



Water

Sanitation

emerald

FUNDING PROPOSAL FOR WATER AND SANITATION EMERGENCY RESPONSE TO DROUGHT IN DJIBOUTI



Figure 1: Seasonal river or oued (03/04/06); Photo/ UNICEF Djibouti

ISSUE

Water shortages are not a new problematic for the Republic of Djibouti in general and in the rural areas in particular. Over the recent years, a number of experts have clearly highlighted the scarcity of water in this semi-desert country of the horn of Africa; A scarcity mainly due to poor quality water and difficult access to available resources essentially abstracted from groundwater (more than 95%). There is not a single perennial stream in country. When the too rare rains do occur, they regularly give life to untamed seasonal rivers, which pour almost untapped tremendous quantities of water in the Red Sea through well known –and by now feared, since the 2004 major floods, “oued flooding”. Today, up to 15.9% of the populations countrywide do not have access to safe drinking water. In addition, up to 49.1% of people in rural areas do not have access to a protected source of drinking water out of which at least 30% resort to unprotected sources not conform to minimum sanitary requirements¹.

In many locations, the physical-chemical quality of water is irrevocably not up to recommended WHO standards. Likewise, as people resort to open traditional dug wells in the beds of oueds, the water used is very likely not exempt from bacteriological pollution. No routine water quality monitoring and

surveillance system is known to be in place so far. The most deprived populations have to travel up to 30 km (return trip) daily to collect safe drinking water².

Recurrent episodes of drought over the years, including the current one (2006) were compounded by the already existing unbalances characterizing water resources management practices in this country. As a result, they furthered the suffering of already strongly affected and vulnerable communities in rural and remote areas. Many traditional surface and sub-surface water sources dried up whilst the water table level of the aquifer in many deep boreholes went drastically down. Despite recent rainfalls experienced, in most cases the water table recovery will be neither complete nor lasting, in the absence of more perennial rains.



Figure 2: Women and goats getting water from an open well in Bouleh near Goubetto

Djiboutian rural communities³ are, for the most part, dependent on their livestock for their day-to-day feeding needs. Hence the obligation to care for their herds which justifies the transhumance movements occurring for decades on a search for better pastures, and better access to water sources. When bearing in mind that above 90% of the rural population lived below the poverty line as of 2002 already⁴, one easily understands the risk

² Source: DSRP “Sous-secteur Eau”, 2002.

³ And a portion of the peri-urban communities as well

⁴ Source: Document Stratégique de Réduction de la Pauvreté (DSRP) « Strategic Document for Poverty Allievation», 2004.

¹ Source : Document Stratégique de Réduction de la Pauvreté (DSRP) « Strategic Document for Poverty Allievation», 2004.

associated with deprivation of water, both for animals and, consequently, on humans alike. .



Man collecting water in a whole dug (± 80 cm deep) in the oued in Dorra-Photo: UNICEF Djibouti

ACTION

With almost no other major stakeholders involved substantially in the sector except WFP (more than 150 sites selected for development of traditional wells) and the scarce funding and resources allotted to Djiboutian government's line ministries, the challenge of water access and management is hugely daunting.

Nonetheless, UNICEF is determined to make a lasting difference for the well-being of children living in the most affected areas. Therefore, UNICEF has established a partnership with the Ministry of Agriculture, Livestock and Sea which is also responsible for water resources management in rural areas to mobilize resources and implement projects in three key areas:

Rehabilitation of existing pumping stations promoting diversity of water abstraction systems

In response to the 2005 drought, UNICEF shipped in surface and submersible pumps including switch boards with all their accessories and generators sets. These were installed in ten locations in remote rural areas to replace the old equipments mostly subject to excessive wear and tear and barely any maintenance. Additional sites for rehabilitation have already been identified, and will require similar renovation/repair works. Further to the said work, populations in these sites shall again be able to fetch fresh water relatively closer to their home, even though the geographical spread of

water access points across the country is still extremely uneven as a result of insufficient planning.



Buried tank for collection of surface water –Photo UNICEF Djibouti-

To ensure efficient functioning of all of these structures, physical rehabilitation works will need to continue further in order to eliminate leakages and protect boreholes from potential contamination... According to the yield of a given borehole or well, the appropriate technical means of abstraction of water shall be installed (electrical pumps or manual ones like AFRIDEV). Traditional wells will be deepened and sanitary sealed with concrete rings and draining platforms before being equipped with hand pumps.

Strengthening institutional and communities capacities

The choice UNICEF made to relay on the Government Ministry partner –and nor an external NGO- for the implementation of these activities clearly brings a double advantage. On one hand, it provides to national counterpart in question the necessary impetus required to revive its structures through selective on-the-job training, constitution of contingency stocks for future emergencies and effective delivery of services. On the other hand, it ensures a much needed sustainability in the vision and means provided to the partner with respects to addressing the challenges of the sector.

There is a dire need to ensure decentralization for the daily management of the Ministry's resources and of the challenges related to water activities. Such decentralization needs to allow for interventions capability up to district level. Indeed,

an important time gap always lays between a break down in a given location and the response originating from Djibouti capital. To achieve a reduction of the said time gap would require a constant presence through monitoring/response antennas in each district, and a specific training program to effectively empower any appointee at that level.

By the same token, the involvement of communities and community based organizations for the management of their water points -including the operation and maintenance of structures- is a prerequisite for sustainability, and will be sought at all levels. Hygiene education messages will be produced and disseminated broadly to raise awareness of villages on water borne-diseases and proper use of water as a resource in short supply.

Development of new water access points

Acute water deficits were identified in 25 sites which solely depend on water tankering for access to water. There are at present no known water sources in these localities, yet the tankers used are in very poor condition, jeopardizing the mid-term sustainability of such activity for the most at risk populations.

UNICEF already provided 50 water tanks of 3000 liters reservoirs each in order to decrease the need for daily trip and allow for more coherent resources use. Nonetheless, while being served temporarily by trucks, a number of new water access points will need to be developed in these locations primarily, as well as in alternative locations where water vulnerability is considered high. In the identification and construction of such additional water points, the use of renewable resources (solar panel, hand pump...) will be strongly promoted, with a view to break the dependence on fossil fuel which is expensive and not readily accessible to these poor populations.

Finally the issue of water retention will also need to be addressed. While the project does not pretend to be at a scale of building significant structures such as large dams, etc..., adequate other structures can still play a key role in water collection and retention at the community level and scale, such as surface retention tanks or other-like structures...



Oil drums used for water storage along the main road in Lac Assal –Photo UNICEF Djibouti-

IMPACT

- The intervention will ultimately improve the reliability of water sources during subsequent droughts and therefore reduce the vulnerability of populations.
- By the end of the project, people should have gained more access to water and an improved quality of water in all targeted districts therefore contributing to the pursuit of Millennium Development Goals (MDGs).
- It will equally increase the ability of Government services to handle similar drought emergencies, and alleviate people suffering due to lack or insufficiency of potable water.
- It will raise awareness for better hygiene practices and some other actions will translate into enhanced management of water resources.
- It is thus expected to enormously improve women and children's health in rural areas and attempt to reach the impoverished inhabitants of peri-urban centers of Djibouti.

SUMMARY BUDGET (IN US \$) covering 2006-2007 –for ± 40,000 beneficiaries-

BUDGET ITEMS	AMOUNTS US		TOTAL
	2006	2007	
Rehabilitation of upper structures in existing pumping stations			230,000
- Repair of existing facilities (tanks, piping, water stands, pump houses, drainage...) - Rehabilitation of traditional wells and mounting of AFRIDEV hand pumps - Assessments - Monitoring and evaluation	-	230,000	
Strengthening/building institutional and communities capacities			390,000
- Technical assistance - Training on well digging techniques and use/maintenance of alternative energy sources (handpumps / solar energy) - Logistical support (including supply and delivery of materials and equipments) - Various studies and research projects - Up dating inventory of boreholes and other water points - Community mobilization and hygiene education for better management of water points - Monitoring and evaluation	100,000	290,000	
Creation of new water access points			550,000
- Erection of dams, buried tanks... - Development of new boreholes with abstraction equipments - Pre-positioning of contingency stocks - Monitoring and evaluation	150,000	400,000	
Purchase and delivery of additional tanker (truck) including operation and maintenance			100,000
- Purchase of trucks with cisterns and motor		80,000	
-Maintenance and support		20,000	
Overhead Costs (10%)	25,000	102,000	127,000
TOTAL	275,000	1,122,000	1,397,000