



**African Water Facility**  
**Facilité africaine de l'eau**

*Mobilising Resources for Water in Africa*  
*Mobiliser des ressources pour l'eau en Afrique*



# Project Appraisal Report

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## SOMALIA

### **BUILDING RESILIENCE TO WATER STRESS IN SOMALILAND**

**“Preparation of Water Resources Management and Investment Plan”**

May 2014

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**African Water Facility | Facilité africaine de l'eau**

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## TABLE of CONTENTS

<b>RESULTS BASED LOGICAL FRAMEWORK ANALYSIS .....</b>	<b>3</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>5</b>
<b>1. BACKGROUND .....</b>	<b>6</b>
1.1 PROJECT RATIONAL AND ORIGIN.....	6
1.2 SECTOR STATUS AND PRIORITIES .....	7
1.3 PROBLEM DEFINITION .....	9
1.4 BENEFICIARIES AND STAKEHOLDERS .....	12
1.5 JUSTIFICATION FOR AWF INTERVENTION.....	12
<b>2. THE PROJECT.....</b>	<b>12</b>
2.1 IMPACT, OBJECTIVE AND OUTCOMES .....	12
2.2 PROJECT COMPONENTS, OUTPUTS AND ACTIVITIES .....	13
2.3 COSTS AND FINANCING .....	16
<b>3. PROJECT IMPLEMENTATION .....</b>	<b>16</b>
3.1 RECIPIENT AND EXECUTING AGENCY.....	16
3.2 IMPLEMENTATION ARRANGEMENTS .....	17
3.3 IMPLEMENTATION SCHEDULE.....	18
3.4 PROCUREMENT ARRANGEMENTS.....	18
3.5 FINANCIAL MANAGEMENT AND DISBURSEMENT ARRANGEMENTS .....	19
3.6 MONITORING, SUPERVISION AND REPORTING ARRANGEMENTS .....	19
<b>4. EFFECTIVENESS, SUSTAINABILITY, RISKS .....</b>	<b>20</b>
4.1 EFFECTIVENESS AND EFFICIENCY.....	20
4.2 SUSTAINABILITY.....	21
4.3 RISKS AND MITIGATION .....	22
<b>5. CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>22</b>
ANNEX 1: MAP OF PROJECT AREA .....	23
ANNEX 2: IMPLEMENTATION SCHEDULE.....	24
ANNEX 3: COST ESTIMATE (AMOUNTS IN EURO) .....	25
ANNEX 4: ENDORSEMENT OF PROJECT BY THE PRIME MINISTER OF SOMALIA .....	26
ANNEX 5: TERMS OF REFERENCE FOR THE AWF PROJECT MANAGER .....	27
ANNEX 6: TERMS OF REFERENCE FOR CONSULTANCY SERVICES.....	29
ANNEX 7: COMMUNICATION AND VISIBILITY GUIDELINES.....	47

## LIST of ABBREVIATIONS and ACRONYMS

AfDB	African Development Bank
AWF	African Water Facility
COOPI	Cooperazione Internazionale
DFID	Department for International Development, UK
EA	Executing Agency
EARC	East Africa Regional Resource Centre
EU/EC	European Union/Commission
FAO	Food and Agriculture Organisation
FRS	Federal Republic of Somalia
GIS	Geographic Information System
GPN	General Procurement Notice
GSE	Gender and Social Equity
HoA	Horn of Africa
IDP	Internally Displaced People
IFAD	International Fund for Agriculture Development
IGAD	Intergovernmental Authority on Development
l/c/d	Litres per Capita per day
m	Million
MoWR	Somaliland Ministry of Water Resources
M&E	Monitoring and Evaluation
MOU	Memorandum of Understanding
NAPA	National Adaptation Programme of Action to Climate Change
NCB	National Competitive Bidding
NGO	Non-Governmental Organisations
O&M	Operation and Maintenance
QCBS	Quality and Cost Based Selection
PIM	Project Implementation Manual
PIU	Project Implementation Unit
PM	Project Manager
PPP	Public Private Partnership
PSC	Project Steering Committee
RFP	Request for Proposal
RWH	Rain Water Harvesting
SWALIM	Somalia Water and Land Information Management
SPN	Specific Procurement Notice
STA	Standard Transfer Agreement
TA	Technical Assistance
ToR	Terms of Reference
UNDP	United Nations Development Programme
UNICEF	United Nations Children and Education Funds
WASH	Water, Sanitation and Hygiene
WFP	World Food Programme
IWRM	Integrated Water Resources Management

## RESULTS BASED LOGICAL FRAMEWORK ANALYSIS

Country and project name: **Somalia, Building Resilience to Water Stress in Somaliland – Preparation of Water Resources Management & Investment Plan.**

Purpose of the project: Improve water resources management and catalyse water sector investments

RESULTS CHAIN		PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATION MEASURES
		Indicator	Baseline	Targets		
IMPACT	Contribute to efforts to create water security and disaster resilience, recover from the impacts of drought, and improve livelihoods.	1. Percentage of people with adequate level of water for human and animal consumption 2. Area where irrigated agriculture is developed 3. Number of IDP's recovering livelihoods.	<b>By 2014</b> 1. 10% of population with adequate access to water 2. 800 ha of irrigated land 3. 100,000 are IDP's	<b>By 2030:</b> 1. 50% of population with adequate access to water with regard to quantity and quality 2. 10,000 ha of newly irrigated areas 3. 100% of IDP's returning 90% of population	<b>Source:</b> Ministry of Planning, MoWR, Agriculture, Donors <b>Periodicity:</b> Annual review.	<b>Risk:</b> Lack of donor interest in funding the downstream works or sector support actions <b>Mitigation Measure:</b> Ensure key donor involvement to keep all donors fully informed about the project  <b>Risk:</b> Inadequate sector budgets for ministries or districts <b>Mitigation Measure:</b> Coordinated response from Somaliland and donors to provide adequate financing to meet operational and development budgets in line with the outcomes of the WRM and Investment planning
	Financing mobilised to implement the planned downstream investments  Strong functioning water institutions able to sustainably manage water resources in accordance with the IWRM Plan	Percentage of total planned investments mobilised  No. of IWRM professionals in adequately funded government institutions	0% in 2014  10% of required staffing and budget	90% of total amount by 2020  90% of planned staffing and budget requirements by 2020	<b>Source:</b> Ministry of Planning, MoWR, donors <b>Periodicity:</b> Annual review	<b>Risk:</b> Disputes over the transboundary sharing of water resources <b>Mitigation Measure:</b> Involvement of IGAD as a regional coordinating body to mitigate disputes over shared water resources.
OUTPUTS	<b>Component 1: Preparation of an Integrated Water Resources Management Plan</b>					
	1. Inception report providing situation assessment and work plan	1. Approval of inception report	1. Nil in 2014	1. Assessment report approved 12 months after project approval	<b>Source:</b> SC, MoWR  <b>Periodicity:</b> Semi-annual, project end	<b>Risk:</b> Lack of capacity within the MoWR <b>Mitigation:</b> On-the-job training.
	2. Interim report elaborating the nature and outcomes of the analysis and key issues in the plan preparation	2. Interim report validated	2. Nil in 2014	2. Interim report validated by 16 months after project approval		
3. Integrated Water resources management plan defining the framework for IWRM for three drainage basins	3. IWRM plan validated	3. Nil in 2014	3. IWRM plan validated by 20 months after project approval			

<b>Component 2: Preparation of an Investment Plan</b>					
1. Investment plan with climate proofed and gender sensitive projects and programmes prepared for funding	1. Investment plan prepared and validated	1. Nil. in 2014.	1. - Investment plan by 26 months after project approval		
<b>Component 3: Design and implementation of priority works</b>					
1. Priority works designed and implemented.	1.1 No. designs prepared for rehabilitation of water storage reservoirs 1.2 Works completed	1.1 Nil in 2014 1.2 Nil in 2014	1.1 - 4 designs completed by month 22 1.2 - 4 reservoirs rehabilitated by month 29		
<b>Component 4: Provision of sector support and capacity building</b>					
1. Strengthened capacity of MoWR	1.1 No of study tours 1.2 No of knowledge workshops	1.1 Nil in 2014 1.2 Nil in 2014	1.1 - 1 study tour by month 8 1.2 - 2 knowledge workshops by end of project		
<b>Component 5: Project Management</b>					
1. Steering Committee established and functional	1. No. of Steering. Committee meetings.	1. - 0 in 2014	1. - 6 meetings		

COMPONENT DESCRIPTION / KEY ACTIVITIES	Cost (€ )
	<b>AWF</b>
<b>Component 1: Preparation of an Integrated Water Resources Management Plan</b>	<b>2,359,000</b>
1. Review and Assessment of existing situation and identification of key issues	
2. Analysis of water resources development needs	
3. Preparation of the Integrated Water Resources Management Plan	
<b>Component 2: Preparation of Investment Plans</b>	<b>Included with Component 1</b>
1. Preparation of priority projects / programmes	
2. Preparation of action plans for sector support	
3. Donors' Roundtable	
<b>Component 3: Design and Implementation of Priority Rehabilitation Works</b>	<b>275,000</b>
1. Prioritisation and selection of priority works	
2. Detailed design	
3. Procurement of contractors	
4. Implementation of works	
<b>Component 4: Provision of Sector Support and Capacity Building</b>	<b>80,000</b>
1. Strengthening the capacity of MoWR	
2. Capacity building of communities	
3. Knowledge management activities	
<b>Component 5: Project Management</b>	<b>143,000</b>
<b>Contingencies (5%)</b>	<b>143,000</b>
<b>Total Cost</b>	<b>3,000,000</b>

## EXECUTIVE SUMMARY

Over the past few years, Somaliland has been going through one of the worst droughts in recent history. The drought has affected about 40 percent of Somaliland's population of 3.5 million. Severe shortages of food and water, along with soaring food and water prices, and the deaths of livestock, have plunged many families into impoverishment. Moreover, it was reported in late 2011 that around 100,000 internally displaced people (IDP) existed in Somaliland.

The lack of development and poor management of water resources is the leading cause of the vulnerability of Somaliland to drought, and one of the key constraints to improving livelihoods and economic development. Somaliland is well aware of the need for better management of this valuable yet limited resource, and in its Vision 2030 it has called for a master plan for a national water conservation and development programme to be prepared. In addition, the Somalia National Adaptation Programme of Action to Climate Change (NAPA) emphasises the need for regional water resources management plans to be prepared.

The project aims at addressing the identified need for a comprehensive plan for integrated water resources management and development in Somaliland, which will contribute to ongoing efforts to create water security and drought resilience, recover from the impacts of the drought, improve livelihoods and support economic recovery. The main beneficiaries will be the approximately 3.5 million urban and rural people living in Somaliland, including the approximately two million nomadic pastoralists and their 18-20 million livestock.

The overall objective of the project is to improve the integrated management of water resources and catalyse investments to meet all types of water needs. In order to achieve this objective the project will have four main components: (i) preparation of an integrated water resources management plan; (ii) preparation of an investment plan comprising projects and programmes for financing; (iii) design and implementation of priority rehabilitation works; and (iv) provision of sector support and capacity building.

The corresponding medium term outcomes are: (i) financing mobilised to implement the planned downstream investments; and (ii) strong functioning water institutions able to sustainably manage water resources in accordance with the IWRM Plan

The Federal Republic of Somalia is the Grant Recipient and the AWF is the Executing Agency for the project. Implementation of the project will be conducted over a period of 30 months after approval.

It is recommended that a grant not exceeding **Euro 3,000,000** from the AWF resources be extended to the Federal Republic of Somalia for the implementation of the project described in this appraisal report.

## **1. BACKGROUND**

### **1.1 Project Rational and Origin**

1.1.1 Over the past few years, Somaliland and other regions of the Horn of Africa have been going through one of the driest periods in memory, with the seasonal rains falling short for four consecutive years. The food security situation has worsened in all drought-affected areas, with the prices of food increasing 2 to 3 fold. Similarly the price of water has soared and is out of reach for most of the poor. Livestock herds have been decimated, forcing hard-hit pastoralists to migrate to towns and villages in search of aid. Malnutrition in children under five and adults has escalated. Severe shortages of food and water, along with soaring food and water prices, and the deaths of livestock, have plunged many families into impoverishment.

1.1.2 According to Somaliland authorities, the drought has affected about 40 percent of Somaliland's population of 3.5 million, which is equivalent to 1.4 million people. More than 55% of the population in Somaliland are nomads depending on livestock for their livelihood, and they are the most hit by the current drought. Moreover, it was reported in late 2011 that around 100,000 internally displaced people (IDP's) existed in Somaliland.

1.1.3 Much of the causes of vulnerability of Somaliland to drought risks and the constraints to improving livelihood and economic development in the country are related to lack of development of water resources and its poor management. Most of the rainwater is not put to productive uses due to lack of storage and poor water management practices. Groundwater is a finite resource and very costly to extract due to the need for deep wells of 200 to 400 metres in many parts of the country. Furthermore, the pressures on this scarce resource are mounting due to increasing population, urbanisation, irrigated farming and industrial activities. Water needs range from water supply for 2 million urban and 1.5 million rural people and livestock (estimated 7 m camels, 5 m cattle, and 25 m goats and sheep), agriculture, pastoralism, and industry in the main cities and towns such as Hargeisa, Berbera, Burao, etc. However, despite the various problems, there is adequate potential to meet water needs in many parts of the country if water is well managed. For example, better rainwater harvesting infrastructure is needed in the highland areas where most of the annual 500 mm of rain is received in intense storms with associated flash flooding.

1.1.4 Somaliland is well aware of the need for better management of this valuable yet limited resource, and in its Vision 2030 it has called for a master plan for a national water conservation and development programme to be prepared. The long term vision to 2030 for the water sector in Somaliland is for a "nation with adequate fresh water available to its citizens and productive activities at all times through conservation and sustainable management of its surface and subterranean waters."

1.1.5 This project aims at addressing the need for developing such a comprehensive plan for water resources management and development, and thereby contributes to on-going efforts to recover from the impacts of the drought, create drought resilience, improve livelihoods and support economic recovery.

1.1.6 The initial project proposal was received in August 2011 and concerned the rehabilitation and construction of 24 sanitary reservoirs in five regions of Somaliland. The AWF also held meetings with the Minister of Water Resources of the Federal Republic of Somalia in October 2011 regarding the proposal, and a letter by the Prime Minister of

Somalia endorsing the financing of the project for Somaliland was provided. The AWF undertook a project preparation and appraisal mission in March 2012 to better assess the type of support that the Facility could provide under its new Strategic Plan. The project has recently been endorsed by the Federal Government of Somalia in the Aide-Memoire prepared during the high level Somali Government delegation visit to the Bank from 28<sup>th</sup> to 30<sup>th</sup> April 2014.

## 1.2 Sector Status and Priorities

### *Policies, Acts, Reforms*

1.2.1 Somaliland is in the process of putting in place a comprehensive regulatory framework that will comprise the institutional, policy and legal tools outlined below:

- **National Water Policy** (approved June 2004), which sets out the objectives, general principles and guidelines to be followed in developing the water sector.
- **National Water Strategy** (approved Sept. 2004), indicating priorities and detailed measures to be taken to permit the policy to be implemented.
- **Water Act** (approved 2012), establishing the legal framework to support the strategy, defining organisations, mandates and responsibilities, as well as procedures, obligations and interdictions in a general way.
- **Water Regulations** (under preparation), gathering all the by-laws necessary to enforce the Water Act.

1.2.2 The Policy and Strategy may need to be updated to reflect any changes to the sector policy, governance and support frameworks; or strategic water resources management priorities and implementation measures, that may arise as part of this project.

### *Somaliland planning and priorities*

1.2.3 The Somaliland Ministry of National Planning and Development, in collaboration with the various line ministries including the Somaliland Ministry of Water Resources (MoWR), have prepared a number of relevant plans setting out their short and medium term priorities. These include the Somaliland National Development Plan 2012-2016, where water sector features prominently with about \$80 million in investments targeting over the five year period. The MoWR has also developed brief Urban and Rural Water Development Action Plans, which provide more details on the National Plan. In addition, there are Master Plans available covering water supplies for the city of Hargeisa and Burao town, and the MoWR is calling for Master Plans for the two other principle towns of Borama and Gebiley.

1.2.4 A Somalia National Adaptation Programme of Action to Climate Change (NAPA) was prepared in 2013, which Somaliland participated in. Water Resources Management and Development was highlighted as one of the three key programme areas, under which a number of priority adaptation activities were identified related to policy and planning, institutional development, and infrastructure investments. The need to prepare national/regional water resources management plans features prominently in the priority NAPA activities.

1.2.5 All of these plans have been taken into consideration in designing the project. However, with the exception of the two water supply Master Plans, they are not at the level where they can be used for prioritising and mobilising sector investments. The various donor agencies and other stakeholders that were consulted during the appraisal have all indicated that a comprehensive development plan for the water sector is greatly needed in order to

guide their support. The MoWR has also issued an appeal for technical cooperation and investments in support of a 20 year Watershed Management Programme, which the water resources management and investment plan to be prepared under this project will address.

#### *On-going Donor Assistance and Projects/Programmes*

1.2.6 IGAD has been leading an initiative on drought resilience in the Horn of Africa, including Somalia, and the AWF has been part of consultative and high-level meetings with IGAD and other stakeholders. As a result this AWF project has been designed to directly link with the IGAD led initiative though its focus on securing drought resilience in Somaliland. This builds on the political commitments already made by the leaders of Somalia, thus providing high level justification for the proposed project approach.

1.2.7 As part of this initiative, the AfDB is in the process of implementing a programme on Drought Resilience and Sustainable Livelihoods in the Horn of Africa (HoA), including Somalia. The AWF project has been designed to ensure synergy with the Bank's HoA programme, especially since there is overlap with the main component which focuses on water resources development and management. In particular, the investment plans will enable the AfDB to quickly proceed to detailed design and implementation of water infrastructure for human, agriculture and livestock needs in Somaliland.

1.2.8 The AWF has funded a recently completed project under IGAD, which provided support for mapping, assessment and management of transboundary water resources in the IGAD sub-region, including Somaliland. The outputs of the project will provide valuable information and mapping which can be made use of during the preparation of the Water Resources Management Plan.

1.2.9 There are only a few international donors and development organisations with interests in the water sector that have a presence in Somaliland. These include the EU, IFAD, UNICEF, FAO, UN-HABITAT and UNDP with field offices in Hargeisa. Most other development partners handle their activities in Somaliland from Nairobi. Some large ongoing or planned projects include the EC funded water development programme for Hargeisa and three other towns, implemented by UN-HABITAT, and the commitment by the Organisation of Islamic Cooperation for 146 boreholes. Other support by the EC includes TA to MoWR and water authorities in Hargeisa and other urban cities for procurement, contract management and construction supervision; implementation of some pilot RWH activities; and provision of hydro-geological equipment for groundwater monitoring in urban areas. As well UNICEF continues to provide significant support to the WASH sector. There is a WASH sector coordination group consisting of sector partners which is coordinated by the MoWR.

1.2.10 FAO has been implementing the Somalia Water and Land Information Management (SWALIM) programme throughout the country. SWALIM is a long-term programme aimed at enabling Somali institutions to provide crucial information on water and land in an efficient and effective manner. The recently completed fourth phase involved, among other activities, a hydro-geological survey as well as gathering other much needed hydrological data. The fifth phase of SWALIM is currently underway and will continue to provide support for the programme up to 2017, including maintaining and further developing water and land information systems, and building the capacity of sector institutions to practically apply the information in their resources management activities, such as sector planning.

1.2.11 There are an increasing number of international NGOs operating in Hargeisa and active in the water sector, including OXFAM, ActionAid, Care, COOPI, Terre Solidari,

Norwegian Refugee Council, Muslim AID, Red Crescent, Premier Urgence. All together they are providing significant grass roots support to the development of the sector.

1.2.12 The process for the establishment of a multi-donor trust fund for Somalia is well advanced, with the support of the World Bank and other partners. Once established, this fund will open the door to increased assistance from donors, particularly since Somalia is under sanctions by the AfDB and many other multilateral donors, which prevents large scale lending programmes.

1.2.13 In total, there is good donor interest in assisting Somaliland at the present time. The proposed trust fund and other planned or potential commitments (particularly from the Gulf States and Arab Funds) will ensure an adequate stream of funding for the downstream projects that are identified and prepared as part of the investment planning component of the AWF project.

### 1.3 Problem Definition

#### *Water Resources Management and Planning Issues*

1.3.1 **Hydrologic Setting:** Water is a scarce resource in Somaliland. There are no lakes and permanent rivers, and rainwater is limited to two brief rainy seasons. The mean annual precipitation is about 300 mm, reaching about 500 mm in the west and along the highland range, and most of the country is classified as arid or semi-arid. Evapo-transpiration is very high, particularly in the coastal area, where it reaches 2900 mm. Droughts are common, occurring moderately every 3-4 years and severely every 7-9 years, and causing great hardships due to loss of livelihoods, especially for nomadic pastoralists who rely on livestock.

1.3.2 **Need for an IWRM Plan:** Inadequate water resources management is the most important constraint towards addressing the vulnerability of Somaliland to disasters due to adverse climatic conditions. Although there are adequate levels of rainfall in many parts of the country to meet current needs, Somaliland is lacking the infrastructure and know-how to properly manage its available water resources. A comprehensive IWRM plan for the sector, along with coordinated actions for sector support, and investment planning and project/programme preparation, will enable Somaliland to leverage the badly needed infrastructure investments and better manage its water resources.

1.3.3 **Drought resilience** is a national and regional priority. Due to increased climate variability, rainfall patterns have changed and droughts are becoming more frequent and severe, leading to many internally displaced people (IDP) in the country. There is a National Environment Research and Disaster Preparedness and Management Authority (NERAD) in Somalia. A joint FAO, UNDP, WFP, OXFAM proposal for drought risk management and investments has been prepared but has yet to be approved and implemented. Building resilience also requires strengthening productive sectors and livelihoods, and provision of basic services, such as access to drinking water. The availability of an IWRM Plan will significantly help improve drought preparedness efforts.

1.3.4 **Infrastructure:** Without adequate infrastructure Somaliland will not be able to meet its water needs. In particular, given its seasonal rainfall patterns, recurring annual droughts, and lack of permanent surface water, there is great need for rainwater harvesting (RWH) infrastructure for collecting and storing rainfall for livestock, irrigation and other uses. As well, sustainable exploitation of groundwater resources is essential to meet water supply and

other needs. Unfortunately, the years of conflict and instability have resulted in a severe lack of funding for expansion of the infrastructure base and even for maintenance. Consequently, there is a great need for development of infrastructure of all types, and significant investments are necessary. However, detailed investment planning is needed to leverage the required funding for donors, and to ensure that all funds are optimally utilised and directed towards priority high benefit projects.

**1.3.5 Knowledge of water resources:** With the support of various organisations such as the FAO, who have provided assistance on water and land information management, Somaliland has been able to develop a reasonable understanding of its water resources which can be used as the basis to prepare a WRM plan for the sector. There is also the basis of a hydro-meteorological network in place, but strengthening is necessary. There is a lack of understanding of sustainable yields from the deep aquifers, and consequently an extensive and comprehensive hydro-geological survey of the whole country is needed, building on the ongoing project to improve the understanding of groundwater resources. As well, a comprehensive inventory of all point water sources in the country was completed in 2008, but this needs to be updated. Capacity building, including training of existing staff and education of more specialists, and additional equipment for improving the hydro-meteorological network, geophysical investigations, and water quality monitoring, are needed as well.

**1.3.6 Storage and Rainwater Harvesting (RWH):** Somaliland has identified the need to significantly expand the network of existing surface reservoirs to store water for livestock, drinking and small scale agriculture. As well, Somaliland would like to develop larger dams for multi-purpose uses, where there may be suitable locations in the more mountainous regions of the country. In urban areas, roof-top RWH should be promoted to meet household needs.

**1.3.7 Water Supply:** The level of access to safe water in Somaliland is not well known, with no reliable statistics available. Recent estimates by the FAO-SWALIM have given access figures ranging from less than 20% to 50% in various districts. The Somaliland Development Plan 2012-2016 reports that on average 41% of the population was using improved drinking water sources in 2006. The average consumption in the capital Hargeisa is estimated at only 10 l/c/d. To supply drinking water to the rural areas, including small towns, the use of deep boreholes is envisioned. However, this requires significant investments since in many parts of the country borehole depths can range up to 300 to 400 m (average depth is approximately 150 m in the country), and can cost \$100,000 or more to construct. The use of solar or wind for water pumping is being tried in parts of the country, and their use is expected to expand for the more shallow boreholes.

**1.3.8 Water for Livestock:** With over 50% of the population nomadic pastoralists, water for livestock is a major concern and one that needs to be urgently addressed. However, since poor location of water points can lead to conflicts and degradation of the environment due to over-grazing, careful siting of water points is essential. Strategic water points which can be used during periods of drought must also be planned for and developed.

**1.3.9 Agricultural Water Use:** Agriculture in Somaliland is predominantly subsistence in nature and mostly for household consumption. Fruit and horticultural farming, which is relatively small, is mainly commercial. Different types of agriculture can be found in Somaliland; namely, agro-pastoral rain-fed agriculture, pump-fed irrigated agriculture, and spate irrigation agriculture. It is estimated that rain-fed agriculture is practiced in an area of around 30,000 ha, while the area under irrigation constitutes only 800 ha. Estimates of

irrigable areas were made for the Western part of the country only, while no such effort has been made for the eastern part of the country.

1.3.10 There is a need to further study the potential for large scale irrigation, and to develop a workable model for irrigated agriculture that would help in building drought resilience. The main challenges facing the sector are inadequate rainfall, high cost of irrigation due to inefficient practices and high fuel prices, lack of farm inputs, poor agricultural practices, lack of proper technology, soil degradation, inadequate capital availability, lack of extension services and access to markets.

1.3.11 **Land and Environment:** Land degradation is becoming a serious concern due to the loss of topsoil as a result of the flash flooding during the rainy season, and the loss of protective vegetation in many areas. Technologies to address these issues have been successfully demonstrated in previous projects (such as soil bunds, stone terraces, runoff check dams, sand storage dams, tree nurseries), but have never been scaled up.

#### *Sector Support issues*

1.3.12 **Water Institutions:** According to the Somaliland Water Policy (2004), the Ministry of Mining, Energy and Water Resources (MoWR) is responsible for water resources management, development of a regulatory framework, and the provision of water for domestic use. However, the MoWR is hampered by a limited operating budget, no internal funds for sector development, and inadequate levels of professional / technical staff and equipment to carry out its mandate. Development partners have been providing some TA support, and a number of proposals are available to improve internal training. Other ministries with activities that relate to water include Ministries of Agriculture, Livestock, Pastoral Development and Environment, and Health. The problems faced by these ministries are similar to that of MoWR. At the decentralised level, the districts are responsible to support the provision of water (planning, supervision of service provision, O&M, financial management and ownership of assets). However, the capacities of the districts are also very weak. A review of the institutional and regulatory framework, along with a comprehensive capacity building and human resources development assessment, are needed.

1.3.13 Somaliland plans to address the lack of qualified professional and technical people through strengthening existing university level programmes, and establishing two water institutes for technical education. Further efforts are needed to firm up these proposals, including development of detailed action plans with cost estimates.

1.3.14 **Governance, regulation:** Somaliland is in the process of putting in place comprehensive reforms of its policies, acts and strategic plans for the sector. As well, the MoWR is in the process of increasing its capacity with the support of various partners, and various proposals have been put forward in this regard related to public-private-partnerships (PPP) WASH models, regulation, governance, etc. There are also calls to put in place an independent regulatory agency. These processes must continue to be supported, starting with the preparation and agreement on an overall plan of action for sector support. This will enable the MoWR and other ministries to coordinate efforts and help ensure adequate ongoing funding. In this manner the MoWR will continue to progress towards having the capacity to sustainably manage its water resources.

1.3.15 **Public private partnerships:** The private sector is playing a major role in the supply of water, partly due to the limited capacity of Somaliland for direct service provision. Plans are that PPP arrangements will continue to be expanded upon, particularly in the urban areas.

However, there are a number of issues which need to be addressed to improve PPP's, including increasing MoWR capacity to regulate the private sector and ensuring the needs of the poor are well met. UNICEF has been taking the lead in PPP's with a number of pilot projects which have resulted in good examples of well managed rural/urban water systems. They have also prepared proposals to test out various innovative service delivery models in urban areas. In the rural areas, an assessment of water management models is also greatly needed since there are a range of issues related to decentralisation, community management, clans, and the nomadic pastoralists. PPP's could also be considered for development of interventions for water use for livestock and irrigation, or other related support activities in these two sub-sectors.

1.3.16 **Tariffs, affordability:** The people are used to the concept of paying for water both for their own use as well as for livestock. However, at present, the poor are suffering due to high prices paid for water, especially during the dry season where water has to be trucked long distances in rural areas. As a result, the cost of water during periods of shortages can reach \$10-20 a cubic metre in the rural areas. Ways and means to ensure equitable and affordable tariffs need to be assessed and developed within an overall water use framework. Infrastructure improvements to increase the density of rural water points, along with extension of urban piped water networks, will also help alleviate this problem.

#### **1.4 Beneficiaries and Stakeholders**

1.4.1 The main beneficiaries are the approximately 3.5 million urban and rural people living in Somaliland, including the approximately two million nomadic pastoralists and their 18-20 million livestock. The MoWR and other ministries will benefit from the sector support plans and actions. The decentralised levels of government and communities will benefit from the support given during implementation of the priority works. And all areas of Somaliland will benefit from the improved peace and security that will result from the increased availability of water.

#### **1.5 Justification for AWF Intervention**

1.5.1 The project is well aligned with the new strategic framework of the AWF. The project falls under the principal strategic priority to **Prepare Bankable Projects for Investments**, through its focus on the preparation of investment projects; and the priority of **Small Strategic Investments** on water and sanitation infrastructure in Fragile States, through the priority works which will be implemented under the project. It also relates to the strategic priority to **Enhance Water Governance**, through its focus on sector support. It also touches on the priority to **Promote Water Knowledge** through development of water resources information and knowledge framework, and various project learning activities.

## **2. THE PROJECT**

### **2.1 Impact, Objective and Outcomes**

2.1.1 The impact of this project is to contribute to efforts to create water security and disaster resilience, recover from the impacts of drought, and improve livelihoods and support economic recovery.

2.1.2 The overall objective/purpose of the project is to improve water resources management and catalyse water sector investments. Specifically the project will (i) prepare an Integrated Water Resources Management Plan; (ii) prepare bankable investment projects

and programmes for funding; and (iii) provide some relief from drought impacts and build capacity through implementation of priority rehabilitation works.

2.1.3 The outcomes are:

- Financing mobilised to implement the planned downstream investments
- Strong functioning water institutions able to sustainably manage water resources in accordance with the water resources management plan

## **2.2 Project Components, Outputs and Activities**

2.2.1 The project will have five main components:

- i. Prepare an Integrated Water Resources Management plan
- ii. Prepare an investment plan comprising projects and programmes
- iii. Design and implement priority rehabilitation works
- iv. Provide sector support and capacity building
- v. Project management

2.2.2 A summary of the activities to be carried out under each of the five components is provided below. Details are given in the ToR attached as Annex 6.

### **(i) Preparation of an Integrated Water Resources Management Plan**

2.2.3 The preparation of the Integrated Water Resources Management (IWRM) Plan will be carried out in three stages: (i) assessment of existing situation and identification of key issues; (ii) analysis of water resources development needs for the selected areas of the three main drainage basins (Gulf of Aden, Ogaden and Togder/Nugal. See map in Annex 1 for an indication of the project location); and (iii) formulation of the IWRM Plan for all water uses, which encompasses the short to long term development strategies with prioritised projects and programmes for implementation. An overview of the approach to be taken and outputs is outlined below.

2.2.4 The Assessment activities will provide an overview of the existing state of water resources availability and use; the national development framework; the existing policy and strategy documents; sector governance issues; and proposed development plans. The status of existing data and information will be assessed and the need for additional work identified. Thematic maps of varying scales will be prepared as an input for the plan preparation and use for other purposes. An inception report will be submitted which will include a situation assessment highlighting the key development issues, and provide the detailed work plan for the following stages. This report will be a basis for the first review input from key stakeholders.

2.2.5 The Analysis stage will focus on thematic and sectoral studies, and the examination of development options and scenarios under a different set of assumptions. The thematic and sectoral studies will include physical characteristics, natural resources, water resources, infrastructure, socio-economic development and environmental aspects. An interim report that elaborates the nature and outcomes of the analysis undertaken and key issues in the plan preparation will be submitted. The report will serve as a basis for the second consultation with key stakeholders.

2.2.6 The Plan Preparation stage involves the formulation of the water resources management plans covering all water uses for the selected areas in the three drainage basins, which will be consolidated into an overall Integrated Water Resources Management Plan. The IWRM Plan will incorporate multipurpose integrated development of water, land and natural resources within the basins. The preparation of the IWRM Plan will be based on a systematic assessment of available water resources and existing and potential uses in the drainage basins, and the formulation of development programmes and projects which take into account the characteristics of the selected areas within the three main basins, including the socio-economic needs and socio-ecological conditions. It will provide a prioritised list of development programmes and projects that are to be implemented over a period of 30 years, in form of short (0-10 years), medium (10-20 years) and long term actions (20-30 years). Sector governance and support frameworks will be defined as part of the IWRM Plan, including institutional framework favourable to the implementation of the development options; refinement of the existing policy, legal and regulatory framework for IWRM; water resources information/knowledge management and monitoring and evaluation frameworks. A gender action plan, strategy to enhance PPP arrangements, investment resources mobilisation strategies for sustainable financing of plan implementation, along with a public awareness plan for integrated water management will be prepared. Existing drought preparedness plans will be reviewed and updated, along with a map of natural disaster hazards. The final report which elaborates the plan and development options will be submitted for review by stakeholders and finalised after the review input.

#### 2.2.7 Outputs

- Inception report providing a situation assessment highlighting the key development issues, and setting out the detailed work plan for the preparation of the IWRM Plan.
- Interim report elaborating the nature and outcomes of the analysis undertaken and key issues in the plan preparation.
- Integrated Water Resources Management Plan setting out development options and defining the framework for water resources management and development.

#### **(ii) Preparation of an Investment Plan**

2.2.8 The investment plan will consist of the preparation of projects and programmes for funding. The projects/programmes will be undertaken in the selected areas within the three drainage basins (see Annex 1), with a focus on the short term priority actions identified in the Water Resources Management Plan. The projects/programmes will generally consider multipurpose water uses, integrated water supply for rural population and livestock, rural sanitation and hygiene, urban water supply and sanitation, small scale high value irrigated crop production, disaster mitigation, etc. The preparation will include preliminary designs and cost estimates with detailed terms of references for subsequent detailed engineering design studies and implementation. Detailed analysis of the technical, economic, financial and environmental aspects will be undertaken to ascertain economic and financial viability, as well as to assess the social and environmental impact and to identify climate change adaptation and mitigation measures. Action plans for sector support will be prepared, with ToR and budgets, which can be used for either standalone projects or incorporated into other projects. Estimates of investment requirements and strategies for resources mobilisation will be elaborated. An investment planning report that elaborates the nature of the projects and programmes, the technical solution, economic and financial viability, and environmental and social considerations will be submitted for review and validation. A resources mobilisation roundtable will be organised upon the submission of the investment planning report.

### 2.2.9 Outputs

- Investment plan with climate proofed and gender sensitive projects and programmes prepared for funding

### **(iii) Design and Implementation of Priority Works**

2.2.10 This component is focused on the rehabilitation of small water storage reservoirs in order to meet high priority needs in drought stricken areas, and at the same time build capacity to implement the downstream works that will be prepared as part of the investment planning. Given the urgent need for this work, the structures to be rehabilitated will be identified and prioritised early on in the investment preparation process.

2.2.11 The main activities to be undertaken include prioritisation and selection of priority works; assessment and investigation of rehabilitation needs; detailed design and preparation of tender documents; procurement of contractors to undertake the works; and implementation of priority works, linking to the community capacity building activities.

### 2.2.12 Outputs

- Priority works are assessed, designed and implemented.

### **(iv) Provision of sector support and capacity building**

2.2.13 Under this component the project will implement specific sector support activities which impact on the successful completion of the project. This will include strengthening the capacity of MoWR through provision of technical assistance, on-the-job training of MoWR staff, and study tours for senior management; engagement of local NGOs to demonstrate how to build capacity of communities, households, pastoralists, etc. to meet their water needs and sustainably manage their water resources; and undertaking knowledge management activities such as the organisation of workshops to share knowledge generated by the study. All activities will be done in accordance with the governance and sector support framework defined in component (i).

### 2.2.14 Outputs

- Strengthened capacity of MoWR to support the provision of water

### **(v) Project Management**

2.2.15 The activities under this component will include the following:

- Recruit a Project Manager (PM) to support the AWF in all aspects of implementation.
- Establish a Project Implementation Unit (PIU) under the MoWR to support project management, coordination, design and supervision activities.
- Establish the Project Steering Committee (PSC) and hold regular meetings.
- Organise workshops and stakeholder review meetings.
- Establish project M&E system and prepare quarterly project reports.

### 2.2.16 Outputs:

- Steering Committee established and functional

## 2.3 Costs and Financing

2.3.1 The estimated total cost of the project, including duty and taxes, is €3,000,000, of which the AWF will provide 100% Grant financing, in line with Bank policy for Somalia. The main components and breakdown of costs are shown in Tables 2.1 and 2.2.

**Table 2.1: Project Cost Estimates by Component and Foreign/Local Amounts (Euros)**

Component	Total Cost	AWF	
		Foreign Costs	Local Costs
A: Preparation of WRM and Investment Plan	2,359,000	2,359,000	0
B: Priority Works	275,000	0	275,000
C: Sector Support and Capacity Building	80,000	80,000	0
D: Project management	143,143	143,143	0
<b>Total Base Cost</b>	<b>2,857,143</b>	<b>2,582,143</b>	<b>275,000</b>
Contingency (5%)	142,857	129,107	13,750
<b>Total Project Cost</b>	<b>3,000,000</b>	<b>2,711,250</b>	<b>288,750</b>
Percentage		90%	10%

**Table 2.2: Project Cost by Category of Expenditure and Sources of Financing (Euros)**

Category of Expenditure	Total Cost	AWF	
		Foreign Costs	Local Costs
Services	2,439,000	2,439,000	
Works	275,000		275,000
Goods	0		
Operating Expenditures	143,143	143,143	
<b>Total Base Cost</b>	<b>2,857,143</b>	<b>2,582,143</b>	<b>275,000</b>
Contingency (5%)	142,857	129,107	13,750
<b>Total Project Cost</b>	<b>3,000,000</b>	<b>2,711,250</b>	<b>288,750</b>

## 3. PROJECT IMPLEMENTATION

### 3.1 Recipient and Executing Agency

3.1.1 The Ministry of Finance of the Federal Republic of Somalia (FRS) shall be the Recipient of the grant. The prior Transitional Federal Government of the Somali Republic has endorsed the financing of the project proposal as submitted by the Somaliland authorities (see Annex 4).

3.1.2 To facilitate the effective and efficient implementation of the project given the lack of experience by the Somaliland authorities in implementing AfDB financed projects, and their capacity constraints in the preparation of complex water resources management and investment plans, the FRS requested the AWF to act as the Executing Agency (EA) for the project.

## **3.2 Implementation Arrangements**

3.2.1 The AWF will recruit an individual consultant with considerable experience in the preparation of integrated water resources management and investment plans to act as Project Manager (PM) for the implementation of the project. The PM will be hosted at the MoWR of Somaliland and work alongside the PIU (3.2.2). The PM will support the AWF in all aspects of implementation, including project management and coordination, procurement, and supervision of the design and construction activities (the responsibilities of the PM are described in more details in the ToR presented in Annex 5).

3.2.2 The Somaliland Ministry of Water Resources (MoWR) will form a Project Implementation Unit (PIU) comprising staff of the MoWR. The PIU will work with the PM to oversee the work of the consulting firm (3.2.3) and they shall support most aspects of implementation, including project management, coordination, and quality control. The PIU will consist of a counterpart Project Coordinator assigned by the MoWR, supported by an M&E officer and design and construction supervision engineers. At district and town/community level the local government will participate in implementation in accordance with decentralisation policies. They will support regional coordination of project activities, collection of data, and aspects of engineering design and supervision of priority works.

3.2.3 One international consulting firm will be recruited to undertake the master planning, preparation of investment plans, detailed engineering designs and tender documents, supervision of priority works, and sector support and capacity building activities. As part of these activities, the consulting firm will provide technical assistance to the staff of the MWR in the form of on-the-job training and support. This will serve to increase the overall capacity of the MWR to support the implementation of the project and to undertake the downstream projects that will be prepared as part of the investment plan.

3.2.4 A Project Steering Committee (PSC) will be formed comprising the following people or their representatives: Somaliland Minister of MoWR (Chairman); Director General of MoWR (Deputy Chairman); Ministers of the Somaliland Ministries of Planning, Agriculture, Livestock, Health and Environment; and the Project Manager representing the AWF as Executing Agency and acting as Secretariat to the PSC. The PSC could also include observers representing the development partners relevant to the water sector in Somaliland. The PSC will be an advisory body tasked with reviewing key documents such as the inception report, reviewing project progress, and ensuring compliance with Somaliland sector policies and plans.

3.2.5 Given the non-standard implementation arrangements for the project, with the AWF as Executing Agency, a Project Implementation Manual (PIM) will be prepared during start-up in consultation with the MoWR. The Manual will seek to attribute roles and responsibilities to the various project actors and stakeholders to ensure transparency, accountability and control functions in the execution of the project. This will include the roles and responsibilities of the EA, PIU, PSC and consulting firm; more detailed implementation arrangements including conflict resolution mechanisms related to access/sharing of water resources; the procurement plan; updates to the cost estimate and implementation schedule (if any); etc.

3.2.5 In order to separate functions of the AWF as both lending unit and executing agency, the approval of operational decisions will be undertaken by other units of the Bank. Consequently, the routine project executing functions such as orchestrating procurement,

request for disbursement, progress reporting, etc. will be undertaken by the AWF, and the approval of operational decisions by the Bank will be ensured by the East Africa Resource Centre (EARC) with the advice of the Water and Sanitation Department (OWAS) and other relevant departments of the Bank as required. This arrangement will eliminate any potential conflict of interest situations that may arise. The detailed roles and responsibilities of the AWF, OWAS and EARC as well as the Somalian authorities will be spelt out in the PIM.

### 3.3 Implementation Schedule

3.3.1 The duration of the project implementation is 30 months from the date of approval. The detailed implementation schedule is shown in Annex 2. Some of the key activities and milestones are preparation of the inception report by month 12, completion of the IWRM Plan by month 20, the investment plan by month 26, and the priority works by month 29.

### 3.4 Procurement Arrangements

3.4.1 All procurement arrangements of this project will be in accordance with AWF Operational Procedures, and the Bank’s Rules and Procedures: “*Rules of Procedure for the use of Consultants*” dated May 2008 and revised July 2012; and “*Rules and Procedures for Procurement of Goods and Works*” dated May 2008 and revised July 2012; using the relevant Bank Standard Bidding Documents.

3.4.2 The AWF as *Executing Agency* will be responsible for the procurement of works and services, having proven capacity to carry out procurement actions. Procurement of works above €300,000, and all procurement of consultancy services, will be subject to prior review by the Bank. The text of a General Procurement Notice (GPN) shall be issued for publication in *UNDB online* and in the *Bank’s Internet Website*.

3.4.3 Procurement arrangements are summarised in Table 3.1 and described below.

**Table3.1: Summary of Procurement Arrangements (all amounts in Euro)**

	Quality and Cost Based Selection	National Competitive Bidding	Selection of Individual Consultant	Total
Services	2,560,950		150,300	2,711,250
Works		288,750		288,750
<b>TOTAL</b>	<b>2,560,950</b>	<b>288,750</b>	<b>150,300</b>	<b>3,000,000</b>

3.4.4 *Consulting Services:* Recruitment of a consulting firm for preparation of the master and investment plan, design and supervision of priority works, workshops and capacity building (€2,560,950), will be done using Quality and Cost Based Selection (QCBS) method. Recruitment of the AWF project manager, amounting to €150,300, shall be done by the AWF using procedures for Selection of Individual Consultants.

3.4.5 *Civil Works* contracts amounting to €288,750 and consisting of the rehabilitation of surface water storage facilities and related works will be implemented in one or more contracts, with the procurement of the contractors done through National Competitive Bidding (NCB) by the Executing Agency. The character, size and value of the construction works to be undertaken are such that they are unlikely to attract international bidders. There

are an adequate number of sufficiently qualified local contractors in Somaliland to ensure competitive bidding.

**3.4.6 Procurement Plan:** The Executing Agency will prepare a Procurement Plan during the project start-up phase, setting forth (a) the particular contracts for goods, works and consulting services during the life of the project; (b) the proposed modes of procurement; and (c) the related AfDB review procedures (prior or post review).

### **3.5 Financial Management and Disbursement Arrangements**

3.5.1 The financial management of the project, consisting of budgeting, accounting, internal control, funds flow and financial reporting, will be carried out by AWF in accordance with Bank procedures. Statements of expenditure and supporting documents will be presented by the consultants and contractors to the AWF, and will be kept for review by project auditors and the Bank. These documents, as well as the financial reports, shall be reviewed by an independent project auditor at mid-term and end of project. The AWF will recruit and retain an auditor for this purpose, and will cover the cost. The AWF has in-house expertise to ensure financial management functions of the project.

3.5.2 The disbursement arrangement for the services and works under the project will be by Direct Payment method, in accordance with the Bank's disbursement rules and procedures. The project will be disbursement effective upon signature of the Grant Agreement. The Recipient will designate AWF as authorized signatory for disbursement requests on behalf of the Recipient.

### **3.6 Monitoring, Supervision and Reporting Arrangements**

3.6.1 Since the AWF is Executing Agency, the monitoring and supervision activities will be entrusted to the East African Regional Resource Centre (EARC) of the Bank. The EARC will supervise, monitor and evaluate the implementation of the project in accordance with applicable AfDB rules, regulations, policies and procedures. They shall receive advisory support from the Water and Sanitation Department (OWAS) and other departments of the Bank as required.

3.6.2 The Bank's on-going monitoring of project activities will be supported by the Somaliland MoWR through its Project Implementation Unit (PIU). The Steering Committee will review implementation progress as part of its regular meetings. The Logical Framework matrix included in this Appraisal Report shall serve as a basis for the result based assessment of the outputs of the project during implementation and after completion.

3.6.3 The AWF, in its capacity as Executing Agency, will manage project implementation through its Project Manager stationed in Hargeisa, Somaliland. In addition, staff of the AWF may undertake field visits to the project as the need to do so arises.

3.6.4 The AWF will notify the Bank when all activities relating to the project have been completed and will provide within six months a Project Completion Report (PCR) in AWF/Bank standard format, together with reasonable supplementary information requested by the Bank in order to prepare its own statutory reports on use of funds transferred.

## **4. EFFECTIVENESS, SUSTAINABILITY, RISKS**

### **4.1 Effectiveness and Efficiency**

4.1.1 All technical and implementation related alternatives were carefully reviewed and analysed during the mission, which included extensive field discussions with 14 key institutions (comprising 50 individuals) in the sector. The alternatives selected were deemed to be the most effective and efficient method of proceeding, as reviewed below:

#### *Effectiveness*

4.1.2 By improving water resources management and catalysing water sector investments, the project will contribute to efforts to create water security and disaster resilience, recover from the impacts of drought, and improve livelihoods.

4.1.3 The project aims to build resilience to disasters in Somaliland through support to the major productive sectors in the country (farming / irrigation, pastoral, and agro-pastoral), by addressing water resources constraints and developing innovative methodologies for more efficient use of scarce water in the local context. The project will also provide support to the service sectors, particularly drinking water, thus safeguarding basic health, nutrition and development potentials of the population so that growth and development is possible even under adverse conditions. In doing so, linkages of water supply for humans and livestock will be taken into consideration.

4.1.4 The mobilisation of financing to implement the planned downstream investments is essential to achieving project impacts, given the great lack of water infrastructure in Somaliland. It is AWF experience that the participation of potential donors during project implementation is key to catalysing investment financing. In this regard, the AWF will work closely with development partners to ensure their involvement in all stages of the project, through inclusion of key partners in the Steering committee, and joint stakeholder review of project outputs, such as interim and final reports.

#### *Efficiency*

4.1.5 After lengthy consideration of the various alternatives for Executing Agency, including negotiations with outside organisations such as the FAO and IGAD to implement the project, the AWF decided that it would be able to perform the role most cost effectively and efficiently in ensuring the timely execution of the project. A couple of key considerations in this decision was the highly technical nature of the project, which is basically an investment planning study for which the AWF has adequate capacity (for example the AWF has taken the lead in preparing the draft ToR), and the high proposed project management costs of the outside organisations that the AWF approached as possible executing agencies.

4.1.6 The option of the AfDB assuming the role of Executing Agency was also considered but it was assessed that using the AWF as Executing Agency would provide a measure of separation from the Bank's role as the trustee of the AWF Special Fund (and therefore the legal donor of the AWF grant), enabling the Bank to be more independent and objective in executing its trustee role. In this regard the Bank will oversee financial and administrative management of the project; review and approve all procurement and disbursement requests; and supervise and monitor project implementation; all in conformity with its existing rules, regulations, policies and procedures. Furthermore, the project will fall under the routine

review of AWF operations by the Bank's Oversight Committee of the AWF, as part of its mandate to ensure the proper performance of the Bank's trustee obligations.

## **4.2 Sustainability**

4.2.1 The analyses prepared as part of the investment planning process, which will include environmental and social impact assessments, financial and economic evaluations, and assessment of risks and mitigation measures due to droughts, floods, climate change and variability; will help ensure sustainability of the priority interventions to be implemented under the project, as well as the interventions proposed in the investment plans which will be implemented later under other funding.

4.2.2 At the institutional level, the capacity building of the MoWR will improve their ability to implement the downstream projects, and also provide a degree of confidence in potential donors which will facilitate their funding of the investment plans. The involvement of the MoWR in all aspects of the study will help ensure ownership of the water resources management and investment plan. Various measures will be undertaken at community level to build capacity. For example, in the course of rehabilitating water infrastructure, training and mentoring will be done with beneficiaries to impart the sense of ownership to them and to improve their capacity to operate and maintain the water storage reservoirs.

4.2.3 The project will also develop an agreed upon framework and action plans to improve the current PPP arrangements for the supply of water and related services. Increased involvement of the private sector coupled with better regulation will help ensure sustainable delivery of water.

4.2.4 The sustainable availability of water resources is one of the main environmental issues which will be addressed in the master planning and technical approaches. The project will address storage and use of scarce surface resources, especially where adequate groundwater is not available; demand side efficiency measures, water conservation and reuse; and water resources management needs for environmental protection, groundwater recharge and river/stream erosion. As well, the design of a water monitoring programme to improve knowledge about available water resources, and the updating of drought mitigation plans, are featured in the project.

4.2.5 The project addresses gender and social equity concerns at several stages. For example the assessment stage will include a review of gender issues and mechanisms for stakeholder engagement, participation and awareness creation with particular attention paid to women and youth. The IWRM Plan will include a preparation of a gender action plan which reflects the participation and role of women in the management of water resources. And as part of the priority rehabilitation works, local NGOs will be engaged to demonstrate how to build capacity of communities, households, pastoralists, etc. to meet their water needs and sustainably manage their water resources.

4.2.6 Climate change is addressed at several stages during the study through an emphasis on specific activities such as the preparation of comprehensive national/regional adaptation and mitigation plans and associated infrastructure investment programmes, incorporation of rigorous climate scenario analysis as part of the modelling and planning activities, preparation or updating of drought preparedness plans, etc. Climate proofing of the projects to be prepared will be dealt with through scenario analysis, risk assessments etc. as part of the modelling/design activities.

### 4.3 Risks and Mitigation

4.3.1 There are various risks associated with the implementation of the project:

- Lack of donor interest in funding the downstream works or sector support actions. This can be mitigated by ensuring that the key development partners are consulted and participate in all key review stages of the project, including the review of the inception and interim reports, the final Water Resources Management Plan, and the investment plan and sector support action plans, so that the outputs from the project respond to their expectations and needs. The Somali government and the Somaliland authorities will also be actively involved in alerting the AWF to potential donors' interest in funding the downstream projects.
- Inadequate sector budgets for ministries or districts for coordination and implementation of downstream projects can be mitigated through coordinated response from Somaliland and donors to provide adequate financing to meet operational and development budgets in line with the outcomes of the master planning.
- Possible disputes that may arise during the preparation of the study, over any planned sharing of transboundary water resources (particularly groundwater) with Ethiopia and Djibouti, will be mitigated by the involvement of regional coordinating bodies such as IGAD, in consultation with appropriate national/sub-national bodies. The planned preparation of the benefit sharing framework will also facilitate adoption of the development plan by all stakeholders. Conflict resolution mechanisms related to sharing of water resources will be detailed in the Project Implementation Manual (3.2.5).

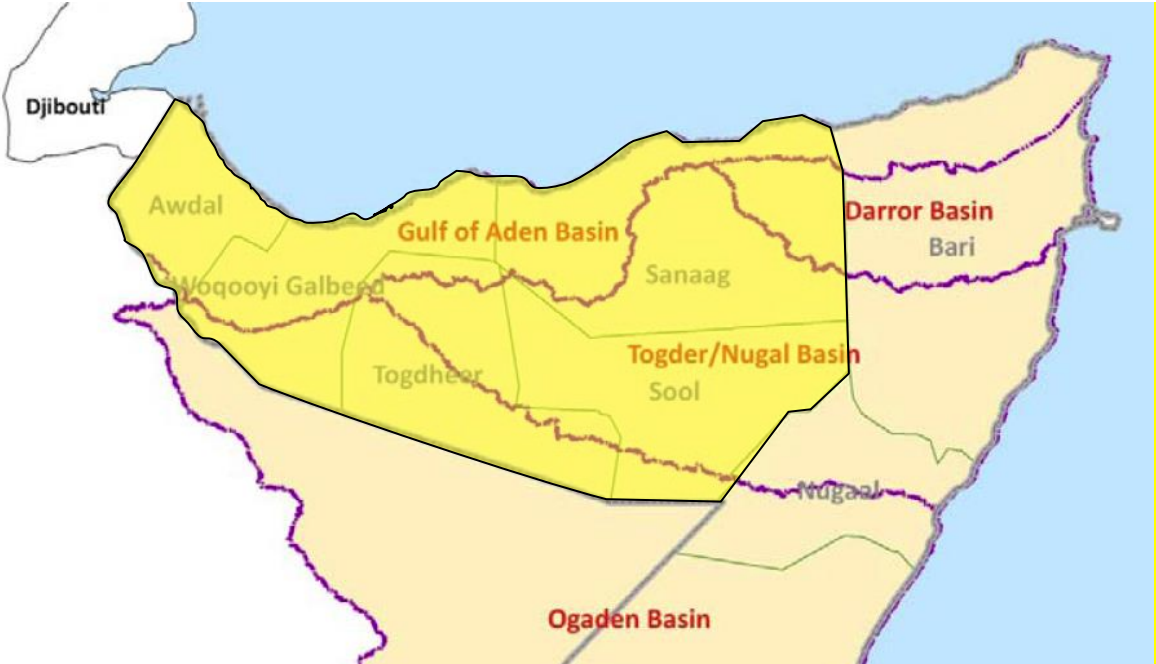
## 5. CONCLUSIONS AND RECOMMENDATIONS

5.1 The project constitutes an important step in the efforts of Somaliland to develop and sustainably manage its water resources. Through the preparation of a water resources management and investment plan, the project will not only improve water resources management, but catalyse the large investments needed to develop the sector. Over the long term, the project is expected to have a significant impact on efforts to recover from the impacts of the drought, help create water security and drought resilience, improve livelihoods and support economic recovery.

5.2 It is recommended that a grant not exceeding **Euro 3,000,000** from the AWF resources be extended to the Federal Republic of Somalia for the implementation of the project described in this appraisal report.

**Annex 1: Map of Project Area**

**Approximate Project Area by Drainage Basin**



## Annex 2: Implementation Schedule

Activity	Time in Months																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<b>Start-up and Disbursements</b>																														
Approval to grant signature	x	x																												
Setting up of PIU, PSC		x	x																											
<b>Procurement of Consultant</b>																														
Finalisation of ToR	x	x	x																											
EOI, RFP, preparation of proposals	x		x	x	x	x	x																							
Evaluation, negotiation, mobilisation								x	x																					
<b>Integrated Water Resources Management Plan</b>																														
Review and Assessment										x	x	R <sup>1</sup>																		
Analysis												x	x	x	R															
Preparation of IWRM Plan																x	x	x	R											
<b>Investment Plan</b>																														
Preparation of investment projects																					x	x	x	x	x	R				
Donors' roundtable																											x			
<b>Priority Works</b>																														
Design																					x	x								
Procurement of contractors																					x	x	x	x						
Implementation of works																									x	x	x	x		
<b>Sector Support, Capacity Building</b>																														
Study tour								x																						
Capacity Building/Knowledge workshop																				x							x			
<b>Project Management</b>																														
Steering Committee meetings				x				x			x				x				x							x				
Reporting				x				x			x				x				x				x			x				x

Note 1: R=Review and revision

**Annex 3: Cost Estimate (amounts in Euro)**

Description	Unit	Quantity	Unit Cost	Total Costs AWF	Foreign Costs AWF	Local Costs AWF
<b>WRM and INVESTMENT PLAN</b>						
<b>Remuneration</b>						
Team Leader /Water Resources Dev. Planner	m/m	19	16,000	<b>304,000</b>	304,000	
Hydrologist /Climate Change	m/m	8	14,000	<b>112,000</b>	112,000	
Hydro-geologist	m/m	6	14,000	<b>84,000</b>	84,000	
Hydraulics Engineer	m/m	3	14,000	<b>42,000</b>	42,000	
Infrastructure Engineer	m/m	6	14,000	<b>84,000</b>	84,000	
Irrigation and Water Management	m/m	9	14,000	<b>126,000</b>	126,000	
Water Supply and Sanitation Specialist	m/m	9	14,000	<b>126,000</b>	126,000	
Regional Planner / Economist	m/m	7	14,000	<b>98,000</b>	98,000	
Agronomist /Crop Production	m/m	7	14,000	<b>98,000</b>	98,000	
Soil Specialist / Land Use Planner	m/m	6	14,000	<b>84,000</b>	84,000	
Livestock /Rangeland Specialist	m/m	6	14,000	<b>84,000</b>	84,000	
Environmentalist / Safeguards	m/m	4	12,000	<b>48,000</b>	48,000	
Sociologist, Gender /Safeguards	m/m	4	12,000	<b>48,000</b>	48,000	
GIS, Remote Sensing	m/m	11	14,000	<b>154,000</b>	154,000	
Institutional Development	m/m	3	12,000	<b>36,000</b>	36,000	
Financing / PPP	m/m	3	14,000	<b>42,000</b>	42,000	
Supervisory Engineers	m/m	12	3,000	<b>36,000</b>	36,000	
Technicians (CAD, GIS, RS)	ls			<b>85,000</b>	85,000	
Secretarial/Administrative	ls	20	1,000	<b>20,000</b>	20,000	
<b>Sub-total Remuneration</b>				<b>1,711,000</b>	<b>1,711,000</b>	<b>0</b>
<b>Other Expenses</b>						
Allowance (per-diem, accommodation)	m/m	71	3,000	<b>213,000</b>	213,000	
International Air Travel	No.	50	2,000	<b>100,000</b>	100,000	
Data Acquisition (field verification, remote sensing images)	l/s			<b>250,000</b>	250,000	
Local Transport and Fuel	l/s			<b>50,000</b>	50,000	
Misc. Expenses	l/s			<b>10,000</b>	10,000	
NGO for implementation support and capacity bldg.	l/s			<b>25,000</b>	25,000	
Capacity building of PIU, study tours, knowledge workshop	l/s			<b>55,000</b>	55,000	
Steering Committee, review meetings	l/s			<b>25,000</b>	25,000	
<b>Sub-total Reimbursable Expenses</b>				<b>728,000</b>	<b>728,000</b>	<b>0</b>
<b>TOTAL INVESTMENT PLANNING</b>				<b>2,439,000</b>	<b>2,439,000</b>	<b>0</b>
<b>Priority Works</b>						
Rehabilitation of Surface Water Reservoirs	l/s			<b>275,000</b>		275,000
<b>TOTAL PRIORITY WORKS</b>				<b>275,000</b>	<b>0</b>	<b>275,000</b>

<b>PROJECT MANAGEMENT AND COORDINATION</b>						
AWF Project Manager (fees, per-diem)	m/m	12	10,000	<b>120,000</b>	120,000	
AWF PM (Int. Air Travel)	No.	6	2,000	<b>12,000</b>	12,000	
AWF PM (Local transport, Misc.)	l/s			<b>11,143</b>	11,143	
<b>TOTAL PROJECT MANAGEMENT</b>				<b>143,143</b>	<b>143,143</b>	<b>0</b>
<b>TOTAL PROJECT AMOUNT</b>				<b>2,857,143</b>	<b>2,582,143</b>	<b>275,000</b>
CONTINGENCY (5%)				142,857	129,107	13,750
<b>GRAND TOTAL</b>				<b>3,000,000</b>	<b>2,711,250</b>	<b>288,750</b>
<b>Percent of Grand Total</b>					90.4%	9.6%

**Annex 4: Endorsement of Project by the Prime Minister of Somalia**

**Jamhuuriyadda Soomaaliya  
Xukumadda Federaaliga KMG ee Soomaaliya  
Xafiiska Ra'iisul Wasaaraha**



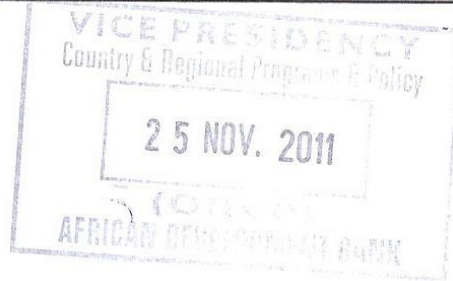
**جمهورية الصومال  
الحكومة الانتقالية الفيدرالية  
مكتب رئيس الوزراء**

**The Transitional Federal Government of the Somali Republic  
Office of the Prime Minister**

**XRW/0000000.245/10/11**

**Date: 23.10.2011**

**Dr. Donald Kaberuka,  
President,  
African Development Bank  
15 Avenue du Ghana,  
P.O.Box 323-1002  
Tunis-Belvedere, Tunis**



**Dear Dr. Kaberuka,**

**Subject: Endorsement of Surface Water Catchment Project Financing**

Further to the letter of the Director of the African Development Bank of 30<sup>th</sup> September 2011, I would like to take this opportunity to endorse the financing of Surface Water Catchment Project for Somaliland.

We would very much appreciate if the bank allocates the funds for this project.

**Yours sincerely,**

**Dr. Abdiweli Mohamed Ali  
Prime Minister**

## **Annex 5: Terms of Reference for the AWF Project Manager**

### **PROJECT MANAGER**

#### **Introduction**

The AWF wishes to hire a Project Manager stationed in Hargeisa, Somaliland to support the implementation of the Preparation of Water Resources Management and Investment Plan for Somaliland. The Project Manager will be paid from the project proceeds. Reporting to the AWF Task Manager, the Project Manager will support the overall management of the project.

#### **Responsibilities and Tasks**

- Prepare a project implementation manual (PIM) in accordance with the AWF guidelines and oversee the implementation of the activities as per the PIM.
- Work closely with the Somaliland Ministry of Water Resources (MoWR), Ministry of Agriculture (MoA), Ministry of Livestock (MoL) to establish a Project Steering Committee (PSC).
- In close collaboration with the MoWR, MoA, MoL and other major stakeholders in Somaliland including the donors' groups, review the objectives and scope of the project and finalise the ToR for the Study.
- Facilitate and participate in the regular meetings of the PSC, and provide technical secretariat support for the PSC activities.
- Oversee the supervision of the activities and progress of the project consultants and contractors in accordance with their contractual obligations.
- Provide oversight and guidance to the Project Implementation Unit (PIU) on all matters pertaining to their responsibilities in the implementation of the Project.
- Ensure that all meetings and workshops necessary for project implementation, as outlined in the PIM and/or PAR, are held in accordance with project requirements.
- Prepare project progress reports and Project Completion Reports (PCR) in accordance with the schedule outlined in the PIM and PAR, using a format agreed upon with the AWF, and ensure proper distribution of these reports.
- Receive and arrange for reproduction and circulation of reports, studies and other Project documentation from consultants as appropriate.
- Represent and promote the Project in national and international arenas as required, and maintain close continued collaboration with the major active donors in Somaliland on issues relevant to the Project.
- Ensure continual contact and dialogue with key donors throughout the project, and organise the end of project donor's round-table.

With specific reference to procurement and administration of the project:

- Coordinate the preparation of a Procurement Plan in accordance with AfDB/AWF guidelines, and ensure the completion of all procurement processes in full compliance with the AfDB procurement procedures
- In accordance with the Procurement Plan, coordinate all activities related to the recruitment of the consulting firm which will undertake the IWRM and investment planning, including finalisation of the Terms of Reference (ToR) and RFP documents, and the evaluation of proposals.

- In accordance with the Procurement Plan, coordinate all activities related to the procurement of contractors to undertake the works, including finalisation of the bidding documents, bid evaluation and contract negotiation.
- Arrange for the procurement of any other locally procured goods, works and services as agreed upon in the procurement plan.
- Review and certify consultant/contractors invoices and forward to the AWF with recommendations for payment.

### **Duration**

Approximately 12 months over a 30 month period; following successful completion of a 3 month probationary period.

### **Duty Station**

Based in Hargeisa, Somaliland

### **Qualifications and Experience**

- A higher degree in Water Resources Management, Water Supply and Sanitation, Agricultural Engineering, or related discipline relevant to the project.
- A minimum of ten years at a senior level in a relevant public or private sector institution, or international organisation, with proven capabilities in the management and coordination of internationally financed development projects and programmes. A good level of experience in the preparation of integrated water resources management and investment plans is essential.
- Sound knowledge of contemporary issues in water resources management, drought resilience, etc. as they pertain to a semi-arid environment such as Somaliland, along with an appreciation of the respective roles of the public and private sectors in water resources management.
- Experience working in Somaliland or similar regions in Africa. Familiarity with the socio-economic conditions in Somaliland and/or similar types of fragile states, particularly with respect to their extreme vulnerability to drought.
- Familiarity with the procurement and project administration in accordance with the procedures of the African Development Bank.
- Good speaking and writing ability in English. Knowledge of the Somali language would be an asset.
- Good knowledge of basic computer office software.

**Annex 6: Terms of Reference for Consultancy Services**

**TERMS OF REFERENCE**

**Preparation of Integrated Water Resources Management and Investment  
Plan**

**DRAFT**

## INTRODUCTION

Over the past few years, Somaliland and other regions of the Horn of Africa have been going through one of the driest periods in memory, with the seasonal rains falling short for four consecutive years. The food security situation has worsened in all drought-affected areas, with the prices of food increasing 2 to 3 fold. Similarly the price of water has soared and is out of reach for most of the poor. Livestock herds have been decimated, forcing hard-hit pastoralists to migrate to towns and villages in search of aid. Malnutrition in children under five and adults has escalated. Severe shortages of food and water, along with soaring food and water prices, and the deaths of livestock, have plunged many families into impoverishment.

According to Somaliland authorities, the drought has affected about 40 percent of Somaliland's population of 3.5 million, which is equivalent to 1.4 million people. More than 55% of the population in Somaliland are nomads depending on livestock for their livelihood, and they are the most hit by the current drought. Moreover, it was reported in late 2011 that around 100,000 internally displaced people (IDP's) existed in Somaliland.

Much of the causes of vulnerability of Somaliland to drought risks and the constraints to improving livelihood and economic development in the country are related to lack of development of water resources and its poor management. Most of the rainwater is not put to productive uses due to lack of storage and poor water management practices. Ground water is a finite resource and very costly to extract due to the need for deep wells of 200 to 400 metres in many parts of the country. Furthermore, the pressures on this scarce resource are mounting due to increasing population, urbanisation, irrigated farming and industrial activities. Water needs range from water supply for 2 million urban and 1.5 million rural people and livestock (estimated 7 m camels, 5 m cattle, and 25 m goats and sheep), agriculture, pastoralism, and industry in the main cities and towns such as Hargeisa, Berbera, Burao, etc. However, despite the various problems, there is adequate potential to meet water needs in many parts of the country if water is well managed. For example better rain water harvesting infrastructure is needed in the highland areas where most of the annual 500 mm of rain is received in intense storms with associated flash flooding.

Somaliland is well aware of the need for better management of this valuable yet limited resource, and in its Vision 2030 it has called for a master plan for a national water conservation and development programme to be prepared. The long term vision to 2030 for the water sector in Somaliland is for a "nation with adequate fresh water available to its citizens and productive activities at all times through conservation and sustainable management of its surface and subterranean waters." The project aims at addressing the need for developing a comprehensive plan for water resources management and development, and thereby contributes to on-going efforts to recover from the impacts of the drought, create drought resilience, improve livelihoods and support economic recovery.

## BACKGROUND

### Integrated Water Resources Management and **Planning** Issues

***Need for an IWRM Plan:*** Inadequate water resources management is the most important constraint towards addressing the vulnerability of Somaliland to disasters due to adverse climatic conditions. Although there are adequate levels of rainfall in many parts of the country to meet current needs, Somaliland is lacking the infrastructure and know-how to properly manage its available water resources. In this regard, sector professionals met with during the preparation of the project were unanimous in their call for improved water management, and the MoWR has issued an appeal for the development of a long-term national watershed management programme. A comprehensive WRM

plan for the sector, along with coordinated actions for sector support, and investment planning and project/programme preparation, will enable Somaliland to leverage the badly needed infrastructure investments and better manage its water resources.

***Somaliland Planning and Priorities:*** The Ministry of National Planning and Development, in collaboration with the various line ministries including the Ministry of Mining, Energy and Water Resources (MoWR), have prepared a number of relevant plans setting out their short and medium term priorities. These include the Somaliland National Development Plan 2012-2016, where water sector features prominently with about \$80 million in investments targeting over the five year period. The MoWR has also developed brief Urban and Rural Water Development Action Plan, which provide more details on the National Plan. In addition, there are Master Plans available covering water supplies for the city of Hargeisa and Burao town, and the MoWR is calling for Master Plans for the two other principle towns of Borama and Gebiley.

A Somalia National Adaptation Programme of Action to Climate Change (NAPA) was prepared in 2013, which Somaliland participated in. Water Resources Management and Development was highlighted as one of the three key programme areas, under which a number of priority adaptation activities were identified related to policy and planning, institutional development, and infrastructure investments. The need to prepare national/regional water resources management plans features prominently in the priority NAPA activities.

All of these plans have been taken into consideration in designing the project. However, with the exception of the two water supply Master Plans, they are not at the level where they can be used for coordinating and leveraging sector investments. The various donor agencies and other stakeholders that were consulted during the appraisal have all indicated that a comprehensive development plan for the water sector is greatly needed in order to guide their support. The Directorate of National Water Resources under the MoWR has issued an appeal for technical cooperation and investments in support of a 20 year National Watershed Management Programme, which the water resources management and investment plan to be prepared under this assignment will address.

***Hydrologic Setting:*** Water is a scarce resource in Somaliland. There are no lakes and permanent rivers, and rain water is limited to two brief rainy seasons. The mean annual precipitation is about 300mm, reaching about 500mm in the west and along the highland range, and most of the country is classified as arid or semi-arid. Evapotranspiration is very high, particularly in the coastal area, where it reaches 2900mm. Droughts are common, occurring moderately every 3-4 years and severely every 7-9 years, and causing great hardships due to loss of livelihoods, especially for nomadic pastoralists who rely on livestock.

***Drought resilience*** is a national and regional priority. Due to increased climate variability, rainfall patterns have changed and droughts are becoming more frequent and severe, leading to many internally displaced people (IDP) in the country. There is a National Environment Research and Disaster Preparedness and Management Authority (NERAD) in Somalia. A joint FAO, UNDP, WFP, OXFAM proposal for drought risk management and investments has been prepared but has yet to be approved and implemented. Building resilience also requires strengthening productive sectors and livelihoods, and provision of basic services, such as access to drinking water. The availability of a IWRM Plan will significantly help improve drought preparedness efforts.

***Infrastructure:*** Without adequate infrastructure Somaliland will not be able to meet its water needs. In particular given its seasonal rainfall patterns, recurring annual droughts, and lack of permanent surface water, there is great need for RWH infrastructure for collecting and storing rainfall runoff for livestock, irrigation and other uses. As well, sustainable exploitation of groundwater resources is essential to meet water supply and other needs. Unfortunately, the years of conflict and instability

have resulted in a severe lack of funding for expansion of the infrastructure base and even for maintenance. Consequently there is a great need for development of infrastructure of all types, and significant investments are necessary. However detailed investment planning is needed to leverage the required funding for donors, and to ensure that all funds are optimally utilised and directed towards priority high benefit projects.

**Knowledge of water resources:** With the support of various organisations such as the FAO, who have provided assistance on water and land information management, Somaliland has been able to develop a reasonable understanding of its water resources which can be used as the basis to prepare a WRM plan for the sector. There is also the basis of a hydro-meteorological network in place, but strengthening is necessary. There is also a lack of understanding of sustainable yields from the deep aquifers, and consequently an extensive and comprehensive hydro-geological survey of the whole country is needed, building on the ongoing project to improve the understanding of ground water resources. As well, a comprehensive inventory of all point water sources in the country was completed in 2008, but this needs to be updated. Capacity building, including training of existing staff and education of more specialists, and additional equipment for improving the hydro-meteorological network, geophysical investigations, and water quality monitoring, are needed as well.

**Storage and Rain Water Harvesting (RWH):** Somaliland has identified the need to significantly expand the network of existing surface reservoirs located mainly along the Somaliland/Ethiopian border, in order to store water for livestock, drinking and small scale agriculture. As well, Somaliland would like to develop larger dams for multi-purpose uses, where there may be suitable locations in the more mountainous regions of the country. In urban areas roof-top RWH should be promoted to meet household needs.

**Water Supply:** Access to safe water in Somaliland is not well known, with no reliable statistics available. Recent estimates by the FAO-SWALIM have given access figures ranging from less than 20% to 50% in various districts. The National Development Plan 2012-2016 reports that on average 41% of the population was using improved drinking water sources in 2006. The average consumption in the capital Hargeisa is estimated at only 10 l/c/d. To supply drinking water to the rural areas, including small towns, the use of deep boreholes is envisioned. However this requires significant investments since in many parts of the country borehole depths can range up to 300 to 400 m (average depth is approximately 150 m in the country), and can cost \$100,000 or more to construct. The use of solar or wind for water pumping is being tried in parts of the country, and their use is expected to expand for the more shallow boreholes.

**Water for Livestock:** With over 50% of the population nomadic pastoralists, water for livestock is a major concern and one that needs to be urgently addressed. However since poor location of water points can lead to conflicts and degradation of the environment due to over-grazing, careful siting of water points is essential. Strategic water points which can be used during periods of drought must also be planned for and developed.

**Agricultural Water Use:** Agriculture in Somaliland is predominantly subsistence in nature and mostly for household consumption. Fruit and horticultural farming, which is relatively small, is mainly commercial. Different types of agriculture can be found in Somaliland; namely, agro-pastoral rain-fed agriculture, pump-fed irrigated agriculture, and spate irrigation agriculture. It is estimated that rain-fed agriculture is practiced in an area of around 30,000 ha, while the area under irrigation constitutes only 800 ha. Estimates of irrigable areas were made for the Western part of the country only, while no such effort has been made for the eastern part of the country. There is a need to further study the potential for large scale irrigation, and to develop a workable model for irrigated agriculture that would help in building drought resilience. The main challenges facing the sector are

inadequate rainfall, high cost of irrigation due to inefficient practices and high fuel prices, lack of farm inputs, poor agricultural practices, lack of proper technology, soil degradation, inadequate capital availability, lack of extension services and access to market.

**Land and Environment:** Land degradation is becoming a serious concern due to the loss of topsoil as a result of the flash flooding during the rainy season, and the loss of protective vegetation in many areas. Technologies to address these issues have been successfully demonstrated in previous projects (such as soil bunds, stone terraces, runoff check dams, sand storage dams, tree nurseries), but have never been scaled up.

### **Sector Support issues**

**Policies, Acts and Reforms:** Somaliland is in the process of putting in place a comprehensive regulatory framework that will comprise the institutional, policy and legal tools outlined below:

- **National Water Policy** (approved June 2004), which sets out the objectives, general principles and guidelines to be followed in developing the water sector.
- **National Water Strategy** (approved Sept. 2004), indicating priorities and detailed measures to be taken to permit the policy to be implemented.
- **Water Act** (approved 2012), establishing the legal framework to support the strategy, defining organisations, mandates and responsibilities, as well as procedures, obligations and interdictions in a general way.
- **Water Regulations** (under preparation), gathering all the by-laws necessary to enforce the Water Act.

The Policy and Strategy may need to be updated to reflect any changes to the sector policy, governance and support frameworks; or strategic water resources management priorities and implementation measures, that may arise as part of this project.

**Water Institutions:** According to the Somaliland Water Policy (2004), the Ministry of Mining, Energy and Water Resources (MoWR) is responsible for water resources management, development of a regulatory framework, and the provision of water for domestic use. However, the MoWR is hampered by a limited operating budget, no internal funds for sector development, and inadequate levels of professional / technical staff and equipment to carry out its mandate. Development partners have been providing some TA support, and a number of proposals are available to improve internal training. Other ministries with activities that relate to water include Ministries of Agriculture, Livestock, Pastoral Development and Environment, and Health. The problems faced by these ministries are similar to that of MoWR. At the decentralised level, the districts are responsible to support the provision of water (planning, supervision of service provision, O&M, financial management and ownership of assets). However the capacities of the districts are also very weak. A review of the institutional and regulatory framework, along with a comprehensive capacity building and human resources development assessment, are needed. Somaliland plans to address the lack of qualified professional and technical people through strengthening existing university level programmes, and establishing two water institutes for technical education. Further efforts are needed to firm up these proposals, including development of detailed action plans with cost estimates.

**Governance, regulation:** Somaliland is in the process of putting in place comprehensive reforms of its policies, acts and strategic plans for the sector. As well, the MoWR is in the process of increasing its capacity with the support of various partners, and various proposals have been put forward in this regard related to public-private-partnerships (PPP) WASH models, regulation, governance, etc. There are also calls to put in place an independent regulatory agency. These processes must continue to be supported, starting with the preparation and agreement on an overall plan of action for sector

support. This will enable the MoWR and other ministries to coordinate efforts and help ensure adequate ongoing funding. In this manner the MoWR will continue to progress towards having the capacity to sustainably manage its water resources.

**Public private partnerships:** The private sector is playing a major role in the supply of water, partly due to the limited capacity of Somaliland authorities for direct service provision. Plans are that PPP arrangements will continue to be expanded upon, particularly in the urban areas. However, there are a number of issues which need to be addressed to improve PPP's, including increasing MoWR capacity to regulate the private sector and ensuring the needs of the poor are well met. UNICEF has been taking the lead in PPP's with a number of pilot projects which have resulted in good examples of well managed rural/urban water systems. They have also prepared proposals to test out various innovative service delivery models in urban areas. In the rural areas an assessment of water management models is also greatly needed since there are a range of issues related to decentralisation, community management, clans, and the nomadic pastoralists. PPP's could also be considered for development of interventions for water use for livestock and irrigation, or other related support activities in these two sub-sectors.

**Tariffs, affordability:** The people are used to the concept of paying for water both for their own use as well as for livestock. However at present the poor are suffering due to high prices paid for water, especially during the dry season where water has to be trucked long distances in rural areas. As a result the cost of water during periods of shortages can reach \$10-20 USD a cubic metre in the rural areas. Ways and means to ensure equitable and affordable tariffs need to be assessed and developed within an overall water use framework. Infrastructure improvements to increase the density of rural water points, along with extension of urban piped water networks, will also help alleviate this problem.

### **Previous and ongoing studies and activities**

IGAD has been leading an initiative on drought resilience in the Horn of Africa, including Somalia, and the AWF has been part of consultative and high-level meetings with IGAD and other stakeholders. As a result this AWF project has been designed to directly link with the IGAD led initiative though its focus on securing drought resilience in Somaliland. This builds on the political commitments already made by the leaders of Somalia, thus providing high level justification for the proposed project approach.

As part of this initiative, the AfDB is in the process of implementing a programme on Drought Resilience and Sustainable Livelihoods in the Horn of Africa (HoA), including Somalia. The AWF project has been designed to ensure synergy with the Bank's HoA programme, especially since there is overlap with the main component which focuses on water resources development and management. In particular, the investment plans will enable the AfDB to quickly proceed to detailed design and implementation of water infrastructure for human, agriculture and livestock needs in Somaliland.

The AWF has funded a recently completed project under IGAD, which provided support for mapping, assessment and management of transboundary water resources in the IGAD sub-region, including Somaliland. The outputs of the project will provide valuable information and mapping which can be made use of during the preparation of the Water Resources Management Plan.

There are only a few international donors and development organisations with interests in the water sector that have a presence in Somaliland. These include the EU, IFAD, UNICEF, FAO, UN-HABITAT and UNDP with field offices in Hargeisa. Most other development partners handle their activities in Somaliland from Nairobi. Some large ongoing or planned projects include the EC funded

water development programme for Hargeisa and three other towns, implemented by UN-HABITAT, and the commitment by the Organisation of Islamic Cooperation for 146 boreholes. Other support by the EC includes TA to MoWR and water authorities in Hargeisa and other urban cities for procurement, contract management and construction supervision; implementation of some pilot RWH activities; and provision of hydro-geological equipment for groundwater monitoring in urban areas. As well UNICEF continues to provide significant support to the WASH sector. There is a WASH sector coordination group consisting of sector partners which is coordinated by the MoWR.

FAO has been implementing the Somalia Water and Land Information Management (SWALIM) programme throughout the country. SWALIM is a long-term programme aimed at enabling Somali institutions to provide crucial information on water and land in an efficient and effective manner. The recently completed fourth phase involved, among other activities a hydro-geological survey as well as gathering other much needed hydrological data. The fifth phase of SWALIM is currently underway and will continue to provide support for the programme up to 2017, including maintaining and further developing water and land information systems, and building the capacity of sector institutions to practically apply the information in their resources management activities, such as sector planning.

There are an increasing number of international NGOs operating in Hargeisa and active in the water sector, including OXFAM, ActionAid, Care, COOPI, Terre Solidari, Norwegian Refugee Council, Muslim AID, Red Crescent, Premier Urgence. All together they are providing significant grass roots support to the development of the sector.

The process for the establishment of a multi-donor trust fund for Somalia is well advanced, with the support of the World Bank and other partners. Once established, this fund will open the door to increased assistance from donors, particularly since Somalia is under sanctions by the AfDB and many other multilateral donors, which prevents large scale lending programmes.

In total, there is good donor interest in assisting Somaliland at the present time. The proposed trust fund and other planned or potential commitments (particularly from the Gulf States and Arab Funds) will ensure an adequate stream of funding for the downstream projects that are identified and prepared as part of the investment planning component of the AWF project.

## **DESCRIPTION OF THE ASSIGNMENT**

### **Approach Framework**

The overall objective of the assignment under this component is to prepare a Water Resources Management and Investment Plan which would contribute to the sustainable development and poverty reduction in Somaliland through the optimum use of available water resources and other natural, physical, human and animal resources with due consideration to the environmental and other socio-ecological factors. The scope of work to be undertaken will include an assessment of the available water resources and the multi-sectoral use within selected areas of three main drainage basins (Gulf of Aden, Ogaden and Togder/Nugal), the creation of a resources data base; preparation of various thematic reports with a range of attribute maps necessary for the planning process; analysis and preparation of investment projects and programmes with cost and in-built methodology for implementation over the short to long term time frame; and design and implementation of priority rehabilitation works.

The preparation of the integrated water resources management plan will be based on a systematic assessment of available water resources and potential uses in the drainage basins, an understanding of the socio-economic needs and socio-ecological conditions, and the formulation of development

programmes and projects which takes into account the characteristics of the selected areas within the three main basins. The plan incorporates multipurpose integrated development of water, land and natural resources within the basins and provides a prioritised list of development programmes and projects that are to be implemented over a period of 30 years with a built in methodology for review and appraisal within the development time frame.

The plan preparation should be conducted bearing in mind the need for sustainable development in an environment where scarce water availability with added impact from climate change is the most limiting factor for any kind of development in Somaliland. Proper understanding of the interrelated factors of water scarcity, socio-economic dynamics and integrated development needs will be essential in the plan formulation. A primary consideration during the preparation will be the participation and engagement of stakeholders at the basin and national level at key stages of plan development through proper participatory methods including consultations, workshops and surveys.

The selected areas within the three drainage basins will provide the spatial planning unit in which the water resources occurrence, distribution, quality, quantity, and use for economic, social and environmental uses is studied and planned developments are implemented. The preparation of the overall water resources management plan would be based on the consolidation of the drainage basins plans. The integrated water resources management plan should provide a framework of policy orientation and strategies spanning over a period of at least 30 years in form of short (5-10 years), medium (10-20 years) and long term actions (20-30 years).

The Integrated Water Resources Management Plan will be prepared on the basis of the use of existing data and information, particularly the database established under the Somalia Water and Land Information Management (SWALIM) programme and various thematic maps and reports prepared by the programme with possible limited surveys that will be conducted upon need. The preparation task will commence with critical review of the SWALIM data base, maps and reports followed by field verification to ascertain the status of existing data and information, and identification of gaps and methodology for strengthening the data base as required to support analysis at the drainage basins and regional level. A key factor in strengthening the data base is the use of satellite based earth observation data and application of the GIS tool for analysis. In addition to this the study team will compile other available data for Somalia as well as tap into applicable regional and international data bases. This will be followed by the analysis and preparation stages leading to the plan formulation and finalisation.

The preparation of the investment projects and programmes will focus on the short term priority actions of the WRM Plan. The programmes or projects will generally consider multipurpose water use; integrated water supply for rural population and livestock, rural sanitation and hygiene, urban water supply and sanitation; small scale high value irrigated crop production, disaster mitigation etc. The purpose is to prepare specific projects which will provide the basis to leverage the large investments that are required to meet the water needs of Somaliland.

The design and implementation of priority rehabilitation works is considered as the piloting phase for implementation of projects and programme identified in the IWRM and Investment Plan. The purpose of this component is to meet high priority needs in drought stricken areas, and at the same time demonstrate and build capacity for the major rehabilitation works following the destruction during the conflict period.

As part of these activities, the consultant will provide technical assistance (TA) to the Project Implementation Team and other staff of the MoWR in the form of on-the-job training and support. This will serve to increase the overall capacity of the MoWR to support the implementation of the project and to undertake the downstream projects that will be prepared by the project. The consultant

will be expected to participate in the planned knowledge workshop. The consultant will also be required to support procurement of works.

### **Description of the Assignment**

The preparation of the Integrated Water Resources Management Plan will be carried out in three stages of (i) Assessment of existing situation and identification of key issues (ii) Analysis of development needs for the selected areas of the three main basins (Gulf of Aden, Ogaden and Togder/Nugal), see map in Annex 1 for an indication of the project location; and (iii) formulation of the Integrated Water Resources Management Plan which encompasses the short to long term development strategies with prioritised projects and programmes for implementation.

The Assessment tasks will be conducted over a period of about 3 months and will result in the submission of an inception and situation assessment report. The report will provide an overview of the existing state of water resources availability and use; the national development framework; existing policy and strategy, sector and related governance issues; and an outline of proposed development plans. The status of existing data and information will be assessed and the need for additional work identified. Thematic maps of varying scales will be prepared as an input for the plan preparation and used for other purposes. The type and scale of mapping will be determined at the review stage but are tentatively outlined below. The report will also highlight the key development issues and provide the detailed work plan for the following stages. This report will be a basis for the first review input from key stakeholders.

The analysis stage will focus on thematic and sectoral studies and the examination of development options and scenarios under differing sets of assumptions. It will be carried out over a period of about 4 months. The thematic and sectoral studies will include physical characteristics; natural resources; water resources; infrastructure; socio-economic development and environmental aspects. An interim report that elaborates the nature and outcomes of the analysis undertaken and key issues in the plan preparation will be submitted. The report will serve as a basis for the second consultation with key stakeholders.

The plan preparation stage of this part of the assignment will consist of the formulation of the water resources management plans for each drainage basin, which will be consolidated into the overall Integrated Water Resources Management Plan. Sector governance and support frameworks will be defined along with action plans. The final report which elaborates the plan and development options will be submitted in draft for review by stakeholders and finalised after the review input. The plan preparation is expected to be completed in about 4 months after the analysis stage. The details of the specific activities envisaged in this part of the assignment are elaborated in the following sections.

The preparation of the investment projects and programmes will follow after the completion of the plan preparation stage. It will be undertaken in the selected areas within the three drainage basins, with a focus on the short term priority actions identified in the IWRM Plan. The preparation will include outline design and cost estimate with detailed terms of references for subsequent design studies and implementation. Detailed analysis of the technical, economic, financial and environmental aspects will be undertaken to ascertain economic and financial viability as well as assess the social and environmental impact. The consultant will prepare and submit a report that elaborates the nature of the projects and programmes, the technical solution, economic and financial viability, and environmental and social consideration. Estimate of investment requirement and strategies for resources mobilisation will be elaborated. The consultant will assist Somaliland to organise a resources mobilisation roundtable upon the submission of the investment preparation report. This component is expected to be carried out over a period of about 6 months after the IWRM Plan Preparation.

The final part of the assignment is focused on the rehabilitation of small surface water storage reservoirs, in order to meet high priority needs in drought stricken areas. Given the urgent need for this work, the structures to be rehabilitated will be identified and prioritised early on during the planning process. The consultant will provide the design and cost estimates as well as the tendering required for the rehabilitation work, and supervise the implementation. This task is estimated to take 2 months for the design activities, 4 months for procurement of contractors, and 4 months for supervision. It will be carried out in parallel with the preparation of the WRM and investment planning activities.

## **Preparation of an Integrated Water Resources Management Plan**

### **Review and Assessment**

A comprehensive review and assessment of existing policy and strategy frameworks, sector and thematic studies will be undertaken and key issues identified. The main tasks are outlined as follows.

- a) Status of surface and ground water resources, hydro-meteorological data, and inventory of water points/sources and water uses including irrigation and environmental services. This will be done building on the existing SWALIM-FAO database.
- b) Status of services sectors; e.g. water supply for urban and rural population as well as livestock in relation to water availability and water resources management, adequacy for meeting needs, existing gaps with regard to policies, etc.
- c) Status of productive sectors; such as agricultural and pastoral sectors in relation to water and land availability, water resources management, soil suitability, food security situation and gaps, current contribution and potential of the sector to support food needs of the population, existing gaps with regard to policies and support services, potential for contribution towards developing capacity for drought resilience and improving livelihoods, etc..
- d) Current impacts of recent disastrous droughts on livelihoods and communities, including a situational analysis of IDP's.
- e) National and regional IWRM policy and legal frameworks, water management plans, institutional setup.
- f) Status of systems and activities related to water resources information and knowledge management, and monitoring and evaluation.
- g) Status of socio-economic and environmental baseline data; review of misc. and cross cutting issues of gender, water rights, tariffs, cost sharing, water related conflicts, land tenure etc. Mechanisms for stakeholder engagement, participation and awareness creation with particular attention paid to women and youth.
- h) Water sector investment levels, sources and gaps
- i) Identification of key WRM issues and challenges related to rural and urban WASH, irrigation, livestock, storage, drought resilience, environment, water resources information (meteorological, hydro-geological), water quality, sector governance, institutional development and capacity building, service delivery, economic valuation of water, gender and social equity, transboundary, etc.).

Study and mapping of physical and natural characteristics at the drainage basin level will be undertaken based on use of existing data base and maps with field verification and use of earth observation data to augment and update as necessary. The mapping scale will be confirmed at the review stage with tentative proposals as follows. The maps will be prepared using the drainage basins and regional boundaries as appropriate.

- a) Topographic and land features base maps with scale ranging from pat scales of 1:250,000 and 1:1,000,000
- b) Geology and hydrogeology maps at a scale of 1:250,000 to 1:1,000,000
- c) Soils maps at a scale of 1:250,000 to 1:500,000. Remote sensing images may be acquired and limited field assessments may be carried out for purposes of complementing existing soil data.
- d) Land cover, land use and land suitability maps at scale of 1:250,000 to 1:500,000
- e) Administrative and drainage basin boundaries at scale of 1:50,000 to 1: 250,000
- f) Infrastructure and settlement maps at scale of 1:50,000 to 1: 250,000
- g) Any other data collection and mapping as appropriate including population, climate, water sources inventory, agriculture, livestock, water conflict areas, economic development data and future projection etc.
- h) Topographic mapping, soil survey and site investigation for outline design requirement for investment programmes and projects preparation

### Analysis

A thorough analysis of water resources development needs and management strategies encompassing the following set of actions will be undertaken, focusing on the following:

- a) Describe current natural and socioeconomic condition and trends as well as highlighting current problems in the water sector
- b) Estimate current and long term water demands and utilisation for service sectors; e.g. rural and urban water supply for humans and livestock, for each region or basins/sub-basins of the country as appropriate.
- c) Estimate potential for expansion of productive sectors; e.g. rain fed agriculture, irrigated agriculture, pastoral, fisheries to meet the objectives of developing drought resilience and improving livelihoods for each region or basins of the country as appropriate.
- d) Assess potential for water storage and multipurpose uses
- e) Determine potential areas for irrigation development from community level to large-scale commercial enterprise
- f) Estimate current long term water demands for other relevant sectors; e.g. industry, environment, etc., for each basins of the country as appropriate.
- g) Assess the current and long term supply of water (availability, allocation and utilisation), including surface and ground water resources.
- h) Identify demand and supply gaps by water use and the infrastructure needed to meet demand with preliminary cost estimate.
- i) Formulate strategies for managing demand and supply gap for each water use at drainage basin level.
- j) Identify water resources development scenarios to meet these gaps, including examination of all possible alternatives for water sources and water resources management.

### Plan Preparation

The formulation of the Integrated Water Resources Management Plan will follow the assessment data and information collected as well as analysis of options and scenarios at the drainage basin level. The plan will provide strategic actions with a prioritised list of projects with preliminary cost estimates for implementation in the short to long term time frame. The main tasks to be accomplished at this stage are indicated as follows.

#### Identification and evaluation of investment options:

- a) Determine and define sustainable water resources management strategies and priorities. Evaluate alternative strategies for managing water resources, including those relating to the management of supply, and those relating to the management of demand. Develop clear economic and administrative decision criteria to allocate scarce water resources among competing subsectors in the basins.
- b) Identify proposed projects and programmes including the non-structural component in connection with (i) watershed conservation and management, (ii) irrigation, (iii) water supply for domestic and urban use, (iv) rural water supply and sanitation (v) livestock (vi) disaster mitigation, drainage and flood control, (vii) environmental needs and conservation.
- c) Prioritise the identified projects based on the selection criteria set forth and formulate short, medium and long term investment projects. Identify complimentary programmes in other sectors necessary for water related investments to achieve development goals and objectives.
- d) Estimate of investment costs and benefits through preliminary economic analysis.
- e) Optimise use of water by evaluating and ranking the investment options taking into account social, economic, institutional and environmental considerations, and select those that best satisfy the development objectives;
- f) Develop a benefit sharing framework to facilitate adoption of the development plan by all stakeholders;
- g) Identify social and environmental impacts associated with each development option and propose mitigation measures; assess risks and mitigation measures due to droughts, floods, climate change and variability.

#### Define sector governance and support frameworks:

- a) Undertake institutional assessment and identify human resources capacity building, training, education needs necessary to support the implementation of the IWRM plan
- b) Propose an institutional framework favourable to the implementation of the development options
- c) Propose refinements to the existing policy, legal and regulatory framework for WRM
- d) Enhance private sector participation in the provision of water, building on the experience gained from the existing models of service provision to develop an agreed upon framework to improve the current PPP arrangements for the supply of water and related services.
- e) Propose water resources information and knowledge management systems, and a monitoring and evaluation framework
- f) Prepare a gender and social equity action plan which reflects the participation and role of women in the management of water resources.
- g) Prepare a map of natural disaster hazards, at the drainage basin level, based on collected data on the topographic and socioeconomic conditions
- h) Prepare or update existing drought preparedness plans
- i) Prepare a public awareness plan for integrated water management
- j) Prepare investment resources mobilisation strategies for sustainable financing of plan implementation

### **Preparation of Investment Projects and Programmes**

Investment projects and programmes will be prepared for implementation of priority short term actions that were identified in the integrated water resources management plan. Somaliland, in its five year development plans, provides a list of actions which can be used as an indication of the magnitude of investments that could be planned. These includes rehabilitation of 30 boreholes and construction of 150 new ones for water supply; construction of 100 new reservoirs of 100,000 m<sup>3</sup>

capacity in selected drought prone pastoral areas; 600 sand dams for irrigation and aquifer recharge and construction of 6 major dams constructed for multi-purpose uses. Some of the above is within the selected areas in the three drainage basins.

The specific activities to be undertaken for the investment plan preparation are outlined as follows.

- a) Refine the list of projects and programme identified in IWRM plan preparation process that will be covered under this component
- b) Assess data collection and analysis needs and undertake additional field investigations as required.
- c) Prepare investment projects involving prefeasibility or feasibility studies of different technical options
- d) Undertake preliminary design and cost estimates; along with social, economic and financial analyses, environmental impact assessments, and identification of climate change adaptation and mitigation measures.
- e) Prepare ToRs required for detailed design and implementation.
- f) Prepare action plans for sector support, with ToR and budgets, which can be used for either standalone projects or incorporated into other projects.
- g) Prepare an implementation plan including schedule of investment projects and sector support actions, along with institutional arrangements for their implementation.
- h) Ensure that gender and social equity needs are addressed in all plans
- i) Prepare an investment programme and undertake resource mobilisation activities including organisation of a donor's roundtable.

### **Design and Implementation of Pilot Rehabilitation Works**

This task is focused on the rehabilitation of 4 or more surface water reservoirs. These are earth embankment ponds (haffir dams) of approx. 50,000 m<sup>3</sup> capacities each, some of which may have a lining. The main activities to be undertaken include:

- a) Prioritisation and selection of priority works
- b) Assessment and investigation of rehabilitation needs. Given that the original designs for these reservoirs are no longer available, site investigations and surveys may need to be done as necessary.
- c) Detailed design and preparation of tender documents, and technical support to the Executing Agency for the procurement of contractors to undertake the works
- d) Supervision of the priority works, linking to the community capacity building activities. The possibility of engagement of one or more local NGOs to demonstrate how to build capacity of communities, households, pastoralists, etc. to meet their water needs and sustainably manage their water resources should be considered.

## **IMPLEMENTATION ARRANGEMENT**

### **Project Implementation Arrangements**

The AWF will be responsible for implementation of the Project, supported by a Project Manager based in Hargeisa. The AWF will be responsible for all aspects of implementation, including project management and coordination, procurement, financial management and payments, and oversee the design and supervision activities.

The MoWR will form a Project Implementation Unit (PIU) comprising staff of the MoWR. The PIU will work with the AWF and consulting firm and support most aspects of implementation, including project management, coordination, design and supervision. At district and town/community level the local government will participate in implementation in accordance with decentralisation policies. They will support regional coordination of project activities, collection of data, and aspects of the design and supervision of priority works.

A Project Steering Committee (PSC) will be formed comprised of the following people or their representatives as voting members: Minister of MoWR (Chairman); Director General of MoWR (Deputy Chairman); Ministers of the Ministries of Planning, Agriculture, Livestock, Health and Environment; and the Project Manager representing the AWF as Executing Agency. The PSC could include non-voting members representing the development partners relevant to the water sector in Somaliland.

The consultant will be required to prepare a capacity building programme, as part of the inception report, to build the capacity of the MoWR and the PIU and other stakeholders.

### Implementation and Reporting Schedule

The assignment is expected to last for 20 months and be carried out in accordance with the proposed implementation schedule shown below. Some of the key outputs and milestones are submission of the inception report by month 3, the IWRM Plan by month 11 and the investment plan by month 17, and completion of the priority rehabilitation works by month 20.

Activity	Time in Months																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>Integrated Water Resources Management Plan</b>																				
Review and Assessment	x	x	R <sup>1</sup>																	
Analysis				x	x	x	R													
Preparation of IWRM Plan								x	x	x	R									
<b>Investment Plan</b>																				
Preparation of investment projects												x	x	x	x	x	R			
Donors' roundtable																			x	
<b>Priority Works</b>																				
Design												x	x							
Procurement of contractors													x	x	x	x				
Implementation of works																	x	x	x	x

1) Stakeholder Review

The consultant shall adhere to the reporting requirements and schedule outlined in Table below.

Documents to be Submitted	Prepared By	Reporting Schedule
1. Integrated Water Resources Management Plan (inception, interim and final reports)	Consultant	Month 3, 7 and 11
2. Investment planning report	Consultant	Month 17
3. Procurement documents	Consultant	As required

4. Consultant progress reports	Consultant	Monthly
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## PROFESSIONAL INPUTS

The assignment will require an estimated 111 person-months of consulting services over a 20 month period. The proposed list of key personnel and indicative time input is shown in the table below, with detailed profiles of the study team provided below.

**Table 3: Proposed personnel and indicative time input**

<b>Expert</b>	<b>Duration (months)</b>
Team Leader /Water Resources Dev. Planner	19
Hydrologist	8
Hydro-geologist	6
Hydraulics Engineer	3
Infrastructure Engineer	6
Irrigation and Water Management	9
Water Supply and Sanitation Specialist	9
Regional Planner / Economist	7
Agronomist	7
Soil Specialist / Land Use Planner	6
Livestock Specialist	6
Environmentalist	4
Sociologist, Gender	4
GIS, Remote Sensing	11
Institutional Specialist	3
Public Private Partnerships	3
<b>TOTAL</b>	<b>111</b>

### Profile of the Study Team

#### 1. Team Leader/Water Resources Development Planner

The team leader will be responsible for the overall study planning and implementation as well as coordination and management of the experts proposed for the study. He/she will promote the exchange of knowledge and experience between the team members, provide liaison with the relevant ministries and other stakeholders and assure timely and accurate reporting. As a Water Resources Development Planner he/she will be responsible for the overall water allocation study; and master plan formulation and water resources development project preparation. He/she should have as a minimum MSc. Degree in water resources engineering and 20 years of experience partly in Africa, related to water resources project preparation, river basins plan

#### 2. Team Leader/Water Resources Development Planner

The team leader will be responsible for the overall study planning and implementation as well as coordination and management of the experts proposed for the study. He/she will promote the exchange of knowledge and experience between the team members, provide liaison with the relevant ministries and other stakeholders and assure timely and accurate reporting. As a Water Resources Development Planner he/she will be responsible for the overall water allocation study; and master plan formulation and water resources development project preparation. He/she should have as a minimum MSc. Degree in water resources engineering and 20 years of experience partly in Africa,

related to water resources project preparation, river basins planning and modelling, water resources management and integrated water resources development.

### **3. Hydrologist**

Minimum qualifications are Master's degree in hydrology with at least 15 years' experience in water resources projects. He/she will be responsible for compiling and analysis of all available hydro-meteorological data and overall assessment of the surface water resources in the basins as well at national level to enable hydrological design parameters to be derived for identified water resources development options within the basins.

### **4. Hydrogeologist**

Minimum qualification are Master's degree in hydrogeology with at least 15 years' experience in projects involving both ground and surface water management in arid and semiarid environment. He/she shall be responsible for assessing the location, quantity, quality and condition of the ground water resources of the basins and preparation of review of the geological and hydro geological map of the basins. In coordination with the water resources and irrigation engineer, He/she will develop proposals for groundwater use both for irrigation, livestock and for potable water supplies.

### **5. Hydraulics Engineer**

Minimum qualifications are Master's degree in hydraulics with at least 10 years' experience in projects involving river basin planning, feasibility study, detailed design, and supervision. He/she will be responsible for assessing dam types, preparing conceptual designs, setting up cost database for use in the estimation of investment costs of irrigation, hydropower and multipurpose water resources projects.

### **6. Infrastructure Engineer**

Minimum qualification are Master's degree in civil engineering with experiences in civil engineering design, with at least 10 years' experience in infrastructure planning and design in connection with water resources development planning and implementation. He/she will be responsible for assessing types of civil engineering facilities including roads, storage, marketing facilities etc , prepare conceptual designs, setting up cost database for use in the estimation of investment costs.

### **7. Irrigation Engineer**

Master's degree in Irrigation engineering and have at least 10 years of relevant experience. He/she will work closely with the Hydrologist, the Hydro geologist, the Infrastructure Engineer, the Agronomist and the Environmentalist to develop proposals for water use for irrigation and livestock supplies, select and design appropriate sustainable irrigation systems for the projects under the study. The irrigation engineer will be responsible for identification and pre-feasibility level design of relevant irrigation projects and assessment of rehabilitation needs of existing system.

### **8. Water Supply and Sanitation Specialist**

Minimum qualifications are Master's degree in water supply and sanitation with at least 10 years' experience in planning, design and hygiene promotion. He/she will review existing rural and urban water supply and sanitation situation and identify development options for providing access at national and local level. He/she will prepare national rural water supply and sanitation on programme

and urban WSS strategies and master plan. Identify and prepare priority projects and programmes for urban and rural water supply for investment.

### **9. Regional Planner/ Economist**

The regional planner will assemble information on the country; analyse the economic, social, and production situation and prepare proposals on various water resources development approaches and options. Undertake scenario analysis and propose the short to long term development strategies and actions plan in coordination with other team members. Undertake general economic and financial evaluation, assessment of the opportunity cost of water, determination of the sensitivity of the results to variations in key variables, and project investment scheduling. He/she will also be involved in preparation of policy framework in consultation with policy makers for project's formulation and reports on prioritisation of phasing of development and financial plan. Minimum qualifications are MSc in Economics and 15 to 20 of regional planning and water resources master plan preparation.

### **10. Agronomist**

Minimum qualifications are a M.Sc. degree in arid and semiarid agriculture, with at least 10 years' experience in Africa. He/she will be responsible for identification of crops/cultivation and irrigation methods suitable to the different agro-climatic conditions and land classes; small, medium and large scale irrigated and rain fed agricultural development schemes; and agricultural support services and market outlets and give recommendation for improvement. He/she will also review the past and present agricultural policies, strategies and legislation.

### **11. Soil Specialist/Land Use Planner**

Minimum qualification are Master's degree in Soil Science or land use planning with at least 15 years' experience in projects involving the use of soil survey, remote sensing, land use/evaluation techniques. He/she will be responsible for reviewing and checking existing soil classification and land use maps, determination of land capability and suitability, mapping identification of potential schemes for irrigated and rain fed agriculture, soil conservation and watershed management needs and preparation of land use plan.

### **12. Livestock Specialist**

Minimum qualifications are M.Sc. in livestock production or related fields with background in tropical livestock production systems, and range management with at least 10 years of practical career in Africa. He/she will be responsible for assessment of existing production systems and management as well as improvements needed to modernise the production system and assess the water resources management requirement for production of feeds and livestock consumption as well as assess the water management needs of wildlife reserves.

### **13. Environmentalist (Safeguards)**

Minimum degree requirement is an MSc in Environmental Sciences or a related field and have at least 15 to 20 years of relevant experience in analysing positive and negative aspects of water resources development. He/she should have experience in the assessment of impacts of development programmes/projects on the environment and work with other members of the team to mainstream cross-cutting issues concerns into the Strategic Environmental Assessment with respect the proposed national and basin level water resources development plan and programmes.

### **14. Sociologist / Gender Specialist (Safeguards)**

Minimum degree requirement is MSc in sociology, socio-economics or related discipline with at least 10 years field experience in Africa. He/she should have experience in carrying out social impact assessments. The Sociologist will be responsible for collection and analysis of information and data on socio-economic and cultural factors that impact on the development of the water sector, such as land tenure systems, gender roles, poverty, health, population migration, alternative sources of income and decision making on a broad range of production and marketing issues. The specialist will be assess the adequacy of the legal, institutional and policy framework both at the national and local level for mainstreaming gender issues and the empowerment of women, formulate inputs that address gender issues for the Environmental and Social Impact Assessment.

### **15. GIS / Remote Sensing Expert**

Minimum qualifications are Master's degree in remote sensing and application of GIS. His main tasks will be the implementation of the natural resources data base for the basins, the production of a thematic base map compendium, data analyses for the master plan formulation and production of a planning atlas. He/she will be coordinating and training the project staff on the same subject. The specialist will also be responsible for the identification and specification of remote sensing imagery; installation of the image processing system; and the production of thematic maps.

### **16. Institutional Specialist**

Minimum qualifications are Master's Degree in any relevant thematic with 10 years of relevant experience in institutional assessment and development, policy analysis and development, sector regulation, and legal framework analysis in developing countries. His/her experience should focus on the development of the public sector and development of a clear role for the private sector for service delivery; such as PPP's and other mechanisms.

### **17. PPP Specialist**

Minimum degree requirement is Masters of Business Administration with at least 7 years' experience in PPP project development, most of which is in the water sector. He/she will be responsible for review of the PPP country experience in the water sector. The specialist will draw lessons learnt and required areas for improvement.

## **Annex 7: Communication and visibility Guidelines**

*Communication and brand visibility greatly matter to the AWF. The AWF views communication as a strategic function firmly tied to its strategies and business objectives. Steady communication with AWF stakeholders helps build credibility and secure their trust and esteem, which in turn, helps AWF build and protect its reputation. Communications is also about disclosure. The AWF is a multi-donor fund, and is accountable to a Governing Council that expects the AWF to hold itself to the highest level of accountability and transparency. The AWF is committed to making every effort to disclose, share and report information useful and relevant to its stakeholders and the greater public. This entails effectively communicating its achievements, progress, and results by using all means available, in a timely manner. All these elements are important for business and essential to attract and retain donors, and for AWF to maintaining its social license to operate.*

*Brand awareness is about making sure the public knows AWF exists and can tell the AWF apart from other water funds or organisations. The brand is a visual, memorable trigger, or a logo, that embodies the AWF and captures its core identity. Brand awareness is achieved over time, through activities meant to increase brand visibility, by repeated use and exposure of the logo at strategic places and times. The AWF logo is used as a seal or a signature used to signal AWF financial support or special collaboration.*

*The AWF has established **Communication and Visibility Guidelines** to the attention of partners, AfDB regional offices and grant recipients to help AWF more effectively achieve its brand and communications objectives, as laid out in the AWF Long Term Communications Strategy 2006 approved by the AWF Governing Council in 2006.*

### **1. GENERAL REQUIREMENTS**

- 1.1 At an early stage, when preparing communication activities related to an AWF supported event of project, contact the Communication Officer at AWF Secretariat, copying the AWF Project Manager.
- 1.2 At a minimum, and wherever possible, the AWF logo should be applied to outreach materials that pertain to AWF supported projects or events. The proper use of the logo should be discussed with the AWF Communication Officer.
- 1.3 The AWF should be verbally mentioned as donor of the project it is funding at public speaking events where the project is discussed, and also be mentioned as donor in any Power Point presentations relevant to the project funded by the AWF, using the name and the logo of the AWF appropriately.
- 1.4 The logo is to be obtained upon request from the AWF Communication Officer.
- 1.5 Documents and publications related to an AWF supported project or sponsored publication should contain the AWF logo, as well as this phrase on the cover page: “*This project/program/study is funded by the African Water Facility*”.
- 1.6 Implementing and executing agencies should always have a link to the AWF website on the page of their website relevant to an AWF-funded project/activity. The website is: [www.africanwaterfacility.org](http://www.africanwaterfacility.org)

1.7 The AWF asks that grant recipients report back to the AWF Secretariat, any special mention, award nominations or recognition that the project may have received.

## **2 VALIDATION PROCESS**

2.1 The AWF management is responsible for the final clearance of AWF communications products/outputs.

## **3 PRESS RELEASES & MEDIA ADVISORIES**

3.1 The AWF will issue an AWF-branded press release every time a project is approved and/or signed, and when completed (handover).

3.2 AWF press releases must always include a quote from the Coordinator of the AWF, which must be cleared by the Coordinator.

3.3 The AWF encourages and appreciates initiatives to issue joint press releases with its grant recipients. A standard joint press release can be issued at any time agreed with the AWF (between launch and completion).

3.4 When the grant recipient wishes to produce a press release, liaising with the AWF Communication Officer is required, as well as receiving a quote from the AWF Coordinator, as appropriate, and getting approval and clearance.

3.5 The AWF should be included in the title and/or first paragraph of the press release, as appropriate.

3.6 The press release should incorporate the AWF logo, mention that funding was provided by the AWF, and mention the amount of the AWF funding.

3.7 If a press conference is planned, the press release should include the name of an AWF senior representative who will be present at the press conference, when relevant.

3.8 All press releases must bear the name and contact information of the AWF Communication Officer, and if possible that of the communication/media representative from the grant recipient.

3.9 The AWF boilerplate text (“About the AWF”) must be added to the text, including the AWF web site address. Please contact the AWF Communication Officer for the latest version.

3.10 The AWF has final validation of all its press releases, following a review process involving reviewers.

3.11 The rules above also apply to media advisories.

## **4 PRESS CONFERENCES**

4.1 Press conferences to launch projects funded by the AWF should be organized in cooperation with the AWF, as much as possible.

4.2 The invitations should bear an AWF logo.

- 4.3 The AWF logo of a visible size should appear on any banner or poster to be displayed at the site of the conference.
- 4.4 Press kits need to include a press release with the AWF logo.
- 4.5 Whenever possible, an AWF banner should be on hand and set up to serve as a backdrop for TV and photo purposes.

## **5 PRESS VISITS**

- 5.1 When appropriate, journalists should be invited to visit the project funded by AWF, accompanied by representatives of the AWF or the AWF Focal Point in the respective authority / government of the grant recipient.

## **6 VISITS BY GOVERNMENT OFFICIALS, AWF DONORS**

- 6.1 Visits to projects by government officials and AWF donors are encouraged. Those should be prepared in coordination with the AWF and the AWF Focal Points of the host government. This can include meetings with local beneficiaries.
- 6.2 These visits may also include government officials and AWF donors' participation to roundtables and other events, as relevant.

## **7 LEAFLETS, BROCHURES AND NEWSLETTERS**

- 7.1 All leaflets and brochures relevant to the project/program financed by AWF should incorporate the basic elements of the AWF visual identity, i.e. the AWF logo -with or without tagline.
- 7.2 Leaflets and brochures produced by a grant recipient must also incorporate a definition of the AWF (boilerplate text).
- 7.3 The cover page of all documents pertaining to the project financed by the AWF must clearly identify the activity as being part of an AWF-funded activity.
- 7.4 Copies, including electronic copies of the publications, should be made available to the AWF.

## **8 ELECTRONIC COMMUNICATION**

- 8.1 Electronic communication disseminating information on AWF-funded projects including websites, newsletter, and social media platforms, should link to the AWF website.

## **9 SIGNAGE**

- 9.1 The grant recipient should produce display panels, posters or banners to promote their AWF-funded or AWF-related activities at exhibitions and other events, placed in strategic locations for all to see.