,900	HFA 1-5
Urban Poverty Reduction Program	World Bank	3,000,000	HFA 1
DRM Strategy	United Nations Development Program (UNDP)	50,000	HFA 1
Drought Prevention Water Management	European Commission (EC)	769,000	HFA 1-2-3
Ensure that a national multi-sector platform for DRR is operational	World Bank, UNDP, UNEP, EC	800,000	HFA 1-2-4
National Adaptation Program of Action (NAPA)	MHUE, UNEP, GEF	200,000	HFA 2-3-4
Climate Change Risks and Adaptation Options for the Republic of Djibouti (Final Report)	World Bank, BNPP	60,000	HFA1-2-3-4

5. GLOBAL FACILITY FOR DISASTER REDUCTION AND RECOVERY (GFDRR): ACTION PLAN

Although Djibouti has made considerable progress in DRR, significant challenges remain unaddressed. Understanding of natural hazards remains limited, and natural disasters are predominantly dealt in an ex-post manner. The following strategic actions are necessary in order to streamline DRR: (i) increase technical capacity, awareness and equipment of national DRM institutions; and (ii) mainstream DRR in priority sectors. Given the limited capacity in the country, the task team proposes that the second phase of the technical assistance be focused on improving risk assessment and monitoring capacity, targeting the following organizations: CERD, SEGRC, the University of Djibouti, MHUEAT, and the METEO.

The task team proposes country execution for this activity in order to ensure the highest transfer of DRM capacity to Djibouti agencies. However, in order to ensure effective project implementation, key national agencies seek to establish an implementation unit which will be housed in CERD and will be responsible for activity coordination, financial and administrative management. By working with the five identified institutions through a structured technical assistance, we will gain further coordination and we will provide support to data analysis, which is indispensable for developing prevention activities.

MNA DRM team will seek GFDRR financial assistance to continue strengthening Djibouti risk assessment and monitoring capacity. The second phase of GFDRR Track II activity aims to develop Djibouti's comprehensive system for risk assessment. This activity will further strengthen CERD, SEGRC and MHUEAT DRM capacity, and reinforce stakeholders understanding of the country's exposure to natural disasters and its social, economic, environmental and physical vulnerabilities. The TORs for the Comprehensive Risk Assessment activity in Djibouti are inspired by The Central American Probabilistic Risk Assessment (CAPRA). CAPRA seeks to develop appropriate standards and methodologies for probabilistic risk evaluation, and incorporates state of the art models into a geographic information platform.

Strengthen SEGRC DRM capacity. SEGRC has limited staff, consisting of three staff members: the executive secretary and two administrative assistants. Under the second phase of GFDRR work, the task team plans to strengthen SEGRC DRR capacity by developing an activation and crisis management protocol, as well as broadening the development of disaster simulations at national and community levels.

In terms of climate change adaptation, MNA DRM team aims to strengthen MHUEAT, as well as National and Local Government capacity to understand and adapt to climate change. The climate adaptation activities options under consideration seek to build on existing efforts such as the NAPA, and the 2008 World Bank Climate Change Risk Adaptation Options for the Republic of Djibouti. This activity will consist of a coastal climate adaptation pilot project, which will seek to reduce the adverse effects of climate change through raising climate risk awareness, and by increasing the understanding of available climate adaptation options.

Broaden DRR training programs for country stakeholders through the involvement of the University of Djibouti, public schools, and key national think tanks. This activity aims to develop DRR training modules and a master's degree for students as well as specialized training for teachers. This component will ensure that university curricula, education material and relevant trainings include DRR and recovery concepts and practices. By incorporating disaster risk-related issues into existing university curricula, the DRR team contributes to continuous learning and sustainability of the program, as well as reinforces DRR knowledge in the country.

Enhance the Division of Meteorology knowledge of meteorological risks, and quality of data access in order to strengthen the METEO climatic risk analysis. This will be obtained by establishing between 7 and 15 automatic weather stations throughout the seven climatic regions of Djibouti and by providing specialized training to staff.