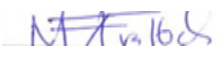


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## Contents

<b>1. INTRODUCTION</b>	<b>1</b>
1.1. Background	1
1.2. Environmental and Social Management Framework (ESMF) requirement	1
1.3. Purpose of the ESMF	2
1.4. Objectives of the ESMF	2
1.5. Structure of the report	3
<b>2. GENERAL BASELINE INFORMATION</b>	<b>4</b>
2.1. Project Area Environmental and Socio-Economic Characteristics	4
2.1.1. Geography	4
2.1.2. Climate	4
2.1.3. Biological Environment	4
2.1.4. Economic Outlook and Macro-economic Performance	5
2.1.5. Human Development	6
2.1.6. Agriculture	7
2.1.7. Gender	8
2.2. Drought Resilience and Sustainable Livelihood Program (DRSLP 2) of Somalia	18
2.3. Evidence of Climate Change in Somalia	9
2.3.3. Extreme Weather Events	10
2.4. Impact of Climate Change in Somalia	11
2.4.1. Impact on Food Security and Nutrition	11
2.4.2. Impact on Livestock, Fisheries, and Agriculture	12
2.4.3. Impact on Environment, Water and Forestry	12
2.4.4. Land Degradation and Desertification	13
2.4.5. Impact on Health	13
2.4.6. Impact on Coastal Areas	14
2.4.7. Impact on Infrastructure	14
2.4.8. Impact on Economic Development	15
2.4.9. Impact on Migration	15
2.5. Environmental Challenges in Somalia	15
2.5.1. Deforestation	16
2.5.2. Land Degradation	16

2.5.3.	<i>Aridity and Overgrazing</i> .....	16
2.5.4.	<i>Water scarcity</i> .....	17
2.5.5.	<i>Waste disposal</i> .....	17
3.	<b>METHODOLOGY</b> .....	19
3.1.	Introduction .....	19
3.2.	Literature review .....	19
3.3.	Interactive discussions and consultations .....	19
4.	<b>LEGAL, POLICY AND REGULATORY FRAMEWORK</b> .....	20
4.1.	Somali National Laws and Legislations .....	20
4.2.	Somaliland Laws and Legislations .....	27
4.3.	Puntland Laws and Legislations .....	28
4.4.	Regional AfDB and IGAD Policy and Administrative Framework .....	29
4.5.	Little Existed Environmental and Social Impact Assessment Guidelines in Somalia .....	35
5.	<b>THE PROJECT</b> .....	37
5.1.	Project Description .....	37
6.	<b>POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS</b> .....	42
6.1.	Major steps of Environmental and Social Impact Assessment .....	42
6.2.	Potential Negative Environmental and Social Impacts .....	43
6.3.	Potential Positive Environmental and Social Impacts of the Project .....	45
7.	<b>PROPOSED MITIGATION AND ENHANCEMENT MEASURES AND ESMP MANAGEMENT PLAN.</b> .....	47
7.1.	Introduction .....	47
7.2.	Environmental and Social Management Plan (ESMP) .....	48
7.3.	Grievance Redress Mechanism .....	55
8.	<b>PUBLIC CONSULTATIONS AND STAKEHOLDER ENGAGEMENT</b> .....	59
8.1.	Stakeholder Consultations .....	59
8.2.	Stakeholder Consultation Objectives .....	60
8.3.	Disclosure .....	61
9.	<b>INSTITUTIONAL RESPONSIBILITY, ARRANGEMENTS AND CAPCITY BUILDING</b> .....	62
9.1.	Roles and responsibilities of the Implementation of ESMP .....	62
9.2.	Program Environmental and Social Capacity Assessment, Training and Implementation Arrangement .....	63
9.3.	Institutional Framework .....	64

<b>10.</b>	<b>ESMF IMPLEMENTATION COSTS.....</b>	<b>66</b>
<b>10.1.</b>	<b>ESMP Budget .....</b>	<b>66</b>
<b>11.</b>	<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>67</b>
<b>11.1.</b>	<b>Conclusions.....</b>	<b>67</b>
<b>11.2.</b>	<b>Recommendations.....</b>	<b>67</b>
<b>12.</b>	<b>BIBLIOGRAPHY OF THE SAFEGUARDS DOCUMENTS THAT SUPPLEMENTED THE PREPARATION OF THIS ESMF .....</b>	<b>68</b>
<b>13.</b>	<b>ANNEX 1 : DATA COLLECTION TOOLS.....</b>	<b>69</b>
<b>14.</b>	<b>ANNEX 2 : LIST OF PARTICIPANTS CONSULTED .....</b>	<b>72</b>

## EXECUTIVE SUMMARY

### 1. INTRODUCTION

#### 1.1. Background

Somalia is located in the Horn of Africa and forms boundaries with the Red Sea to the north, Djibouti to the north-west, Ethiopia to the west, Kenya to the south-west, and the Indian Ocean to the east. Somalia has a land surface area of 637,657 km<sup>2</sup> of which 10,320 km<sup>2</sup> is water. Somalia has the longest coastline in Africa of 3,025 km long. The landform of Somalia comprises mainly flat plateaus and coastal plains with a few highlands in the north. The country is hot, arid and semi-arid with rainfall of between 50 – 150 mm per annum along the coastal plains and up to 500 mm in the northern highlands.

The Federal Government of Somalia is planning to implement the **Programme to Build Resilience for Food and Nutrition Security (BREFONS) in the Horn of Africa (HoA)**. The Somalia project will be implemented in six Regional States of Somaliland, Puntland, Galmudug, Hirshabelle, Southwest, and Jubbaland. The selection of intervention locations was based on the following principles: (i) Focusing on agropastoral investments, (ii) Promoting community-managed infrastructures, (iii) Prioritizing cross border clusters (iv) Contiguity of intervention districts to facilitate project implementation and supervision (v) Ensuring synergies with ongoing interventions in each Region and alignment with the HOAI economic corridors and IGAD Cluster Approach, (vi) Alignment with country policies and strategies, and (vii) Building on the progress made with DRSLP II implementation and leveraging lessons learnt.

#### 1.2. Environmental and Social Management Framework (ESMF) requirement

An Environmental and Social Management Framework (ESMF) is an environmental and social assessment instrument prepared by the borrower where a specific project and sub-projects or components are not fully known. It is an assessment instrument acceptable under the Integrated Safeguards System (ISS). This framework provides a procedure for environmental and social assessment of the proposed Program.

#### 1.3. Purpose of the ESMF

The framework will guide the relevant entities in Somalia as well as the African Development Bank in determining the appropriate level of environmental and social assessment required for the project as well as sub-projects in determining the anticipated impacts and in preparing the necessary environmental and social mitigation measures.

#### **1.4. Objectives of the ESMF**

*The main objective of this ESMF is to ensure that for the implementation of the BREFONS of which the sub-project sites are not yet clear, a preliminary assessment is carried out to ensure environmental and social sustainability during the implementation of the program and its subsequent sub-projects. More specifically, the objectives of ESMF are: (i) To identify environmental and social impacts that may result from the implementation of the project ; (ii) To establish clear procedures and methodologies for the environmental and social screening, planning, review, approval and implementation of sub-projects to be financed under the Project; (iii) To specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social concerns related to sub-projects; (iv) To determine the training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF and the subsequent Environmental and Social Management Plans (ESMPs); (v) To propose and establish the funding required to implement the ESMF requirements and subsequent environmental and social assessments, monitoring and management; and, (vi) To provide practical information resources for implementing the ESMF.*

## **2. GENERAL BASELINE INFORMATION**

### **2.1. Project Area Environmental and Socio-Economic Characteristics**

#### **2.1.1. Climate**

*Somalia is a large, relatively flat country, with an arid or semi-arid climate and prone to severe droughts and floods. The livelihoods of its approximately twelve million people is mostly through nomadic pastoralism and agriculture. Somalis Somali people constitute among the poorest in the world. Somalia has a warm desert climate in the north and a semi-arid climate in the south. From April to June, there is the main rainy season, Gu, from October to December the country experiences the dry season known as Xagaa before the Dayr provides further rainfalls. Approximately 500 mm rainfall annually in the northern highlands, 50-150mm along coast, and 300- 500 mm in the southwest. The annual cycle is completed as the dry Jilaal season stretches from December to March.*

#### **2.1.2. Biological Environment**

*Somalia's natural resources fall into three broad categories: marine resources such as fish and salt; land surface resources which include forests and forest products such as the aromatic extracts of frankincense (from *Boswellia* spp.) and myrrh (from *Commiphora* spp., both *Burseraceae*), as well as surface water; and sub-surface resources such as rocks and minerals, fossil fuels, and groundwater.*

*In the absence of a government, many traditional forms of natural resource management and control systems have been abandoned or are now ignored. In several instances, this has resulted in clearly unsustainable exploitation, a trend which may prove difficult to reverse.*

### **2.1.3. Evidence of Climate Change in Somalia**

*Climate change has manifested itself in various ways in Somalia. The country has experienced changes in extreme temperatures across Somalia over the last 50 years, temperatures increasing by 1.0°C in a century. The mean air temperatures remain high throughout the year with the mean daily temperatures for the period 1953-1976 were 25.2°C to 28.8°C with an annual mean of 27°C. Diurnal temperature fluctuations are high and can range from 20°C to 35°C. Rainfall has remained low and unpredictable. The country has experienced a number of extreme weather events including droughts, floods, storms (includes dust storms & winds), cyclones and tsunamis.*

### **2.1.4. Economic Outlook and Macro-economic Performance**

*Somalia's economy is largely consumption-based and dominated by livestock and crop production supported by remittances from Somalis abroad and large aid inflows. Remittances and aid flows are estimated at USD 1.4 billion a year, which represents 29 per cent of Somalia's GDP in 2018. Livestock and crop production constitute 75 per cent of GDP, and 93 per cent of total exports. Other sectors driving growth are construction, telecommunications and money transfer services.*

### **2.1.5. Human Development**

*Somalia scores very low on UNDP's Human Development Index. For example, life expectancy at birth lies at 57.1 years with a global average of 56 years in low human development countries; and the mortality rate under the age of 5 lies at 127 per 1000 live births while the global average is 39. The school enrolment rates in Somalia are among the lowest in the world, only 16 per cent of the Somali population have completed primary school and only 7 per cent have finished secondary school. Availability and access to health facilities is similarly low and dire. A comprehensive review of the health sector in 2015 showed that health facilities are mainly located in the urban areas and difficult to access for the majority of the rural population. Access to safe water is low in Somalia, access to basic water supply lies at 83 per cent in the urban areas and 28 per cent in rural areas. About 61% of the population has access to basic sanitation facilities in urban areas and 20 per cent in rural areas.*

### **2.1.6. Agriculture**

*Somalia has a total area of about 137,600 sq. km. Land under cultivation is currently estimated at 3 per cent of the total geographical area. Another 7 per cent*



*has potential for agricultural development. The principal crops are sorghum and maize grown mostly for household consumption. Fruit and horticultural farming, which is relatively small, is mainly commercial. The sector is dominated by smallholder farmers. The economy of Somalia mainly depends on livestock production, which has historically and culturally been the mainstay of livelihood for the majority of the people.*

#### **2.1.7. Gender**

*Somalia has one of the highest gender inequalities in the world at 0.776 which ranks 4th in the world. The country has an extremely high maternal mortality (723 deaths per 100, 000 live births while the adolescent birth rate for teenagers aged between 15 and 19 is 100.1 per 1,000 births. Rape, female genital mutilation and child marriage rates, and violence against women and girls is common.*

#### **2.2. The Drought Resilience and Sustainable Livelihood Program (DRSLP II) of Somalia**

*The BREFONS program is a follow up to AfDB Drought Resilience and Sustainable Livelihoods Program in the HoA (DRSLP) with 12 projects in four phases in six countries (Djibouti, Eritrea, Ethiopia, Kenya, Somalia, and Sudan). Somalia benefitted from phase II of the program under DRSLP II Somalia. The DRSLP Project II for Somalia was the first investment project for AfDB to undertake since the collapse of the central government in Somalia in 1991. Within the framework of its role as Third Party executing Agency, the Intergovernmental Authority on Development (IGAD), in consultation with the Ministry of Livestock, Forestry and Range (MoLFR) of the Federal Government of Somalia embarked on selection process of the Implementing Agency (IA) for the project. Ernst & Young was the IA of the project in the first two years, however its contract was terminated due to poor performance and Save the Children International (SCI) was selected in March 2020 as the IA for the DRSLP project. DRSLP had its merits and demerits. Among its demerits were: (i) Complex implementation framework – the implementation modality and the roles of the different levels of stakeholders may not have been clear, for instance the roles of the line governmental institutions are not clear particularly in the state level. Therefore, the roles and responsibilities of the all actors of the new project should be defined; (ii) Not enough institutional capacity building; (iii) Weak M & E Mechanisms; (iv) Weak Safeguards Arrangements – the Social and Environmental Management frameworks were not given priority as important requirement to comply*

### **3. METHODOLOGY**

*The methods used include: (i) Literature review where a number of documents were reviewed including internet searches; (ii) Interactive discussions and consultations during public participation and stakeholder engagement; (iii) A number of individuals and institutions were consulted during interactive meetings*

## **4. LEGAL, POLICY AND REGULATORY FRAMEWORK**

### **4.1. National legal and policy framework**

*Among the legal, policy and regulatory instruments that were identified and found useful and will guide the implementation of the programme are: (i) the Constitution of Somalia Articles 25, 43 and 45 touching on land, property and environment; (ii) National Environmental Policy whose overall goal is to improve and enhance the health and quality of the people and clearly requires conservation and protection of natural resources and outlines environmental governance; (iii) The Country Programming Paper (CPP 2019 – 2024) that raises vulnerability and to improve livelihood conditions; (iv) National Adaptation Programme of Action on Climate Change (NAPA) aimed at reducing climate change vulnerability; (v) Livestock Sector Development Strategy 2019 whose goal is to improve livestock sector and to revive the sector through some deliberate actions; (vi) Veterinary Code for Somalia 2016 which aims to empower public veterinary authorities; (vii) Livestock Relevant Policy Documents in Somalia at various levels of government; (viii) Agricultural Strategy Plan 2016 – 2020) whose goal is prioritization of the ministry of agriculture of Somalia in federal level, it classifying the responsibilities and how the ministry is engaged all the activities related to its mandate; (ix) National Biodiversity Strategy and Action Plan (NBSAP) 2016 O 2025 that emphasizes collaboration in ecosystem management; (x) Draft Fisheries Policy which is intended to address the sector's challenges and emerging issues and linking up with cross-cutting policies, plans, and tasks of national and regional bodies where they affect or interact with fisheries; and, (xi) Draft National Gender Policy of Somalia to address gender parities. Other legal and policy structures will be based on the legal instruments in the federal states.*

### **4.2. AfDB, IGAD and other International policies and regulatory Frameworks**

*Implementation of the Programme to Build Resilience for Food and Nutritional Security will be implemented in due cognizant of international policy requirements. Among those considered are: (i) The African Development Bank Group (AfDBG) Integrated Safeguards System (ISS) and its operational safeguards (OSs) are cornerstones of its strategy to promote growth that is socially inclusive and environmentally sustainable; (ii) The 1992 United Nations Framework Convention on Climate Change (1992) (UNFCCC) whose primary purpose is to establish methods to minimize global warming and in particular the emission of greenhouse gases; (iii) United Nations Convention on Biological Diversity (1992) whose three main goals are the conservation of biological diversity (or biodiversity), sustainable use of its components and the fair and equitable sharing of benefits arising from genetic resources; (iv) Convention on International Trade Against Endangered Species (CITES) aimed at protecting endangered plants and animals; (v) United Nations Convention to Combat Desertification (2002); (vi) Constitution of the International Labour Organization and the various international Labour Organization conventions; (vii) Convention on the Elimination of All forms of Discrimination against Women (CEDAW 1981) and all other*

conventions intended to eliminate all forms of discriminations; (viii) Drought Disaster Resilience and Sustainability Initiative (IDDRSI) Strategy of IGAD; and, (ix) the global Sustainable Development Goals.

## **5. THE PROJECT**

### **5.1. Objectives**

The overall objective of the HOA program is to contribute to improving the living conditions of the populations and food and nutritional security in the Horn of Africa. Specific objectives are: (i) Increase, on a sustainable and resilient basis, the productivity and agro-pastoral production in the Horn of Africa; (ii) Increase income including accessing funds and technology to promote value addition for agro-pastoral value chains, and; (iii) Strengthen the capacity of populations to better adapt to the risks of climate change.

### **5.2. Program Components**

The proposed program is structured under three components: (i) strengthening the resilience Pastoral and Agro-pastoral Production systems to Climate Change; (ii) Supporting Agribusiness Development; (iii) Strengthening the Adaptive Capacity of Agro-Pastoral Communities to Climate Change; and (iv) project management and coordination. A brief description of the components is presented in the Table below.

### **5.3. Project Locations**

The specific program locations are in the six states of Somaliland, Puntland, Galmudug, Hirshabele, Jubaland and South West and Benadir Administration. The program target locations include some of the most arid and drought-affected locations in Somalia. The target program locations are related to the ongoing clustered projects including: (i) Dikhil Cluster (Somalia-Ethiopia-Djibouti) and surrounded arid districts that has social, economic and environmental impact with HoAI and DRSLP II project (Somalia); (ii) Tuur-dipe Cluster (Somalia--Ethiopia) - this cluster could cover the Hawd areas between Mudug (Puntland) and Togdhere regions (Somaliland) that has social, economic and environmental impact with HoAI and DRSLP II project (Somalia); (iii) HiranCluster (Somalia--Ethiopia) and surrounded arid districts that has social, economic and environmental impact with HoAI; (iv) Mandera cluster (Somalia-Kenya – Ethiopia) and surrounded arid districts that has social, economic and environmental impact with HoA

## **6. POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS**

### **6.1. Potential Negative Environmental and Social Impacts**

*In general, some negative impacts will include: (i) Construction of valley dams and other infrastructure will disturb the landscape through site clearance and excavation; (ii) Earth Dam construction creates borrow pits which degrade the environment through extraction of fill materials for embankments; (iii) The excavation works for valley dams generates volumes of solid waste material from cut to spoil materials which will need to be disposed from the site; (iv) The construction and rehabilitation works involves use of plant equipment whose storage and operations can have attendant impacts on environment in terms of noise and compaction of soil thereby affecting soil percolation ability; (v) During construction process will involve fairly light equipment which will have minimum impacts on soils. Also, the works will be of short-term nature thus reducing impacts on environment; (vi) In addition, dam embankments can pose safety risk to both livestock and the communities considering that if the banks are high, safety of cattle to access water becomes an issue as well for the communities to draw water, risks of children drowning when they are tempted to swim in the dams; (vii) Construction based impacts arising from excavation works during construction markets and associated project infrastructures will generate dust and other health associated implications on the workers and neighboring communities; (ix) Potential loss of vegetation cover through site clearance will be mitigated through limiting excavations to areas needed for establishment of project infrastructures and subsequent site restoration after works; (x) Site clearance works for infrastructure such as slaughter construction can lead to soil erosion, loss of vegetation and sedimentation of nearby water areas. This can be mitigated through restricting works to designated areas and planting vegetation after close of works; (xi) The construction of slaughter facilities will raise issues relating to construction waste management, dust and noise amongst others. The contractor will follow best construction practices as will be enshrined in the contract; (xii) Accumulation and management of solid waste during operation of markets. This can be addressed through contracting out the operations and management of such markets by the area local governments; (xiii) HIV/AIDS is one of the potential concerns resulting from operations and consumption of Khat, alcohol. This should be done by the project through collaboration with existing HIV/AIDS service providers; (xiv) Operation of the cattle markets can bring about transmission of livestock diseases. The area Veterinary staff will issue movement permits for cattle that are to be taken to the markets and this will be done after inspection of the animals to ensure they are healthy and fit for human consumption; (xv) Apart from meeting a basic human need, new water points could have a direct impact on the spread of livestock and human diseases since most water sources are shared in the region. The Project will sensitize communities on risks of sharing water sources with livestock; (xvi) If new water point construction does not take into account grazing patterns, it has risk of creating environmental degradation by promoting permanent grazing patterns in which, pastoralism tends to concentrate around water sources. The project in its plan, has attempted to spread out its plan on water supply interventions to create evenness of water availability to avoid this concern; (xvii) The*

*plan to support alternative income generation enterprises at household levels will require careful planning and consultations to avoid gender based violence especially when husbands want to grab all the resources at the expense of the wives; (xviii) Increased agricultural production as a form of livelihood diversification and land use may come at the expense of use seasonal grazing areas; (xix) The same impact may occur outside the country's borders (trans- boundary impacts): because of different coping skills and capacity between groups / tribes at borders but also because of strategic, regional and intra state conflicts (in Somalia for example), some of them (groups) may expand and migrate into rangelands that are accessible to the other groups outside their own borders, thus creating conflicts and even wars. One of the mitigation measure will be to seek and accept international arbitration when such conflicts occur but also to prevent these types of conflicts by organizing public consultations under the guidance of IGAD and a dialogue committee.*

## **6.2. Potential Positive Environmental and Social Impacts of the Project**

*The HoA program is expected to have the following positive impacts: (i) Infrastructure facilities are to be shared by different ethnic groups and this can help achieve peace building goals of increasing interaction and fostering cooperation; (ii) Better and hygienic environment for trade in livestock and livestock products will be established by the project which will be a large positive benefit to the communities and local governments; (iii) The implementation of the project will bring about employment opportunities for people in the community; (iv) The planned rehabilitation and construction of dams will provide sources of water for the pastoral communities which in the long run can bring about change of their lifestyles from pastoral to sedentary agriculture; (v) The cattle markets once constructed will be sources of income for the local governments through collection of market dues; (vi) The cattle markets will also have good waste management facilities in their vicinity through the project such as toilets; (vii) The project plans to focus on supporting appropriate alternative income generating enterprises for the households. This has a very large positive impact in terms of socio-economic empowerment of the households and creating food security at household level; (viii) Demarcation of livestock routes will make control of diseases fairly easier as veterinary staff can then manage the movement of livestock in cases of livestock disease out-breaks; (ix) Training of local veterinary staff, Community Animal Health Workers (CAHWs), local leaders, and overall veterinary staff will enhance skills for livestock health management in the communities; (x) Therefore, the capacity building in the project will help to develop skill for modern agriculture in the districts and the communities for better delivery of services for social and economic transformation; (xi) The Project areas will have better information on natural resources especially range lands which will help pastoralists adapt to changing and harsh climatic risks there by minimize loss of livestock; (x) Some groups in the Project area are both agriculturalists and pastoralists who keep cattle, goats, and sheep. The new facilities including water points, markets, and rehabilitation of rangelands will improve upon their pastoral livelihoods and access to market in addition to recognizing their rights to natural resources especially watering points; (xi) Distribution of drought*

*tolerant crops will provide the project beneficiaries with drought tolerant crop varieties to overcome famine one of their major problems. The groups will also benefit from extension services to realize sustainable food production to feed their communities. This will all enhance the agricultural skills of the project beneficiary communities thereby enhancing their sustainable livelihoods; (xii) Upgrading of existing regional veterinary laboratories will further improve delivery of veterinary services and general better management of diseases; (xiii) The project will put in place pesticide management facilities which will safeguard environment from pollution from such agrochemicals; and (xiv) Revitalization of strategic animal check points and holding grounds under the project will ensure measures for disease control will be enhanced thereby curbing aspects of disease spread and thefts.*

## **7. PROPOSED MITIGATION AND ENHANCEMENT MEASURES AND ESMP MANAGEMENT PLAN.**

### **7.1. Introduction**

*This section articulates the mitigation measures against the potential negative environmental and social impacts mentioned in chapter 6 above. Table 4 below list down potential impacts and mitigation measures for agricultural water and community water supply development and management projects and subprojects. Table 4 is for (a) improvement and/or upgrading of traditional schemes; (b) improvement and/or rehabilitation of malfunctioning and partially functioning existing schemes; (c) construction of new SSI schemes such as micro-dams, gravity and pump diversions, and groundwater development (shallow wells), whereas, table 5 is for construction of small dams and other water harvesting and storage structures for irrigation purpose, and table 6 is for the potential environmental and social impacts of and mitigation measures for boreholes and livestock infrastructure.*

## 7.2. Environmental and Social Management Plan (ESMP)

Table 3: Potential environmental and social impacts of, and mitigation measures for various existing projects/schemes

Activities	Potential Environmental/Social Impacts	Potential mitigation measures	Institutional Responsibility
Construction of water pans/small earth dams, berkads Construction of community Berkeds (covered water pans)	<ul style="list-style-type: none"> <li>Water pollution from construction and waste disposal</li> <li>Soil erosion</li> <li>Destruction of vegetation, sanitary and health problem from the construction camp</li> </ul>	<ul style="list-style-type: none"> <li>Careful location of camps, buildings, borrow pits, quarries, spoil and disposal site</li> <li>Precaution to minimize soil erosion</li> <li>Land reclamation of pit/quarry site</li> </ul>	
	Loss of land (agricultural, forest, range, wetland) by inundation to form reservoir	<ul style="list-style-type: none"> <li>Sitting of dam to decrease losses; decrease of size of dam and reservoir; protect equal areas in region to offset losses</li> </ul>	
	Formation of sediment deposit at reservoir entrance creating backwater effect and flooding and water logging upstream	<ul style="list-style-type: none"> <li>Sediment flushing, sluicing</li> <li>Upper catchment treatment using soil and water conservation measures including area closure</li> <li>Constructing silt trap</li> </ul>	
	Poor land use practices in catchment areas above the reservoir resulting in increased siltation and loss of storage capacity	<ul style="list-style-type: none"> <li>Land use planning efforts which include watershed area above the dam/reservoir/pond</li> <li>Control of land use in watershed (especially prevention of conversion of forest to agriculture)</li> </ul>	
	Creation of quarry sites or borrow pits (to get selected materials for construction) that cause spread of vector born disease, safety hazard on the animals of the community	<ul style="list-style-type: none"> <li>Identify the most environmentally sound source of materials that is within budget</li> <li>Develop logging, quarrying and borrowing plans that take into account cumulative effects</li> <li>Site quarries and gravel pits so that they are not visible to travelers on the roads</li> <li>Decommission/restore area so it is suitable for sustainable use after extraction is completed</li> <li>Install drainage structures to direct water away from pit</li> <li>Discuss with local community the option of retaining quarry pits as water collection ponds for watering cattle, irrigating crops or similar uses</li> </ul>	

Scouring of riverbed below dam	<ul style="list-style-type: none"> <li>• Construction and maintenance of protection structure below the dam to protect the river bed scouring</li> </ul>	•
Increase of water-related diseases	<ul style="list-style-type: none"> <li>• Design and operation of dam/reservoir/ponds/other water harvesting structures to decrease habitat for vector</li> <li>• Vector control</li> <li>• Disease treatment</li> </ul>	
Loss of life and property of the downstream community, and erosion problem due to Dam failure	<ul style="list-style-type: none"> <li>• Implementing the small dam safety guideline prepared for the project</li> </ul>	
Loss of property and life entering into water harvesting structures/ponds	<ul style="list-style-type: none"> <li>• Fencing the structures</li> </ul>	
Water loss due from water harvesting structures/ponds/reservoir through seepage and/or evaporation	<ul style="list-style-type: none"> <li>• Assess soil characteristics to avoid cracking of the water harvesting structures</li> <li>• Designing properly in such a way that loss of water is avoided</li> </ul>	
Conflicting demands for irrigation water use	<ul style="list-style-type: none"> <li>• Planning and management of dam/reservoir in context of the local development plans; equitable allocation of water among small holders farmers</li> </ul>	
Social disruption and decrease in standard of living of resettled people	<ul style="list-style-type: none"> <li>• Maintenance of standard of living by ensuring access to resources at least equalling those lost; provision of health and social services</li> </ul>	
Land Acquisition	<ul style="list-style-type: none"> <li>• Avoid occupied land. Prepare procedures to ensure equitable resolution</li> </ul>	
Private assets displaced	<ul style="list-style-type: none"> <li>• Avoid occupied land. Resettlement scheme ensuring at least equal standards of living</li> <li>• Sitting of projects to minimize the effects</li> </ul>	
Environmental degradation from increased pressure on land	<ul style="list-style-type: none"> <li>• Choice of resettlement site to avoid surpassing carrying capacity of the land</li> <li>• Increase of productivity or improve management of land (agricultural, range, forest management)</li> </ul>	
Environmentally sensitive areas disturbed	<ul style="list-style-type: none"> <li>• Identify and avoid forest, riparian and wetland habitats with particular biodiversity</li> </ul>	•
Damage to downstream ecosystems from reduced water quantity	<ul style="list-style-type: none"> <li>• Use dam/reservoir operations to mitigate changes in flow regimes of rivers and prevent weeds and diseases</li> </ul>	



Activities	Potential Environmental/Social Impacts	Possible Mitigation Measures	Institutional Responsibility
<b>Rehabilitation/Construction of Boreholes</b>	<ul style="list-style-type: none"> <li>• Site preparation and construction of temporary houses and lay down area may have a limited impact on the topography</li> <li>• Mobilization of the necessary equipment's and machineries to the site</li> <li>• Water for wash down of vehicles and machinery on site may contaminate shallow aquifers( if any)</li> <li>• Spills or leaks of fuels, lubricants or chemicals from machinery and vehicles may contaminate shallow groundwater impact</li> <li>• Noise pollution during drilling operation</li> <li>• Effluent from construction workers' temporary amenities leaching into groundwater, carrying nutrients and micro-organisms</li> <li>• Contamination of rain water from litter and drilling wastes and untreated effluent from temporary workers' amenities</li> </ul>	<ul style="list-style-type: none"> <li>• Limit earth works to the minimum and make sure to be rehabilitated during decommissioning</li> <li>• Use of vehicles and other machineries for the main and existing roads and shouldn't create new paths which deteriorate grazing lands</li> <li>• Use of uncontaminated water for site use</li> <li>• Spill control measures should be implemented to prevent spills from infiltrating into the groundwater table. Measures should include appropriate materials handling and storage procedures, and development of contingency plans in the event of a spill mitigation actions</li> <li>• Make sure all machinery and vehicles including the rig are operated efficiently and according to the manufacturers specifications, by trained and qualified operators</li> <li>• Make sure all personnel are issued with hearing protection and are advised of its proper use</li> <li>• Make sure all machinery and vehicles are regularly maintained and damaged parts are replaced immediately</li> <li>• Consultation with affected residents and nearby sensitive receivers</li> <li>• Provision of temporary amenities for workers</li> <li>• Effluent should be suitably disposed off-site</li> <li>• Waste control measures should be implemented to prevent litter and construction waste from infiltrating into the groundwater table or contaminating surface rainwater</li> <li>• Provision of suitable workers' amenities, located within the project area and, if possible, downwind from residential areas</li> <li>• Regular maintenance of workers' amenities, including the emptying of effluent storage tanks</li> <li>• Side enclosure and covering, by impervious sheeting</li> </ul>	<p>Line Ministries of Federal Government of Somalia</p> <p>Environmental Directorate at the office of PM of Somalia</p> <p>Contractors</p> <p>PIU</p>

	<ul style="list-style-type: none"> <li>• Odour generated from sewer of worker's amenities</li> <li>• Dust emissions generated during drilling operations as well as construction activities due to loading and unloading of materials on site and from uncovered truckloads</li> <li>• Adverse impact on the health of the workers and residents in and around the due to deterioration of the air quality, increase of noise and traffic</li> <li>• Improper chlorination dosage may alter water quality</li> <li>• Unsustainable water use</li> <li>• Pollution in case generators are needed</li> <li>• Noise pollution during operation</li> </ul>	<ul style="list-style-type: none"> <li>• Minimize unnecessary operation of machineries, including efficiency of trip time</li> <li>• Implement air quality, noise and traffic mitigation measures as described in the relevant sections</li> <li>• Place pumping fluid in detention ponds on site</li> <li>• Regular monitoring of chlorine content and of chlorination performance</li> <li>• Water extraction monitoring</li> <li>• Sensitize and educate the beneficiaries on the need to conserve water and promote best practices in the use of water</li> <li>• Use double hulled storage tanks for fuel</li> <li>• Plant trees and shrubs around facility</li> </ul>	
<b>Livestock Health Infrastructures: Construction of Veterinary Clinics/labs, Abattoirs and</b>	<p><b><u>Pre-Construction (Planning/Design) Phase</u></b></p> <ul style="list-style-type: none"> <li>• Un proper site selection for camp site and west disposal</li> </ul>	<ul style="list-style-type: none"> <li>• Approval of relevant authorities at all locations,</li> <li>• Careful site selection and siting of all project components, with advice from biodiversity authorities/wildlife specialists and other,</li> <li>• Good construction site “housekeeping” and management procedures (including site access),</li> <li>• Demarcation and avoidance of areas of conservation interest (high value species, feeding or breeding sites, migration routes, etc.) where possible,</li> <li>• Staff training and awareness raising in communities,</li> </ul>	

<b>Livestock Market</b>	<ul style="list-style-type: none"> <li>• /Site installation/,</li> <li>• Lack of awareness lead to social conflict,</li> <li>• Employment may lead to conflicts with locals' communities,</li> <li>• Storage of materials, circulation of construction machinery;</li> <li>• Risk of non-respect for the integrity of cultural sites (risk of borrowing materials or depositing materials in these sites),</li> <li>• Traditional lifestyles; transmission of disease including HIV and COVID-19,</li> <li>• • Movement of plant and workforce into areas could introduce /disseminate invasive species (Prosopis),</li> </ul>	<ul style="list-style-type: none"> <li>• Development of an Employment Plan, with clear employment requirements and procedures for the construction and operational/maintenance workforce,</li> </ul>	
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	<p><b><u>Construction Phase</u></b></p> <p>Noise and vibration,</p> <ul style="list-style-type: none"> <li>• livestock itself, may disturb sensitive noise receptors (human and fauna),</li> <li>• Release of hazardous substance vehicle spills leading to soil, surface or groundwater contamination,</li> <li>• Pollution of watercourses caused by wastes from livestock</li> <li>• Dust from could affect human health, vegetation (including crops),</li> <li>• Land take for development of livestock projects may physically displace people, or lead to loss of assets,</li> <li>• Waste disposal from health posts, milk collection unites,</li> <li>• Surface and ground water contamination.</li> <li>• Animal Diseases Transmit ion</li> <li>• Conflict between consumers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Good construction site “housekeeping” and management procedures (including site access),</li> <li>▪ Implementation of standard good wastewater management and disposal procedures; wastewater drainage outlets to discharge into vegetated areas if possible; vegetation along watercourses and drainage lines to be retained if possible,</li> <li>▪ Dust and odor control and suppression measures, such as dampening and use of vegetation hedges.</li> <li>▪ Sensitive route selection for access roads, and siting of construction works and facilities,</li> <li>▪ Careful siting of all project components, with advice from biodiversity, authorities/wildlife specialists,</li> <li>▪ Wherever feasible, establishment of buffer zones around conservation areas, watercourses, and other locations identified as ecologically sensitive, and avoidance or minimization of activity within these zones.</li> <li>▪ Rehabilitation of cleared areas with native species, and ecosystem restoration in habitats of conservation value,</li> <li>▪ Careful consideration and selection of areas proposed for livestock projects, and siting of project facilities, to avoid occupation of areas which are inhabited or regarded as having high value by communities where possible.</li> <li>▪ Development of an Employment Plan, with clear employment requirements and procedures for the construction (and if appropriate, operational) workforce,</li> <li>▪ Staff training and awareness raising in communities,</li> <li>▪ Transparent and culturally appropriate communication with communities regarding opportunities for involvement in the project,</li> <li>▪ Fair and transparent hiring and staff management procedures,</li> <li>▪ Employment practices, working conditions and workforce living conditions should conform to International Labour Organization (ILO) Standards and national regulations,</li> <li>▪ Awareness creation, changing to value chain /charcoal radiation by utilization/, Clearing and experience sharing,</li> </ul>	
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	<p><b><u>Operation and Maintenance Phase</u></b></p> <ul style="list-style-type: none"> <li>• Pollution of watercourses caused by wastes from livestock,</li> <li>• Odors associated with livestock and waste may have nuisance value for nearby receptors,</li> <li>• Loss, fragmentation and degradation of habitat, and severance of animal migration routes and pathways,</li> <li>• Earthworks and clearance may lead to loss of plant species and habitats of conservation interest.</li> <li>• Invasive Species /procopice/Allelopathic chemicals Injuring livestock with its poisonous thorns and causing goat teeth to rot and fall out because the small seeds get stuck between the teeth, Impacts to recreational opportunities and other human values,</li> <li>• Pollution of ground and surface water, soil from discharges and</li> </ul>	<ul style="list-style-type: none"> <li>▪ Implementation of standard good wastewater management and disposal procedures; wastewater drainage outlets to discharge into vegetated areas if possible; vegetation along watercourses and drainage lines to be retained if possible,</li> <li>▪ Wherever feasible, establishment of buffer zones around conservation areas, watercourses, and other locations identified as ecologically sensitive, and avoidance or minimization of activity within these zones.</li> <li>▪ Rehabilitation of cleared areas with native species, and ecosystem restoration in habitats of conservation value</li> <li>▪ Implementation of a Grievance Procedure,</li> <li>▪ Implement appropriate waste disposal measures and using bio-remediation measures,</li> <li>▪</li> <li>▪</li> </ul>	

	<p><i>accidental releases, from processing unites,</i></p> <ul style="list-style-type: none"> <li><i>• Chemical management in animal laboratories, veterinary and health posts.</i></li> <li><i>• Discharge of construction site sewage effluent polluting watercourses,</i></li> </ul> <p><i>• Potential for economic displacement of specific individuals or groups with existing income b</i>  <i>Headed from traditional milk marketing if they are excluded from projects.</i></p> <ul style="list-style-type: none"> <li><i>• potential for adverse effects if expectations not met and community relations are not well managed,</i></li> <li><i>• Odors associated with dairy processing and animal health clinics, market centers infrastructure /waste may have nuisance value for nearby receptors,</i></li> </ul>		
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### **7.3. Grievances Redress Mechanism**

*The Grievance Redress Mechanism (GRM) is part of the broader process of stakeholder participation that provides a stakeholder a means to have his /her concerns amicably resolve at the earliest possible time. The mechanism takes into consideration lessons learned in other development projects implemented in the country, as well as the existing traditional practices such as the “xeer” system which is the most cost-effective and most logical form of justice for the majority of Somalis. To help ensure that the process does not marginalize women and other vulnerable groups, representation for these groups (women and other vulnerable groups) will be required in the Grievance Redress Committee tasked to resolve grievances/complaints. The objectives of the grievance redress mechanism are: (i) Provide an effective avenue\* for aggrieved persons/entity to express their concerns and secure redress from issues/complaints caused by the Project; these grievances may arise from resettlement and compensation activities, or from impacts from construction activities; (ii) Promote a mutually constructive relationship among community members, project affected persons, government and funding institutions; (iii) Prevent and address community concerns; (iv) Assist larger processes that create positive social change; and (v) Identify early and resolve issues that would lead to judicial proceedings.*

*The IA will constitute a functional GRC will be constituted by the PIU or IGAD country representative in Somalia in conjunction with the line ministries and local community to monitor and review the progress of implementation of the sub-projects. The specific composition of these committees will vary upon location and context. But generally speaking, the GRC will be comprised of Project Affected Persons (PAPs), municipal government officials, local civil society leaders and representatives of women and youth groups who will be will be formed to receive and handle any arising complaints*

### **7.4. GBV, Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH)**

*Cases of GBV/SEAH can be reported through the general Project GRM. However, additional channels for reporting GBV/SEAH complaints will be identified and integrated into the GRM. GBV/SEAH and Child Protection Risk Action Plan. The GBV survivor has the freedom and right to report an incident to anyone: community member, project staff, GBV case manager. Given to the sensitive nature of GBV complaints, the GRM will provide different ways to submit grievances such as phone, text message and email. The GRM committee will be trained on key protocols including referral, reporting and informed consent protocols to receive those cases in an appropriate manner and immediately forward it to the GBV/SEAH referral system. The GRM committee will ensure appropriate response by 1) providing a safe caring environment and respect the confidentiality and wishes of the survivor; 2) If survivor*

agreed, obtain informed consent and make referrals, 3) provide reliable and comprehensive information on the available services and support to survivors of GBV.

## **8. PUBLIC CONSULTATIONS AND STAKEHOLDER ENGAGEMENT**

### **8.1. Stakeholder Consultations**

*During the study feasibility team in South and Central Somalia met with Minister of Livestock, Director General, Staffs and National Expert Panel for IDDRSI to the federal republic of Somalia and IGAD Desk NIC Somalia (Osman Elmi) in Mogadishu on 15-21 July 2021. During the meeting the two sides discussed about the Program Build Resilience for Food and Nutrition Security. The Ministry of livestock submitted the list of project sites and priority areas of project components although the list of sites was too many which consisted of many places.*

*The consultations were carried out in most of Federal Member States in Somalia including Somaliland, Puntland, Galmudug, Hirshabele and Benadir. Communities and stakeholders were engaged to help identify and discuss environmental and social impacts anticipated. Stakeholders were identified and consultative meetings held. Additional consultations will be carried out as the programme advances during preparation and implementation.*

### **8.2. Stakeholder Consultation Objectives**

*Specifically, the objectives of public participation included: (i) Documentation of stakeholders' opinion/views and concerns on the Project; (ii) Seeking consensus on some issues such as cut-off date, compensation rates, mode of relocation, participation of stakeholders in the Project, etc.; (iii) Obtaining local and traditional knowledge that may be useful for Project planning and implementation; (iv) Seeking acceptability of Project alternatives, mitigation measures and trade-offs; (v) Ensuring that important impacts are not overlooked, and that benefits are optimised; (vi) Minimizing possible future conflict through the early identification of contentious issues; (vii) Providing an opportunity for the public to influence the designs and implementation in a positive manner; (viii) Improving transparency and accountability in decision-making; and (ix) Increasing public acceptability of the Project.*

### **8.3. Identifying Stakeholders**

*Stakeholders for the purpose of this project are be defined as all those people and institutions who have an interest in its planning and execution. They were identified through (i) Local Residents; (ii) Project Affected Persons; (iii) Elders of Clans/Sub-Clans; (iv) Religious leaders; (v) NGOs/CBOs; (vi) Local Government; and (vii) State Ministries, Departments and Agencies*



#### **8.4. Disclosure**

*This ESMF document will be disclosed in the website of AfDB website and the public portals of the line ministries of Federal Government of Somalia and relevant ministries of Federal Member states. In-country disclosure of the ESMF will utilize appropriate communication channels such as on the websites of the implementing agencies and/or as hard-copies in a location and format easily accessible to public, and other public places of project intervention areas.*

### **9. INSTITUTIONAL RESPONSIBILITY, ARRANGEMENTS AND CAPACITY BUILDING**

#### **9.1. Roles and responsibilities of the Implementation of ESMP**

*At the federal level, the Office of the Environment in the Office of the Prime Minister has been established. Its mandate is still being clarified, but its functions are likely to include the following: a) formulation of national environmental policies; b) finalization of recommendations for setting the environmental quality standards; c) finalization of environmental laws; d) circulation of procedures for conducting sectoral environmental assessments, environmental impact assessments, and environmental audits; e) coordination with federal institutions, federal member states, local governments, international partners, civil society, academia, the private sector, the media, etc.; and f) acting as the focal institution for the multilateral environmental agreements.*

*In Somaliland, the Ministry of Environment and Rural Development is best positioned to be the lead agency for taking action on environmental protection, climate change, desertification, and biodiversity protection in Somaliland. The ministry has a National Policy on Environment, which recognizes the requirements set out in Somaliland's constitution and provides a framework for the management of Somaliland's environment and natural resources. In Puntland the Ministry of Environment, Wildlife and Tourism was established in 2009 to undertake the huge task of bringing environmental issues under one umbrella for better coordination of policies, strategies, and programmes.*

*The overall responsibility of the environmental and social monitoring lies with the line ministries of Federal government of Somalia and Federal Member State and the project Implementing Agency. The monitoring unit will ensure compliance to environmental standards and procedures including relevant policies and legislations.*

*In accordance with the Contract provisions, the Contractor(s) will be accountable for the implementation of the mitigation measures during the construction and initial operation phases. The Contractor(s) will prepare Construction ESMP (CESMP) and include in their schedule of works all proposed mitigation measures. The Contractor(s)*

must have designated personnel to monitor environmental, safety and health matters during construction works, and report regularly to PIU/IA.

The Project Implementation Unit will be to coordinate the activities of all institutions and as such the PIU shall have environmental and social safeguard specialist(s) who will monitor and manage the implementation of the ESMP in collaboration with the Supervising Consultant.

## **9.2. Program Environmental and Social Capacity Assessment, Training and Implementation Arrangement**

The implementation of the HoA program will take place at different levels from the Federal Government of Somalia to the Federal Member States of Somalia. It will need to develop detailed capacity building plan at different levels. The capacity building plan should focus on involving agencies and entities at the national level, state/regional level, locality level and community levels. There should be: (i) Comprehensive training needs assessment and development of a Capacity building strategy plan should be carried out as an initial implementation activity of this ESMF; (ii) The capacity building should be targeted at all levels of project stakeholders (project designers, implementers, beneficiaries and reviewers) and designed for enhancing the skills on environmental and social issues so that they are able to implement the proposed screening process and mitigation measures; (iii) The trainings should covers areas of environmental and social screening, impact assessment, developing mitigation plans, monitoring and reporting and may be short and long training workshop, to equip these staff with the required skills to implement this ESMF thereby ensuring that project activities are environmentally sustainable. This level of training could be provided by more experienced Environmental Experts; (iv) There is also the need to promote knowledge on environmental issues at the district and community levels. This approach should be through the strengthened district council to assist community members to identify their existing beliefs and practices, provide them with information and assist them to analyze the environmental consequences of the various interventions.

## **10. ESMF IMPLEMENTATION COSTS**

*Table4: Budget Summary of ESMF/ESMP*

No	Item	Total Cost
1	Preparation of detailed ESIA/ESMPs at specific site levels	200,000
2	Capacity Building including the development of missing regulatory and policy gaps of Somalia, training and Awareness campaigns	120,000

3	<i>Environmental and Social Safeguard Staff/Experts Remuneration and Incentives</i>	150,000
4	<i>Monitoring, technical support, annual review, auditing and supervision of the implementation of ESMP,</i>	100,000
5	<i>Grievances Redress Mechanism</i>	100,000
	<b>Total</b>	<b>670,000</b>

## **11. CONCLUSIONS AND RECOMMENDATIONS**

### **11.1. Conclusions**

*This ESMF was prepared based on preliminary environmental and social assessments based on the project components and proposed project activities. The ESMF equips the relevant authorities of government in Somalia as well as the AfDB and other development partners with information for the right decision making. The proposed development programme will have massive economic and social benefits not only to the local communities within the project areas, but is likely to have macro-benefits nationwide, particularly with regard to international trade and foreign exchange earnings and national food and nutritional security. The negative environmental impacts that have been identified and are associated with the implementation of this programme are minimal and highly localized and will be addressed by implementing the mitigation measures proposed. As such this project is a Category 2 in the AfDB's Integrated Safeguards System (ISS).*

### **1.1. Recommendations**

*This is a multi-sectoral and a multi-disciplinary project. As such, it is important that during the implementation, relevant line ministries and other stakeholders are actively involved to address some of the cross cutting issues such as Livestock Production, Crop Production, Land Management, Environmental Conservation, Agro-processing, Trade, Economic Development, and Nutrition among other relevant issues. The multi-disciplinary approach will ensure that emerging issues and challenges are not only adequately addressed but the addressing is done timely and appropriately. The contractors and the project proponents should take into consideration all the legislative measures identified and considered in this ESMF. The mitigation measures provided based on the recommendations of this ESMF need to be followed so as to address the environmental issues that may arise in the course of the implementation of this programme*

## 12. INTRODUCTION

### 12.1. Background

Somalia is located in the Horn of Africa and forms boundaries with the Red Sea to the north, Djibouti to the north-west, Ethiopia to the west, Kenya to the south-west, and the Indian Ocean to the east. Somalia has a surface area of 637,657 km<sup>2</sup> of which 10,320 km<sup>2</sup> is water. Somalia has the longest coastline in Africa of 3,025 km long. The landform of Somalia comprises mainly flat plateaus coastal plains with a few highlands in the north. The country is hot, arid and semi-arid with rainfall of between 50 – 150 mm per annum along the coastal plains and up to 500 mm in the northern highlands.

The Federal Government of Somalia is planning to implement the **Programme to Build Resilience for Food and Nutrition Security (BREFONS) in the Horn of Africa (HoA)**. The program covers six countries in the HaO: Djibouti, Ethiopia, Kenya, Somalia, South Sudan, and Sudan. The Somalia project will be implemented in selected priority locations in six Regional States: Somaliland, Puntland, Galmudug, Hirshabelle, Southwest, and Jubbaland. The selection of intervention locations was based on the following principles: (i) Focusing on agropastoral investments, (ii) Promoting community-managed infrastructures, (iii) Prioritizing cross border clusters (iv) Contiguity of intervention districts to facilitate project implementation and supervision (v) Ensuring synergies with ongoing interventions in each Region and alignment with the HOAI economic corridors and IGAD Cluster Approach, (vi) Alignment with country policies and strategies, and (vii) Building on the progress made with DRSLP II implementation and leveraging lessons learnt.

### 12.2. Environmental and Social Management Framework (ESMF) requirement

An Environmental and Social Management Framework (ESMF) is an environmental and social assessment instrument prepared by the borrower where a specific project and sub-projects or components are not fully known. It is an assessment instrument acceptable under the Integrated Safeguards System (ISS). This framework provides a procedure for environmental and social assessment of the proposed Program. The framework was selected though the footprint of the project is known, design and other details about the project and specific project locations are not yet available.

### **12.3.Purpose of the ESMF**

The framework will guide the relevant entities in Somalia as well as the African Development Bank in determining the appropriate level of environmental and social assessment required for the project as well as its sub-projects in determining the anticipated impacts and in preparing the necessary environmental and social mitigation measures. The African Development Bank (AfDB) environmental and social safeguards policy requires the borrower to prepare an Environmental and Social Management Mechanism that ensures a mechanism whereby any project implementing agency carries out preliminary assessments of environmental and social impacts of its proposed activities before undertaking them, and to set out, in general, the mitigation, monitoring and institutional measures to be taken during implementation and operation of the program to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable minimal levels.

### **12.4.Objectives of the ESMF**

It is a requirement both at the national and AfDB levels that preliminary environmental assessments are carried out at the identification stage of any development project to flag out all possible environmental and social impacts (both positive and negative). The main objective of this ESMF is to ensure that for the implementation of the BREFONS of which the sub-project sites are not yet clear, a preliminary assessment is carried out to ensure environmental and social sustainability during the implementation of the program and its subsequent sub-projects. The ESMF provides the project implementers with an environmental and social screening process that enables them to identify, assess and mitigate potential negative environmental and social impacts of sub-project activities, including through the preparation of site-specific Environmental Impact Assessments (EIAs) that will be carried out subsequently. More specifically, the objectives of ESMF are:

- To identify environmental and social impacts that may result from the implementation of the project ;
- To establish clear procedures and methodologies for the environmental and social screening, planning, review, approval and implementation of sub-projects to be financed under the Project;
- To specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social concerns related to sub-projects;
- To determine the training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF and the subsequent Environmental and Social Management Plans (ESMPs);
- To propose and establish the funding required to implement the ESMF requirements and subsequent environmental and social assessments, monitoring and management; and,
- To provide practical information resources for implementing the ESMF.

## **12.5. Structure of the report**

This Environmental and Social Management Framework is structured as follows:

- Chapter One: Introduction
- Chapter Two: General Baseline Information
- Chapter Three: Methodology
- Chapter Four: Legal, Policy and Regulatory Framework
- Chapter Five: Description of the project
- Chapter Six: Potential Environmental and Social Impacts
- Chapter Seven: Proposed Mitigation and Enhancement Measures and the Environmental and Social Management Plan
- Chapter Eight: Public Consultations and Stakeholder Engagement
- Chapter Nine: Institutional Responsibility, Arrangements and Capacity Building
- Chapter Ten: Costs to Implement the Environmental and Social Management Framework
- Chapter Eleven: Conclusions and Recommendations

## **13. GENERAL BASELINE INFORMATION**

### **13.1. Project Area Environmental and Socio-Economic Characteristics**

#### **13.1.1. *Geography***

Somalia is Africa's easternmost country, and is bordered by Kenya to the south, Ethiopia to the west, Djibouti to the north-west, the Gulf of Aden to the north, and the Indian Ocean to the east. It has a land area of 637,540 km<sup>2</sup>, and a coastline of 3,300 km, the longest of any African country, 1,300 km of which is on the Gulf of Aden and the other 2,000 km on the Indian Ocean. The country stretches for almost 1,550 km from north to south between latitudes 12°00'N and 1°37'S, and 1,095 km from west to east between longitudes 41°00' and 51°21'E43.

#### **13.1.2. *Climate***

Somalia is a large, relatively flat country, with an arid or semi-arid climate and prone to severe droughts and floods. It's twelve million or so people mostly support themselves through nomadic pastoralism and agriculture. They are among the poorest in the world, and although too few data are available to allow the country to be ranked relative to others according to the Human Development Index (HDI), it is believed to score very poorly on all HDI indicators.

As alluded to earlier, Somalia has a warm desert climate in the north and a semi-arid climate in the south. The country is characterized by four seasons: between the two monsoons, there are irregular rain and hot and humid periods. From April to June, there is the main rainy season, Gu. This is followed by the dry Xagaa season before the Dayr provides further rainfalls from October to December, with approximately 500 mm rainfall annually in the northern highlands, 50-150mm along coast, and 300- 500 mm in the southwest. The annual cycle is completed as the dry Jilaal season stretches from December to March.

#### **13.1.3. *Biological Environment***

Somalia's natural resources fall into three broad categories: marine resources such as fish and salt; surface resources which include forests and forest products such as the aromatic extracts of frankincense (from *Boswellia* spp.) and myrrh (from *Commiphora* spp., both *Burseraceae*), as well as surface water; and sub-surface resources such as rocks and minerals, fossil fuels, and groundwater. Many of them have been directly or indirectly impacted by the extended civil conflict, but competition for access to some resources has also been, and continues to be, a source of conflict in itself.

In the absence of a government, many traditional forms of natural resource management and control systems have been abandoned or are now ignored. In

several instances, this has resulted in clearly unsustainable exploitation, a trend which may prove difficult to reverse.

**Biodiversity and Protected Areas:** Only 0.8% of the Somalis area is under some form of protection (2000). A National Conservation Strategy used to exist, before the collapse of the central Government in 1992. . Somalia is part of Conservation International's Horn of Africa Hotspot which has over 60 endemic genera and over 2,750 endemic species. Somalia is a part of Somalia-Masai steppe geographic region of plant endemism (savannas and shrub lands) and has 24 important bird areas.

Generally, fauna has been depleted due to hunting and culling to protect livestock. Invasive species (e.g., *Prosopis* spp. and the Indian House crow, *Corvus splendens*) have widespread effects on local fauna and flora and important to address, although *Prosopis* could be used to substitute endemic trees for charcoal production.

**Forests and Woodlands:** The vegetation in Somalia is predominantly dry deciduous bushland and thicket dominated by species of *Acacia* and *Commiphora*, with semi-desert grasslands and deciduous shrub land in the north and along much of the coast. Forest growth in general is limited due to poor soils and low rainfall. Closed forest cover occupies only about 2.4 per cent of the country (IUCN, 1992) but, if the *Juniperus* forests and evergreen tracts in the mountains in the north are included, the total forest coverage would probably amount to around 14 per cent (90,000 km<sup>2</sup>) of the land.

#### **13.1.4. *Economic Outlook and Macro-economic Performance***

Somalia's economy is largely consumption-based and dominated by agriculture, while it is also supported by remittances and large aid flows. Remittances and aid flows are estimated at USD 1.4 billion a year, which represents 29 per cent of Somalia's GDP in 2018. Agriculture plays a key role by constituting 75 per cent of GDP, and 93 per cent of total exports. Other sectors driving growth are construction, telecommunications and money transfer services.

Continued conflict and frequent natural disasters have contributed to significant poverty in Somalia. About 69 per cent of Somalis live below the poverty line. Poverty is thereby most acute among children, youth, and IDPs, as well as persons living in rural areas.

Approximately half of Somalia's population depends on pastoralist and agro-pastoralist activities. According to the recent Flood Impact Needs Assessment conducted by the FGS and the World Bank, this means that people remain highly vulnerable to natural disasters. However, the findings from the assessment also show that while the recent flood has had devastating impacts on infrastructure, it has helped to increase agricultural outputs, due to above average rainfall. In turn,



the recent floods pose a significant threat of a desert locust outbreak, which poses risks to the macroeconomic outlook and a threat to livelihoods of the population.

### **13.1.5. Human Development**

Somalia scores very low on UNDP's Human Development Index. Although it has not been ranked for a few years, different indicators reveal low scores. For example, life expectancy at birth lies at 57.1 years with a global average of 56 years in low human development countries; and the mortality rate under the age of 5 lies at 127 per 1000 live births while the global average is 39.

**Education:** The school enrolment rates in Somalia are among the lowest in the world. In the education sector, only 16 per cent of the Somali population have completed primary school and only 7 per cent have finished secondary school. 3 million children between the age of 6 and 18 do not attend any school. At the primary level, about 60% of children do not attend school. At the secondary level 92 per cent of children (in south central parts of the country) do not attend school. The recent flooding has caused additional challenges on the education of children, as it has displaced people, made access more difficult and has caused the exclusion of some.

Literacy in Somalia is 40 per cent among the adult population, with male literacy being 8 per cent higher than female. There are significant differences in the literacy rate between social groupings. For example, urban populations have the highest literacy rate with 64 percent, while nomadic populations have the lowest literacy rate with 12 per cent.

**Health:** Availability and access to health facilities is similarly dire. A comprehensive review of the health sector in 2015 showed that health facilities are mainly located in the urban areas and difficult to access for the majority of the rural population. Health facilities are resourced poorly, and there is a critical lack of health workers. According to WHO, only one in three Somalis have access to safe water, and one in nine Somali children die before their first birthday, and ca. 3.2 million Somalis are in need of emergency health services. Due to poor living conditions, there are high risks of measles outbreaks, acute watery diarrhea and cholera. Those residing in IDP settlements are most affected.

Reproductive health indicators are poor. Maternal mortality is estimated at 734 for every 100,000 births. Under-five mortality rate was at 133 per 1,000 births before the recent drought. Neonatal mortality rate per 1000 live births is 39.7.

**WASH:** Access to safe water is low in Somalia, access to basic water supply lies at 83 per cent in the urban areas and 28 per cent in rural areas. 61 per cent of the population has access to basic sanitation facilities in urban areas and 20 per cent in rural areas. According to a UNICEF report, the key challenges are weak water supply management models, high operational management costs and technical

limitations. There is further a lack of a harmonized legal and policy framework and policies in place and inconsistent with implementation.

Continued droughts have had negative impact on the water sector, and conflicts have weakened the water supply and sanitation services. WASH facilities have been destroyed as a result of conflict, and there is a lack of sufficient WASH facilities for the large number of IDPs. Furthermore, the population pressure causes over pumping of ground water, and the wearing out of equipment.

### **13.1.6. Agriculture**

Somalia has a total area of about 137,600sqkms. Land under cultivation is currently estimated at 3 per cent of the total geographical area. Another 7 per cent has potential for agricultural development. The rainfall, soil (fertility and depth), and topography are the main determinants of these estimates. The agricultural system in Somalia is predominantly subsistence in nature. The principal crops are sorghum and maize grown mostly for household consumption. Fruit and horticultural farming, which is relatively small, is mainly commercial. Here, farmers grow mainly tomatoes, lettuce, onions, peppers, cabbages, oranges, lemons, and papaya. Rain-fed farming accounts for 90 per cent of the total area cultivated, while the area under irrigation constitutes only 10 per cent.

The sector is dominated by smallholder farmers who tend small farms ranging from 2 to 30 hectares in area. The size of the average farm is approximately 4 hectares. Somaliland's agriculture was practically destroyed during the civil war from 1982 to 1991 – agricultural equipment and farmers' property were looted, and infrastructure was devastated. The majority of the farmers fled as refugees to neighboring countries and returned home only when the conflict ended. Although some recovery has been made in the past 20 years, a lot more remains to be done.

**Rainfed Farming and Irrigation:** Rain-fed farming is the main agricultural production system. The main crops grown are cereals. Sorghum is the principal crop, utilizing approximately 70 per cent of the rainfed agricultural land. Another 25 per cent of the land is used for maize. Other crops such as cowpeas, millet, groundnuts, beans, and barley are also grown in scattered marginal lands. Irrigation farms are mainly situated along the banks of streams (togs) and other water sources close to the riverbanks.

Channelling from the source to the farm is mainly done by diversion of perennial water (springs) to the farm through rudimentary earth canals or floods. The cultivable area of these farms is subject to floods and is, therefore, in danger of being washed away. Most of the irrigated farms have in them areas set aside for the cultivation of vegetables and fruits for commercial purposes.

**Livestock:** The economy of Somalia mainly depends on livestock production, which has historically and culturally been the mainstay of livelihood for the majority

of the people. The livestock production system in some of the regions like Somaliland is predominantly pastoral and agro-pastoral, with the industry providing 29.5 per cent of GDP in Somaliland and employing 27 per cent and 20 per cent of the female and male workforce, respectively in Somaliland.

Livestock is the source of livelihood for pastoralists, contributes to the Government revenues, and provides employment to a wide range of professionals and other service providers. Somalia has a long history of live animal export to the Arabian Gulf states through Berbera, Boasaso, Mogadishu and Kismayo ports.

### **13.1.7. Gender**

Somalia has one of the highest genders inequalities in the world at 0.776 which ranks 4th in the world. The country has an extremely high maternal mortality (723 deaths per 100, 000 live births while the adolescent birth rate for teenagers aged between 15 and 19 is 100.1 per 1,000 births. Rape, female genital mutilation and child marriage rates, and violence against women and girls is common.

The participation and roles of women in politics and decision making is minimal which perpetuates limited female roles and inequality. Women make up 56.6% of the workforce in agriculture/pastoralism which constitutes 60% of the local economy. The number of women working in government had significant numbers at 1,912 (19%). Much is to be desired in the education sector, where only 36.1% of pupils in the upper primary education are composed of girls. Gender disparity is higher in upper grades due to economic constraints and early marriage.

Culturally the role of women has been limited to domestic affairs, however as a result of legislative changes their participation in the country's governance and politics continues to grow.

Traditionally the Somali women have been the “engineers” building the traditional homes, aqal Somali, and “food processors” making preserved meat referred to as oodkaq/muqmad. They are also the fetchers of water for domestic use while it is the men who work at the well to provide water for the herds. Somali women are actively involved in business mainly trading in household goods, gold, and khat. Nearly all the khat vendors and tea stall owners along the corridors are women. Some key challenges related to the Gender Equality in Somalia are summarized below:

- 1) Gender inequality persists on Somalia and has many causes, key among these tradition and culture which defines community acceptable roles for men and women. These roles take root early in life, starting from the family setting and extending to the neighbourhood and the larger community.
- 2) Because of gender inequality, women are not able to access fully the benefit of development including such benefits like education, health, employment.
- 3) There are many laws and legislation drawn to address gender inequality but many of these have not been passed or are not enforced. Sex and gender-based

violence continue to be tolerated and the rights of girls and women continue to be violated. In some cases, there are laws that discriminate against girl and women. Despite these challenges, many opportunities exist to address gender inequality.

- 4) Few women are in influential positions politically and economically and women have limited representation in decision making even on that affects their lives.
- 5) At the local level, there is limited awareness and understanding of the magnitude of the gender inequality problem. Organizations that are engaged in promoting gender equality are seen to be working for foreign interests. The successful model woman is seen as one that has been successful in taking care of the home. Women who fight for women rights and aspire to go beyond the home maker role are seen to oppose men and to be going against the culture and religion.
- 6) The contribution of women in the development of the Somali society takes place behind the scene and is not is not document. This lack of full participation of women has in development robs the Somali society of the valuable contribution of women in development and leads to political, social and economic losses.
- 7) Although gender inequality poses such a big challenge to the Somali women, the efforts they make to address this problem are largely uncoordinated. Similarly, women rarely support each other when such opportunities arise. Women are therefore in some cases, their own enemies.
- 8) The absence of female leadership in the education sector has greatly contributed to the absence of female students in school as well as their performance. This situation has led to lower performance of women in education and subsequently lower participation of women in social, politics and economic spheres.

## **13.2. Evidence of Climate Change in Somalia**

Climate change has manifested itself in various ways in Somalia based on the following statistical analysis of trends in historical records of temperature, rainfall, humidity, sea level rise, and climate extremes.

### **13.2.1. *Surface Temperature***

Changes in extreme temperatures across Somalia have been observed over the last 50 years, temperatures increasing by 1.0°C in a century. The mean air temperatures remain high throughout the year with the mean daily temperatures for the period 1953-1976 were 25.2°C to 28.8°C with an annual mean of 27°C. Diurnal temperature fluctuations are high and can range from 20°C to 35°C.

Temperature is the highest inland while temperatures along the southern coast are lower than that inland, due to the influence of cold ocean currents. The relative thermal uniformity prevailing in the south is distorted by the effects of altitude in the north, where temperature decreases with altitude giving a larger mean daily

lapse rate of about 6°C per 1000m. However, the lapse rate varies with seasonal changes throughout the year, being more substantial in the dry season than in the wet season. The recent CMIP5 regional models also project a steady increase between northern, central and southern regions of Somalia, and between seasons with temperatures expected to increase at a steady rate of 0.3-0.5°C per decade until 2050. In summary, mean temperature is expected to increase in Somalia between 3°C and 4°C by 2080.

### **13.2.2. *Precipitation***

Rainfall precipitation in whole of the country is low and unpredictable because of the climate change. Overall, the climate conditions in Somalia is hot, arid to semi-arid, which is affected by the Inter Tropical Convergence Zone (IUCN, 2006). Two rainy seasons prevail over much of the country, the "Gu" rains (April to June) and the "Deyr" rains (October to November). "Jilaal" (winter) and "Xagaa" (summer) are dry, although in the latter period the country experiences rain in the coastal areas.

Climate change could result in a slight increase in the amount of rain received each year. However, the variability of rainfall patterns is also set to increase from an existing very high variable range. Because of this high variability in rainfall patterns, it is not clear how seasonal rainfall (both wet and dry seasons alike) will change (INDC, 2015). Mean annual rainfall in Somalia is expected to increase by 1%, 3% and 4% by 2030, 2050 and 2080, respectively (using the 1981-2000 reference period). However, seasonal changes is expected with less precipitation for central and southern Somalia during March, April, and May (MAM) season by 2080. In summary, a gradual increase in total rainfall is expected in Somalia though with increasing seasonal variability. Extreme rainfall events can be expected to increase across the different periods.

### **13.2.3. *Extreme Weather Events***

Somalia has experienced a number of extreme weather events including droughts, floods, storms (includes dust storms & winds), cyclones and tsunamis. Of these, droughts and floods are the most frequent disasters. Drought is the most important, devastating and recurrent natural disaster affecting the country with more frequency and greater intensity in the recent decades. Records show that droughts alone have affected over 70% of the Somali populations in the last few decades (INDC, 2015). Some 14 major drought events have been recorded in the last 50 years adversely affecting over 6 million people (INDC, 2015). Flooding of Jubba and Shabelle rivers frequently occur during the Gu rainy season in the Hiran and Middle Shabelle regions. Coastal areas of Somalia are prone to tsunamis. In the 2004 Indian Ocean tsunami, the country suffered damage and the loss of lives. Powerful and destructive tropical cyclones pose a risk to Somalia. With the current global warming, the country is at risk of suffering from tropical cyclones and storms.

Somalia lacks the capacity to deal with major disasters such as the tsunami, storms, protracted droughts and El Nino floods. Climate change is an acknowledged fact. Unless early action is taken to adapt to climate change, the country may not be in a position to achieve the UN SDGs and National Development Plan 2020 -2024.

### **13.3.Impact of Climate Change in Somalia**

Climate change has had a significant adverse impact on Somalia Natural ecosystem, and most evidently in the Arid and Semi-arid land (ASAL). ASAL, which comprise more than 80% of the Somalia landmass, are typically delicate ecosystems and the deficiency in investment in public services and goods in such areas significantly increases the country's susceptibility to climate change. The impact of climate change traverses a wide range of societal aspects, economy, and environment. The adverse effects of climate change can affect the economic, social, political advancement of Somalia's key precedence areas. The effects are evident as follows:

#### ***13.3.1. Impact on Food Security and Nutrition***

Food security and nutrition in Somalia has been negatively affected by climate change, mainly due to land degradation and droughts. Climate calamities such as storms, floods, and droughts have the potential to destroy crops, key community assets and critical infrastructures such as dams, road and communication networks that are critical in food production and distribution. Somalia has one of the longest coastlines in Africa. Climate change has led to a rise in sea level with the potential to affect negatively livelihoods in the coastal areas and river deltas. Changes in climatic conditions have already affected food production. The rise in temperature will affect the quality and quantity of crop yields.

Across Somalia, food access is increasingly becoming a significant issue of concern. Climate change has already led to a rise in prices of major crops and staple foods. For the most susceptible population, lower agricultural production means lower income. Under such circumstances, the poor who have used their income on basic needs, expense their income to address their nutritional requirement. Shifting climatic situations may lead to a vicious cycle of hunger and disease. Climatic changes influence nutrition because of its impact on dietary diversity, food security, and health and care practices. Additionally, climatic variability is increasingly producing frequent and intense weather events that upset food security strategies and result in a fluctuation in food availability, accessibility, and utilization. Hence, an all-inclusive developmental methodology with a medium to longer-term focus needs to be made to establish food security.

### **13.3.2.     *Impact on Livestock, Fisheries, and Agriculture***

Crop production and livestock are the primary sources of livelihood for agro-pastoral communities in Somalia, with more than 70% of Somali depending on climate-sensitive pastoralism and agriculture. There is the need to find methodologies that can lessen the sensitivity of farmers to snowballing rainfall variability and unexpected increases in the global temperatures. Climate variations will negatively affect the fragile natural resources that support livestock, which is the backbone of the people and the economy of Somalia.

Rangeland degradation and progressive reduction of vegetation and other land degradation, compounded by frequent and recurrent droughts, adversely affect livestock production in the regions. Small-Scale farming practices depict the low economic base and the high vulnerability of Somalia populations to socio-economic and climatic shocks. Rising ocean acidification and temperatures are altering the aquatic ecosystems. Climate Change (CC) is transforming Somali's fish supply and yield of marine and freshwater species, hence adversely affecting the sustainability of aquaculture and fisheries. Therefore, the long-term adaptation planning of Somalia will integrate an approach to both drought and floods. The investment will be made to ensure that the country has early warning systems for daily monthly and seasonal prediction.

### **13.3.3.     *Impact on Environment, Water and Forestry***

Climate change has had a significant adverse impact on Somalia's natural ecosystem. The decline in environmental quality has led to adverse economic and social impact leading to compromising of quality of life to the people who depend on the ecosystem. One of the most hard-hit areas is the Arid and Semi-arid areas due to their higher vulnerability index exacerbated by inadequate investment to build resilience and increase adaptation capacity.

Water is a scarce and critical resource that is under-developed in Somalia. The country is dominated by surface water resources (INC, 2018). The south of Somalia hosts the country's only two permanent rivers, the Juba and Shabelle. Groundwater resources (aquifers) are believed to exist though deep water aquifers are not currently accessed. Shallow water aquifers and wells are accessed ad-hoc with little understanding of downstream hydrological impacts (INDC, 2015). There is currently no coordinated oversight and understanding of Somalia's water resources, access and supply. Hence, there is a need for a comprehensive assessment and understanding of the water resources (surface and underground) of the country and the impact of climate change on water. This policy intends to address those issues.

The vegetation in Somalia is predominantly dry deciduous bush land and thicket dominated by species of Acacia and Camiphora, with semi-desert grasslands and deciduous shrub land in the north and along much of the coast. In general, the vegetation becomes denser towards the south – much of the north-eastern part of

the country is devoid of trees. The total forest coverage is around 14 per cent (90,000 km<sup>2</sup>) of the land (INC, 2018). Forest growth in general is limited due to poor soils and low rainfall, which are the effects of climate change.

#### **13.3.4. *Land Degradation and Desertification***

Somalia is expected to experience a steady rise in temperature in the future. Generally, most of the challenges that the country faces arise from land degradation. Unfortunately, the adverse impact of climate change has exacerbated the rate of environmental degradation; hence, the need for the establishment of effective enforcement measures to implement laws and regulation that control the use of natural resources.

Land degradation in Somalia is caused by human activity such as overgrazing, tree cutting, and poor agronomic practices. Rangelands and other valuable resources are subjected to unsustainable use such as charcoal burning and illegal logging. Unsustainable deforestation contributes significantly to the increase in the greenhouse effect by reducing the carbon stock and destroying habitats that are essential in supporting biodiversity.

In addition, the hydrological cycle is negatively affected. Increase in floods and winds result in soil erosion, runoff and landslide, hence destroying livelihoods. Since a majority of socio-economic activities in Somalia depend on rainfall water availability, the country will face increased threats of climate extremes unless effective adaptation systems are initiated.

#### **13.3.5. *Impact on Health***

Population health has been adversely impacted by climate change in Somalia. Somalia has a heightened risk of climate-sensitive infectious illnesses such as foodborne, waterborne, vector-borne disease. Vector-borne diseases such as Rift Valley Fever (RVF) and dengue fever are common. Generally there is an increase in mortality of animals and humans, shortages of food lead to malnutrition particularly among children, mothers and youths, the rise in psychological disorders because of stress. Also, there are high cases of asthma, pneumonia and other respiratory diseases. High incidences of sunburn, dehydration, heat stroke, sunstroke, and heat exhaustion have also been reported. Floods and fires that may accompany climate change may lead to the destruction of health services, disease epidemics and overburdening of existing health facilities.

Therefore, the country will endeavour to improve health status through establishing and upgrading health facilities, expanding community level nutritional program, institute early warning systems for drought and food insecurity, and improve water quality. In addition, doctors and nurses may need more training on how to deal with climate-related health problems, establish waste management systems, and promote public health awareness campaigns.



### **13.3.6. *Impact on Coastal Areas***

Somali local communities depend on marine and coastal ecosystems, with a significant number of them practicing fishing or fishery-related activities. The increase in greenhouse gas (GHG) and associated climate change will affect the chemistry and physical composition of Somalia coastal waters through a change in salinity, ocean temperatures, upwelling, chemical reactions, general cycles of various gases, the concentration of gases and solid suspension, and effects of UV and other solar rays due to ozone depletion. The rise in temperatures and sea levels, ocean acidification, and irregular precipitation pose significant challenges to the structure, health and functioning of the marine and coastal marine ecosystems such as mangroves, wetlands, coral reefs, and estuaries, which are highly susceptible to climate change.

Degradation of coastal environment leads to a decline in vegetative cover, the death of wildlife and the reduction in soil fertility. The many competing demands on coastal resources have led to depletion of forest cover, and the destruction of mangroves. The implementation of Somalia National Vision 2030 requires harnessing of increasing quantities of the already scarce natural resources due to urbanization, competition for resources, an increase in demand for healthcare, infrastructure, and energy. Therefore, Somalia will incorporate climate proofing planning, accounting, and execution systems to guarantee that the implementation of the 2030 strategy and any other development strategy does not exacerbate vulnerability to climate change.

### **13.3.7. *Impact on Infrastructure***

A well-developed and expanded infrastructure is an indispensable enabler of socio-economic development. Somalia's vision 2020 and 2030 aspires to achieve significant poverty reduction in the country by addressing economic and social marginalization, poor health and lack of access to education.

The principal natural resources for Somalia are water, land and minerals, coastal and marine resources, forests and woodland and biodiversity and wildlife. The main aim of vision 2030 is to increase investment in environmental protection, transport and communication, and energy supply. There is a need to identify the influence of climate change on the attainment of Somali's vision. One approach is to integrate climate change opportunities and threats in the design and management of the Somalis infrastructure. A different approach is to promote investment in infrastructure that enhances the makeover of a low carbon economy while at the same time creating employment opportunities. Reinforcing the sustainability of services and infrastructure means that in times of catastrophe, societies can continue to access sanitation and water services and that there are mechanisms in place to direct local governments.

### **13.3.8. *Impact on Economic Development***

Somalia is a low-income developing country (World Bank). Climate change represents a serious threat to the country's economic growth. There is clear evidence to show the adverse effects of climate change on Somalia's national economy, most specifically in the agricultural sector. According to the Somalia Drought Impact and Needs Assessment (DINA) report the drought in 2016/17 alone caused economic losses estimated at US\$3.25 billion (NDP, 2020-2024). A majority of Somali's rely on agriculture to sustain their livelihoods. However, agricultural productivity is significantly affected by climatic extremes such as droughts, floods, and famine. Large stocks of animals put enormous pressure on foraging land, triggering land dilapidation and spawning clashes over land ownership rights. In situations where there is a lack of regulatory measures, land, and water is a significant source of conflicts. The outbreak of diseases primarily in livestock makes Somalia lose significant income from agricultural exports due to ban impositions. Droughts have adversely affected water resources, hydroelectricity production, and farming sectors.

### **13.3.9. *Impact on Migration***

The adverse effects of climate change are affecting the living conditions of the Somali population, resulting in increased forced and voluntary environmental migration. Frequent recurring drought and floods and limited adaptive capacity, have already impacted on population movements in Somalia, contributing to both internal- and cross-border displacement. Predicted sea level rise as a result of climate change, is likely to further impact on population movements in coastal areas. If not mitigated, natural resource competition caused by depletion of the Somali natural resource base, may further exacerbate tensions between communities and result in conflict-induced displacement.

## **13.4. Environmental Challenges in Somalia**

Somalia is one of the poorest and least developed countries in the world and as such presents exceptional challenges in terms of natural resource management. As a result of more than 25 years of civil unrest, Somalia's governance structures have fallen apart, and militias control different parts of the country.

Somalia has five main World Ecosystem types: Coastal Aquatic (11 percent), Desert and Semi-Desert (38 percent), Grass and Shrub (36 percent), Crop and Settlements (one percent), and Interrupted Woods (14 percent).

Food insecurity and livelihoods, lack of marine and coastal management, probable hazardous waste, and the mitigation and management of environmental degradation along with natural disasters are environmental concerns. The key environmental challenges in Somalia are related to women and children, natural resource degradation and democratic instability. Most challenged areas are:

- Deforestation
- Land degradation
- Increasing aridity and overgrazing
- Water scarcity
- Waste disposal
- Climate Change
- Ecosystem services

#### **13.4.1. Deforestation**

Forests cover about 11.4 percent of the total land area of Somalia. Large areas of rangelands used to be covered by various tree species, mainly acacias. Flood plain forests along the Shebelle River have been destroyed by clearing land for small farms and plantations.

Forests form the habitat of many of Somalia's 1,078 known species of animal and 3,028 plant species some of which are unique. The rate of loss of forest and wooded habitat between 1990 and 2005 is estimated at 13.9 percent or 1,151,000 ha with pressure coming from charcoal production and agriculture. Charcoal-burning has become a major source of income for 70 percent of poor and middle-income pastoralists. It is estimate that four trees are cut to produce one sack of charcoal. The charcoal industry has significant implications on livelihood security exacerbating community conflicts and increasing vulnerability to drought as well as it is rapidly depleting the forest resource

#### **13.4.2. Land Degradation**

Somalia is a semi-arid country with about 1.6 percent of arable land. The land tenure system is based on communal ownership combined with individual ownership. Usually, property transfers from male to male with few exceptions. Female heritance is seldom allowed.

As the livestock sector is based on a nomadic system high mobility is required as well as access to extensive grazing resources. As land use is limited by soil quality, low rainfall and limited water availability, besides opportunistic movement that is possible, overgrazing is a consequence.

Land degradation is a key environmental issue in Somalia, closely linked to desertification, drought and unsustainable livestock and agricultural practices and is also leading to conflict. Conflicts as such also result in land degradation as it obstructs and hinders a more sustainable traditional agricultural practice.

#### **13.4.3. Aridity and Overgrazing**

Increasing aridity of Somalia's climate, excessive logging and overgrazing, are leading to rapid environment degradation (deforestation and extension of the

desert area) in the Horn of Africa country. As livestock is the main livelihood for approximately 60% Somali's the available land is overused and under ecological resilience stress.

Growing competition for land is leading to conflict and further aridity and overgrazing. The transient rights to use resources that are so critical to nomadic pastoralism were ignored when the national land tenure regime was being developed. Among the direct results of this action has been land degradation, resource use conflicts, a decline in pastoral production and impacts on Somali clan alliances, which in many cases serve to regulate rational natural resource access and use.

Overgrazing in parts of the coastline has resulted in the gradual movement of coastal sand dunes inland, posing a serious threat to agricultural areas and human habitation.

#### **13.4.4. *Water scarcity***

Somalia has 6 cubic kilometers of renewable water resources with 97% used for livestock and agriculture. Three percent is for urban and domestic use. A bit more than 26% of the entire population have access to safe drinking water.

Most of the country receives less than 500 mm of rain annually, and a large area encompassing the northeast and much of northern Somalia receives as little as 50 to 150 mm. Generally, rainfall takes the form of showers or localized torrential rains and is extremely variable. The main rainy season, referred to as the Gu, lasts from April to June.

This period is characterized by the southwest monsoons, which rejuvenate the pasture land, especially the central plateau, and briefly transform the desert into lush vegetation. The Dayr, which is the shortest rainy season, lasts from October to December.

With an extremely low, variable and often unreliable rainfall, and misuse, mismanagement and harsh weather in general, water scarcity is at its worse. Less than 30 % of Somali people have safe drinking water and for rural community, the number spirals to almost zero. The lack of access to safe water is a striking feature in almost all parts of Somalia.

#### **13.4.5. *Waste disposal***

Somalia's long, remote shoreline has been used as a dump site for the disposal of toxic waste for many years now. Circumstantial evidence indicates that the dumping of illegal waste has been made for almost 20 years. Although unverified, there are persistent reports of illegal, unreported and unregulated fishing and illegal waste dumping off the coast up until today.

The illegal dumping includes radioactive, hazardous and medical waste. The huge waves which battered northern Somalia after the tsunami in 2004 are believed to have stirred up tons of nuclear and toxic waste dumped illegally in the country by industrialized countries and foreign firms over the years. There is a total lack of any waste management.

### **13.5.Drought Resilience and Sustainable Livelihood Program (DRSLP II) of Somalia**

The BREFONS program is a follow up to AfDB Drought Resilience and Sustainable Livelihoods Program in the HoA (DRSLP) with 12 projects in four phases in six countries (Djibouti, Eritrea, Ethiopia, Kenya, Somalia, and Sudan). Somalia benefitted from phase II of the program under DRSLP II Somalia. The DRSLP Project II for Somalia was the first investment project that the AfDB to undertake since the collapse of the central government in Somalia in 1991. Within the framework of its role as Third Party executing Agency, the Intergovernmental Authority on Development (IGAD), in consultation with the Ministry of Livestock, Forestry and Range (MoLFR) of the Federal Government of Somalia embarked on selection process of the Implementing Agency (IA) for the project. Ernst & Young was the IA of the project in the first two years, however its contract was terminated due to poor performance and Save the Children International (SCI) was selected in March 2020 as the IA for the DRSLP project..

#### **Merits of the DRSLPII Somalia**

- Addressing the root cause, the project addresses the most fundamental constraints that agriculture and pastoralist communities face.
- Multi sectoral- the most economic development means of the country are covered under this project including Livestock, Fishery, Agriculture, Water, Transportation and Institutional building.

#### **Demerits of the DRSLPII**

- Complex implementation framework- the implementation modality and the roles of the different levels of stakeholders may not be clear, for instance the roles of the line governmental institutions are not clear particularly in the state level. Therefore, the roles and responsibilities of the all actors of the new project should be defined.
- Not enough institutional capacity building -in Puntland and Somaliland, the contributions to the strength of the government institutional capacity was not enough given the magnitude of the need.
- Weak M & E Mechanisms- the monitoring and evaluation mechanisms were not much enough to quickly react to the foreseen challenges. There was no standby monitoring and evaluation teams visiting the ongoing works during the implementation.
- Weak Safeguards Arrangements- the Social and Environmental Management frameworks were not given priority as important requirement to comply.

## **14.METHODOLOGY**

### **14.1.Introduction**

The preparation of this Environmental and Social Management Framework (ESMF) aimed at providing a screening process for the potential environmental and social impacts for the proposed programme, its proposed sub-projects and their activities, and subsequently recommends a mechanism for a management plan to enhance the potential positive impacts and address the negative impacts associated with the project. The methods used include:

### **14.2.Literature review**

A number of documents were reviewed including internet searches. Among the key documents used are the reports generated from the DRSLP. Some key baseline information on Somalia's recent macroeconomic development especially in the agricultural and livestock sectors development initiatives were reviewed. Various policy, legal, regulatory and administrative framework documents relevant to the proposed project have been reviewed. The African Development Bank's (AfDB's) Five Operational Safeguard Policies were reviewed to help identify the likely policies to be triggered by the programme and its operational components. Reference was also made to additional policy, legal, regulatory and administrative framework documents relevant to the proposed project.

### **14.3.Interactive discussions and consultations**

During the preparation of this ESMF a number of individuals and institutions were consulted. Interactive meetings were held during the assessment. The people consulted included staff of various ministries and directorates. Further public consultations and stakeholder engagement and personal contributions, including project beneficiaries will be carried out during the preparation of individual projects once the specific project sites have been identified. The stakeholder consultations and engagements are very important in the preparation of the ESMF and subsequently ESIAs and ESMPs. They will, therefore, form the basis for the determination of exact project impacts at both beneficiaries and sector levels and viable mitigation measures to be adopted.

## **15.LEGAL, POLICY AND REGULATORY FRAMEWORK**

### **15.1.Somali National Laws and Legislations**

#### **15.1.1. *Constitution of the Republic of Somalia***

In all Somali territories policy and legislation with respect to the environment is evolving, in terms of assessing the potential impact of such policies on the environment, or how they could contribute to environmental conservation and sustainable livelihood improvement. Constitution of the Republic of Somalia. The key legal instrument for management of environmental affairs in Somalia is the Constitution, especially Article 25 (“Environment”), Article 43 (“Land”), Article 44 (“Natural Resources”) and Article 45 (“Environment”). Article 25 of the Constitution states that “[every Somali] has the right to an environment that is not harmful to their health and well-being, and to be protected from pollution and harmful materials.” The article proceeds to declare that “[every Somali] has the right to have a share of the natural resources of the country, whilst being protected from excessive and damaging exploitation of these natural resources.”

Article 45 (in Chapter 3 – Land, Property and Environment) exhorts “all people in ... Somalia” to “participate in the development, execution, management, conservation and protection of the natural resources and environment.” Article 43, on its part, provides guidelines on environmental and social safeguards that can be observed. However, there are no standing environmental and/or social safeguards in terms of legislated and or drafted regulations. The Article also affirms that the federal government shall give priority to the protection, conservation, and preservation of the environment against anything that may cause harm to natural biodiversity and the ecosystem with regards to management of the environment, the Constitution calls upon the FGS and the FMS’s governments to “take necessary measures to reverse desertification, deforestation and environmental degradation, and to conserve the environment and prevent activities that damage the natural resources and the environment of the nation.” To give effect to these broad principles, the FGS shall “in consultation with the Federal Member States ... adopt general environmental policies for the Federal Republic of Somalia.”

The Federal Government has introduced changes in the institutional set-up dealing with environment and a directorate of Environment has been formed within the Office of the Prime Minister. The Directorate of Environment (DE) is mandated to draft the National Environmental Policies and legislations including establishing of the Environmental Quality Standards, Sectoral Environmental Assessments (SEAs), Environment Impact Assessments (EIAs) and environmental Audits among other items. However necessary laws or legislations have not been formulated and no commissions or authorities have been established.

### **15.1.2. National Environmental Policy**

The overall goal of the policy is to improve and enhance the health and quality of life of the Somali people and to promote sustainable development through sound management of the natural resources of the country. The specific objectives of this policy are enumerated below. These Objectives relate to current perceptions of key environmental challenges. They may, accordingly, evolve over time:

#### **a. Conservation of Natural Resources**

To protect and conserve critical natural resources which are essential for livelihoods, economic growth, and a broad conception of human well-being. Natural resources, both renewable and non-renewable are utilized in a sustainable manner that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

#### **b. Environmental Governance**

- To strengthen environmental governance to ensure the sustainable management of the country's natural resource base.
- The Federal Government and member states should be encouraged and enabled to develop, rebuild and strengthen the necessary institutions that will help to ensure good environmental governance.
- To apply the principles of good governance by incorporating the full economic, social and environmental costs and benefits of natural resource development into the planning and implementation of projects.

#### **c. Multi-stakeholder Partnerships**

- To build and strengthen institutions at Federal and member state levels and empower them with the necessary capabilities to manage the Somali environment in accordance with this Policy and environmental legislations.
- Revitalize environmental co-operation with neighbouring countries and within the region, the objective being to support peace building, enhance important environmental initiatives, and share information and knowledge.
- To raise awareness and promote understanding of the importance of the environment among the Somali people, allow their participation at all levels in environmental management activities.
- To ensure higher resource flows, comprising finance, technology, management skills, traditional knowledge, and social capital, for environmental conservation through mutually beneficial multi-stakeholder partnerships between local communities, public agencies, the academic and research community, investors, and multilateral and bilateral development partners.

### **15.1.3. Country Programming Paper (CPP, 2019-2014)**

To prevent recurrent drought disasters in Somalia; the country employed (programming paper) for uplifting vulnerabilities. And this came with efforts of collaboration from all line ministries include Livestock, fishery, agriculture, and



environment. The strategy is to move forward to longer-term solutions on building resilience. It is uplifting the lives of the vulnerable people in ASAL areas of Somalia. The CPP focuses on put forward priorities of the nation by collaborating with the horn Africa countries.

The CPP is an approach in which IGAD and Somalia are collaborating to improve the conditions of the livelihoods for preventing in near future drought disaster crises by shaping strategy focusing on specific targets and solutions. It is an integrated approach to minimizing emergency interventions. The CPP is aligned with the IDDRSI framework (2013-2017) and other IGAD regional strategies for building resilience and drought risk reduction.

The paper is focusing on all member states and administrations at districts levels. The CPP is a five-year strategy and made to simplify for categorizing and structuring numerous interventions and investments. Specifically, infrastructures and procedures. The CPP composed eight components national priority areas of interventions:

- Natural resources and environment management,
- Market access, trade, and financial services,
- Enhanced production and livelihood diversification,
- Disaster risk management,
- Research, knowledge management, and technology transfer,
- Peace building, conflict prevention, and resolution,
- Coordination, institutional strengthening, and partnerships and,
- Human capital, gender, and social development.

CPP could be a participatory approach and emphasis on comprehensive, and coordinated need setting among various partners and sets up solid investigate and effective Monitoring, Evaluation, and Learning framework to back evidence-based programming and investment prioritization. It is valuable to reach new grass-root partners to advance ownership and contribute to viable capacity advancement.

#### **15.1.4. *National Adaptation Program of Action on Climate Change (NAPA)***

Adaptation to climate change in the agricultural sector and allied sectors is a main current and future crisis for Somalia. The majority of the country's population is dependent on extremely climate-sensitive agriculture. In last 30 years, frequent droughts, rainfall variability, increased temperatures, and floods have caused serious distress to agriculture dependent communities in many different areas. Somalia's development goals (DG) of improving food and nutrition security and enhancing sustainable agriculture needs to be implemented in strategically sustainable system to adapt climate change.

Climate change is a global issue affecting all nations. Its impact is felt severely across sub-Saharan Africa due to the high degree of climate variability and weak

coping capacities. Climate change knows no boundaries and the solutions demand regional and global coordination and collaboration.

Somalia's goal is to reduce climate change-induced vulnerabilities for the poorest communities, namely the 65% of the population who depend on natural resources through pastoralism and agriculture. These sectors are most affected by decreased production due to unpredictable rainfall patterns, increased temperatures and the loss of lives and livelihoods resulting from natural disasters (MoNR, 2013).

Climate change directly threatens the achievement of the Millennium Development Goals (MDGs) especially those related to eliminating poverty and hunger. Food security - one of the most critical challenges facing Somalia - is compounded by the effects of climate change on agricultural production and the sustainable management of rangelands and other ecosystems. Climate change also has an impact on health, water availability, terrestrial biodiversity, coastal and marine resources, and the livestock sector.

The National Adaptation Programme of Action (NAPA) identifies three urgent areas of action and proposes adaptation measures. The participatory formulation process was led by the Ministry of National Resources for Federal Somalia with support from the Puntland and Somaliland authorities, the Least Developed Countries Fund, the United Nations Development Programme and stakeholders from Government and civil society (MoNR, 2013).

#### **15.1.5. *Livestock Sector Development Strategy 2019***

Livestock remains critical since the contribution to the economy and it is the largest sector that reaches 43 percent of the total GDP, particularly employment and livelihoods. And it has been devastated by the cyclic droughts and climate changes which recently weaken the sustainability of Livestock production, and it has been prepared and issued numerous strategies and policies for tackling recurrent droughts, shortage of water, and social unrest. The public service is very weak and that is advancing the poverty among Livestock holders. The sector has major vulnerability compared to other sectors. Challenges involved with the management of natural resources and lack of skills for creating value-added programs to the production of livestock increased the vulnerability of the lives of the people in this sector.

Though there were around 2 billion losses and damage to the livestock sector 2016/17, then there is reviving and recovery in terms of livestock number plus fodder production in the country.

#### **15.1.6. *Veterinary Code (Somalia) 2016***

Appropriate legislative and regulatory gear must be developed, adopted, implemented, and enforced. For public veterinary authorities to undertake their legal functions, enabling legislation is also required. And this is important and crucial to adopt measures toward the setting up of a livestock health and disease control framework for the implementation of Somali livestock, in full compliance with regional and global standards' recommendations and regulations.

National legislation should also include ancillary and civil laws that aid in its execution. Legislation should also permit the establishment of veterinary professional associations, the establishment of registration bodies, and the existence of private veterinary practice. Proposed legislation of the veterinary code is required to allow veterinary authorities to control animal movement and forcibly remove or demolish animals or products derived from them in the course of disease control or eradication practices.

The other important thing for the veterinary code regulates the registration and quality assurance of veterinary drugs should understand current regulatory requirements such as OIE standards and recommendations.

The Veterinary code developed by the ministry of livestock and forestry and rangeland is extremely valuable to all stakeholders in the livestock sector because it will provide them with the required legal and technical environment to ensure the efficient prevention and control of animal diseases, particularly those that are transboundary, and it will greatly contribute to international trade and export/import relations with trading partners.

#### **15.1.7. *Livestock relevant Policy Documents in Somalia***

The country system was decentralized and composed six states and Banaadir Administration and each State Government requires developing policies for livestock and following are most important:

- (i) Livestock Policy in state level
- (ii) Fodder strategy
- (iii) Livestock Marketing strategy
- (iv) Meat policy
- (v) Dairy Policy
- (vi) Rangeland and pasture management strategy
- (vii) Insect (locust) and parasite control strategy
- (viii) National Agribusiness strategy
- (ix) Transhumance Policy in state and Federal level
- (x) Hydraulic Policy in Federal and State level
- (xi) Puntland animal welfare review

- (xii) Quarantine act for Puntland
- (xiii) Livestock extension Policy (Puntland)

#### **15.1.8. *Agriculture Strategy Plan (2016-2020)***

The document has many parts in which section has specific purpose and the main one is to be the guide for prioritization of the ministry of agriculture of Somalia in federal level, it classifying the responsibilities and how the ministry is engaged all the activities related to its mandate. The strategy has also attached numerous actions plans and indicators intended to be fulfilled during 5-year period from 2016 -2020.

Agriculture strategy plan that covers five years from 2016-2020. The main objective the strategic plan is to promote farming related agriculture strategy that aimed at improving livelihoods for the agriculture community and economic recovery of Somalia through rebuilding the Ministry of Agriculture and other relevant institutions, improving and rehabilitating agricultural infrastructure, increasing local agricultural production; and strengthening resource mobilization capacity of the ministry

The agriculture sector—including farming, livestock and fisheries which are the backbone of the Somali economy. The sector has a crucial role in ensuring food security, job creation, income generation and foreign exchange earnings. Moreover, the challenges of agriculture sector are:

- Decline in per-capita production during the civil
- Poor agriculture infrastructure, drought, flooding, lack of agriculture inputs and markets, and lack of an enabling environment.
- Capacity limitations of the Ministry of Agriculture (MoA) with all other agricultural institutions
- Absence of critical policies, rules, regulations and legislative frameworks of the country

#### **15.1.9. *National Biodiversity Strategy and Action Plan (NBSAP) 2016-2025***

Significance of the biodiversity is key to the various species, agriculture and forestry in Somalia. Therefore, the national strategy of Biodiversity is creating mutual understanding among the stakeholders of different administration levels of the country. The ecosystem is sustained collaboration among partners while each of them providing services and other life supporting activities. The inter-related biodiversity and economy has huge impact on the contributing watershed and nutrient cycle support to livestock and agriculture. The ecosystem goods and services (EGS) contribute essential energy such as charcoal and also improves resilience of drought and man-made disasters.

### **15.1.10. Draft Fishery Policy**

This is a draft of fishery policy and it is incomplete but it is required to be completed soon for improvement and harmonization of fishery in Somalia and what this policy reads are as follow:

- This policy is intended to address the sector's challenges and emerging issues. As well as to link with cross-cutting policies, plans, and tasks of national and regional bodies where they affect or interact with fisheries.
- This policy lays out the priority actions that the MoFMR and its stakeholders; to make the best use of the resources that it has available, which are limited by human resource issues, finance, and logistics.
- This policy also aims to be realistic, pinpointing objectives that can be achieved relatively quickly and those that will take a lot of time to develop and implement.

The key challenges of the fishery Somalia include:

- Human capital challenge
- Institutional challenge specifically policies, strategies and regulations
- Finance challenge
- And lacking infrastructure and public private partnership

#### **Marine Fishery Policy Paper**

This policy paper discusses the current state of Somalia's fisheries and the consequences of illegal, unreported, and unregulated (IUU) fishing. For more than thirty years, the fisheries sector has been overlooked, with civil war destroying fishing communities and illegal fishing and also badly devastated.

Again this paper contributes to the debate on policy options for rehabilitating the sector and aims to draw policymakers' attention to recommendations on developing a strategy for sustainable fisheries management and eradicating illegal fishing. Factors that appear to have a negative impact on the long-term development of Somalia's fisheries sector are prevalent in many African countries.

Open-access fisheries, insufficient governance capacity at the national and local levels, poor management of offshore resources, and insufficient financial investment in infrastructure are examples. These factors have resulted in an uncontrolled increase in fishing pressure, an increased risk of overfishing, and widespread illegal, unreported, and unregulated (IUU) fishing in Somalia and Somaliland.

Fisheries resources have yet to realize their full potential. Many years of political insecurity have stymied progress made in the years following independence, as well as diverted attention away from fisheries development. With the gradual restoration of peace and stability, the fisheries sector could contribute to food

security, the provision of nutritious food, employment, and foreign exchange earnings.

#### **15.1.11. *Draft National Gender Policy of Somalia***

This policy aims to generate a framework to guide the methodology of developing legislation, policymaking, execution, and initiatives that will encourage equal rights and opportunities for men and women in all aspects of life.

The National Gender Policy was created at a time when Somalia was emerging from a destructive civil war that had destroyed the country's social, political, and economic structures. Men and women have been affected differently by the conflict. For example, both women and men have lost state protection, loved ones, livelihoods, and access to social services.

The negative effects of the conflict, Somali women became the primary income providers for their families, taking on new roles and responsibilities to ensure their family members' basic survival. Women, on the other hand, are excluded from decision-making. Tackling gender discrimination is a basic requirement for post-conflict Somalia's recovery, peace, and sustainable development.

#### **15.2. Somaliland Laws and Legislations**

The Somaliland Constitution. The Somaliland constitution, which provides the key legal framework for management of environmental affairs in the territory, was effected in the year 2001. Article 18 of the constitution, which focuses on the environment and the care of the natural resources, avers that the state shall give a special priority to the protection and safeguarding of the environment, which is deemed as being “essential for the well-being of the society”. It therefore follows that development projects have to comply with the constitutional provision that obliges developers to ensure a clean and healthy environment.

Article 12 of the Constitution focuses on public assets, natural resources and indigenous production. The Article states that the central state (government) is responsible for the natural resources of the country, and shall take all possible steps to explore and exploit all these resources which are available in the nation's land or sea. The protection and the best means of the exploitation of these natural resources shall be determined by law.

The autonomous region of Somaliland has also introduced an Environmental Management Act in 2014. This act introduces EIA as an instrument, as well as other environmental norms and standards.

Somaliland National Environment Policy. The National Environment Policy (NEP) of Somaliland provides a framework for the sustainable management of the territory's environment and natural resources. The policy seeks to ensure that the

territory's natural resource assets retain their integrity to support the needs of the current and future generations. This policy, developed in 2015 by the Ministry of Environment and Rural Development, addresses the nexus between poverty alleviation, food security and national development objectives. The policy emphasises on the need to establish new prospects for the improvement to the standard of living, which enable people to become self-sufficient and realize their own potential without damaging the environment.

The policy seeks to catalyse the implementation of sustainable environmental, social and economic development initiatives for equitable benefits sharing. The policy advocates for community participation, information dissemination, environmental education and awareness raising and gender equality in order to fully harness the Somaliland's "latent capacity" in this regard.

### **15.3. Puntland Laws and Legislations**

The legislative and policy environment in Puntland is still adjudged as weak, although there has been much greater progress here as compared to Somalia. Puntland's Constitution envisages, in Article 96, the importance and protection of the environment. Among the key features include combating deforestation, soil erosion and pollution. The Constitution forbids exportation of charcoal trading in endangered plant and animal species. Prohibition has been placed too on creating of unsustainable urban-like sprawls in rural settings.

The National Environmental Policy (2015) provides the overall guiding policies relating to the management of the environment and natural resources. This policy allows a rationalisation of administrative regulations and policies to eliminate deficiencies or inconsistencies with other previous policies. The policy promotes the use of appropriate environmental assessment instruments such as the EIA and Strategic Environmental Assessment.

In Puntland, the ministry dealing with environmental matters is the Ministry for Environment and Climate Change (MoECC). This ministry collaborates with the Humanitarian Affairs and Disaster Management Agency (HADMA) in the development of climate change, early warning and drought resilience strategies.

The MoECC has responsibility for climate change mitigation and adaptation strategies, supported by a five-year plan (2017-2021). The existing laws and regulations include the following:

- Environmental Policy (2014) approved by the Cabinet and Parliament
- Environmental Management Act (2016) approved by the Cabinet;
- Puntland Rangeland Management Policy 2nd Edition (2016-2025);
- Puntland Waste Management Policy (2016);
- EIA Act and Regulation (2016) approved by Cabinet and Parliament;
- Puntland Climate Change Strategy (2016); and

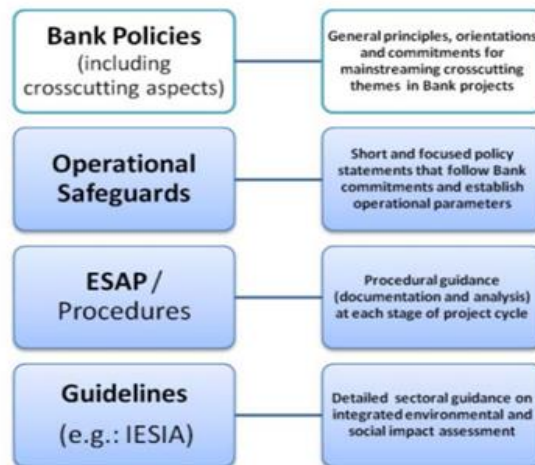
- Ministry of Environment and Climate Change Strategic Plan (2016-2020).

#### **15.4. Regional AfDB and IGAD Policy and Administrative Framework**

The African Development Bank Group (ADBG) Integrated Safeguards System (ISS) is a cornerstone of its strategy to promote growth that is socially inclusive and environmentally sustainable. ADBG-ISS are tools used for identifying risks, reducing development costs and improving project sustainability, accordingly promoting affected communities and helping to preserve the environment. ADBG-ISS equipped to address emerging environmental and social development challenges while encourages greater transparency and accountability. It advocates the voices of people who are affected by Bank-funded operations, especially the most vulnerable communities, by providing, project-level grievance and mitigation mechanisms by allowing the voices and concerns of affected people to be heard and addressed during project planning and implementation. The ADBG-ISS builds on the two previous bank safeguard, these are Involuntary Resettlement (2003) and Environment (2004) and on three cross-cutting policies and strategies: Gender (2001), the Climate Risk Management and Adaptation Strategy (2009) and the Civil Society Engagement Framework (2012). It also builds on the Bank's sector policies: Health (1996), Integrated Water Resources Management (2000), Agriculture and Rural Development (2000, 2010), and Poverty Reduction (2004).

The AfDB is committed to support borrowers and grantees to design and implement environmentally and socially sustainable projects, as well as to strengthen borrower's/grantees' capacity to assess and manage projects' environmental and social risks and impacts. The bank has established an effective integrated safeguard system (ISS) for inclusiveness and sustainable development of the region. The ISS is built around the following structural elements:





Source: *Concept Note: Toward an Integrated Safeguards System*. 2010. Approved by AfDB Operations Committee

Figure 1: AfDB ISS Structure

### The DBG-ISS four interrelated components:

**1. The Integrated Safeguards Policy Statement – Describes common objectives** of the Bank's safeguards and lays out policy principles. It is designed to be applied to current and future lending modalities, and it takes into account the various capacities and needs of regional member countries in both the public and private sectors. The policy statement founded on Balance the trade-offs between short-term profits and long-term development and environmental sustainability in financing projects; Strengthen regional member countries' (RMCs') institutional frameworks and governance to underpin environmental and social sustainability; Strengthen the Bank's compliance functions and units to ensure that mandatory and special environmental and social compliance monitoring and audit missions are fully implemented when the Integrated Safeguards System (ISS) is rolled out; Mobilize more financial resources to ensure the environmental and social sustainability of its investments and increase access to funding for civil society groups, as reliable and independent third parties, to support supervision and monitoring of projects; Participate with borrowers in supervising and monitoring compliance with environmental and social policies during project implementation; and Strengthen the capacity of RMCs' country systems to implement the Bank's environmental and social requirements.

**2. Operational Safeguards (OSs) -** are a set of five safeguard requirements that Bank clients are expected to meet when addressing social and environmental impacts and risks. Bank staff use due diligence, review and supervision to ensure that clients comply with these requirements during project preparation and implementation. OS1 sets out the Bank's overarching requirements for borrowers or clients to identify, assess, and manage the potential environmental and social risks and impacts of a project, including climate change issues. OSs 2-5 support

the implementation of OS1 and set out specific requirements relating to different environmental and social issues, including gender and vulnerability issues, that are triggered if the assessment process reveals that the project may present certain risks.

**3. Environmental and Social Assessment Procedures (ESAPs)** – provide guidance on the specific procedures that the Bank and its borrowers or clients should follow to ensure that Bank operations meet the requirements of the OSs at each stage of the Bank's project cycle.

**4. Integrated Environmental and Social Impact Assessment (IESIA)** – Guidance Notes provide technical guidance to the Bank's borrowers or clients on standards on sector issues, such as roads and railways, hydropower, or fisheries, or on methodological approaches clients or borrowers are expected to adopt to meet OS standards.

#### **15.4.1. International Conventions Signed and Ratified by Somalia**

**The 1992 United Nations Framework Convention on Climate Change (1992).** The primary purpose of the Convention is to establish methods to minimize global warming and in particular the emission of greenhouse gases. The Convention was adopted in 1992 and came into force in 1994. Somalia acceded the Convention in 2009. Somalia ratified the Kyoto agreement in 2010 and the Paris agreement in 2016.

**United Nations Convention on Biological Diversity (1992).** The Convention has three main goals including which are, the conservation of biological diversity (or biodiversity); the sustainable use of its components; and the fair and equitable sharing of benefits arising from genetic resources. Somalia acceded to the Convention in September 2009.

**Convention on International Trade Against Endangered Species (CITES):** The convention aims to protect endangered plants and animals. Somalia signed the Convention in 1985, and ratified it in 1986. Its current status is that of accession.

**Vienna Convention on the Protection of the Ozone Layer:** The Vienna Convention was an intergovernmental negotiation for an international agreement to phase out ozone depleting substance in March 1985. It ended in the adoption of the Vienna Convention for the Protection of the Ozone Layer. The Convention encourages intergovernmental cooperation on research, systematic observation of the ozone layer, monitoring of CFC production, and the exchange of information. Somalia ratified the Convention in 2001, and its current status is that of accession.

**United Nations Convention to Combat Desertification (2002).** The Convention combats desertification in those countries that experience serious droughts and/or

desertification. Somalia ratified the Convention in 2002, and its current status is that of accession.

**Convention on the Rights of the Child:** The Convention on the Rights of the Child from 1989 is the most comprehensive compilation of international legal standards for the protection of the human rights of children. It acknowledges children as individuals with rights and responsibilities according to their age and development, as well as members of a family or community. This includes non-discrimination, the best interest of the child, the right to life, survival and development and the right to participation. Somalia ratified the Convention in 2015.

**Constitution of the International Labour Organization:** The constitutional principle is that universal and lasting peace can be established if it is based on social justice. The ILO has generated such hallmarks of industrial society as the eight-hour work day, maternity protection, child labour laws, and a range of other principles. Somalia has been a member of the ILO since 1960.

**ILO Convention 182 on Worst Forms of Child Labour:** Ratification of this Convention makes a country commit itself to taking immediate action to prohibit and eliminate the worst forms of child labour. Some predefined worst forms of child labour include sale of a child, trafficking of children, forced or compulsory labour, commercial exploitation of children, prostitution or the production of pornography, and work by its nature that is likely to harm the health, safety and morals of children. The Convention was ratified by Somalia in 2014.

**UN Convention on the Rights of the Child:** The Convention is a Human Rights treaty that sets out the civil, political, economic, social, health and cultural rights of children. It defines a child as any human being under the age of 18 unless the age of majority is attained earlier under national legislation. The Convention was ratified by Somalia in 2015.

**Forced Labour Convention (1930/no. 29):** The key objective of the Convention is to suppress the use of forced labour in all its forms. It defines forced labour as 'all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily'. The Convention has been in force in Somalia since 1960.

**Rotterdam Convention:** This is a multilateral treaty that came into effectiveness in 2004. The purpose is to promote shared responsibilities in relation to importation of hazardous chemicals. The convention promotes open exchange of information and calls on exporters of hazardous chemicals to use proper labelling, include directions on safe handling, and inform purchasers of any known restrictions or bans. Signatory nations can decide whether to allow or ban the importation of chemicals listed in the treaty, and exporting countries are obliged to make sure that producers within their jurisdiction comply. Some types of asbestos are listed as banned under this treaty but Chrysotile asbestos is not yet banned though there

is global discussions to include it on the listed chemicals. Somalia acceded the Convention in 2010.

**Convention on the Elimination of All forms of Discrimination against Women (CEDAW 1981):** The CEDAW affirms that gender equality is a precursor for development and peace. It establishes legal standards for the attainment of gender equality through the elimination of discrimination against women in all aspects of political, social, economic and cultural life. It highlights the importance of equality and equal opportunity in political and public life as well as education, health and employment. Ratifying Governments are required to set in place measures to enable and expedite gender equality in law and fact as well as confronting the underlying social political inequalities that perpetrate asymmetrical power relations based on gender. Although FGS is yet to ratify CEDAW, although the Cabinet has approved it subject to ratification by parliament.

**Protocol to the African Charter on Human and People's Rights on the Rights of women in Africa (Maputo Protocol):** Somalia has signed but not ratified the Protocol.

#### **15.4.2. Drought Disaster Resilience and Sustainability Initiative (IDDRSI) Strategy<sup>1</sup>**

The IGAD Drought Disaster Resilience and Sustainability Initiative (IDDRSI) aimed at building the resilience of vulnerable communities to the effects of recurrent droughts and achieving simultaneous growth and sustainable development in the IGAD region. This initiative was launched in 2013 as a regional undertaking, following a collective decision to end drought emergencies, which was made by a Summit of the Heads of State and Government from countries in the Horn of Africa region, Development Partners and other stakeholders, which was held in Nairobi in September 2011<sup>2</sup>. The IDDRSI Strategy was developed as a 15 year proposition for implementation in three 5-year phases, with a design feature of a review at the end of each phase to assess the status, relevance and effectiveness of implementation and inform prescriptions for subsequent phases. The IDDRSI Strategy (2019 – 2024) shares most of the features covered in the previous phase; but notably, the new phase has 8 instead of the previous 7 priority intervention areas (PIAs), the new PIA being on Human Capital, Gender and Social Development.

IDDRSI focuses to Arid and Semi-arid Lands (ASALs) region, the predominant livelihood system in the ASALs is pastoral and agro-pastoral production. These

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<sup>1</sup> Source: (IGAD, 2019)

<sup>2</sup> IDDRSI was conceived as a regional initiative to drive a regional agenda for developing and harmonizing policies, strategies and systems throughout the IGAD region, involving efforts aimed at ending drought emergencies, based on the understanding, as stated by the September 2011 Summit, that “droughts need not, and should not, lead to famine and other disasters, in the region.

include livestock production and rain-fed crop agriculture as well as practices of exploiting non-wood forest products, all of which continue to bear the brunt of climate extremes and harsh environmental circumstances. The ASALs remain constrained by the poor resources allocation from the public sector. The pastoralists are constantly on the move within and outside their national boundaries, in search of pasture and freshwater resources. The movement of people and their animals often causes conflicts and frequently necessitates regional intervention to resolve conflicts or prevent their occurrence. Drought displaces a large number of communities that lose their traditional means of livelihood (pastoralism, crop farming or fishing) and creates a generation of —climate refugees, often resulting in conflicts between communities, within and across borders.

In the past, the approaches used or advocated by governments, development partners and humanitarian agencies, to respond to drought and related emergencies, were in the form of reactive humanitarian relief interventions, usually based on the action of individual Member States or international agencies. IDDRSI advocates a coherent architecture of international action that involves the enhanced cooperation of all IGAD Member States working concertedly, in a coordinated manner, as a region. This method of work emphasizes the need for coordination; as well as shared programming, which also highlights the need for simultaneous action. The emphasis is on building resilience and sustainability with a focus on the vulnerable communities in the ASALs; it is about managing risk as opposed to dealing with emergencies. IDDRSI requires that interventions against drought and related emergencies employ approaches that are pre-emptive, rather than reactive, holistic rather than independent, long-term instead of short-term and combining relief with development interventions. Cross-border cooperation is one of the features of IDDRSI. IDDRSI Eight Priority Intervention Areas (PIAs)

**PIA (1):** Natural Resources and Environmental Management

**PIA (2):** Market Access, Trade and Financial Services

**PIA (3):** Enhanced Production and Livelihoods Diversification

**PIA (4):** Disaster Risk Management

**PIA (5):** Research, Knowledge Management and Technology Transfer

**PIA (6):** Peace Building, Conflict Prevention and Resolution

**PIA (7):** Coordination, Institutional Strengthening and Partnerships

**PIA (8):** Human Capital, Gender and Social Development

The IDDRSI Strategy recognizes that to harness the full potential of a growing population whose majority is aged under 18 years, requires building skills, creating jobs and providing equal opportunities as well as comprehensive arrangements for human capital development. Education, nutrition, health and safety nets are important ingredients for the success of all interventions, including IDDRSI, aimed at achieving economic growth and poverty reduction. IDDRSI strategy further acknowledges the dynamics of the mobility dimension in the region and therefore seeks to harness the development potential of safe, orderly and regular mobility as well as promote migration as an adaptation strategy for mitigating against

natural disasters and climate related displacement risks. In consideration of the recommendations made during the exercise to mainstream gender into the IDDRSI Strategy (2013 – 2017) and related CPPs, the current IDDRSI Strategy has upgraded gender from a cross-cutting issue, as it was in the previous strategy, to a substantive component integrated within IDDRSI interventions to ensure that responses to the priority needs of women and men are met; and there is awareness of what benefits or adverse effects could impact either.

### **15.5. Little Existed Environmental and Social Impact Assessment Guidelines in Somalia**

In Somalia, there is wider gap in the guidelines and tools for the environmental and social safeguards.

The specific laws that contain aspects which provide social and environmental protection include:

- Law No. 65 of 18 October 1972 to promulgate the Labour Code.
- Somali Fisheries Law (Law No. 23 of November 30, 1985)
- Somali national Water Law of 11 November 2017

The Federal Government of Somalia has also developed, or is the process of developing, numerous environmental policies for a selection of legislative instruments governing the environment and natural resources. Despite the existence of these policies, many gaps remain.

The previous Ministry of Natural Resources, which was responsible for environmental management, drafted a National Environmental Policy that was never finalized. The policy specifically addressed climate change as a major challenge, and referred to the National Adaptation Programme of Action as the guiding document for taking further action

Policy on land degradation is also limited. While Somaliland has its Law on Prevention of Deforestation and Desertification (1998) and the Constitution of Puntland in Article 96 specifically mentions deforestation, erosion, biodiversity, urbanization, and pollution, Somalia also has no land use policies, environmental impact assessment procedures, or water quality guidelines at the federal level

Due to a misappropriation of resources, land issues and natural resource conflicts between sedentary farmers and nomadic pastoralists are common

There is also no single specific law or government regulation addressing biodiversity issues. However, biodiversity is directly or indirectly mentioned in several policies. The most significant mention is within the fisheries and forestry laws of Somaliland and Puntland. The environmental policies at the federal level also address biodiversity matters.

Overall, the policy and legislative framework in Somalia is weak. While Somaliland and Puntland have made much greater progress due to a longer period of stability, in central and southern Somalia development is hindered by continued insecurity

Analysis of the overall policy framework of Somalia and the assorted regulatory frameworks suggests that there is no clear mandate for the governance of the environment in Somalia. Several ministers dispute environmental issues in Somalia, and there is uncertainty regarding mandates. There are limited policies and regulatory frameworks in place; most are in their infancy and need to be supported to their completion and implementation.

The situation is exacerbated by poor knowledge and awareness among policymakers and key decision makers in environmental protection and social safeguards. . Many decision makers do not fully understand the long-term linkages between human activities and the global environment, and consequently environmental initiatives receive inadequate funding and support.

Another important constraint is the limited technical and analytical capabilities of the government ministries and departments, which lead to weak enforcement of laws, rules, and regulations. During consultations, stakeholders highlighted the need to develop a national system for environmental management, increase awareness, recruit professional staff, and undertake training. A key development need is thus a strong capacity-building programme to strengthen the country's absorptive capacities for improved environmental governance.

## 16. THE PROJECT

### 16.1. Project Description

#### 16.1.1. Overall Objective of the Project

The overall objective of the HOA program as defined by the AfDB project identification mission of June 2019 is to contribute to improving the living conditions of the populations and food and nutritional security in the Horn of Africa.

#### 16.1.2. Specific Objectives

Specifically, the HoA program aims to:

- i) Increase, on a sustainable and resilient basis, the productivity and agropastoral production in the Horn of Africa
- ii) Increase income including accessing funds and technology to promote value addition for agropastoral value chains, and;
- iii) Strengthen the capacity of populations to better adapt to the risks of climate change.

#### 16.1.3. Definition of the BREFONS Program

Program Objectives: The overall goal of the Program is to build resilience for food and nutrition security in the HoA which will contribute to improve living conditions of the people of the HoA including women and the youth. The specific objective of the Program is to build resilience to food insecurity and climate change by enabling participating countries to (i) increase the agropastoral productivity and production systems across the regional clusters, (ii) increase value chain competitiveness and trade and incomes from agropastoral value chains, and (iii) enhance the adaptive capacity of the populations to better prepare for and manage climate change risks and variation.

2.2.1 Program Components: The proposed program is structured under three components: (i) Strengthening the resilience Pastoral and Agropastoral Production systems to Climate Change; (ii) Supporting Agribusiness Development; (iii) Strengthening the Adaptive Capacity of Agro-Pastoral Communities to Climate Change; and (iv) project management and coordination. A brief description of the components is presented in the Table below.

Table 1: Summary of the project components

Component 1	Sub-Component Description and Costs (UA million & % allocation)
Strengthening the resilience of drought prone areas and Pastoral	<b>Sub-component 1: Support for Sustainable Management of Agro-pastoral land</b> , proposed activities revolving around sustainable agricultural land management and the sustainable management of pastoral lands <b>Sub-component 2: Development of Climate Resilient Infrastructure</b> and proposed activities revolving around Agricultural Infrastructure - adapting



<b>and Agro-Sylvo-Pastoral Production systems to Climate Change</b>	farming systems to climate change, pastoral infrastructure and economic diversification <b>Sub-component 3: <i>Promotion of Climate-smart innovations and technologies</i></b> proposed activities revolving around the promotion and diffusion/ vulgarization of CSA technologies, knowledge management and technology transfer and improved nutritional status of households
<b>Supporting Agribusiness Development</b>	<b>Sub-component 1: <i>Support for Sustainable Management of Agro-pastoral land</i></b> , proposed activities revolving around sustainable agricultural land management and the sustainable management of pastoral lands <b>Sub-component 2: <i>Development of Climate Resilient Infrastructure</i></b> and proposed activities revolving around Agricultural Infrastructure - adapting farming systems to climate change, pastoral infrastructure and economic diversification <b>Sub-component 3: <i>Promotion of Climate-smart innovations and technologies</i></b> proposed activities revolving around the promotion and diffusion / vulgarization of CSA technologies, knowledge management, technology transfer and improved nutritional status of households
<b>(Component 3)</b>	<b>i. Sub-Component Description and Costs (million &amp; % allocation)</b>
<b>Strengthening Adaptive capacity to Climate Change</b>	<b>Sub-component 1: <i>Development of Climate Services</i></b> : activities revolving around improving the quality of climate data and generation/dissemination of climate information and services <b>Sub-component 2: <i>Building capacity of main stakeholders in the agro-pastoral sectors in the drought prone areas for mainstreaming and monitoring Climate Change</i></b> , Activities revolving around knowledge development and dissemination, Monitoring-resilience assessment, support for the establishment of livestock and crops insurance <b>Sub-component 3: <i>Strengthening the Operational Capacity for resilience</i></b> , activities revolving around the development of tools and dissemination, support for IWRM in Selected Shared Small River Basins and Aquifers and support for operationalization of countries Nationally Determined Contributions (NDCs) ii.
<b>Program coordination and management.</b>	It beyond our assignment only can be estimated by Regional level. i. Effective and efficient regional management and coordination of the HoA Program by IGAD

The overall goal of the Somalia component is to contribute to poverty reduction and accelerated economic growth on a sustainable basis in Somalia. This will be achieved by investing in natural resources (water, pasture) management, integrated land management and ecosystem restoration and protection as well as rebuilding of agricultural and livestock infrastructures.

The medium- and long-term goal of the project is to stabilize the pastoral and agropastoral production systems and improve livelihoods and resilience of the production systems.

#### **16.1.4. Project Locations**

The specific program locations are in the six states of Somaliland, Puntland, Galmudug, Hirshabele, Jubaland and South West and Benadir Administration.

The program target locations include some of the most arid and drought-affected locations in Somalia. The target program locations are related to the ongoing clustered projects including:

- Dikhil Cluster (Somalia-Ethiopia-Djibouti) and surrounded arid districts that has social, economic and environmental impact with HoAI and DRSLP II project (Somalia )
- Tuur-dipe Cluster (Somalia--Ethiopia) - this cluster could cover the Hawd areas between Mudug (Puntland) and Togdhere regions (Somaliland) that has social, economic and environmental impact with HoAI and DRSLP II project (Somalia )
- HiranCluster (Somalia--Ethiopia) and surrounded arid districts that has social, economic and environmental impact with HoAI
- Mandera cluster (Somalia-Kenya – Ethiopia) and surrounded arid districts that has social, economic and environmental impact with HoA

Summary of Components, Subcomponents and Activities in Somalia is shown in Table 2 below.

Table 2: Summary of Components, Subcomponents and Activities  
Table B3.1: Project Components, Subcomponents and Activities

<b>Component 1. Strengthening the resilience of Pastoral and Agropastoral Production systems</b>	
<b><i>1.1 Development of Climate Resilient Infrastructures for Agropastoral Production Systems</i></b>	<ul style="list-style-type: none"> <li>• Construction of 42 small earth dams (water pans) with 20,000 - 25,000 m<sup>3</sup> volume.</li> <li>• Construction of 23 community Berkeds (covered water pans)</li> <li>• Upgrade/Equip of 3 Boreholes</li> <li>• Procurement of 12 Mobile Veterinary Clinics</li> <li>• Training of management committees (30% of women) for water and other infrastructures</li> <li>• Supervision of works &amp; Technical Studies</li> </ul>
<b><i>1.2 Sustainable Management of Agropastoral lands</i></b>	<ul style="list-style-type: none"> <li>• Establish six (6) State infrastructures for rangeland monitoring and drought early warning systems</li> <li>• Mapping of state pasture and rangeland, degraded areas for restoration, and livestock routes</li> <li>• Plus, regional land activities in Table B3.2</li> </ul>

<b>1.3 Climate Smart Technologies and Innovations</b>	<ul style="list-style-type: none"> <li>• Deployment of climate smart/improved varieties for livestock feed sector and support to the establishment of fodder banks in six locations (Somaliland, Puntland, Galmudug, Hirshabelle, Southwest and Jubbaland)</li> <li>• Plus, regional activities in Table B3.2</li> </ul>
<b>Component 2. Supporting Agribusiness Development in Pastoral Communities</b>	
<b>2.1 Facilitating Access to Market and Digital Advisory Services</b>	<ul style="list-style-type: none"> <li>• Upgrading/Equipping of 2 Abattoirs</li> <li>• Construction of 10 Livestock Markets with Fence and Shade</li> <li>• Construction of 11 Animal Health Border Posts with fencing and cattle crushes</li> <li>• Improvement of 1000 km of Stock Routes</li> <li>• Feasibility study/assessment of digital readiness and identification of entry points to utilize digital adaptation solutions.</li> <li>• Supervision of works &amp; Technical Studies</li> <li>• Stakeholder training on the use of digital tools for agribusiness and livestock management.</li> <li>• Provision of advisory to pastoralists and farmers on climate smart SLM practices via mobile SMS</li> <li>• Plus, regional activities in Table B3.2</li> </ul>
<b>2.2 Support to Livelihood Diversification</b>	<ul style="list-style-type: none"> <li>• Provision of inputs, and access to finance for alternative income generating activities in renewable energy (solar and biodigester systems) for women and youth groups</li> <li>• Training of the youth and women in the manufacture, application and maintenance of bio-digesters and solar energy systems</li> </ul>
<b>Component 3. Strengthening the Adaptive Capacity to Climate Change</b>	
<b>3.1 Development and improvement of weather and climate services</b>	Regional activities detailed in Table B3.2
<b>3.2 Mainstreaming Climate Risk Finance and Insurance</b>	<ul style="list-style-type: none"> <li>• Design and validate suitable climate risk contracts for climate and livestock insurance in Somalia</li> <li>• Develop framework and structure PPP providing incentives for private sector insurance companies roll out of Index-Based Livestock Insurance (IBLI) products</li> <li>• Plus, regional activities in Table B3.2</li> </ul>
<b>3.3 Operational and Institutional Capacity for Climate Adaptation and Resilience</b>	<ul style="list-style-type: none"> <li>• Regional activities detailed in Table B3.2</li> </ul>
<b>Component 4. Project management and coordination</b>	
<ul style="list-style-type: none"> <li>• Project management and coordination at national and regional state levels.</li> </ul>	

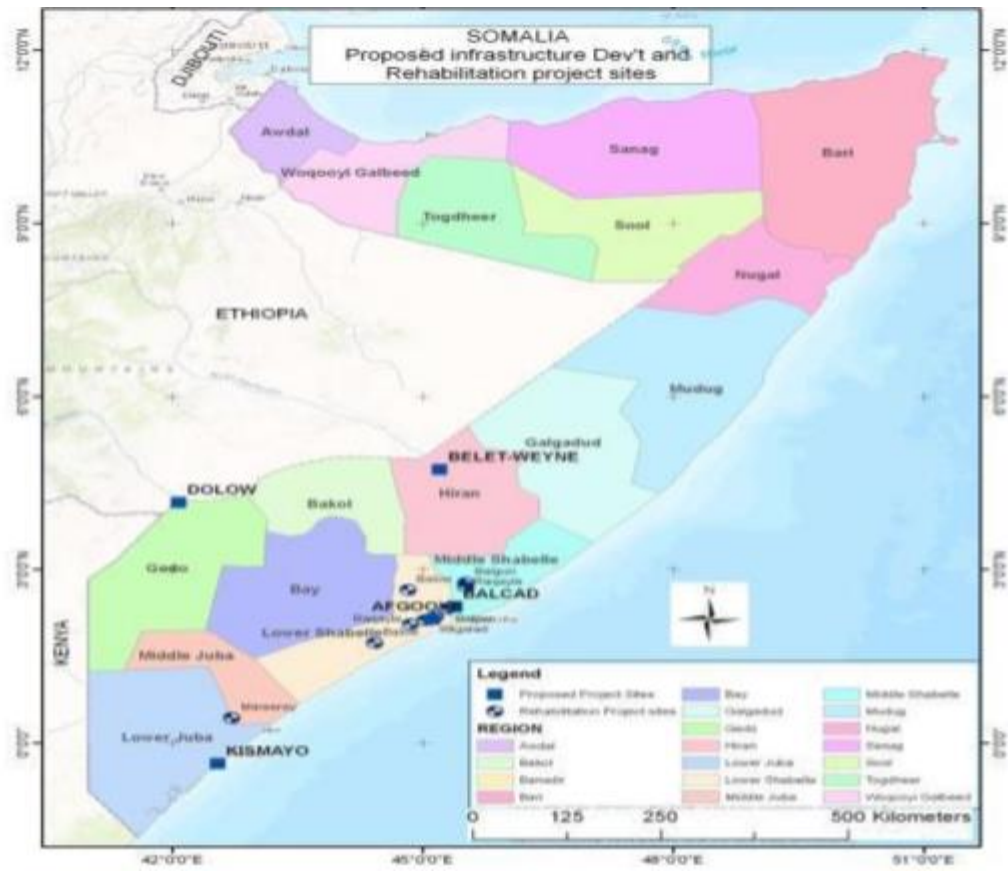


Figure2: Somalia Map

## **17. POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS**

An assessment was carried out to identify potential environmental and social impacts associated with the project. This report provides detailed Environmental and Social Management Framework that will guide the management and implementation of the site-specific ESMPs, suggesting mitigation measures, monitoring parameters and responsibilities.

The proposed projects are classified in category two projects there are no significant emission sources they are less adverse than those of Category 1 projects and can be minimized by applying appropriate management and mitigation measures or incorporating internationally recognized design criteria and standards.

Pastoralist and agro pastoralist live in poverty and their lifestyle is linked to natural resources so that they are highly vulnerable to climate change. Because some development projects have a negative impact on the environment, e.g. depletion of forests – primarily for household fuel use – threatens biological diversity, human communities, and reduces other valuable services forests provide. Other risks include soil and water contamination and pollution.

### **17.1. Major steps of Environmental and Social Impact Assessment**

During the project implementation stage, a more detailed analysis of the environmental and social impacts will be carried out in all target locations across federal and state level projects sites. Consequently the analysis is based on the critical issues experienced in the DRSLP-II Project area, and through determining what effects the proposed project components and activities will have as a whole.

In Somalia, there is a wider gap in the tools and guidelines of conducting ESMF. Therefore, the AfDB guidelines will be applied.

AfDB Integrated Safeguards System (ISS) to address gaps in policies and procedures in Somalia and it will enable the HoA program to be implemented in compliance with the AfDB Standards. As such, it will serve as the basis for AfDB's time-bound action plan.

AfDB has adopted various environmental and social policies and procedures in order to ensure that its projects do not cause undue harm to people and the environment. These include Environmental and Social Assessment Procedures (ESAP) for its public sector operations, Environmental Review Procedures (ERP) for its private sector operations, a Policy on the Environment, an Involuntary Resettlement Policy, etc. AfDB also has an environmental and social assessment system that includes requirements for preparation of environmental and social impact assessments (ESIAs) to prevent, minimize or mitigate any potential adverse impacts from AfDB operations. Furthermore, AfDB has extensive

experience and demonstrated capacity implementing these environmental and social policies and requiring preparation and implementation of ESIA's.

## **17.2. Potential Negative Environmental and Social Impacts**

Notwithstanding the positive effects expected from the Program and its activities, these can also may also have negative environmental and social as well as human health impacts mainly during the construction and operation phase of the projects/activities especially those related to infrastructure. Potential negative environmental impacts are expected to be related to of agrochemicals for crops and livestock, disposal of chemicals and containers, loss of vegetation, soil erosion, soil contamination, water and air pollution, , occupational safety and health issues during animal dips and in the veterinary laboratories, etc.

In general, some negative impacts may include:

- Construction of valley dams has potential to disturb the landscape around the dam through site clearance, excavation, establishing areas for storage equipment and construction materials, establishing accommodation facilities and parking, access roads. Such works can have impacts on the integrity of the environmental settings around the area. This is to be mitigated through ensuring that, works are kept to the minimum and restricted to the sites designated for the valley dams and their support facilities. In addition, the contractors should stockpile the topsoil excavated for restoration and re-vegetation of the site after works which will allow for normal re-vegetation and prevent any subsequent erosion and siltation;
- Earth Dam construction creates borrow pits which degrade the environment through extraction of fill materials for embankments. The borrow pits if poorly restored can be breeding sites for malaria and other water based vectors. The contractors should restore borrow areas as part of their contracts and the obligation should be built in the contract and the District Environment Officers should certify to ensure compliance;
- The excavation works for valley dams generates volumes of cut to spoil materials which will need to be disposed from the site. In addition, the cut to spoil materials generates loose soils that can silt the water sources. It is proposed that, the contractors will lease dumpsites for the cut to spoil materials and should be sited outside water sources. The sites be leased from landlords in the area after a negotiated payments for such sites;
- The construction and rehabilitation works involves use of plant equipment whose storage and operations can have attendant impacts on environment in terms of noise and compaction of soil thereby affecting soil percolation ability.
- During construction process will involve fairly light equipment which will have minimum impacts on soils. Also, the works will be of short-term nature thus reducing impacts on environment;
- In addition, dam embankments can pose safety risk to both livestock and the communities. If the banks are high, safety of cattle to access water becomes an issue as well for the communities to draw water. In some instances, children

can be tempted to swim in the dams and may end up drowning. Fencing the dams and reservoir may be required to prevent access to the embankment and its reservoir. This will serve to control access to deep sections. Secondly, sensitizing communities on the risks associated with the dams be done before they are operational. In all, provision be made for safe watering and collection of water by the communities;

- Construction based impacts arising from excavation works during construction markets and associated project infrastructures will generate dust and other health associated implications on the workers and neighboring communities. This is to be mitigated through provision of Personal Protection Equipment (PPEs) and observing good engineering practices during construction;
- Potential loss of vegetation cover through site clearance will be mitigated through limiting excavations to areas needed for establishment of project infrastructures and subsequent site restoration after works;
- Site clearance works for infrastructure such as slaughter construction can lead to soil erosion, loss of vegetation and sedimentation of nearby water areas. This can be mitigated through restricting works to designated areas and planting vegetation after close of works;
- The construction of slaughter facilities will raise issues relating to construction waste management, dust and noise amongst others. The contractor will follow best construction practices as will be enshrined in the contract;
- Accumulation and management of solid waste during operation of markets. This can be addressed through contracting out the operations and management of such markets by the area local governments;
- HIV/AIDS is one of the potential concerns resulting from operations and consumption of Khat, alcohol.. This should be done by the project through collaboration with existing HIV/AIDS service providers;
- Operation of the cattle markets can bring about transmission of livestock diseases. The area Veterinary staff will issue movement permits for cattle that are to be taken to the markets and this will be done after inspection of the animals to ensure they are healthy and fit for human consumption;
- Apart from meeting a basic human need, new water points could have a direct impact on the spread of livestock and human diseases since most water sources are shared in the region. The Project will sensitize communities on risks of sharing water sources with livestock;
- If new water point construction does not take into account grazing patterns, it has risk of creating environmental degradation by promoting permanent grazing patterns in which, pastoralism tends to concentrate around water sources. The project in its plan, has attempted to spread out its plan on water supply interventions to create evenness of water availability to avoid this concern;
- The plan to support alternative income generation enterprises at household levels will require careful planning and consultations to avoid gender based violence especially when husbands want to grab all the resources at the expense of the wives;

- Increased agricultural production as a form of livelihood diversification and land use may come at the expense of use seasonal grazing areas;
- The same impact may occur outside the country's borders (trans- boundary impacts): because of different coping skills and capacity between groups / tribes at borders but also because of strategic, regional and intra state conflicts (in Somalia for example), some of them (groups) may expand and migrate into rangelands that are accessible to the other groups outside their own borders, thus creating conflicts and even wars. One of the mitigation measure will be to seek and accept international arbitration when such conflicts occur but also to prevent these types of conflicts by organizing public consultations under the guidance of IGAD and a dialogue committee.

### **17.3.Potential Positive Environmental and Social Impacts of the Project**

It is expected that the Program\* will be beneficial to communities and to the environment since environmentally and socially sound natural resource management;;; market center development; livelihood development; pasture rehabilitation and incorporation of forage crops into pastures; etc. will be implemented.

Potential social impacts from the projects may be related to (a) land acquisition, tenure and use and property losses and restriction from access to resources as a result of implementing the above infrastructure projects; (b) water use conflict (if any) between the upstream and downstream water users; (c) exclusion of vulnerable and underserved groups or women from participating in, and benefiting from, project interventions; (d) increase in malaria and water borne diseases; and (e) impact on physical and cultural resources.

The HoA program is expected to have the following positive impacts:

- Infrastructure facilities are to be shared by different ethnic groups and this can help achieve peace building goals of increasing interaction and fostering cooperation;
- Better and hygienic environment for trade in livestock and livestock products will be established by the project which will be a large positive benefit to the communities and local governments;
- The implementation of the project will bring about employment opportunities for people in the community;
- The planned rehabilitation and construction of dams will provide sources of water for the pastoral communities which in the long run can bring about change of their lifestyles from pastoral to sedentary agriculture;
- The cattle markets once constructed will be sources of income for the local governments through collection of market dues;
- The cattle markets will also have good waste management facilities in their vicinity through the project such as toilets;



- The project plans to focus on supporting appropriate alternative income generating enterprises for the households. This has a very large positive impact in terms of socio-economic empowerment of the households and creating food security at household level;
- Demarcation of livestock routes will make control of diseases fairly easier as veterinary staff can then manage the movement of livestock in cases of livestock disease out-breaks;
- Training of local veterinary staff, Community Animal Health Workers (CAHWs), local leaders, and overall veterinary staff will enhance skills for livestock health management in the communities.
- Therefore, the capacity building in the project will help to develop skill for modern agriculture in the districts and the communities for better delivery of services for social and economic transformation;
- The Project areas will have better information on natural resources especially range lands which will help pastoralists adapt to changing and harsh climatic risks there by minimize loss of livestock;
- Some groups in the Project area are both agriculturalists and pastoralists who keep cattle, goats, and sheep. The new facilities including water points, markets, and rehabilitation of rangelands will improve upon their pastoral livelihoods and access to market in addition to recognizing their rights to natural resources especially watering points;
- Distribution of drought tolerant crops will provide the project beneficiaries with drought tolerant crop varieties to overcome famine one of their major problems. The groups will also benefit from extension services to realize sustainable food production to feed their communities. This will all enhance the agricultural skills of the project beneficiary communities thereby enhancing their sustainable livelihoods;
- Upgrading of existing regional veterinary laboratories will further improve delivery of veterinary services and general better management of diseases;
- The project will put in place pesticide management facilities which will safeguard environment from pollution from such agrochemicals; and
- Revitalization of strategic animal check points and holding grounds under the project will ensure measures for disease control will be enhanced thereby curbing aspects of disease spread and thefts.

## **18. PROPOSED MITIGATION AND ENHANCEMENT MEASURES AND ESMP MANAGEMENT PLAN.**

### **18.1. Introduction**

This section articulates the mitigation measures against the potential negative environmental and social impacts mentioned in chapter 6 above. Table 4 below list down potential impacts and mitigation measures for agricultural water and community water supply development and management projects and subprojects. Table 4 is for (a) improvement and/or upgrading of traditional schemes; (b) improvement and/or rehabilitation of malfunctioning and partially functioning existing schemes; (c) construction of new SSI schemes such as micro-dams, gravity and pump diversions, and groundwater development (shallow wells), whereas, table 5 is for construction of small dams and other water harvesting and storage structures for irrigation purpose, and table 6 is for the potential environmental and social impacts of and mitigation measures for boreholes and livestock infrastructure.

## 18.2.Environmental and Social Management Plan (ESMP)

Table 3: Potential environmental and social impacts of, and mitigation measures for various existing projects/schemes

Activities	Potential Environmental/Social Impacts	Potential mitigation measures	Institutional Responsibility
Construction of water pans/small earth dams, berkads Construction of community Berkeds (covered water pans)	<ul style="list-style-type: none"> <li>Water pollution from construction and waste disposal</li> <li>Soil erosion</li> <li>Destruction of vegetation, sanitary and health problem from the construction camp</li> </ul>	<ul style="list-style-type: none"> <li>Careful location of camps, buildings, borrow pits, quarries, spoil and disposal site</li> <li>Precaution to minimize soil erosion</li> <li>Land reclamation of pit/quarry site</li> </ul>	
	Loss of land (agricultural, forest, range, wetland) by inundation to form reservoir	<ul style="list-style-type: none"> <li>Sitting of dam to decrease losses; decrease of size of dam and reservoir; protect equal areas in region to offset losses</li> </ul>	
	Formation of sediment deposit at reservoir entrance creating backwater effect and flooding and water logging upstream	<ul style="list-style-type: none"> <li>Sediment flushing, sluicing</li> <li>Upper catchment treatment using soil and water conservation measures including area closure</li> <li>Constructing silt trap</li> </ul>	
	Poor land use practices in catchment areas above the reservoir resulting in increased siltation and loss of storage capacity	<ul style="list-style-type: none"> <li>Land use planning efforts which include watershed area above the dam/reservoir/pond</li> <li>Control of land use in watershed (especially prevention of conversion of forest to agriculture)</li> </ul>	
	Creation of quarry sites or borrow pits (to get selected materials for construction) that cause spread of vector born disease, safety hazard on the animals of the community	<ul style="list-style-type: none"> <li>Identify the most environmentally sound source of materials that is within budget</li> <li>Develop logging, quarrying and borrowing plans that take into account cumulative effects</li> <li>Site quarries and gravel pits so that they are not visible to travelers on the roads</li> <li>Decommission/restore area so it is suitable for sustainable use after extraction is completed</li> <li>Install drainage structures to direct water away from pit</li> <li>Discuss with local community the option of retaining quarry pits as water collection ponds for watering cattle, irrigating crops or similar uses</li> </ul>	

Scouring of riverbed below dam	<ul style="list-style-type: none"> <li>• Construction and maintenance of protection structure below the dam to protect the river bed scouring</li> </ul>	•
Increase of water-related diseases	<ul style="list-style-type: none"> <li>• Design and operation of dam/reservoir/ponds/other water harvesting structures to decrease habitat for vector</li> <li>• Vector control</li> <li>• Disease treatment</li> </ul>	
Loss of life and property of the downstream community, and erosion problem due to Dam failure	<ul style="list-style-type: none"> <li>• Implementing the small dam safety guideline prepared for the project</li> </ul>	
Loss of property and life entering into water harvesting structures/ponds	<ul style="list-style-type: none"> <li>• Fencing the structures</li> </ul>	
Water loss due from water harvesting structures/ponds/reservoir through seepage and/or evaporation	<ul style="list-style-type: none"> <li>• Assess soil characteristics to avoid cracking of the water harvesting structures</li> <li>• Designing properly in such a way that loss of water is avoided</li> </ul>	
Conflicting demands for irrigation water use	<ul style="list-style-type: none"> <li>• Planning and management of dam/reservoir in context of the local development plans; equitable allocation of water among small holders farmers</li> </ul>	
Social disruption and decrease in standard of living of resettled people	<ul style="list-style-type: none"> <li>• Maintenance of standard of living by ensuring access to resources at least equalling those lost; provision of health and social services</li> </ul>	
Land Acquisition	<ul style="list-style-type: none"> <li>• Avoid occupied land. Prepare procedures to ensure equitable resolution</li> </ul>	
Private assets displaced	<ul style="list-style-type: none"> <li>• Avoid occupied land. Resettlement scheme ensuring at least equal standards of living</li> <li>• Sitting of projects to minimize the effects</li> </ul>	
Environmental degradation from increased pressure on land	<ul style="list-style-type: none"> <li>• Choice of resettlement site to avoid surpassing carrying capacity of the land</li> <li>• Increase of productivity or improve management of land (agricultural, range, forest management)</li> </ul>	
Environmentally sensitive areas disturbed	<ul style="list-style-type: none"> <li>• Identify and avoid forest, riparian and wetland habitats with particular biodiversity</li> </ul>	•
Damage to downstream ecosystems from reduced water quantity	<ul style="list-style-type: none"> <li>• Use dam/reservoir operations to mitigate changes in flow regimes of rivers and prevent weeds and diseases</li> </ul>	

Activities	Potential Environmental/Social Impacts	Possible Mitigation Measures	Institutional Responsibility
<b>Rehabilitation/Construction of Boreholes</b>	<ul style="list-style-type: none"> <li>• Site preparation and construction of temporary houses and lay down area may have a limited impact on the topography</li> <li>• Mobilization of the necessary equipment's and machineries to the site</li> <li>• Water for wash down of vehicles and machinery on site may contaminate shallow aquifers( if any)</li> <li>• Spills or leaks of fuels, lubricants or chemicals from machinery and vehicles may contaminate shallow groundwater impact</li> <li>• Noise pollution during drilling operation</li> <li>• Effluent from construction workers' temporary amenities leaching into groundwater, carrying nutrients and micro- organisms</li> <li>• Contamination of rain water from litter and drilling wastes and untreated effluent from temporary workers' amenities</li> <li>• Odour generated from sewer of worker's amenities</li> <li>• Dust emissions generated during drilling operations as well as construction activities due to loading and unloading of materials on site and from uncovered truckloads</li> <li>• Adverse impact on the health of the workers and residents in and around the due to deterioration of</li> </ul>	<ul style="list-style-type: none"> <li>• Limit earth works to the minimum and make sure to be rehabilitated during decommissioning</li> <li>• Use of vehicles and other machineries for the main and existing roads and shouldn't create new paths which deteriorate grazing lands</li> <li>• Use of uncontaminated water for site use</li> <li>• Spill control measures should be implemented to prevent spills from infiltrating into the groundwater table. Measures should include appropriate materials handling and storage procedures, and development of contingency plans in the event of a spill mitigation actions</li> <li>• Make sure all machinery and vehicles including the rig are operated efficiently and according to the manufacturers specifications, by trained and qualified operators</li> <li>• Make sure all personnel are issued with hearing protection and are advised of its proper use</li> <li>• Make sure all machinery and vehicles are regularly maintained and damaged parts are replaced immediately</li> <li>• Consultation with affected residents and nearby sensitive receivers</li> <li>• Provision of temporary amenities for workers</li> <li>• Effluent should be suitably disposed off-site</li> <li>• Waste control measures should be implemented to prevent litter and construction waste from infiltrating into the groundwater table or contaminating surface rainwater</li> <li>• Provision of suitable workers' amenities, located within the project area and, if possible, downwind from residential areas</li> <li>• Regular maintenance of workers' amenities, including the emptying of effluent storage tanks</li> <li>• Side enclosure and covering, by impervious sheeting</li> </ul>	<p>Line Ministries of Federal Government of Somalia</p> <p>Environmental Directorate at the office of PM of Somalia</p> <p>Contractors</p> <p>PIU</p>

	<p>the air quality, increase of noise and traffic</p> <ul style="list-style-type: none"> <li>• Improper chlorination dosage may alter water quality</li> <li>• Unsustainable water use</li> <li>• Pollution in case generators are needed</li> <li>• Noise pollution during operation</li> </ul>	<ul style="list-style-type: none"> <li>• Minimize unnecessary operation of machineries, including efficiency of trip time</li> <li>• Implement air quality, noise and traffic mitigation measures as described in the relevant sections</li> <li>• Place pumping fluid in detention ponds on site</li> <li>• Regular monitoring of chlorine content and of chlorination performance</li> <li>• Water extraction monitoring</li> <li>• Sensitize and educate the beneficiaries on the need to conserve water and promote best practices in the use of water</li> <li>• Use double hulled storage tanks for fuel</li> <li>• Plant trees and shrubs around facility</li> </ul>	
<p><b>Livestock Health Infrastructures: Construction of Veterinary Clinics/labs, Abattoirs and Livestock Market</b></p>	<p><b><u>Pre-Construction (Planning/Design) Phase</u></b></p> <ul style="list-style-type: none"> <li>• Un proper site selection for camp site and waste disposal /Site installation/,</li> <li>• Lack of awareness lead to social conflict,</li> <li>• Employment may lead to conflicts with locals' communities,</li> <li>• Storage of materials, circulation of construction machinery;</li> <li>• Risk of non-respect for the integrity of cultural sites (risk of borrowing materials or depositing materials in these sites),</li> <li>• Traditional lifestyles; transmission of disease including HIV and COVID-19,</li> </ul>	<ul style="list-style-type: none"> <li>• Approval of relevant authorities at all locations,</li> <li>• Careful site selection and siting of all project components, with advice from biodiversity authorities/wildlife specialists and other,</li> <li>• Good construction site "housekeeping" and management procedures (including site access),</li> <li>• Demarcation and avoidance of areas of conservation interest (high value species, feeding or breeding sites, migration routes, etc.) where possible,</li> <li>• Staff training and awareness raising in communities,</li> <li>• Development of an Employment Plan, with clear employment requirements and procedures for the construction and operational/maintenance workforce,</li> </ul>	

	<ul style="list-style-type: none"> <li>• Movement of plant and workforce into areas could introduce /disseminate invasive species (Prosopis),</li> </ul>		
	<p><b><u>Construction Phase</u></b></p> <p>Noise and vibration,</p> <ul style="list-style-type: none"> <li>• livestock itself, may disturb sensitive noise receptors (human and fauna),</li> <li>• Release of hazardous substance vehicle spills leading to soil, surface or groundwater contamination,</li> <li>• Pollution of watercourses caused by wastes from livestock</li> <li>• Dust from could affect human health, vegetation (including crops),</li> <li>• Land take for development of livestock projects may physically displace people, or lead to loss of assets,</li> <li>• Waste disposal from health posts, milk collection unites,</li> <li>• Surface and ground water contamination.</li> <li>• Animal Diseases Transmit ion</li> <li>• Conflict between consumers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Good construction site “housekeeping” and management procedures (including site access),</li> <li>▪ Implementation of standard good wastewater management and disposal procedures; wastewater drainage outlets to discharge into vegetated areas if possible; vegetation along watercourses and drainage lines to be retained if possible,</li> <li>▪ Dust and odor control and suppression measures, such as dampening and use of vegetation hedges.</li> <li>▪ Sensitive route selection for access roads, and siting of construction works and facilities,</li> <li>▪ Careful siting of all project components, with advice from biodiversity, authorities/wildlife specialists,</li> <li>▪ Wherever feasible, establishment of buffer zones around conservation areas, watercourses, and other locations identified as ecologically sensitive, and avoidance or minimization of activity within these zones.</li> <li>▪ Rehabilitation of cleared areas with native species, and ecosystem restoration in habitats of conservation value,</li> <li>▪ Careful consideration and selection of areas proposed for livestock projects, and siting of project facilities, to avoid occupation of areas which are inhabited or regarded as having high value by communities where possible.</li> <li>▪ Development of an Employment Plan, with clear employment requirements and procedures for the construction (and if appropriate, operational) workforce,</li> <li>▪ Staff training and awareness raising in communities,</li> </ul>	

		<ul style="list-style-type: none"> <li>▪ Transparent and culturally appropriate communication with communities regarding opportunities for involvement in the project,</li> <li>▪ Fair and transparent hiring and staff management procedures,</li> <li>▪ Employment practices, working conditions and workforce living conditions should conform to International Labour Organization (ILO) Standards and national regulations,</li> <li>▪ Awareness creation, changing to value chain /charcoal radiation by utilization/, Clearing and experience sharing,</li> <li>▪</li> </ul>	
	<p><b><u>Operation and Maintenance Phase</u></b></p> <ul style="list-style-type: none"> <li>• Pollution of watercourses caused by wastes from livestock,</li> <li>• Odors associated with livestock and waste may have nuisance value for nearby receptors,</li> <li>• Loss, fragmentation and degradation of habitat, and severance of animal migration routes and pathways,</li> <li>• Earthworks and clearance may lead to loss of plant species and habitats of conservation interest.</li> <li>• Invasive Species /procopice/Allelopathic chemicals Injuring livestock with its poisonous thorns and causing goat teeth to rot and fall out because the small seeds get stuck between the teeth, Impacts to recreational opportunities and other human values,</li> <li>• Pollution of ground and surface water, soil from discharges and</li> </ul>	<ul style="list-style-type: none"> <li>▪ Implementation of standard good wastewater management and disposal procedures; wastewater drainage outlets to discharge into vegetated areas if possible; vegetation along watercourses and drainage lines to be retained if possible,</li> <li>▪ Wherever feasible, establishment of buffer zones around conservation areas, watercourses, and other locations identified as ecologically sensitive, and avoidance or minimization of activity within these zones.</li> <li>▪ Rehabilitation of cleared areas with native species, and ecosystem restoration in habitats of conservation value</li> <li>▪ Implementation of a Grievance Procedure,</li> <li>▪ Implement appropriate waste disposal measures and using bio-remediation measures,</li> <li>▪</li> <li>▪</li> </ul>	



	<p>accidental releases, from processing unites,</p> <ul style="list-style-type: none"> <li>• Chemical management in animal laboratories, veterinary and health posts.</li> <li>• Discharge of construction site sewage effluent polluting watercourses,</li> </ul> <ul style="list-style-type: none"> <li>• Potential for economic displacement of specific individuals or groups with existing income b Headed from traditional milk marketing if they are excluded from projects.</li> <li>• potential for adverse effects if expectations not met and community relations are not well managed,</li> <li>• Odors associated with dairy processing and animal health clinics, market centers infrastructure /waste may have nuisance value for nearby receptors,</li> </ul>		
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The ESMF envisages that all relevant documents including, ESIA, RAP and ESMP are to be disclosed to the public stakeholders in Somalia, and AfDB.

The project management teams, implementing partners and contractors will carry out crucial responsibility in public communication and consultation process. Environmental and Social Management Framework will be disseminated to different key stakeholders (Ministries, Districts and surrounding communities) for the purpose of disclosure and holding of public hearings. The public consultation for this ESMF was carried out at federal and state levels in Somalia.

AfDB Safeguard policies require that adequate and informed consultations be carried out during preparation of environmental and social management framework. Modalities for regular consultations with stakeholders and monitoring arrangements to ensure the intended outcomes from the ESMPs are achieved are described below:

- Public consultations will be conducted during project implementation in compliance with Somalia's, and AfDB Bank Policy on Disclosure of Information
- The project's information such as sites, scale of impacts- adverse and beneficial social benefits, sustainability, monitoring system and the outcome of the project need to be compiled in a language that concerned people can easily understand.
- The potential mode of consultation and ways of dissemination at various stages of consultation include press conferences, information notices, brochures/fliers, interviews, questionnaires and polls, open houses, community meetings, advisory committees, and public hearings.
- All stakeholders will need some orientation if they are to appreciate conditions which trigger social and environmental action. It is proposed that social and environmental management issues are included: In all monthly project site meetings; and in discussions at all Project review/ evaluation workshops to further sensitize stakeholders.

### **18.3. Grievances Redress Mechanism**

The Grievance Redress Mechanism (GRM) is part of the broader process of stakeholder participation that provides a stakeholder a means to have his /her concerns amicably resolve at the earliest possible time. The mechanism takes into consideration lessons learned in other development projects implemented in the country, as well as the existing traditional practices such as the “xeer” system which is the most cost-effective and most logical form of justice for the majority of Somalis. To help ensure that the process does not marginalize women and other vulnerable groups, representation for these groups (women and other vulnerable groups) will be required in the Grievance Redress Committee tasked to resolve grievances/complaints.

The objectives of the grievance redress mechanism are:

- Provide an effective avenue\* for aggrieved persons/entity to express their concerns and secure redress from issues/complaints caused by the Project; these grievances may arise from resettlement and compensation activities, or from impacts from construction activities.
- Promote a mutually constructive relationship among community members, project affected persons, government and funding institutions;
- Prevent and address community concerns;
- Assist larger processes that create positive social change; and
- Identify early and resolve issues that would lead to judicial proceedings.

#### **18.3.1. *Grievance Management Process***

Grievance resolution requires localised mechanisms that take account of the specific issues, cultural context, local customs and tradition, and Project conditions and scale. A representative Grievance Redress Flow process that could be followed:

- Receive, register and acknowledge complaint;
- Screen and establish the basis of the grievance;
- Nuisance complaints are rejected but the reason for the rejection should be clearly explained to the complainant;
- GRC to hear and resolve the complaint;
- Implement the case resolution or the unsatisfied complainant can seek redress at a formal court of justice;
- Elevation of the case to a formal court if complainant is not satisfied with the GRC resolution

#### **18.3.2. *Grievances Redress Committee***

A functional GRC will be constituted by the PIU or IGAD country representative in Somalia in conjunction with the line ministries and local community to monitor and review the progress of implementation of the sub-projects. The specific composition of these committees will vary upon location and context. But generally speaking, the GRC will be comprised of Project Affected Persons (PAPs), municipal government officials, local civil society leaders and representatives of women and youth groups who will be formed to receive and handle any arising complaints

The main functions of the Committee are:

- Inform the affected persons about the grievance redress mechanism;
- Verify grievances and their merits;
- Recommend to the PIU solutions to such grievances;
- Communicate the decisions to the claimants;
- Ensure that all notices, forms, and other documentation required by claimants are made available in local language understood by people; and

- Ensure documentation of all received complaints and the progress of remediation.

### **18.3.3. GBV, Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH)**

Cases of GBV/SEAH can be reported through the general Project GRM. However, additional channels for reporting GBV/SEAH complaints will be identified and integrated into the GRM. GBV/SEAH and Child Protection Risk Action Plan. The GBV survivor has the freedom and right to report an incident to anyone: community member, project staff, GBV case manager. Given to the sensitive nature of GBV complaints, the GRM will provide different ways to submit grievances such as phone, text message and email. All relevant staff responsible for the program implementation will receive training on receiving GBV complaints and referral systems, ideally during the project initiation phase and as part of the staff welcome package. The GRM committee will be trained on key protocols including referral, reporting and informed consent protocols to receive those cases in an appropriate manner and immediately forward it to the GBV/SEAH referral system. The GRM committee will ensure appropriate response by 1) providing a safe caring environment and respect the confidentiality and wishes of the survivor; 2) If survivor agreed, obtain informed consent and make referrals, 3) provide reliable and comprehensive information on the available services and support to survivors of GBV.

The GRM should consider to include key features on prevention of GBV: 1) Establish quotas for women in community level grievance management to facilitate safe reporting, 2) provide multiple channels to receive complaints (channels to be determined after community consultation) 3) Resolving complaints at the point of service delivery to reduce information and transaction costs and gender sensitive independent channels for redress. 4) Communicate GRM services at the community level to create GBV awareness and enable project-affected people to file complaints.

Beneficiaries and communities should generally be encouraged to report all GBV/SEAH cases through the dedicated GBV/SEAH referral system and complaints resolution mechanism. This will be made explicit in all community awareness sessions, as well as be part of the publicly disclosed information. The GBV/SEAH referral system will guarantee that survivors have access to necessary services they may need, including medical, legal, counselling, and that cases are reported to the police should the survivor choose to do so. Formal processes for disclosing, reporting, and responding to cases of GBV/SEAH will be articulated within the GBV/SEAH and Child Protection Risk Action Plan.

If such cases are reported through the Project GRM, the GRM Operator needs to report the case within 24 hours to the PIU, as the PIU is obliged to report any cases of GBV/SEAH to the IGAD within 24 hours following informed agreement by the

survivor. Furthermore, cases of SH should be reported through the workers' GRM, if it concerns a direct worker or a worker from a sub-contractor, NGO partner or even a community worker following a survivor-centered approach. IPIPs are in charge of monitoring that the courses for contractors regarding the Code of Conduct obligations and awareness raising activities to the community are in place. The information gathered would be monitored and reported to the PIU and the IGAD/AfDB. All reporting will limit information in accordance with the survivor's wishes regarding confidentiality and in case the survivor agrees on further reporting, information will be shared only on a need-to-know-base, avoiding all information which may lead to the identification of the survivor and any potential risk of retribution.

## **19. PUBLIC CONSULTATIONS AND STAKEHOLDER ENGAGEMENT**

### **19.1. Stakeholder Consultations**

During the study feasibility team in South and Central Somalia met with Minister of Livestock, Director General, Staffs and National Expert Panel for IDDRSI to the federal republic of Somalia and IGAD Desk NIC Somalia (Osman Elmi) in Mogadishu on 15-21 July 2021. During the meeting the two sides discussed about the Program of building Resilience for Food and Nutrition Security such as priority areas of interventions, identification of program sites/list and criteria. The Ministry of livestock submitted the list of project sites and priority areas of project components although the list of sites was too many which consisted of many places. The areas of interest in the program that recommended by Ministry of livestock included rehabilitation /construction of water infrastructures, rehabilitation of water reservoirs in dry areas, improving value addition of livestock chain through set up of veterinary clinics and other livestock support, improving feeder roads and stock routes and improving other livestock products and fodder, rangeland rehabilitation and reclamation of degraded rangelands, sustainable land management, building the capacity of the public institutions and gender resilience.

The consultations were carried out in the most of Federal Member States in Somalia including Somaliland, Puntland, Galmudug, Hirshabele and Benadir. Communities and stakeholders were engaged to help identify and discuss environmental and social impacts anticipated. Stakeholders were identified and consultative meetings held. Additional consultations will be carried out prior to the commencement of the construction works. At that time additional consultations will be carried together with the donor agencies, FGS and the relevant government institutions, local authorities, private companies, local and international NGOs, CSOs, CBOs, religious groups, learning institutions, business communities among other locally based stakeholders. The consultative meetings will aim to develop a social inclusion strategy for community mobilization, sensitization and education aimed at ensuring effective participation.



Figure 3: Consultation meeting at Federal Ministry of Livestock

A key factor that exists in all successful project development and implementation is meaningful participation by all stakeholders. The more active involvement of local people in the planning and implementation processes, the greater the likelihood that resource use and protection problems will be resolved as well as the likelihood of development opportunities occurring in a balanced manner that benefit most communities affected by the project. In line with the requirements of the AfDB Environmental and Social Safeguards.

Implementation of this ESMF will include conducting further public consultations involving project stakeholders such as relevant government agencies at federal and local levels beneficiary communities and mass organisations residing/operating/having jurisdiction within the subproject areas across Somalia during the preparation of site specific ESIA's.

## 19.2.Stakeholder Consultation Objectives

Specifically, the objectives of public participation included:

1. Documentation of stakeholders' opinion/views and concerns on the Project;
2. Seeking consensus on some issues such as cut-off date, compensation rates, mode of relocation, participation of stakeholders in the Project, etc.
3. Obtaining local and traditional knowledge that may be useful for Project planning and implementation;
4. Seeking acceptability of Project alternatives, mitigation measures and trade-offs;
5. Ensuring that important impacts are not overlooked, and that benefits are optimised;
6. Minimizing possible future conflict through the early identification of contentious issues;
7. Providing an opportunity for the public to influence the designs and implementation in a positive manner;

8. Improving transparency and accountability in decision-making; and
9. Increasing public acceptability of the Project.

#### **19.2.1. *Identifying Stakeholders***

Stakeholders for the purpose of this Project are defined as all those people and institutions who have an interest in its planning and execution.

- i. Local Residents
- ii. Project Affected Persons;
- iii. Elders of Clans/Sub-Clans
- iv. Religious leaders
- v. NGOs/CBOs
- vi. Local Government
- vii. State Ministries, Departments and Agencies

While the ESMF public consultations and stakeholder participation provide stakeholders with a general understanding of the Project, as well as the opportunity to contribute to the planning process and express their concerns and issues on the Project. Subsequent ESIAs/ESMPs public consultation and stakeholders engagement will address same issues specific to individual sub-projects.

#### **19.3. Disclosure**

This ESMF document will be disclosed in the website of AfDB website and the public portals of the line ministries of Federal Government of Somalia and relevant ministries of Federal Member states.

In-country disclosure of the ESMF will utilize appropriate communication channels such as on the websites of the implementing agencies and/or as hard-copies in a location and format easily accessible to public, and other public places of project intervention areas.



## **20. INSTITUTIONAL RESPONSIBILITY, ARRANGEMENTS AND CAPACITY BUILDING**

### **20.1. Roles and responsibilities of the Implementation of ESMP**

At the federal level, the Office of the Environment in the Office of the Prime Minister has been established. Its mandate is still being clarified, but its functions are likely to include the following: a) formulation of national environmental policies; b) finalization of recommendations for setting the environmental quality standards; c) finalization of environmental laws; d) circulation of procedures for conducting sectoral environmental assessments, environmental impact assessments, and environmental audits; e) coordination with federal institutions, federal member states, local governments, international partners, civil society, academia, the private sector, the media, etc.; and f) acting as the focal institution for the multilateral environmental agreements.

In Somaliland, the Ministry of Environment and Rural Development is best positioned to be the lead agency for taking action on environmental protection, climate change, desertification, and biodiversity protection in Somaliland. The mandate of this ministry is to develop the pastoral sector and to protect and conserve the environment through sustainable development aimed at the eradication of poverty. The ministry has a National Policy on Environment, which recognizes the requirements set out in Somaliland's constitution and provides a framework for the management of Somaliland's environment and natural resources.

The Ministry of Environment, Wildlife and Tourism in Puntland was established in 2009 to undertake the huge task of bringing environmental issues under one umbrella for better coordination of policies, strategies, and programmes.

The overall responsibility of the environmental and social monitoring lies with the line ministries of Federal government of Somalia and Federal Member State and the project Implementing Agency. The monitoring unit will ensure compliance to environmental standards and procedures including relevant policies and legislations.

The monitoring and evaluation plan will follow the project activities cycles. Accordingly, twice yearly a project monitoring and evaluation will be conducted based on the environmental and social management plan. The Environment and social safeguard officer will be responsible for overall project reporting on ESMP.

In accordance with the Contract provisions, the Contractor(s) will be accountable for the implementation of the mitigation measures during the construction and initial operation phases. The Contractor(s) will prepare Construction ESMP (CESMP) and include in their schedule of works all proposed mitigation measures. The Contractor(s) must have designated personnel to monitor environmental,

safety and health matters during construction works, and report regularly to PIU/IA. The CESMP will be reviewed and approved by the supervising consulting engineer and the respective Environmental Safeguard Specialist. At project completion, the Contractors will prepare a final environmental completion and decommissioning report to be approved by the supervising consultant, line ministries, IGAD, Supervising Consulting Expert/Technical Assistance. An environmental expert (consulting firm) shall be appointed as part of the project to provide advice on the implementation and monitoring of environmental and social measures. Before construction, the supervising consultant will review the works contract and document environmental and social requirements, road safety, and quality assurance systems and plan the supervision functions to ensure that works are implemented while protecting the social and environment aspects. During the construction phase, the supervising consultant: (a) Monitors implementation of the Contractor ESMP and (b) prepares monthly and quarterly environment and social compliance reports, which are submitted to the PIU for consideration, as well as annual environment and social audit reports submitted to the concerned stakeholders.

The Project Implementation Unit will be to coordinate the activities of all institutions. The PIU shall have environmental and social safeguard specialist(s) who will monitor and manage the implementation of the ESMP in collaboration with the Supervising Consultant. The functions of the specialists will include working with consultants and reviewing reports as well as ensuring that safeguard decisions are adequately mainstreamed.

## **20.2. Program Environmental and Social Capacity Assessment, Training and Implementation Arrangement**

The implementation of the HoA program will take place at different levels from the Federal Government of Somalia to the Federal Member States of Somalia. It will need to develop detailed capacity building plan at different levels. The capacity building plan should focus on involving agencies and entities at the national level, state/regional level, locality level and community levels.

To support timely and effective implementation of project components and mitigation measures, EMSF recommends the following:

- Comprehensive training needs assessment and development of a Capacity building strategy plan should be carried out as an initial implementation activity of this ESMF.
- The capacity building should be targeted at all levels of project stakeholders (project designers, implementers, beneficiaries and reviewers) and designed for enhancing the skills on environmental and social issues so that they are able to implement the proposed screening process and mitigation measures.

- The trainings should covers areas of environmental and social screening, impact assessment, developing mitigation plans, monitoring and reporting and may be short and long training workshop, to equip these staff with the required skills to implement this ESMF thereby ensuring that project activities are environmentally sustainable. This level of training could be provided by more experienced Environmental Experts.
- There is also the need to promote knowledge on environmental issues at the district and community levels. This approach should be through the strengthened district council to assist community members to identify their existing beliefs and practices, provide them with information and assist them to analyze the environmental consequences of the various interventions.

The training needs may include:

### **1. Environmental assessment process**

- Screening process
- Assignment of environmental categories
- Rationale for preparing an EMP
- Preparation of terms of reference for carrying out EIA
- How to review and evaluate EIA reports
- How to review and approve screening results
- The importance of public consultations in the EIA process
- How to monitor project implementations

### **2. Environmental policies, procedures and sectoral guidelines:**

- Review and discussion of Somalia's environmental policies, procedures, and legislation
- Review and discussion of the Bank's safeguard policies
- Review and discussion of Somalia's existing sectoral guidelines
- Collaboration with institutions at the local, regional, national levels

### **3. Environmental protection on:**

- Soil erosion
- Desertification
- Deforestation
- Water quality control
- Waste disposal
- Pest management

## **20.3. Institutional Framework**

At the Federal level, the following national ministries, their departments and agencies are identified to have a critical role in environment protection and social safeguards in Somalia. Designated National Authority (DNA) for Environment and Climate Change is Directorate of Environment and Climate Change at the Office of the Prime Minister of Somalia. The goal of the Directorate of Environment and

Climate change is to protect, conserve and restore the environment of Somalia in order to improve and maintain the quality of life of its citizens through sustainable development.

The functions of the directorate include: a) formulation of national environmental policies; b) finalization of recommendations for setting the environmental quality standards; c) finalization of environmental laws; d) circulation of procedures for conducting sectoral environmental assessments, environmental impact assessments, and environmental audits; e) coordination with federal institutions, federal member states, local governments, international partners, civil society, academia, the private sector, the media, etc.; and f) acting as the focal institution for the multilateral environmental agreements.

Other Sectoral Ministries Include:

- Ministry of Energy and Water Resources;
- Ministry Of Humanitarian Affairs & Disaster Management
- Ministry of Agriculture;
- Ministry of Fisheries and Marine Resources;
- Ministry of Livestock;
- Ministry of Natural Resources and Petroleum;
- Ministry of Public Works, Housing and Reconstruction (incl. roads authority)
- Ministry of Ports & Marine Transport
- Ministry of Transport & Civil Aviation
- Ministry of Post & Telecommunication
- Ministry of Health
- Ministry of Education

In Somaliland, the Ministry of Environment and Rural Development is best positioned to be the lead agency for taking action on environmental protection, climate change, desertification, and biodiversity protection in Somaliland. The mandate of this ministry is to develop the pastoral sector and to protect and conserve the environment through sustainable development aimed at the eradication of poverty. The ministry has a National Policy on Environment, which recognizes the requirements set out in Somaliland's constitution and provides a framework for the management of Somaliland's environment and natural resources. The Ministry of Environment, Wildlife and Tourism in Puntland was established in 2009 to undertake the huge task of bringing environmental issues under one umbrella for better coordination of policies, strategies, and programmes. There are Parliamentary Committees for Environment and Natural Resources in Somaliland, Puntland, and federal government areas respectively.

## 21. ESMF IMPLEMENTATION COSTS

### 21.1. ESMP Budget

In the current situation, the details of the projects and the scope of the project have not been identified and it is yet to be put in place for ESMP implementation budget. However, we have proposed the following functions: - The ESMF requirements ensure that implementation of the projects integrates environmental and social issues for the sustainability of the project as well as the sub-projects. Among other things the ESMF recommends the following key issues, namely; training, capacity building, screening, reviewing and monitoring mechanisms.

The cost implications for implementing this ESMP are reflected in the following table below. The estimates reflect the level of cost but the actual costs will be determined during the implementation phase, when the specific number of people required for training will be identified and the level of technical assistance required.

In Somalia, there is wider gap of establishing environmental and social safeguarding tools and manuals, therefore, it requires to allocate a lot of resources for capacity building.

The funds for the implementation of the ESMF should come from AfDB and Ministry of Finance of the Federal Republic of Somalia. The anticipated cost for successful management of environmental and social safeguards issues with detailed activities and required ESMP budget is presented in the Table below:

Table4: Budget Summary of ESMF/ESMP

No	Item	Total Cost
1	Preparation of detailed ESIA/ESMPs at specific site levels	200,000
2	Capacity Building including the development of missing regulatory and policy gaps of Somalia, training and Awareness campaigns	120,000
3	Environmental and Social Safeguard Staff/Experts Remuneration and Incentives	150,000
4	Monitoring, technical support, annual review, auditing and supervision of the implementation of ESMP,	100,000
5	Grievances Redress Mechanism	100,000
	<b>Total</b>	<b>670,000</b>

## **22. CONCLUSIONS AND RECOMMENDATIONS**

### **22.1. Conclusions**

This ESMF was prepared based on preliminary environmental and social assessments based on the project components and proposed project activities. The ESMF equips the relevant authorities of government in Somalia as well as the AfDB and other development partners with information for the right decision making. It is hoped that these authorities in collaboration with other development partners will use this information to evaluate the environmental viability and sustainability of the proposed programme/project including sub-projects and the probable impacts. The proposed development programme will have massive economic and social benefits not only to the local communities within the project areas, but is likely to have macro-benefits nationwide, particularly with regard to international trade and foreign exchange earnings and national food and nutritional security.

The negative environmental impacts that have been identified and are associated with the implementation of this programme and the subsequent projects and sub-projects are minimal and highly localized and will be addressed by implementing the mitigation measures proposed to ensure that they pose no threat to the environment and to the communities. As such this project is a Category 2 in the AfDB's Integrated Safeguards System (ISS).

### **22.2. Recommendations**

This is a multi-sectoral and a multi-disciplinary project. As such, it is important that during the implementation, relevant line ministries and other stakeholders are actively involved to address some of the cross cutting issues such as Livestock Production, Crop Production, Land Management, Environmental Conservation, Agro-processing, Trade, Economic Development, and Nutrition among other relevant issues. The multi-disciplinary approach will ensure that emerging issues and challenges are not only adequately addressed but the addressing is done timely and appropriately.

The contractors and the project proponents should take into consideration all the legislative measures identified and considered in this ESMF. The mitigation measures provided based on the recommendations of this ESMF need to be followed so as to address the environmental issues that may arise in the course of the implementation of this programme.

### **23. BIBLIOGRAPHY OF THE SAFEGUARDS DOCUMENTS THAT SUPPLEMENTED THE PREPARATION OF THIS ESMF**

This ESMF provides a good general guidance and tools that are in compliance to the number of regulatory framework documents of environmental and social safeguards of the Federal Government of Somalia. It was prepared as a framework compatible with AfDB Integrated Safeguards System. The ESMF is also in line with requirements of the Somalia Environmental Policy and the National Environmental Management Bill.

The existence of policies and regulatory frameworks are steps in the right direction although implementation challenges still exist at both the Federal and State levels. These Nation policies, plans and strategies may have supplement to develop detailed ESIA/ESMP in Somalia;

1. The Ninth National Development Plan 2020-2024
2. The Somalia National Climate Change Policy 2020
3. The Power Master Plan for Somalia 2019
4. The National Adaptation Programme of Actions 2013
5. The National Environment Policy 2019
6. Draft National Environmental Management Bill 2020
7. Draft Environmental Social Impact Assessment Regulations 2020
8. Somali National Disaster Management Policy 2018
9. Integrated Water Resources Management Strategic Plan 2019-2023
10. Recovery and Resilience Framework 2018
11. The Initial National Communication to UNFCCC 2018
12. The National Electricity Bill 2019
13. National Energy policy 2018
14. National Voluntary Land Degradation Neutrality Targets 2020
15. The National Biodiversity Strategy and Action Plan 2015
16. Somalia National Water Policy and National Water Resource Law 2019
17. National Food Security and Nutrition Policy 2020
18. National Fertiliser Policy 2019
19. The UN Strategic Framework Somalia 2020
20. National Drought Plan 2020
21. National Water Resource Strategy 2021 -2025
22. National Pesticide Policy 2019
23. Somalia National Action Programme for the UN Convention to Combat Desertification 2016
24. National Voluntary Land Degradation Neutrality Targets 2020
25. National Capacity Assessment Towards Implementing the Environmental Treaties of the Rio Convention 2017

## 24. ANNEX 1: DATA COLLECTION TOOLS

Formulation and evaluation (technical, environmental and social) of the program to build resilience for food and nutrition security in the Horn of Africa (HoA): Data collection checklist for Assessment of Environmental and Social Safeguards Capacity and Practices in the program countries

### Objectives

- assess the institutional arrangements, existing regulations, and capacity for ensuring appropriate environmental and social management, and impact assessment in the planning and delivery of the proposed program interventions;
- review the performance of environmental and social safeguards in the program implementing institutions at all levels; and
- identify possible challenges and opportunities to achieve safeguards commitments under the proposed program ,

### Approach

- Review the federal/central level safeguards oversight bodies relevant to your countries e.g. Ministries of agriculture, Environment, Forest ministries/agencies Labor and Social affairs ministries/agencies; finance ministries etc.
- The same should be repeated in relevant administrative structure lower than the above;
- The review should attempt to go “deeper” rather than “broader”,
- Visits to all administration levels and organizations will be conducted to collect information on :
  - The institutional and physical framework of the environment and climate change.
  - The policies, strategies, laws, regulations and international agreements subscribed and in force, in terms of the environment and climate change.
  - Existing Environmental and social policies and legal frameworks;
  - Institutional arrangements for environmental and social safeguards at different levels
  - Status of environmental and social impact assessment and implementation of mitigation measures;
  - Capacity Development interventions carried out on the environmental and social management system (ESMS)
  - Capacity gaps in environmental and social management and impact assessment;
  - Monitoring and supervision on the implementation of safeguards tools, if any, and
  - Coordination between oversight bodies (environment and social protection ministries/institutes/agencies) and basic sector institutions (agriculture, health, road, water, education etc.,) on environmental and social safeguards.
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## Interview checklist

### Central/Federal level

1. Institutional responsibilities and arrangements for environmental and social management with regards to the program implementation thematic areas/ in the central/federal ministries/agencies

No	Ministry/ agency	Institutional responsibilities and arrangements	Guidelines/ regulations and other arrangements related to the program implementation thematic areas	What can be done to further strengthen this? If required

2. Capacity development for environmental and social management
  - 2.1. What is the status of assigning an Environment and Social Management specialist in Ministry/ agency ? If assigned, when was this carried out?

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- 2.2. What is the status of the availability of Environmental and Social Management Operational Manual ? If it is available, when was this carried out? Is it distributed to all lower administration levels ?

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- 2.3. What are the major Capacity Development programs/plans for environmental and social management (carried out and planned) for the ministry/agency and region and sector offices?

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3. Environment and Social Assessment practice
  - 3.1. What is the Ministry's/agency's feeling about the implementation of Environmental and Social Management at regional and sectoral structures?
    - Among the different administrative levels?
    - Among Sectors?

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3.2. What are the Challenges and issues requiring improvement with regard to Environmental and Social Impacts Management?

- Accessibility of service to the underserved?
  - Gender sensitivity of services provided?
  - Any other?
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3.3. What should be done to improve the overall condition of Environmental and Social Impacts Management?

3.4.

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## 25. ANNEX 2: LIST OF PARTICIPANTS CONSULTED

Table 4: LIST OF PARTICIPANTS CONSULTED

Nº	Name	State	Region	District	Village	Organization	Telephone
1.							
2.	Kafi Nadamudin Adan	Puntland	Garowe			Ministry of Environment & Agriculture	0907580303
3.	Ahmed Ali Jama	Puntland	Garowe			Ministry of Environment & Agriculture	0907774449
4.	Abdi Aziz Nur Elmi	Puntland	Garowe			Ministry of Environment & Agriculture	0907792999
5.	Liban Mohamed	Puntland	Garowe			Ministry of Environment & Agriculture	0907758975
6.	Mohamed Issa M	Puntland	Garowe			Ministry of Environment & Agriculture	0907757902
7.	Maryan Mohamed Adan	Puntland	Garowe			Ministry of Environment & Agriculture	0907205545
8.	Mohamed Abdirishid	Puntland	Garowe			Ministry of Public works	0907470496
9.	Mohamed Mursal	Puntland	Garowe			Ministry of Public works	0907642154
10.	Abdullahi Ali	Puntland	Garowe			Ministry of Public works	0907620770
11.	Yusuf Abdinasir	Puntland	Garowe			Ministry of Public works	0907799190
12.	Sadiq Abdullahi Ahmed	Puntland	Garowe			Ministry of Livestock	0907621213
13.	Ahmed Abdalle Mohamed	Puntland	Garowe			Ministry of Livestock	0907746352
14.	Dr Osman Seed Elmi	Banadir	Muqdisho			IGAD	906186041
15.	Dr Sulub ismacil	Banadir	Muqdisho			ECU Consultant	634426675
16.	Eng Ahmed Mohamed Hassan	Banadir	Muqdisho			MoEWR	617543459
17.	Farxiyo Abdi shire jeyte	Banadir	Muqdisho			civil society member	615552508
18.	Nor cali Ciise	Banadir	Muqdisho			civil society member	615136309

19.	Mohamud mohamed Hassan	Banadir	Muqdisho			MoFA	61558687
20.	Hashi Osman Mohamed	Banadir	Muqdisho			MOLFR	615870866
21.	Eng Mohamed Gurey	Banadir	Muqdisho			ECU Consultant	615881678
22.	Abubakar Ahmed Mohamed	Banadir	Muqdisho			MoHADMA	615910358
23.	Ibrahim Abukar yakuub	Banadir	Muqdisho			MoLFR	615475908
24.	khadar Osman Elmi	Banadir	Muqdisho			University	615236540
25.	Mohamed-Amin Hussein Mohamed	Banadir	Muqdisho			MoFMR	613912030
26.	Cisman Ibramim Hussein	Banadir	Muqdisho			MOLFR	
27.	Dr Abdukadir Hussein walaal	Banadir	Muqdisho			MoAI	6154045557
28.	Sahra Mohamed	Banadir	Muqdisho			MOWHRD	615184733
29.	Shire Ahmed musse	Banadir	Muqdisho			MOLFR	615715576
30.	Khalid Adan Abdi	Banadir	Muqdisho			MFRM	6155504433
31.	Ahmed mohamed Isak	Banadir	Muqdisho			MOCI	619999179
32.	Abdikarim Hassan Sheikh	Banadir	Muqdisho			MOWHRD	615011914
33.	Mohmed Mohamud abdi	Banadir	Muqdisho			MoAI	625881678
34.	Abdirahman Yusuf Guleed	Somaliland	Sool	Lascanood		Regional Coordinator Ministry of Livestock and fishery development	0634122254
35.	Mustafe Abdi Muse	Somaliland	Togdheer	Buhoodle		Regional Coordinator Ministry of Livestock and Fishery development	0634480332
36.	Mohamoud Mohamed Muse	Somaliland	Togdheer	Burao	Balidhiig	Village resident	0634492642
37.	Adan Farah Hassan	Somaliland	Togdheer	Burao	Balidhiig	Village resident	0634664992
38.	Khadra Cali Xaashui	Somaliland	Togdheer	Burao	Balidhiig	Village resident	0634354704

39.	Khadar Mohamed Xasan	Somaliland	Togdheer	Burao	Balidhiig	Village resident	0634997971
40.	Amina Ali Guluf	Somaliland	Togdheer	Burao	Balidhiig	Village resident	0634984342
41.	Muna Mohamed Mahdi	Somaliland	Togdheer	Burao	Balidhiig	Village resident	0634997963
42.	Zamira Daud Mohamud	Somaliland	Togdheer	Burao	Balidhiig	Village resident	0634321132
43.	Husein Abdillahi Jama	Somaliland	Togdheer	Burao	Bacaha	Village resident	0634430058
44.	Mustafe Geedi Nuux	Somaliland	Togdheer	Burao	Bacaha	Village resident	0634917362
45.	Hassan Colaad	Somaliland	Togdheer	Burao	Bacaha	Village resident	0634895471
46.	Rooble Ismail Farah	Somaliland	Togdheer	Burao	Bacaha	Village resident	0634263083
47.	Halima Abdi warsame	Somaliland	Togdheer	Burao	Bacaha	Village resident	0634279336
48.	Basra Hirsi	Somaliland	Togdheer	Burao	Bacaha	Village resident	0633713522