Adaptive Agriculture and Rangeland Rehabilitation Project (A2R2) - Somalia

Part I: Project Information

GEF ID
10792

Project Type
FSP

Type of Trust Fund
MTF

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Adaptive Agriculture and Rangeland Rehabilitation Project (A2R2) - Somalia

Countries
Somalia

Agency(ies)
IFAD

Other Executing Partner(s)
Ministry of Agriculture and Irrigation of the Federal Republic of Somalia (to be confirmed in the design phase and validated by the GEF Operational Focal Point)

Executing Partner Type
Government

GEF Focal Area
Multi Focal Area

Taxonomy
Focal Areas, Land Degradation, Sustainable Land Management, Restoration and Rehabilitation of Degraded Lands, Community-Based Natural Resource Management, Sustainable Agriculture, Improved Soil and Water Management Techniques, Sustainable Pasture Management, Integrated and Cross-sectoral approach, Income Generating Activities, Sustainable Forest, Sustainable Livelihoods, Ecosystem Approach, Food Security, Land Degradation Neutrality, Land Cover and Land cover change, Carbon stocks above or below ground, Land Productivity, Biodiversity, Biomes, Rivers, Grasslands, Mainstreaming, Agriculture and agrobiodiversity, Infrastructure, Climate Change, Climate Change Mitigation, Renewable Energy, Agriculture, Forestry, and Other Land Use, Climate Change Adaptation, Least Developed Countries, Mainstreaming adaptation, Ecosystem-based Adaptation, Community-based adaptation, Climate resilience, Adaptation Tech Transfer, Livelihoods, Influencing models, Strengthen institutional capacity and decision-making, Demonstrate innovative approache, Stakeholders, Private Sector, Individuals/Entrepreneurs, Civil Society, Community Based Organization, Non-Governmental Organization, Local Communities, Communications, Awareness Raising, Education, Behavior change, Type of Engagement, Consultation, Partnership, Information Dissemination, Participation, Beneficiaries, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Women groups, Gender results areas, Access and control over natural resources, Access to benefits and services, Knowledge Generation and Exchange, Capacity Development, Participation and leadership, Capacity, Knowledge and Research, Enabling Activities, Knowledge Exchange, Learning, Adaptive management, Theory of change, Indicators to measure change, Knowledge Generation

Rio Markers
Climate Change Mitigation
Climate Change Mitigation 0

Climate Change Adaptation
Climate Change Adaptation 2

Duration
60 In Months

Agency Fee($)
1,533,550.00

Submission Date
4/23/2021

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CCA-1	LDCF	8,841,368.00	14,956,713.00
CCA-3	LDCF	154,537.00	142,065.00
BD-1-4	GET	5,794,546.00	3,085,780.00
LD-1-1	GET	1,294,588.00	1,407,721.00
LD-2-5	GET	954,411.00	1,407,721.00
	Total Project Cost ($)	**17,039,450.00**	**21,000,000.00**

B. Indicative Project description summary

Project Objective

Enhancing the climate resilience of poor rural households in Somalia through sustainable natural resources management on multiple levels: improved water resources and rangelands management; eco-agriculture and climate-proof livelihoods; forest/habitat rehabilitation; improved governance and information systems for land degradation and biodiversity

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)

Component 1. Adaptive climate resilient hydraulic infrastructure and productive livelihoods	Investment	LDCF 100% 1.1 Climate resilient hydraulic infrastructure profitably and sustainably operated by vulnerable communities Indicator: Number of small-scale farmers and agropastoralists households with access to climate-resilient water resources Target beneficiaries: 72,000 HH (446,400 persons) Target % of women: 50%	1.1.1 Detailed site-specific studies carried out (e.g. hydrological studies, cost/benefit analyses, EIAs, technical specifications & drawings, operation & maintenance guidelines, etc.) 1.1.2 Water infrastructure built or climate-proofed (e.g. shallow wells, surface water retention dams, household cisterns and floodwater spate irrigation structures) 1.1.3 Community maintenance and management groups created/ strengthened to effectively manage the hydraulic infrastructure and prevent conflict 1.1.4 Solar energy equipment installed and operational	LDCF	3,500,000.00	300,000.00

Component 1. Adaptive climate resilient hydraulic infrastructure and productive livelihoods	Technical Assistance	GEF-TF - BD- 7.1% 1.2 Agroecological productive technologies and practices adopted by small-scale farmers & pastoralists Indicator: Number of small-scale farmers and agropastoralist households adopting improved agroecological practices adapted to climate change (gender disaggregated) Target beneficiaries: 12,000 HH Target % of women: 50%	1.2.1 Farmer field schools established for farmers and agropastoralists 1.2.2 Adapted and productive agroecological approaches and techniques (for soil, water and biodiversity conservation) identified, based on indigenous knowledge, and piloted 1.2.3 Farmers and agropastoralists trained, supported and equipped to facilitate adoption of climate-smart, productive agroecological approaches and techniques	GET	200,000.00	639,000.00

Component 1. Adaptive climate resilient hydraulic infrastructure and productive livelihoods	Technical Assistance	LDCF - 92.9% 1.2 Agroecological productive technologies and practices adopted by small-scale farmers & pastoralists Indicator: Number of small-scale farmers and agropastoralist households adopting improved agroecological practices adapted to climate change (gender disaggregated) Target beneficiaries: 12,000 HH Target % of women: 50%	1.2.1 Farmer field schools established for farmers and agropastoralists 1.2.2 Adapted and productive agroecological approaches and techniques (for soil, water and biodiversity conservation) identified, based on indigenous knowledge, and piloted 1.2.3 Farmers and agropastoralists trained, supported and equipped to facilitate adoption of climate-smart, productive agroecological approaches and techniques	LDCF	2,600,000.00	8,361,000.00

Component 1. Adaptive climate resilient hydraulic infrastructure and productive livelihoods	Technical Assistance	LDCF 100% 1.3 Microfinance mechanism supporting climate proof income-generating activities established and functional Indicator: Number of small-scale farmers and agropastoralist households accessing financial services. Target beneficiaries: 5000 HH (overlapping with beneficiaries of outcomes 1.2 and 1.4) Target % of female-headed households: 50% Target % of youth: 30%	1.3.1 Microfinance mechanism designed and tailored to poor households' needs in the context of the sustainable natural resources management 1.3.2 Partnership built with identified MFIs and NGOs to support capacity building and access to credit for poorest households	LDCF	1,320,351.00	114,600.00

Component 1. Adaptive climate resilient hydraulic infrastructure and productive livelihoods	Technical Assistance	LDCF 100% 1.4 Increased household incomes for the poorest households Indicator: Number of households investing in climate resilient livelihoods, and provision of climate adaptation goods and services Target beneficiaries: 4000 HH Target % of female-headed households: 50% Target % of youth entrepreneurs: 30%	14.1 Profitable and climate-proof sources of income identified and promoted through the Gender Action Learning System (GALS) 1.4.2 Poor households trained, equipped and coached to undertake new income-generating activities as micro-entrepreneurs	LDCF	1,000,000.00	5,000,000.00

Component 2. Landscape approach to an integrated management of rangeland and forest ecosystems for land degradation neutrality and biodiversity conservation	Investment	GEF TF - BD 91,3% 2.1 Rangeland biodiversity enhanced Indicator 1: Area of rangeland and grassland restored Target: 11,700 ha Indicator 2: Area of rangelands and grassland with increased productivity and biodiversity Target: 61,200 ha	2.1.1 Participatory inventory of native species in the target area carried out and their multiple benefits characterized. 2.1.2 Restoration of degraded rangeland habitat (e.g. assisted natural regeneration, soil and water conservation works)	GET	3,155,500.00	1,186,900.00

Component 2. Landscape approach to an integrated management of rangeland and forest ecosystems for land degradation neutrality and biodiversity conservation	Investment	GEF TF-LD 8.7% 2.1 Rangeland biodiversity enhanced Indicator 1: Area of rangeland and grassland restored Target: 11,700 ha Indicator 2: Area of rangelands and grassland with increased productivity and biodiversity Target: 61,200 ha	2.1.1 Participatory inventory of native species in the target area carried out and their multiple benefits characterized. 2.1.2 Restoration of degraded rangeland habitat (e.g. assisted natural regeneration, soil and water conservation works)	GET	300,000.00	113,100.00
Component 2. Landscape approach to an integrated management of rangeland and forest ecosystems for land degradation neutrality and biodiversity conservation	Technical Assistance	GEF TF-BD 10% 2.2 Sustainable management of rangelands Indicator: Number of conflict-sensitive sustainable pasture management plans effectively implemented Target: TBD at full design	2.2.1 Pastoralist community organizations trained in sustainable rangeland management 2.2.2 Sustainable pasture management plans mainstreaming biodiversity designed and approved 2.2.3 Grievance and conflict resolution mechanisms functional to prevent land and water use-related conflicts	GET	103,900.00	200,000.00

Component 2. Landscape approach to an integrated management of rangeland and forest ecosystems for land degradation neutrality and biodiversity conservation	Technical Assistance	GEF TF-LD 90% 2.2 Sustainable management of rangelands Indicator: Number of conflict-sensitive sustainable pasture management plans effectively implemented Target: TBD at full design	2.2.1 Pastoralist community organizations trained in sustainable rangeland management 2.2.2 Sustainable pasture management plans mainstreaming biodiversity designed and approved 2.2.3 Grievance and conflict resolution mechanisms functional to prevent land and water use-related conflicts	GET	935,100.00	1,800,000.00
Component 2. Landscape approach to an integrated management of rangeland and forest ecosystems for land degradation neutrality and biodiversity conservation	Investment	GEF TF-BD 100% 2.3 Degraded forests restored through ANR and reforestation of native species Indicator: Area of forests restored through agroecological techniques Target: 850 ha	2.3.1 Four tree nurseries set up and management cooperatives established and supported 2.3.2 Community capacity on nursery management strengthened 2.3.3 Community capacity on sustainable forestry practices strengthened	GET	1,650,000.00	

Component 3. Institutional strengthening to support land degradation neutrality and biodiversity protection	Technical Assistance	GEF TF-BD 26.5% 3.1 Strengthened institutional capacity and policy environment to achieve land degradation neutrality and conserve biodiversity Indicator 1: LDN and biodiversity M&E system functional, generating policy-relevant information (to be detailed at full design) Indicator 2: Improved enabling environment for investment in biodiversity conservation and land degradation neutrality (to be detailed at full design)	3.1.1 Georeferenced tracking system for land degradation and biodiversity developed 3.1.2 Institutional actors' capacity to document SDG-related LDN and biodiversity indicators strengthened 3.1.3 Coordination mechanisms on Natural Resource Management at federal, national and local levels strengthened 3.1.4 Land degradation and biodiversity mainstreamed into local, national and federal strategies and plans	GET	228,934.00	128,631.00

Component 3. Institutional strengthening to support land degradation neutrality and biodiversity protection	Technical Assistance	GEF TF-LD 73.5% 3.1 Strengthened institutional capacity and policy environment to achieve land degradation neutrality and conserve biodiversity Indicator 1: LDN and biodiversity M&E system functional, generating policy-relevant information (to be detailed at full design) Indicator 2: Improved enabling environment for investment in biodiversity conservation and land degradation neutrality (to be detailed at full design)	3.1.1 Georeferenced tracking system for land degradation and biodiversity developed 3.1.2 Institutional actors' capacity to document SDG-related LDN and biodiversity indicators strengthened 3.1.3 Coordination mechanisms on Natural Resource Management at federal, national and local levels strengthened 3.1.4 Land degradation and biodiversity mainstreamed into local, national and federal strategies and plans	GET	636,263.00	356,769.00

Component 4 Knowledge Management & M&E	Technical Assistance	LDCF 24.6% 4.1 Project progress and results are captured in real time and capitalized to improve management, promote learning and support upscaling of best practices Indicator 1: Project monitoring system operates effectively (to be detailed at full design) Indicator 2: High-quality and relevant knowledge products & events disseminated to target audiences (to be detailed at full design)	4.1.1 Effective monitoring and evaluation plan implemented 4.1.2-CCA, SLM and community-based conservation and agricultural production best practices and challenges collected systematically 4.1.3 Communication strategy rolled out and knowledge products disseminated	LDCF	147,178.00	135,300.00

Component 4 Knowledge Management & M&E	Technical Assistance	GEF TF-BD 30.2% 4.1 Project progress and results are captured in real time and capitalized to improve management, promote learning and support upscaling of best practices Indicator 1: Project monitoring system operates effectively (to be detailed at full design) Indicator 2: High-quality and relevant knowledge products & events disseminated to target audiences (to be detailed at full design)	4.1.1 Effective monitoring and evaluation plan implemented 4.1.2-CCA, SLM and community-based conservation and agricultural production best practices and challenges collected systematically 4.1.3 Communication strategy rolled out and knowledge products disseminated	GET	180,281.00	166,100.00

Component 4 Knowledge Management & M&E	Technical Assistance	GEF TF-LD 45.2% 4.1 Project progress and results are captured in real time and capitalized to improve management, promote learning and support upscaling of best practices Indicator 1: Project monitoring system operates effectively (to be detailed at full design) Indicator 2: High-quality and relevant knowledge products & events disseminated to target audiences (to be detailed at full design)	4.1.1 Effective monitoring and evaluation plan implemented 4.1.2-CCA, SLM and community-based conservation and agricultural production best practices and challenges collected systematically 4.1.3 Communication strategy rolled out and knowledge products disseminated	GET	270,541.00	248,600.00
				Sub Total ($)	**16,228,048.00**	**18,750,000.00**
Project Management Cost (PMC)						
				GET	275,931.00	765,150.00
				LDCF	428,376.00	1,187,878.00
				GET	107,095.00	296,972.00
				Sub Total($)	**811,402.00**	**2,250,000.00**

	Total Project Cost($)	17,039,450.00	21,000,000.00

Please provide justification

The PMC is equal to 5% of the Project Cost. Split of PMC among the different trust funds: 52.8% LDCF 34.0% GEF/TF BD 13.2% GEF/TF LD

C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
GEF Agency	Supplementary financing to be mobilized and/or IFAD regular funding	Grant	Investment mobilized	10,500,000.00
Donor Agency	OFID, Italy, Netherlands	Grant	Investment mobilized	10,500,000.00
			Total Project Cost($)	**21,000,000.00**

Describe how any "Investment Mobilized" was identified

The investment mobilized consists of foreseen supplementary contributions by development partners, with whom IFAD is negotiating based on their planned assistance programs for Somalia. In addition, subject to fulfillment of IFAD conditions for lending to Somalia and IFAD Board approval, IFAD may allocate regular resources from its Programme of Loans and Grants to Somalia for the Rural Livelihoods Resilience Programme (RLRP) under development. The RLRP is further described below in Part II, Section 1a.2) as one of the baseline investment on which the GEF/LDCF contribution could build. IFAD will seek to further increase co-financing during the design phase, from bilateral donors, NGOs, private sector, and/or other sources of co-finance. When the project activities will be more defined and precisely located IFAD will be in a better position to identify and approach potential partners for co-financing the Project.

D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
IFAD	LDCF	Somalia	Climate Change	NA	8,995,905	809,631	9,805,536.00
IFAD	GET	Somalia	Biodiversity	BD STAR Allocation	5,794,546	521,509	6,316,055.00
IFAD	GET	Somalia	Land Degradation	LD STAR Allocation	2,248,999	202,410	2,451,409.00
				Total GEF Resources($)	**17,039,450.00**	**1,533,550.00**	**18,573,000.00**

E. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)	PPG Agency Fee ($)
300,000	27,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
IFAD	LDCF	Somalia	Climate Change	NA	178,407	16,057	**194,464.00**
IFAD	GET	Somalia	Biodiversity	BD STAR Allocation	77,014	6,931	**83,945.00**
IFAD	GET	Somalia	Land Degradation	LD STAR Allocation	44,579	4,012	**48,591.00**
				Total Project Costs($)	**300,000.00**	**27,000.00**	**327,000.00**

Core Indicators

Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
12550.00	0.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
2,200.00			

Indicator 3.2 Area of Forest and Forest Land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
850.00			

Indicator 3.3 Area of natural grass and shrublands restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
9,500.00			

Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
61200.00	0.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
55,200.00			

Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
6,000.00			

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	2922412	0	0	0
Expected metric tons of CO_2e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	2,922,412			

Expected metric tons of CO_2e (indirect)	
Anticipated start year of accounting	2023
Duration of accounting	20

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)				
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	223,200			
Male	223,200			
Total	446400	0	0	0

Part II. Project Justification

1a. Project Description

1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description);

Somalia is located in the horn of Africa and has a land area of 637,540 km^2. The country has over 3,025 km coastline; the longest in the mainland Africa and the Middle East. Somalia is bordered by Kenya, Ethiopia and Djibouti to the west. Since independence in 1960 from the British and Italians, Somalia has relapsed into conflict on several occasions, including: (a) the ousting of the Somali Republic in 1969 by a military coup who renamed it the Somali Democratic Republic; (b) the collapse of the Democratic Republic in 1991, followed by almost two decades of civil war; and (c) protracted inter-clan wars and the Al-Shabaab insurgency. The Federal Government of Somalia (FGS) was established on 20 August 2012, following the adoption of the Provisional Constitution of Somalia. It comprises an executive branch headed by the President, the Somali Federal Parliament, and six Federal Member States (FMS): Somaliland, Puntland, Galmudug, Hirshabelle, South West State, and Jubaland. The capital, Mogadishu Municipality, is in Banadir Regional Administration.

Fragility status. The 2021 List of Fragile and Conflict-Affected Situations classifies Somalia in the category of high-intensity conflict countries. Since 2007, Somalia has been considered one of the three countries with the most fragile situations. Somalia's high level of fragility and weak resilience is due to persistent violence and extremist attacks that has lasted for almost 30 years, climate-related shocks, recurrent humanitarian crises, and low institutional capacity. These factors have led to forced displacements, unemployment, lack of basic services and staggering poverty rates, with far-reaching implications for long-term vulnerability and sustainable development. The fragile gains made by the country in recent years have been further threatened by a devastating new outbreak of desert locusts and the current COVID-19 pandemic. Women and girls, youth, internally-displaced persons (IDPs), rural and nomadic communities, and persons with disabilities face additional impediments to participation in the country's path to sustainable development, putting them at risk of being left behind[1].

Socio-economic context. The Somali economy is based largely on its natural resource endowments of agricultural and range land, livestock and fisheries, which are all susceptible to the impacts of climate change. In 2018, Somalia's GDP of US$ 4.7 billion ranked 158 out of 196 countries, while its GDP per capita of US$ 315 ranked 195 out of 196 countries[2]. About 69 percent of Somalis live under the international poverty line of US$ 1.90 per day, and 70% of youth are unemployed[3]. The Gender Inequality Index of 0.778 places Somalia in the fourth-worst position globally[4]. Culture and norms, reinforced by partial and scant law enforcement, confer low social status to women and constrain their access to productive resources, jobs, and social services. About 55 per cent of women lack access to education, compared to 40 per cent of men; and labour force participation rate is only 19 per cent for women, versus 74 per cent for men[5].

Agriculture sector. Agriculture is the most important economic sector, accounting for 65 per cent of GDP and workforce, but crop productivity is very low (average yield of 0.6 MT/ha for maize). Livestock used to account for about 60 per cent of GDP and over 50 per cent of export earnings, but this contribution is declining due to the conflict situation and export restrictions. Other agricultural exports include fish, hides and skin and sesame. Maize, sorghum, cowpea and sesame are the main staples. Fishing has a significant potential in the economy but the lack of regulation raises the risk of unsustainable over-fishing. The major risks for the agriculture sector include: (i) the impacts of climate change; (ii) unpredictable livestock and crop markets; and (iii) insecurity. Investments are needed to ramp up crop productivity through better production methods and climate-resilient techniques, enhanced animal health and nutrition, and strengthened value chains.

Climate profile. The country is generally arid and semi-arid with bi-modal rainfall. The NAPA delineates four climatic zones in Somalia: the desert zone in the north-east; the arid zone in the central area of the country; and the semi- arid and the humid zones in the south and parts of north-west.

Annual mean temperature is close to 30°C throughout the country. Average monthly temperatures reach their maximum during the months of April through June. June to September are the hottest months in the north, while December to March mark the hottest weather for the south. Since the 1960's, a warming trend has been observed in Sub-Saharan Africa[6]. Analysis of 1901-2005 global data shows a 1.0˚C increase in temperature over a century[7].

The rainfall is influenced by the Inter-Tropical Convergence Zone (ITCZ), the north-south movement, which results in two rainy seasons and two dry seasons in a year:

The “Gu” rain season starts as early as the second half of March. Relatively wet and hot conditions prevail, Gu being considered as the major rainy season in the country. Occasionally the Gu season extends into June or July because of the Haggai rains, which are produced by the onset of moist onshore winds.

The “Hagaa” dry season runs from July to September, and is associated with cool sea breezes from the Indian Ocean that results in light coastal rains in July and August. The South-west monsoon dominates, bringing relatively cool conditions, with showers along the coast but dry inland.

The “Deyr” light rainy season is characterized by a shorter duration and less amounts of precipitation in the months of October to the end of November.

January to March is the longest dry season known as “Jilaal”. This season results from ITCZ emerging from the dry Arabian Peninsula.

Total annual average rainfall is 280 mm and the highest annual rainfall is about in about 500-600 mm in high rainfall years[8]. The northern maritime plains are extremely hot and arid with average annual rainfall less than 200 mm. Rainfall in the south is higher at approximately 400 mm and highest in the southwest with around 700 mm rainfall on an annual average[9]. Droughts occur every 2-3 years and are often followed by devastating floods, particularly in the south where the Shabelle and Jubba are vulnerable to heavy rains in the Ethiopian highlands[10].

The temporal patterns of high rainfall variability over Somalia can be directly associated with an upward trend in recent years of extreme events such as floods and droughts impacting the country. The occurrences of extreme events happens when the Indian and Pacific Ocean experiences anomalous sea temperatures and circulation anomalies during El Niño/La Niña, together with Indian Ocean Dipole events. These include the recent droughts of 2000, 2004, 2008 and 2010-2011; and floods of 1997/1998[11].

Water resources. The southern part of the country hosts the only two permanent rivers (Juba and Shabelle), flowing from Ethiopia to the Indian Ocean. High flows are experienced during the wet seasons (April-June and September–November), and the rivers occasionally break through the weak embankments and flood the adjacent land. In the dry season river flow volumes are reduced significantly (FAO Somalia Water and Land Information (SWALIM)). A number of seasonal rivers, “toga”, exist in Somalia and flow during the rainy season. In the dry seasons, these rivers remain dry.

In general, only 52 percent of the population in Somalia have access to a basic water supply[12]. Outside the Juba and Shabelle regions, the Somali population depends on groundwater for domestic water supply, livestock and small-scale irrigation. The main groundwater sources of Somalia are boreholes (depth of most boreholes in the country is in the range of 90m to 250m), shallow wells (the majority of the shallow wells are less than 20m deep), and springs. Surface water collection is also practiced in natural depressions (balley), artificial dams (waro) and man-made cisterns (berkeds) for domestic and livestock use. However, the majority of the groundwater sources have high salinity as measured through conductivity (as a proxy), reaching levels above 2,000µS/cm, which is over the required standard for drinking water (SWALIM). Currently, irrigation for agriculture account for over 90% of water use.

As a result of the civil war, a lack of community organisation and weak public institutions, hydraulic infrastructure has not been maintained or repaired and is extremely deteriorated. Lacking access to watering and irrigation infrastructure for agriculture and livestock is threatening the ability of these sectors to recover and respond to increasingly extreme and frequent droughts[13].

Biodiversity. Somalia forms part of the Horn of Africa biodiversity hotspot and is one of the areas with particular concentration of species diversity and endemism. The country is home to some 3,028 species of higher plants, of which 17 are known to be threatened. Somalia is considered a center of floral endemism and of the known species, 700 (17 per cent) are endemic. Areas under natural woody vegetation closed to open is 52.7% with 336,612 km^2 area and natural woody vegetation sparse or herbaceous is 30% with 191,751 km2 area. Vegetation is dry deciduous bushland and thicket and the country is dominated by the Acacia and Commiphora ecoregion. Main species of this dense bushland include *Acacia bussei, Acacia mellifera, Acacia nilotica, Balanites rotundifolia, Boscia coriacea, Boswellia sacra, B. frereana, Commiphora myrrha,* and *Commiphora Africana*[14]. Closer to the Somali coast, the Hobyo grassland and shrubland ecoregion comprises perennial dune grasslands and sedges. The wetlands of the Shebelle river comprising swamps and floodplains have high significance for biodiversity and the meeting point of the Shebelle and Juba rivers is characterised by the largest area of mangroves in Somalia. Closed forest cover occupies only about 2.4 % of the country[15].

Considering that approximately 70 per cent of Somalis are pastoralists or agropastoralists and that livestock and agriculture represents the large majority of GDP, healthy ecosystems and related services, effective management of natural resources and protection of biodiversity, including that of soils, are crucial for drought, flood, disease and pest control and ultimately the livelihoods of rural communities (World Bank, 2020)[16]. However, Somalia's ecosystems are seriously degraded, threatening the resilience of people that derive their livelihoods from the land. The key direct drivers behind biodiversity degradation are habitat degradation and fragmentation, unchecked hunting/poaching, overgrazing, deforestation for charcoal making and other uses, urbanization, agricultural expansion and mining. In turn, climate change and its associated extreme events (floods, droughts, storms, etc.), invasive species, conflict and the post-conflict situation constitute the indirect drivers of biodiversity loss[17].

Overgrazing and charcoal production in particular have had a profound impact on species composition, ground cover and the structure of vegetation[18]. Charcoal production is the main reason for large scale deforestation of rangelands and is mostly destined for export to Gulf States although it does also fulfil the energy requirements of a significant share of the population. Due to deforestation, the invasive species *Prosopis juliflora* has been able to colonise large areas of Somalia and the International Union for Conservation of Nature (IUCN) has placed *Acacia bussei* - an evergreen, drought-tolerant indigenous tree species that provides fodder to pastoralists - on the Red List of threatened species. Together with climate change, inappropriate land use practices have fragmented and decreased animal habitats and forage not only for livestock but also for wildlife such as hyenas, foxes, leopards, lions, warthogs, ostriches, small antelopes, and a large variety of birds in the south of Somalia.

Somalia is one of the world's biggest exporters of frankincense and myrrh. *Boswellia sacra* and *B. frereana* trees of the Acacia - Commiphora bushlands provide Frankincense whilst the widespread *Commiphor myrrha* and *C. guidottii* provides myrrh. However, overexploitation and poor harvesting practices by a new generation of tree owners and managers have significantly damaged or killed many trees. If managed sustainably, the gum and resin subsector have potential for value addition and exports[19]. Somalia's shrubland also comprises the Yeheb nut, a multipurpose evergreen shrub the seeds of which are consumed by nomads. The bush also provides forage for livestock, firewood and dye. As with many of Somalia's other endemic woody species, the Yeheb bush's number is in decline and efforts need to be made to promote its recovery.

Land degradation. Assessments by Somalia Water and Land Management (SWALIM) have revealed that for the period 1980 to 2009, the most prevalent types of land degradation in Somalia were loss of vegetation, topsoil loss, and the decline of soil moisture. The central and north-east areas of Somalia are most affected by loss of vegetation cover (approximately 1.4% per year). Whilst soils in Somalia are high in pH, potassium and sulphur, they lack nitrogen, phosphorus and organic matter, which restricts crop production and perpetuates food insecurity.

There are direct and indirect causes of land degradation. Direct causes include human activity such as overgrazing, tree cutting for fuel wood and charcoal production, and poor agronomic practices such as down-slope tillage and burning of animal manure (instead of incorporating it into the soil), and limited use of soil and water conservation practices in crop-production areas. The free/overgrazing has led to habitat degradation in multiple ways leading to stunted growth of vegetation and hampering natural regeneration of the woody vegetation[20]. The indirect causes of land degradation include land tenure, illiteracy, poverty, war and conflict, weak governance, and high population density[21]. Due to increased insecurity, pastoralist clans are unable to move freely in the rangelands, leading to concentration of grazing and resulting degradation in certain areas. Climate change, as detailed below, is an aggravating factor of land degradation.

Deforestation. 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 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^2) of the land. Virtually all of the tropical floodplain forest that once existed along the Shabelle River has been cleared for smallholder agriculture together with sugar and banana plantations, except for a small patch set aside as a reserve at Balcad by the Somali Ecological Society. The annual rate of deforestation for Somalia (1.03%) is three times that of neighboring Kenya (0.3%) and almost twice the average rate of loss for Africa (0.62%). It has been noted that the primary causes of de-vegetation and deforestation are overgrazing, shifting cultivation and unregulated charcoal production. Deforestation related to shifting cultivation is prominent particularly in the South. This degradation has been by aggravated by prolonged conflict and rapid environmental degradation in the region[22].

Climate data projections. Key projected climate trends are summarized below:

Temperature. Global and Regional models show that mean temperatures are expected to increase across all areas of Somalia between 3.2°C and 4.3°C by 2080[23]. On the shorter term, all regions in Somalia will experience an increase in annual temperature of 1°C to 2.5°C for the period 2036-2065 compared to the 1971-2000 period. As shown in the figure below for the Greater Horn of Africa (GHA), greater increase is between March and September (when current temperatures are already very high) compared to that for October, November and December[24].

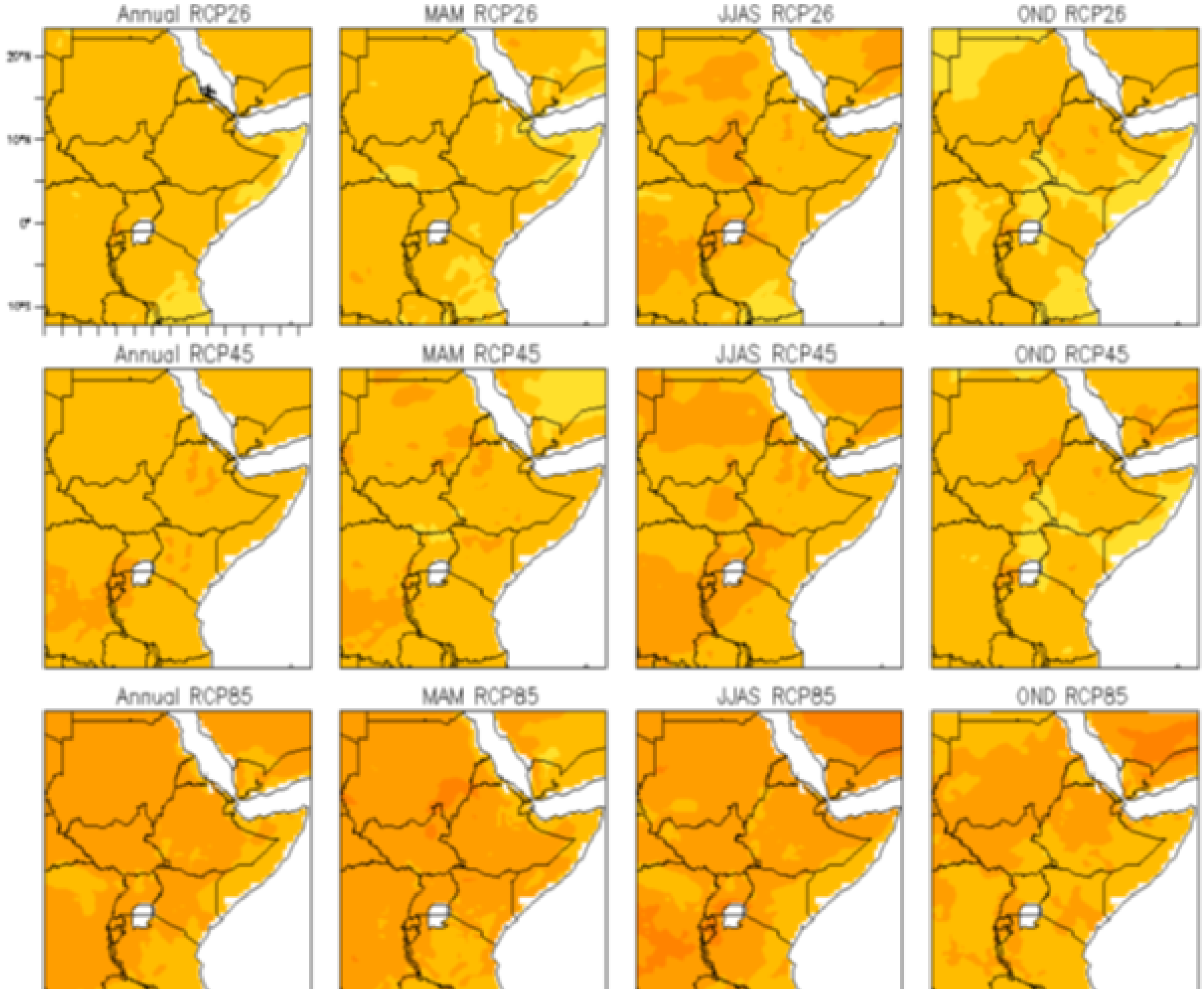
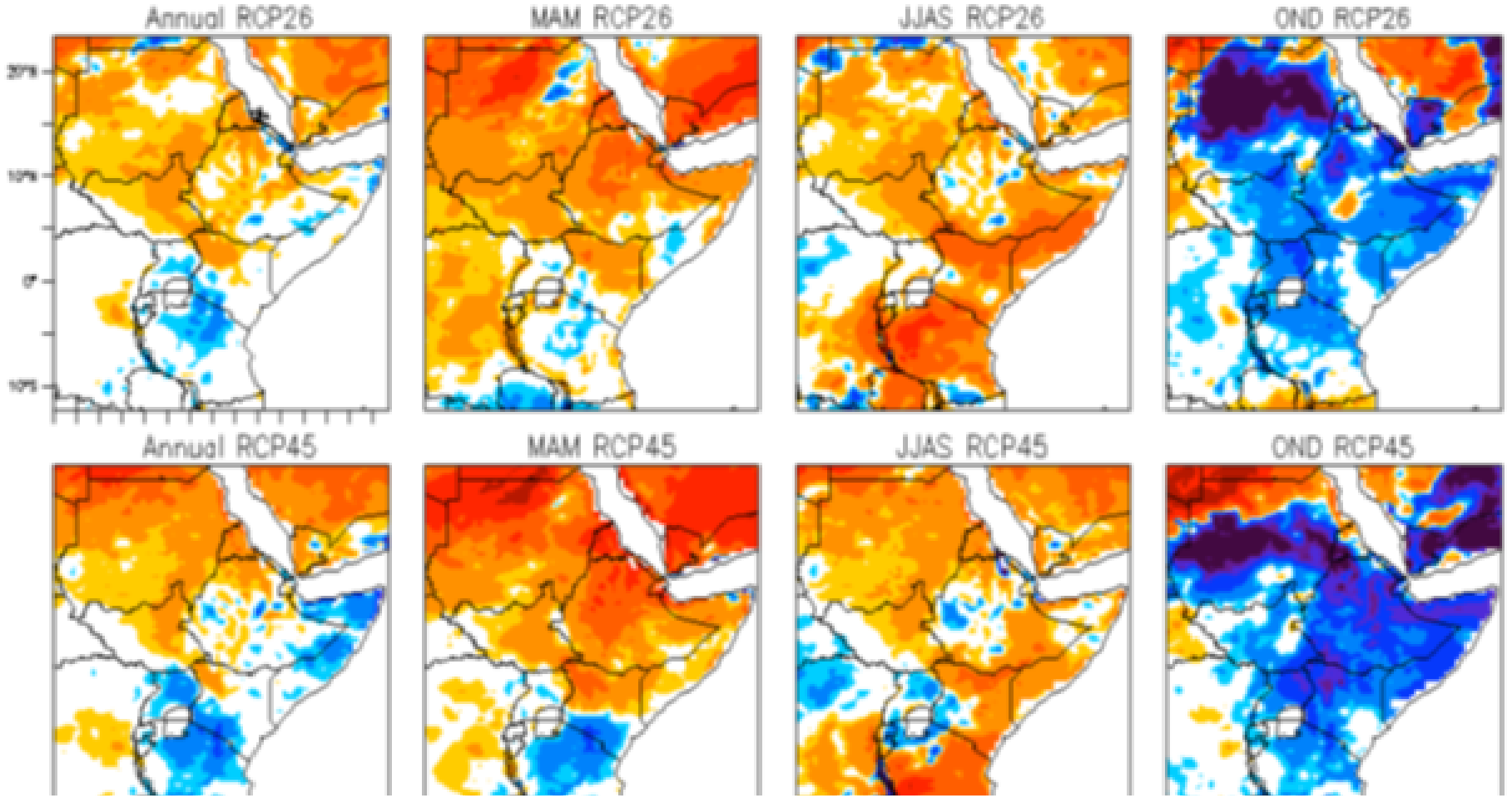

Annual RCP26
MAM RCP26
JJAS RCP26
OND RCP26
Annual RCP45
MAM RCP45
JJAS RCP45
OND RCP45
Annual RCP85
MAM RCP85
JJAS RCP85
OND RCP85

FIGURE 1: PROJECTED MINIMUM TEMPERATURE CHANGES OVER GREATER HORN OF AFRICA BY 2036-2065

Precipitation. The figure below shows projections for percentage change in precipitation for the Greater Horn of Africa (GHA) under three different scenarios for the period 2036-2065 compared to the 1971-2000 period. It can be concluded that for Somalia, there will be a general increase in annual rainfall especially in the North-East under scenarios RCP 4.5 and RCP 8.5 compared to a negligible change under RCP 2.6. Monthly precipitation show different patterns. Summer months (June, July, August and September) show decreasing trends in rainfall under all scenarios in almost all areas. On the other hand, October, November and December show significant increases all over Somalia[25]. This will increase the risks of both prolonged drought and flooding.



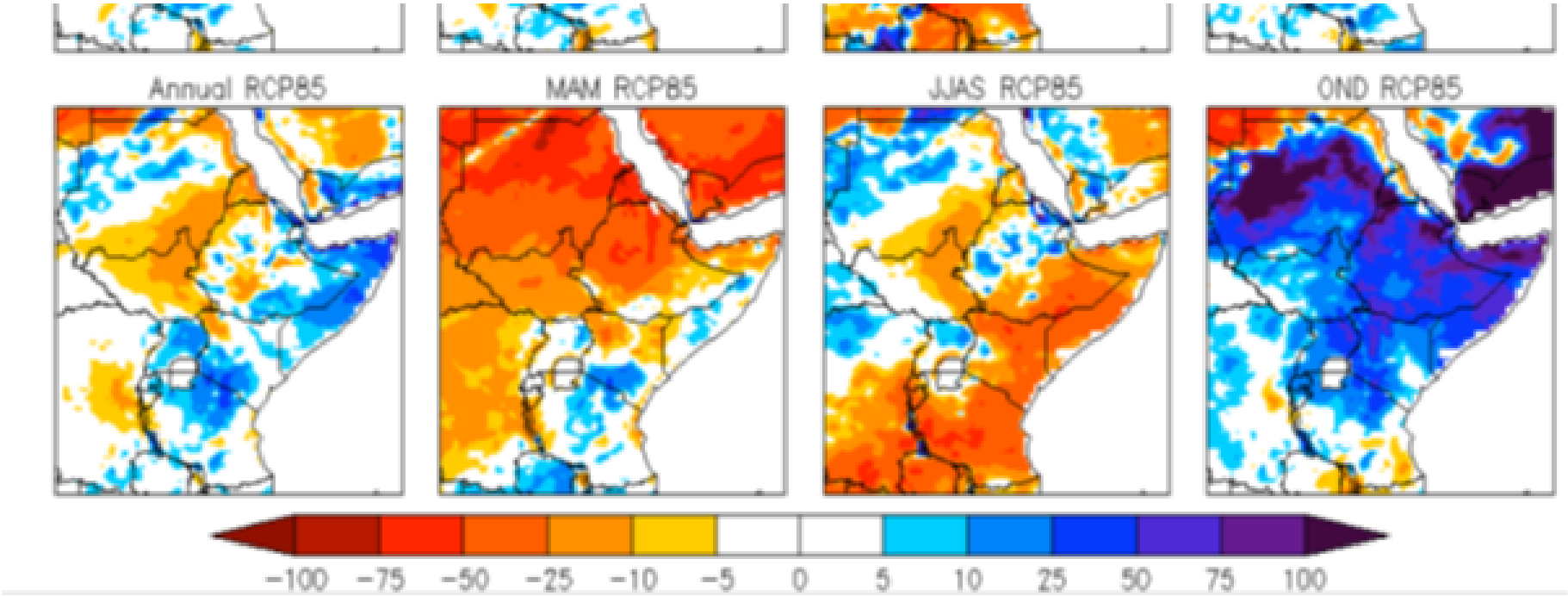
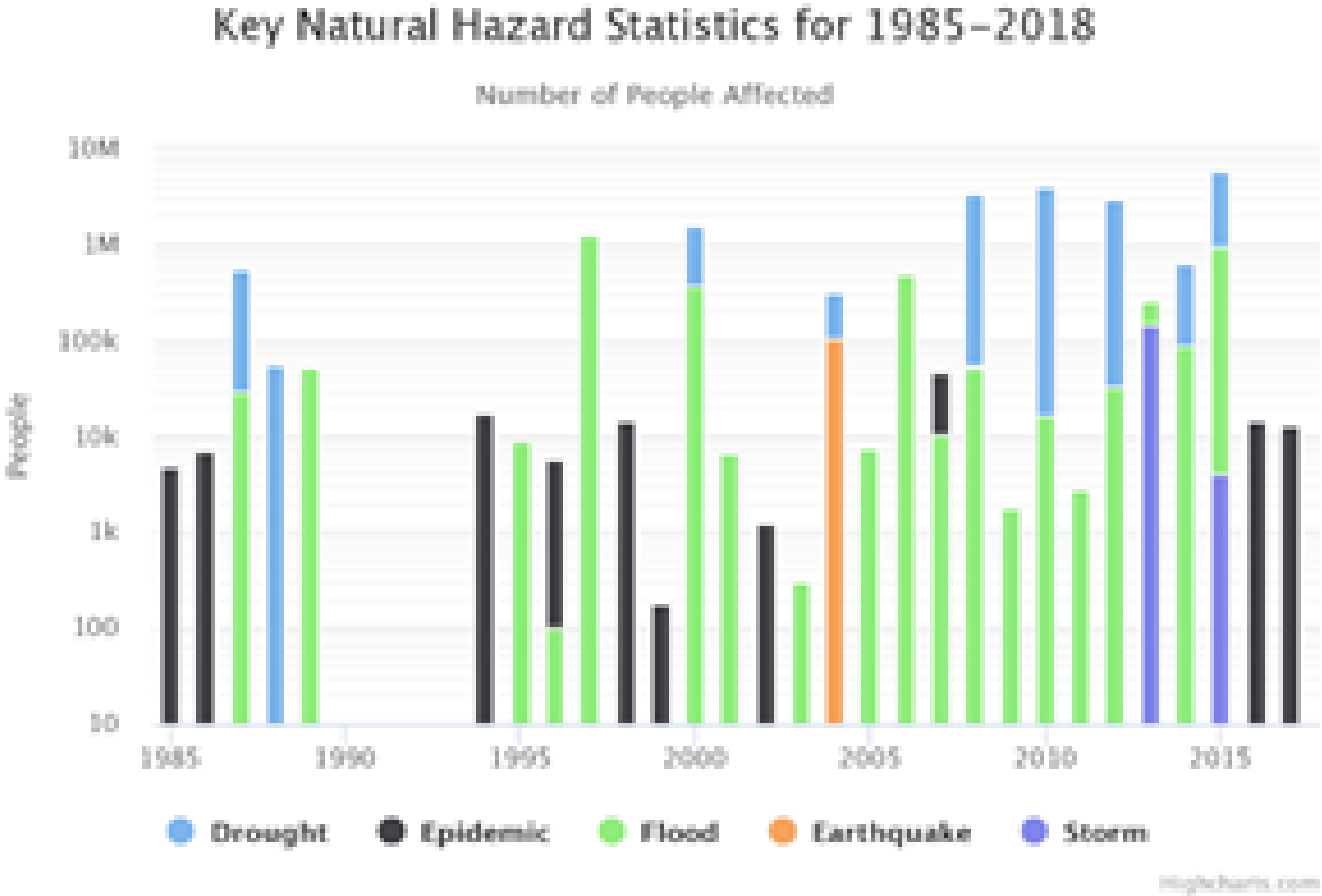


FIGURE 2: PROJECTED PRECIPITATION CHANGES OVER GREATER HORN OF AFRICA BY 2036-2065

Extreme weather events. Drought is the most important, devastating and recurrent natural disaster affecting the country with more frequency and greater intensity in the recent decades. Severe droughts are often alternating with overwhelming floods causing dramatic food crises, reaching famine levels, and massive death of livestock[26]. Between 1961 and 2004, 12 droughts killed 19,600 people and 18 floods killed 2,600 people[27]. It is estimated that in year 2004, 200,000 pastoralists in the northern and central regions were threatened by a drought considered to be the worst in 30 years when about 500,000 were reported to be in humanitarian emergency or livelihood crisis in drought-affected areas[28]. In 2011, drought resulted in 258,000 deaths in Somalia[29]. Flooding frequently occurs in during the Gu rainy season in the Hiran and Middle Shabeelle regions where the situation was described as “precarious”, with several thousand households being forced to flee riverine villages[30]. The figures below show that droughts and flooding have been the dominant natural hazards in Somalia alongside epidemics since the start of the 20th Century. However, between 1985 and 2018, floods and droughts have become by far the leading risks in terms of the number of people affected.


Key Natural Hazard Statistics for 1985–2018
Number of People Affected
People
10M
1M
100k
10k
1k
100
10
1985
1990
1995
2000
2005
2010
2015
Drought
Epidemic
Flood
Earthquake
Storm
Average Annual Natural Hazard Occurrence for 1900–2018
Earthquake

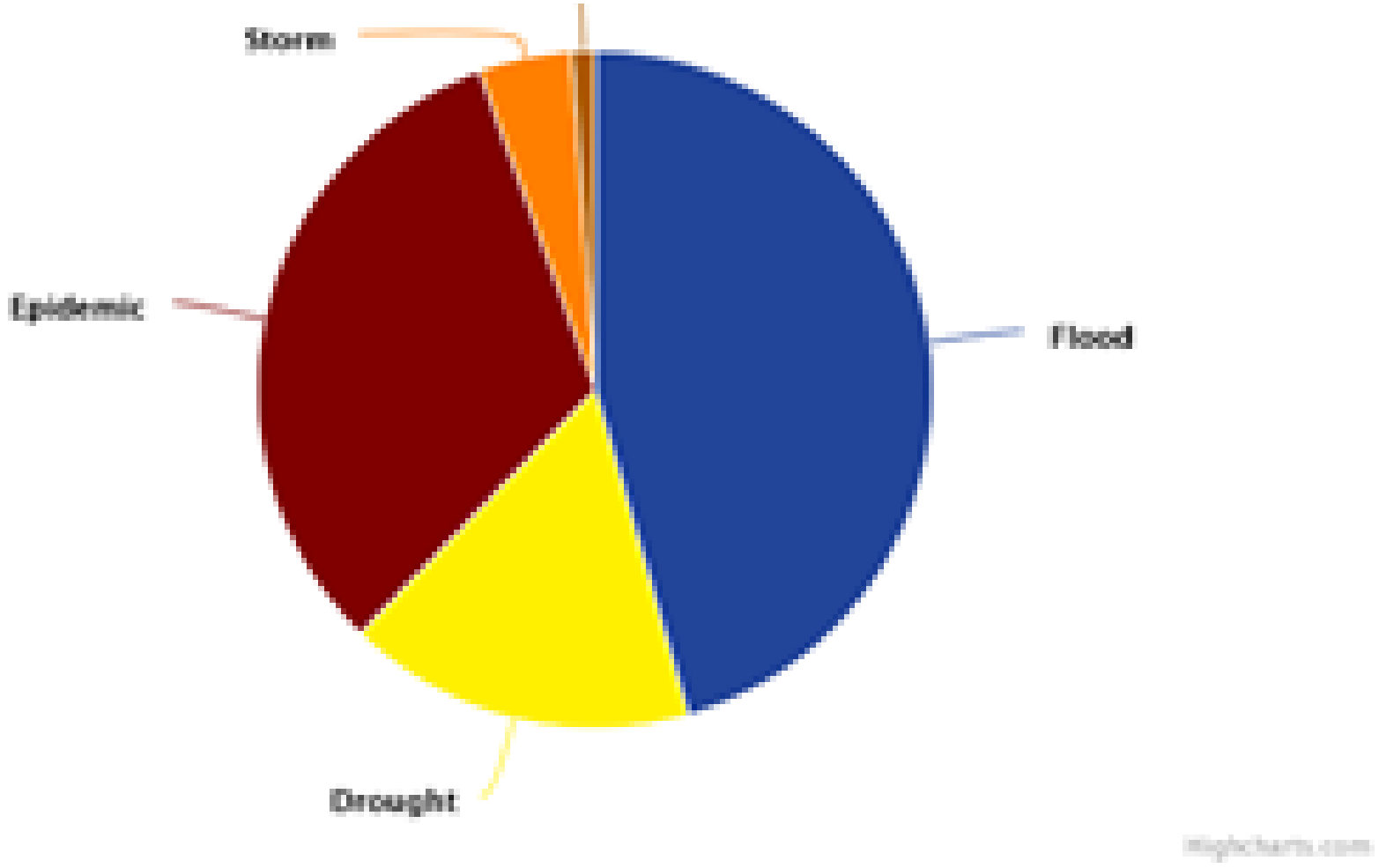


Figure 3: Natural hazard statistics in Somalia

As for future predictions, Somalia is currently considered under high risk of flooding due to increase in intense precipitation and high risk of coastal flooding due to projected increase in sea level rise[31].

Somalia is likely to experience extreme precipitation events at an increasing frequency. For example, days with very low precipitation are projected to increasingly occur for the same time period. On the other hand, an increase in the number of very wet days is predicted as we move towards the end of the century under scenarios RCP 4.5 and RCP 8.5. The figure below shows a projected increase of 24.17% in number of very wet days for the period 2040-2059 under RCP 4.5 (4 A) compared to 14.11% under RCP 8.5 (4B).[32]

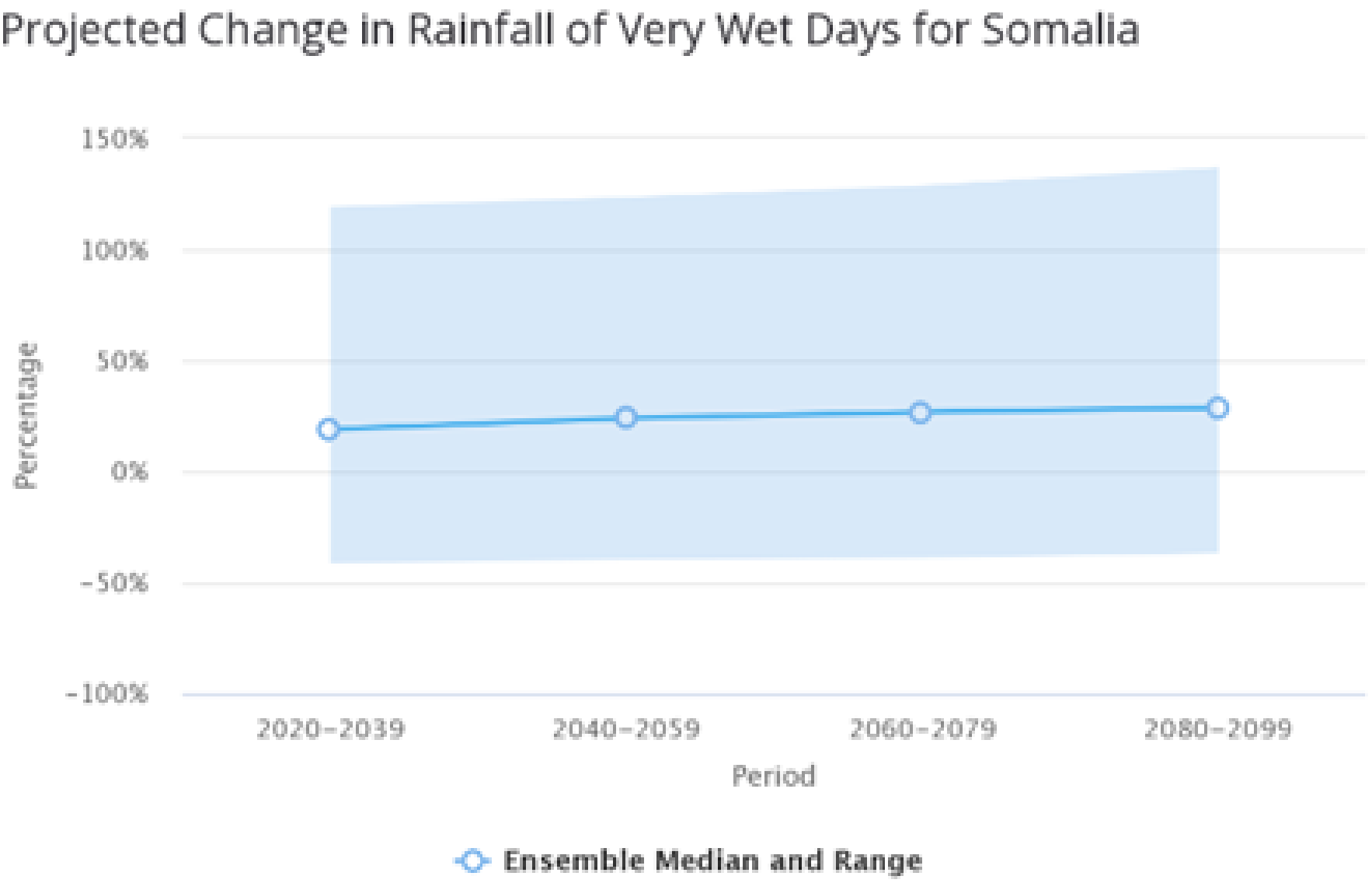


FIGURE 4A: PROJECTED CHANGE IN RAINFALL OF VERY WET DAYS FOR SOMALIA BETWEEN 2020 TO 2099 UNDER RCP4.5

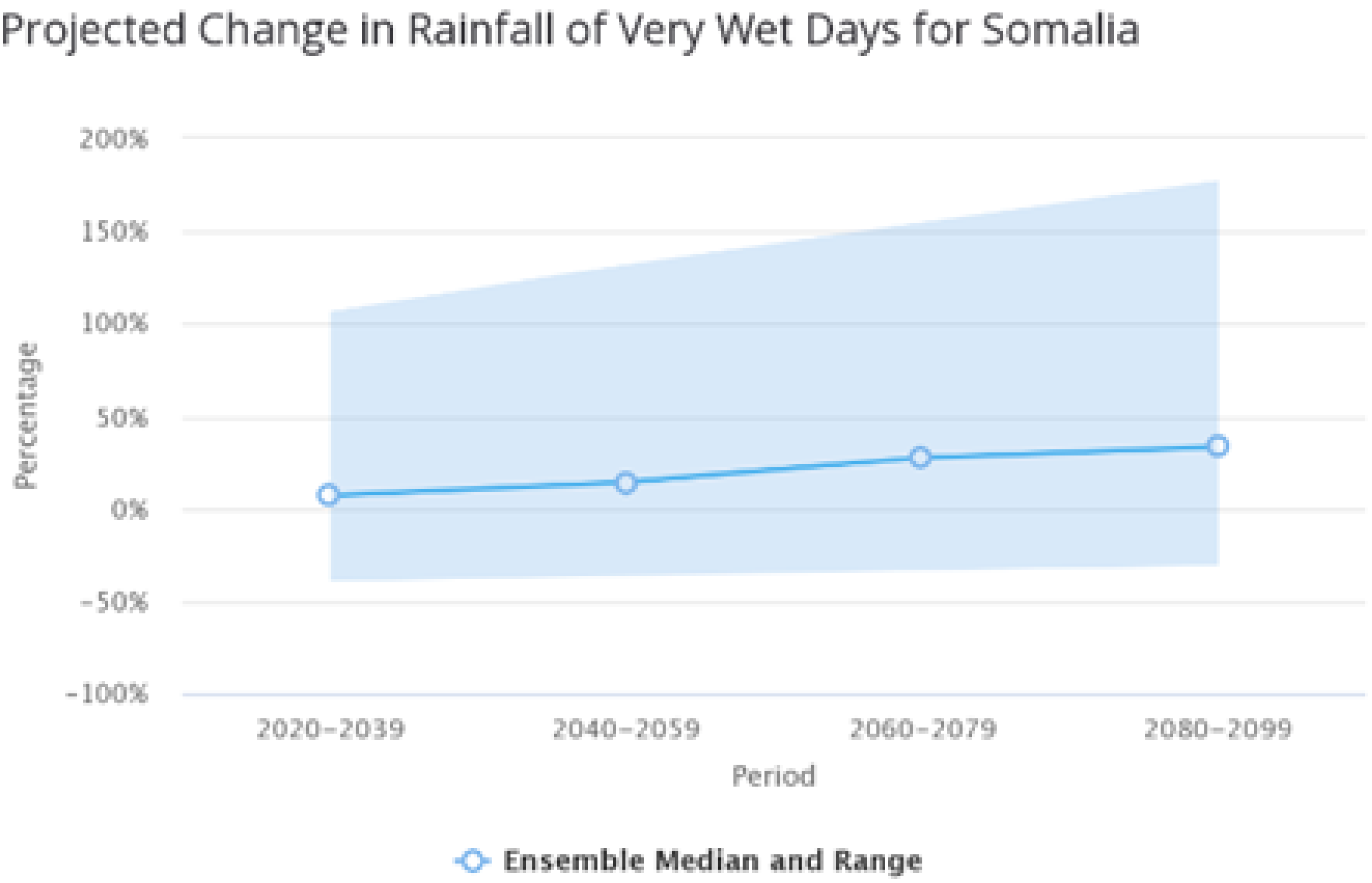
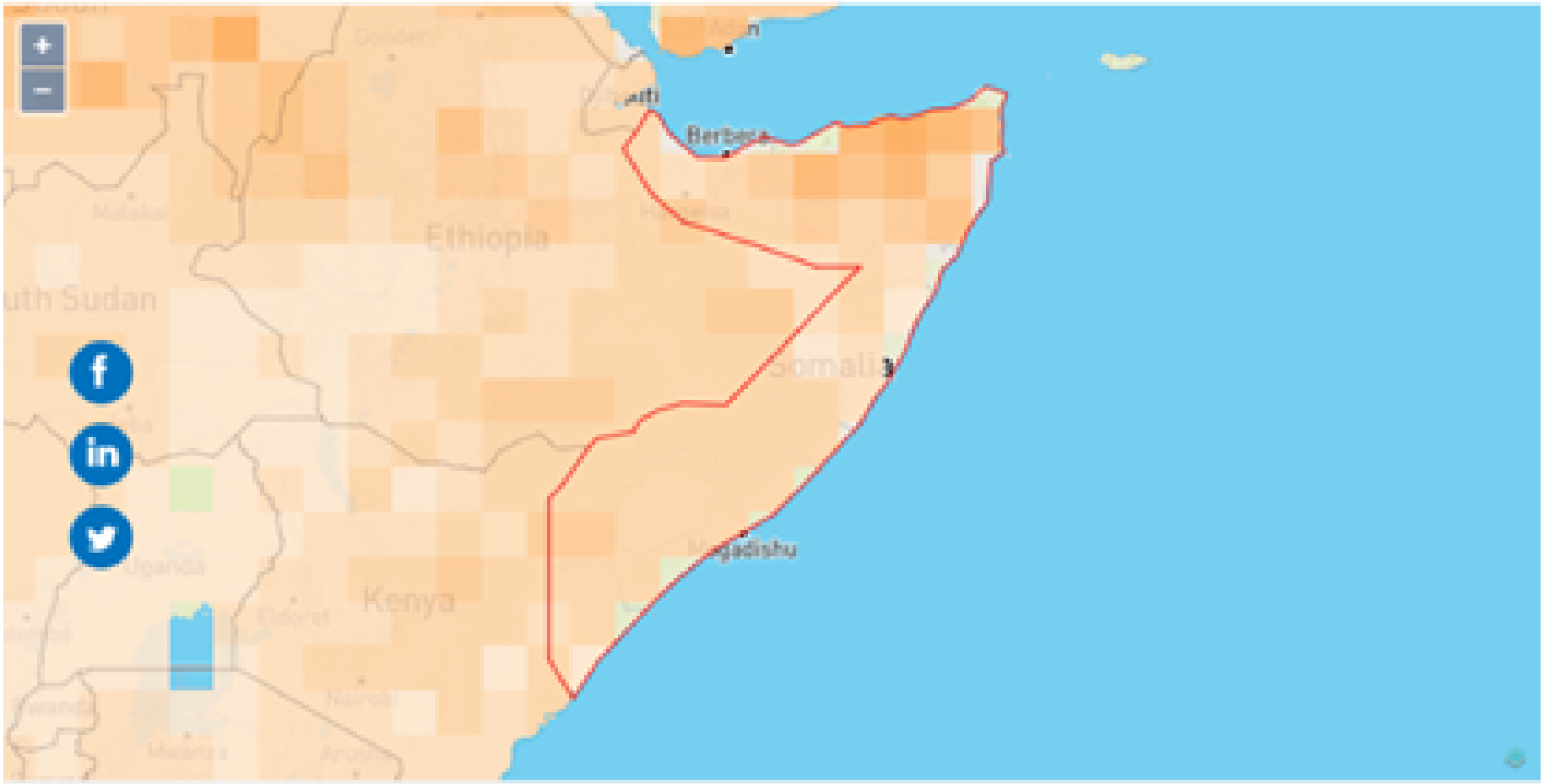


FIGURE 4B: PROJECTED CHANGE IN RAINFALL OF VERY WET DAYS FOR SOMALIA BETWEEN 2020 TO 2099 UNDER RCP 8.5

The probability of droughts is also likely to increase as shown in the maps below comparing Projected Change in Severe Drought Likelihood for Somalia for 2040-2059 to 1986-2005 under RCP 4.5 (5A) and RCP 8.5 (5B)[33].

Projected Change in Severe Drought Likelihood of Somalia for 2040-2059
(Compared to 1986-2005)



SEVERE DROUGHT LIKELIHOOD

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0

FIGURE 5A: PROJECTED CHANGE IN SEVERE DROUGHT LIKELIHOOD FOR SOMALIA FOR 2040-2059 UNDER RCP 4.5

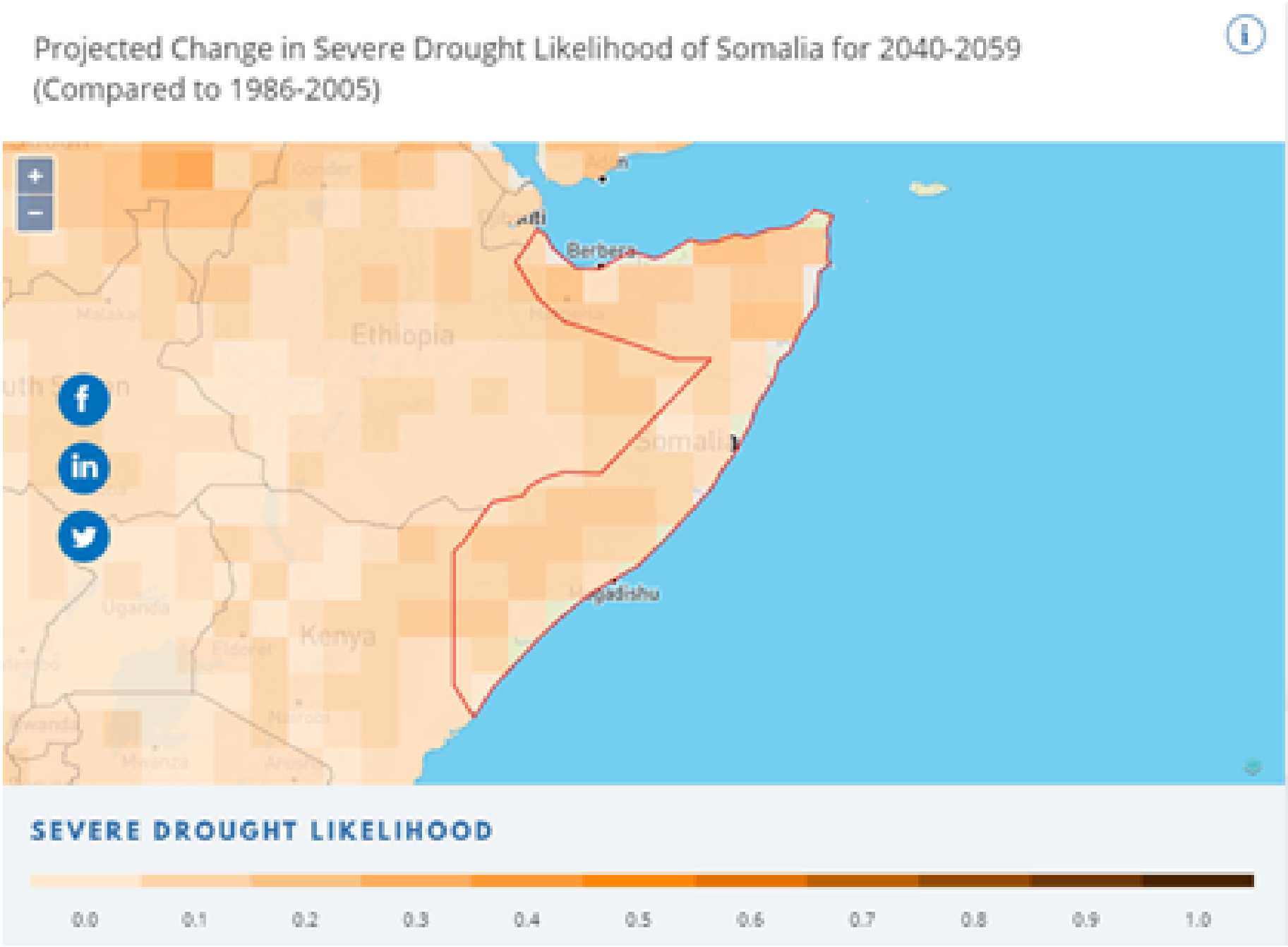


FIGURE 5B: PROJECTED CHANGE IN SEVERE DROUGHT LIKELIHOOD FOR SOMALIA FOR 2040-2059 UNDER RCP 8.5

The Severe Drought Likelihood is likely to reach its highest towards the end of the century with a steady increase under RCP 8.5. The figure below shows the projected change in the likelihood of drought for 4 periods starting 2020 until 2099 under both RCP 4.5 (6A) and RCP 8.5 (6B)[34].

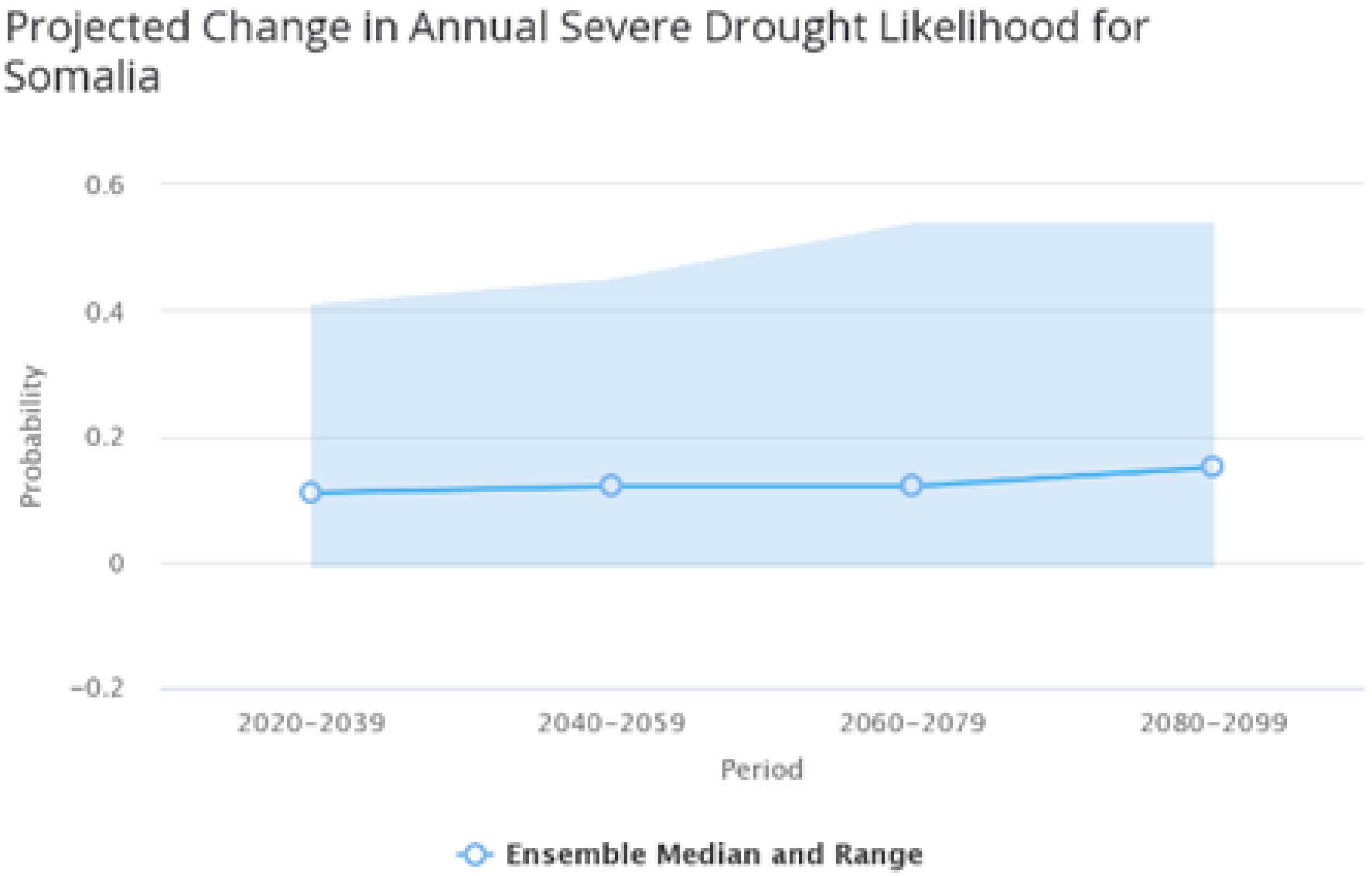


FIGURE 6A: PROJECTED CHANGE IN SEVERE DROUGHT LIKELIHOOD FOR SOMALIA FOR 4 PERIODS BETWEEN 2020 TO 2099 UNDER RCP 4.5

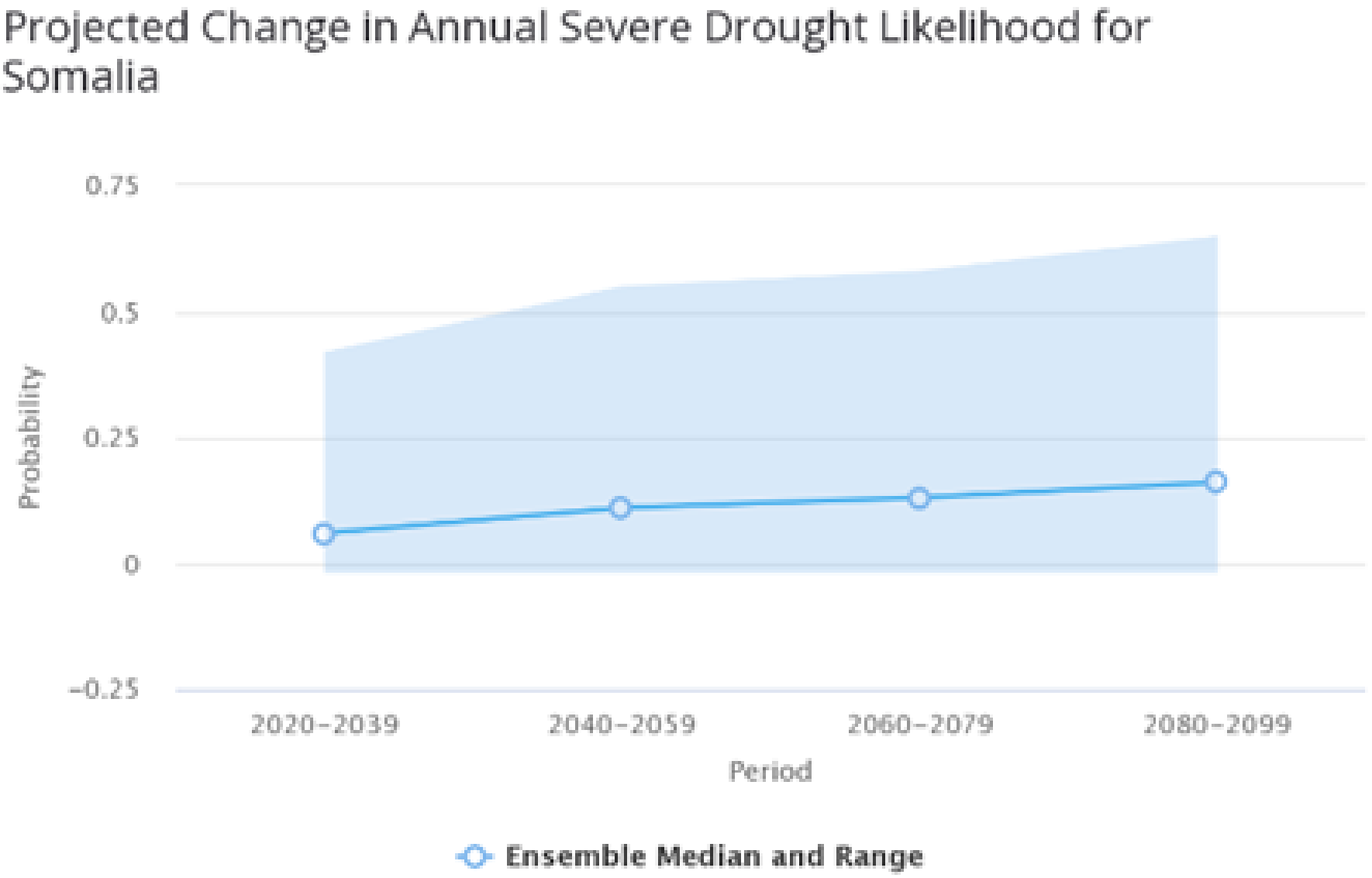


FIGURE 6B: PROJECTED CHANGE IN SEVERE DROUGHT LIKELIHOOD FOR SOMALIA FOR 4 PERIODS BETWEEN 2020 TO 2099 UNDER RCP 8.5

Climate impacts. During the NAPA participation process the consulted communities identified drought and flooding events as the main important hazards. Table 4 is adapted from the NAPA document and presents the sectoral vulnerabilities to each of these hazards. Between 1960s and 2013, Somalia has experienced at least one major climate extreme event in each decade. Major floods that have been experienced since 1960 include; 1961, 1977, 1981, 1997-98, 2005, 2006 and 2009. While major drought events were experienced in 1969, 1976, 1984, 1987, 1999, 2001, 2004, and 2010. Between 2001 and 2010, the

country has been alternating from drought to floods within the years. The observed pattern shows increasing variability in rainfall for Somalia suggesting an increase in the frequency and severity of future droughts and flash flood events[1]. The reported increase of droughts and flood events has already affected different sectors in Somalia. Community consultations found that drought has already caused a decrease in agricultural and livestock productivity; an increase in food prices; an increase in internal displacement where women are most vulnerable to violence; a decline in access to clean water and accelerated the depletion of groundwater; an increase in conflict between livestock herders and nomadic groups over resources; an outbreak of diseases for humans and livestock; and loss of livelihoods. As for flooding, there has been death incidents due to flood events; an increase in disease outbreaks such as malaria and cholera; an increase in incidents of crop loss; an increase in soil erosion and gully formation; a decrease in productivity due to water-logging in soil; and damage to infrastructure[2].

The analysis of climate projections suggest that these impacts are likely to become more frequent and more intense under different scenarios. Projections in the figures above show that the likelihood of severe drought in Somalia is increasing almost 1.5 times as we move from 2020-2039 to 2080-2099 under RCP 4.5. While for RCP 8.5, the likelihood is almost 3 folds for 2080-2099 compared to 2020-2039. The pattern is also similar for rainfall of very wet days with a slight steady increase under RCP 4.5 from 19.22% between 2020-2039 to 28.83% for 2080-2099 period. Change is much more significant under RCP 8.5 going from 6.94% for 2020-2039 to 33.48% for 2080-2099 period. Hence, the table below examines future vulnerabilities to climate change in each sector based on the predicted increase in frequency and intensity of drought and flooding events.

Through the design phase, with PPG funding, the analysis of climate vulnerabilities indicated in Table 1 will be refined, taking into account the full range of scenarios (from RCP 4.5 through RCP 8.5) and through time in order to optimize the project's approach vis-à-vis the range of scenarios. With exhaustive field visits, stakeholder consultations and cost-benefit analyses, Table 1 will also be enhanced to prioritize specific adaptation actions to be implemented with GEF/LDCF funding in order to address the indicated anticipated impacts.

Table 1: Projected sectoral vulnerabilities due to increase in drought and flooding

Sector	Vulnerabilities due to Drought Hazard	Vulnerabilities due to Flooding Hazard
Water resources	- Declining water found in shallow wells (very common) and in ground resources (from boreholes access) leading to high mortality rates in humans and animals - Limited water infiltration to the soil due to the steep terrain, shallow and thin soils and sparse vegetation, increasing risk factor with climate change. - Increased price of water - Lack of clean water for drinking - Increases in conflict over water - Increasing demand for borehole water as shallow wells dry up first	- Increased contamination and pollution by runoff from human settlements, industry and roads impacting on aquatic biodiversity. - Destruction of water infrastructure - Sewage systems can also be damaged, and may also contaminate the domestic water supply. - No capture and storage of floodwater
Agriculture and food security	- Increased demand for agricultural inputs and not enough supply - Increased frequency of water shortages for agriculture as well as rising demand through increased evapotranspiration (due to higher temperatures) - Seeds are eaten to supplement diet and lost for next season planting - Local food prices go up - Increased pressure on remaining resources	- Destruction of standing crops - Loss of stored food - Soil borne diseases that affect crops - Waterlogging of soil leading to low productivity - Increase insects and pests - Loss of agricultural land - Damage to fruit trees - Loss of topsoil and nutrients - Gully formation leading to reduced

	- All government efforts directed at saving lives and away from development - Reduced availability of irrigation waters - River water and shallow well water salinity increases	productivity of agricultural land
Animal husbandry and rangeland	- Loss of animals leading to food insecurity, loss of livelihoods and low export earnings for the economy - Reduced livestock productivity; reduced fertility and reproduction leading to decreased income, and to increased price of products. - Scarcity of pastureland - Conflict over water and rangeland for livestock - Charcoal production increases due to need for alternate livelihood strategies - Sand dunes enter rangeland areas and affect vegetation	- Degradation of rangelands due to erosion
Marine and coastal resources	- Increasing coastal sand dunes cover land areas - Less plankton production - Increased salinity in coastal groundwater due to salt-water intrusion - Coral reef destruction (due to higher SST temperatures)	- Flow of wastewater (contaminated) into the sea - Destruction of mangroves
Health	- Increase of mortality of humans and animals - Shortage of food leading to malnutrition, especially amongst of youth and mothers - Increasing psychological disorders due to stress - Increased incidence of pneumonia, asthma and other lung and nasal diseases. - Increased incidence of heat stroke, sunburn dehydration, heat exhaustion and sunstroke.	- Increase of water borne diseases - Destruction of health service facilities - Overburden on existing health facilities - Disease epidemics

In addition to the impacts on these sectors, climate change is expected to have detrimental impact on biodiversity. Directly, drought and floods can cause damage to habitats, cause wildlife migration and eventually lead to local extinctions. Higher temperatures will also increase some species such as pests, weeds and pathogens. Indirectly, extreme climate events that cause loss of livelihoods can be drivers to exacerbate deforestation for charcoal, increase

hunting, and accelerate soil erosion due to deforestation[3]. Loss of biodiversity and decline in genetic resources would then increase the vulnerability of agriculture, food security and livestock sectors.

An assessment by the World Bank on the impact of the 2019 floods in Somalia shows total losses estimated at $260 million and recovery needs of around $350 million. The agriculture sector's recovery needs were estimated att $28 million. On the medium-term, $35 million is needed for crop resilience, $45 million for water-for-agriculture and $57 million for livestock to deal with future floods and drought events. In addition, 64 boreholes, 272 shallow wells and 58 water pans- estimated at $8.8 million- were damaged. Overall, economic losses as a result of the floods are projected to reach $206 million by 2025. This anticipated deterioration will be driven by a down-turn in trade-related activity following the significant damage to critical infrastructure such as roads, buildings, and bridges[4]. Such damage to infrastructure is expected to increase as the frequency and intensity of flooding increases.

[1] Ministry of National Resources and UNDP (2013). National Adaptation Programme of Action on Climate Change.

[2] Ibid.

[3] Office of the Prime Minister (2018). Somalia's First National Communication of Somalia to the UNFCCC.

[4] World Bank (2020). 2019 Floods Impact and Needs Assessment: Somalia.

Barriers

In summary, Somalia's fragility caused mainly by conflict, social tension and lack of financial resources has hindered the country's ability to sustainably manage its natural resources and reduced its capacity to cope with the impacts of climate change. On one hand, the country's weak institutions and governance frameworks are failing to deal with overgrazing, shifting cultivation, unregulated charcoal production, urbanization and bad agricultural practices. On the other hand, the current observed increase in drought and flood incidents is having a negative impact on Somalia's economy and causing extensive damage to infrastructure especially to roads further crippling access to natural resources. The projected increase in temperature and rainfall variability due to climate change will lead to increased and more intense drought and flood events and will further threaten agricultural livelihoods as well as rangelands, forests and biodiversity. Water and irrigation infrastructure for agriculture and livestock generally face a lack of proper maintenance and repair due to failure of public institutions and community organisations, aggravating the impact of climate change on water scarcity. Adaptive capacities of local communities are further weakened by poverty, conflict and lack of access to climate smart agriculture technologies and techniques. Social tension, marginalization of women and youth, and the breakdown of traditional participatory approaches to the management of forests and rangelands are accelerating deforestation and loss of biodiversity. Finally, the absence of a robust system for monitoring and evaluation of land degradation and biodiversity makes it more difficult to develop local plans for sustainable natural resources management and is a barrier to effective decision-making at policy level.

2) the baseline scenario and any associated baseline projects

The baseline scenario

In support of the National Development Plan, a number of projects are ongoing or under development by IFAD and other development partners, and constitute the projects baseline of the present proposal.

IFAD financed baseline projects

The Rural Livelihoods Resilience Programme (RLRP)

The primary baseline project of the present GEF proposal, accounting for the proposed co-financing, is the Rural Livelihoods Resilience Programme (RLRP) which is being developed with the Government and for which the detailed design would take place in parallel with that of the A2R2. The investment mobilized consists of foreseen supplementary contributions by development partners, with whom IFAD is negotiating based on their planned assistance programs for Somalia. In addition, subject to fulfilment of IFAD conditions for lending to Somalia and IFAD Board approval, IFAD may allocate regular resources from its Programme of Loans and Grants to Somalia during the A2R2 first years of implementation.

The RLRP is expected to start implementation in late 2023. The Project Development Objective is to increase the participatory decision-making and productive capacities of small-scale producers, and agro-pastoralists for sustainable, resilient and profitable agricultural livelihoods and food and nutrition security. The IFAD RLRP project under development is key to IFAD's re-reengagement in the country and is foreseen to be financed from IFAD core resources should the ongoing efforts for debt clearance reach a successful outcome. Additional funding from bilateral donors is also being negotiated. The RLRP has two technical components to which the A2R2 is mirrored:

Component 1 - Community development and conflict risk management has been designed to facilitate communities to understand their environment, natural resources, food security and nutrition needs, and develop and implement costed Community Development Plans (CDPs) to address these challenges. The component has three outcomes:
1) Strengthening community-based institutions and services;
2) Community Development Investment Fund (CDIF);
3) Contingency, disaster and risk mitigation;
Component 2- Support to sustainable agricultural livelihoods aims at an increased and sustainable production and productivity of crop and livestock livelihoods, leading to positive impacts on food and nutrition security, and household asset ownership. This component has three outcomes:
1) Improved crop production;
2) Improved livestock production;
3) Improved value addition, agro-processing and market linkage;
Component 3 - Coordination and capacity building, knowledge management and M&E.
The RLRP is being developed in a fragile context of persistent insecurity and nascent and very fragile institutions. In this context, marked by the extreme fragility of the populations, particularly women, children and the number of internally displaced persons, the approach of development partners is to attempt to reconcile humanitarian aid with development concerns. Thus, the RLRP project will devote the bulk of its resources to meet the urgent needs of the poor in terms of improving their income and strengthening their involvement in the decision-making process. The GEF funding project will complement this development objective with an additional focus on global environment benefits and adaptation, as detailed in Section 1a.3).

The Resilient Livelihood Action to COVID-19 project (RLAC-19)

(Proposed completion date for project: December 2021, Amount requested from the Rural Poor Stimulus Facility: USD 3,600,000)

The project development objective is to contribute to the reduction of small-scale producers' vulnerability, enhance their resilience to COVID-19 shocks on their livelihoods and improve their incomes. With the available initial allocation from IFAD under the RPSF, the project target about 1,000 households or 6,000 direct beneficiaries. The project targets participating communities located in pastoral and agro pastoral areas in *three districts of each state of Puntland (Qardho, Northern Galkayo and Iskushuban districts) and Galmudug (Southern Galkayo, Adado District and Bacadweyne Hobyo districts).*

The project aims specifically at: (i) maintaining and improving agricultural productive capacity of small-scale producers in the targeted areas and (ii) enabling safe and sustainable food systems and market linkages supported through continued and improved supply chains and market access. This will be achieved through two components: 1. Support to Agricultural Productive Capacity. This component aims at ensuring availability and access to inputs and other productive assets for agricultural, fisheries and livestock continued production in spite of mobility constraints; 2. Support to the functionality of food supply chains and post-harvest losses reduction. This component focuses on maintaining the continuity of food supply chains in the targeted areas, and reducing post-harvest losses amongst the target communities.

The project is being implemented through the SADAR Development and Resilience Institute as the Grant Recipient. Specifically, the component supports the following: i) **availing post-harvest equipment and facilities to reduce post-harvest losses** including threshers, silos, hermetic bags to prevent pest damage and maintain grain quality for a longer time etc.; ii) **training of small-scale farmers in post-harvest practices to ensure quality products** (grading, storing, drying, etc.); and iii) **organized local purchases from targeted smallholder farmers' groups.**

The Food Security and Sustainability in Fragile Situations Project (FSSFS), (Duration: 2018 – 2022; Total Cost: USD 3.21 million)

The overall goal of the programme is to sustainably improve food security, nutrition and livelihoods, and build resilience among vulnerable households and their communities. The beneficiaries comprise 13.278 small and big farmers, 50 agriculture service providers, nearly 20 members of the water managing committee located in the lower Shabelle region. The programme specifically targets traditionally marginalized groups such as: women and girls (comprising at least 30 per cent of the total targeted beneficiaries); and young men 15-25 years affected by poverty, social exclusion, unemployment and displacement (at least 10 per cent will be internally displaced people). The project develops four main components: 1) Conflict management; 2) Rehabilitation of hydro infrastructures; 3) Alternative water sources; and 4) Improvement of productivity.

The Productivity enhancing technologies to improve pastoralists and agro-pastoralists livelihoods in dry lands Project (PET)

(Duration: 2017-2021; Total cost: USD 2.0 million)

The programme focuses on the arid and semi-arid lands in the north-western Somalia ("Somaliland") and Djibouti. In Somalia the programme operates in poor rainfall areas in different ecological systems of "Somaliland", in those areas where previous IFAD project have successfully operated. The programme targets nomadic pastoralists and settled agro-pastoralists (5190 households) who are poor and threatened by recurrent drought and climate change.

The objectives are to: (i) deliver technological packages to increase and stabilize the productivity of sorghum/maize based rainfed production systems and of fruits/vegetables irrigated based agriculture farming systems; (ii) deliver technological packages to increase and stabilize the productivity of rangelands and small ruminants; (iii) demonstrate and promote efficient watershed management technologies; and (iv) improve the capacities of national research and extension staff to provide support services to pastoralists, agro-pastoralists and irrigation farmers. The programme consists of four closely linked technical components:1) Technology packages for rainfed agriculture and for small scale irrigation; 2) Technology packages to increase range and small ruminant productivity; 3) Efficient and affordable watershed management technologies: and 4) Capacity development.

Other baseline projects/programmes

The Water for Agro-pastoral Productivity and Resilience Project (WAPR)
(World Bank project, duration: 2019-2023, total amount: USD 42 million)

The development objective of the Water for Agro-Pastoral Productivity and Resilience Project for Somalia is to develop water and agricultural services among agro-pastoralist communities in dryland areas of Somalia. The project focuses primarily on: i) improving access to multiple-use water resources (for human consumption, livestock and small-scale irrigation) in dry lands of Somalia; ii) strengthening capacity of communities and local, state and national-level institutions; iii) supporting community-led investments in sustainable land management; iv) promoting the uptake of productivity-enhancing innovations among target rural communities; thereby v) strengthening the adaptive capacity of rural communities in Somalia and their resilience to the impacts of Climate Change.

The project comprises the following technical components: 1) Support development of multiple use water sources (USD 15 Million IDA); 2) Institutional and Capacity Development (USD 6 Million IDA ; 3) Supporting Sustainable Land Management and Livelihoods Development Around Water Points (USD 9.5 million IDA).

One hundred (100) community sites are being developed with a combination of small-scale water, agriculture and livestock interventions, forty (40) in Puntland and forty (40) in Somaliland. In Galmudug and South West states, twenty (20) water points are being developed, ten (10) in Galmudug and ten (10) in South West States.

The Sustainable Charcoal Reduction and Alternative Livelihoods project
(a joint UNDP, UNEP, and FAO project; Duration: 2016-2022, amount contributed: USD 7,410,000)

The project aims to reduce demand for charcoal while also providing Somalis with alternative options for clean energy and sustainable livelihoods.

The first major component of the project is to build the capacity of those in power, and to build awareness of the environmental issues associated with charcoal production. The project has worked with all levels of government, supporting the development of a charcoal policy, but also strengthening the capacity of Somalia's sub-federal states. The second component is to reduce demand for charcoal inside Somalia through producing and distributing fuel-efficient stoves.

The final component of the project, led by the Food and Agriculture Organization (FAO) is promoting alternative livelihoods, such as livestock raising, horticulture, and bee-keeping, for those currently working in charcoal production.

The Strengthening national capacities for improved decision-making and mainstreaming of global environmental obligations Project
(UNDP, duration: 2018-2022 total amount: USD 2,550,000.00, including a GEF project grant of USD 1,000,000.00)

The GEF funded project provides an opportunity to strengthen Somalia's institutional capacities to meet and sustain Rio Convention obligations. This project directly addresses three main categories of articles under the three Rio Conventions: 1) building of capacities of relevant individuals and organizations (i.e., resource users, owners, consumers, community and political leaders, private and public sector managers and experts); 2) developing capacities of individuals and organizations to plan and develop effective environmental policy and legislation, related strategies, and plans based on informed decision-making processes for global environmental management; 3) strengthening environmental governance, specifically, to strengthening capacities of individuals and organizations to enact environmental policies or regulatory decisions, as well as plan and execute relevant sustainable global environmental management actions and solutions. At the end of the project, each of the three project components will result in an expected outcome, namely: 1) Environmental governance is improved through strengthened policy coordination, 2) Global environmental governance is decentralized, and 3) Environmental attitudes and values for the global environment are improved.

The Rural Livelihoods' Adaptation to Climate Change in the Horn of Africa - Phase II (RLACC II) AfDB, Duration: 2017-2021 total GEF grant: USD 17,067,592)

The GEF project, implemented by the AfDB, is a multinational project that covers Sudan (USD 7,082,407) and Somalia (US$ 9,985,185). IGAD is the executive agency for Somalia. The program activities are country-driven and are implemented through two Projects respectively in Sudan and Somalia. The Somalia component targets Somaliland (Awal region, villages of Quljeed, Ton and Salawley-Cheikh Hared), Puntland (Bari and Nugaal region), and South-Central Somalia (Galguduud and Hiraan States), for a total of USD 9,985,185.

The project is expected to improve the resilience of pastoral and agro-pastoral communities to climate change through: (i) introducing adaptation strategies to reduce the negative impacts of climate change and strengthen the capacity of pastoral/agro-pastoral households to cope with climatic hazards, (ii) enhancing the capacity of communities to not only absorb shocks, but to also effectively adapt their livelihoods to harsher climatic conditions, (iii) helping pastoral and agro-pastoral households manage drought risks, (iv) supporting community-led initiatives to protect, conserve and restore natural resources in a sustainable and climate-resilient manner, (v) strengthening the participation of pastoral communities in planning and implementing activities pertaining to their development.

The Support for Integrated Water Resources Management to Ensure Water Access and Disaster Reduction for Somalia's Agro-Pastoralists
(UNDP, Duration: 2019-2023; total amount: USD 78,575,000; GEF funding: USD 8,831,000; total co-financing: USD 68,244,000)

Working with a range of development partners, as well as traditional leaders, women's groups, local NGOs and community-based organizations, the four-year project (2019-2023) aims to increase Somalia's capacity to manage water resources sustainably in order to build the climate resilience of rural communities.

The project focuses on: 1) National policy reform and development of integrated water resource management (IWRM); 2) Capacity-building at the national, state, district and local levels; 3) Infrastructure for improved climate and water monitoring; 4) Capture and sharing of best practices on IWRM.

3) the proposed alternative scenario with a brief description of expected outcomes and components of the project;

Theory of change - GEF/LDCF funding through A2R2 will complement the RLRP, with a focus on increasing resilience and adaptation to climate change impacts, conservation of biodiversity and sustainable use of natural resources to achieve land degradation neutrality. This requires a multi-dimensional integrated landscape approach that takes into account the complexity of challenges and the diversity of poverty and vulnerability drivers and barriers to change in a context of insecurity. In order to support climate change adaptation, the project will invest in sustainable land and water management for a climate-resilient agriculture and to improve the livelihoods of the most vulnerable rural communities, especially women and youth. This will be achieved through mitigating the impact of a foreseeable increase in average temperatures, coupled with higher inter-annual variability in precipitations. The project will undertake concerted, planned and participatory actions for the restoration of rangelands together with the reinforcement of pastoralists' and agropastoralists' technical and land management capacities.

At the institutional level, the project will provide support for the integration of sustainable land management and biodiversity conservation into appropriate strategic development frameworks at all levels. It will concomitantly build the capacity of administrative staff in information collection and processing that will enable monitoring, evaluation and reporting. The project's knowledge management activities will enable the exchange of experiences among stakeholders, as well as the systematic analysis and documenting of lessons learned with a view to upscale successful results to other regions in the country. It will also enhance decision-making at local and national levels and inform policy development.

The A2R2 will be delivered through the implementation of 4 components with GEF/LDCF financing.

Component 1 will build **climate resilient hydraulic infrastructure and develop agroecology** through 4 Outcomes:

1) **Climate resilient hydraulic infrastructure profitably and sustainably operated by vulnerable communities.** The project will support the development of small-scale drip and sprinkler irrigation, the building of shallow wells, surface water retention dams, household cisterns, floodwater spate irrigation structures where appropriate, resilient to climate change and using renewable energy (solar energy) for pumping. Due to the increased risk of infrastructure damage due to the foreseen increase in frequency and intensity of extreme events, the project's Environmental and Social Management Plan (ESMP) will identify the necessary studies for site selection and developing technical specifications as well as the monitoring mechanism to mitigate this risk. In addition to the infrastructure development, particular emphasis will be placed on the creation and/or strengthening of community maintenance and management groups to ensure the long-term sustainability of the infrastructure and the prevention of conflict over access to water. (*Outputs: feasibility studies carried out; climate change resilient surface water infrastructure built; Communities (including 50% women) trained in the management of hydraulic infrastructure; solar energy equipment installed*);

2) **Agroecological productive technologies and practices adopted by small-scale farmers & pastoralists.** This will be reached through the implementation of farmer field schools (FFS) for training farmers and agro pastoralists (including 50% women and youth for inclusive learning[1]) on agroecological approaches and practices, water and soil conservation practices, climate-resilient and non-GMO seed varieties, including indigenous varieties. Through its highly participatory and horizontal approach, the agroecological FFS will build on traditional practices and actively involve beneficiaries in the identification of challenges, socio-culturally sensitive solutions and opportunities that increase resilience to climate change impacts. Practices could include mixed-farming, agroforestry, crop diversification, crop rotation, zai pits, semi-circular bunds, small-scale irrigation, promotion of home gardens, leguminous fodder cultivation, enhanced seed selection and storage, better use of crop residues and other by-products for organic fertilizer production, mulching and as animal feed. The FFS could also promote the development of demonstration plots on participants' plots of land and organize farmer to farmer visits to exchange experiences and promote innovation. (*Outputs: farm schools established for farmers and agropastoralists, productive agroecological approaches and techniques identified and piloted, farmers and agropastoralists trained*);

3) **Microfinance mechanism supporting climate proof income-generating activities established and functional**

In Somalia the poor rural communities have no access to financial services provided by the formal sector. Banks are frequently reluctant to support poor people those want to expand their businesses with a loan. Poor communities in Somalia, particularly women, face many challenges to access credit from Microfinance institutions (MFIs), the main constraints identified being: 1) Individual collateral, particularly for women[2]; 2) Repayment period/time; 3) Restricted mobility due to insecurity. In addition, women face even more difficulty for accessing to credit because of the reproductive functions they are burdened with, their lack of technical skills, clan-biased recruitment practices, and the private sector being not yet providing female- friendly working environments[3].

To address these challenges, the GEF project will carry out a feasibility study on the design and establishment of a specific financial mechanism aiming at proposing to the poorest households accessible lending products targeting nature-based solutions and climate resilience. The study will take into account the cultural aspects of lending and borrowing: Somalia is an Islamic country and Islam has serious reservations against the charging of interest. The study will identify the most relevant MFI to partner with, and which can offer financial products adapted to the needs of the poorest stakeholders and the objectives of the project (eligible criteria will be defined, as well as procedures for individual and/or collective access to funds, etc). The study will also focus on assessing the capacity building needs of stakeholders, particularly women, as well as identifying NGOs that can support them in mobilizing credit and setting up their business/income generating activities.

The World Bank has identified six major MFIs[4] operating in Somalia either as affiliated subsidiaries of commercial banks or registered as nongovernmental organizations (NGOs). This includes MicroDahab, IBS Microfinance, Premier Microfinance, AMAL Microfinance, KAABA Microfinance, and Kaah International Microfinance Services (KIMS). Many local and international NGOs provide also heavily subsidized microfinance products.

Regarding coaching and capacity building of poor households, IFAD has already worked with several NGOs in Somalia, such as the Somali Disaster Resilience Institute (SDRI), or Vétérinaires Sans Frontières-Germany (VSF-G), among others. The feasibility study will identify the most appropriate MFIs and NGOs to perform this component of the project.

In this perspective IFAD will build on its experience in other countries in the region. For example, in Syria, the Integrated Livestock Development Project (ILDP) established a specific microfinance fund, the "sanadiq", with the objectives of: 1) helping beneficiaries of the Fund to develop their income-generating activities related to their pastoral activities; 2) promoting women's active participation and contribution in the Fund (Sanduq) to enable them economically and socially. This financial mechanism is very similar to the traditional mechanisms that exist in West and East Africa: the ROSCAs (rotating savings and credit associations) called "hagbads" in Somalia. In Sudan, the IFAD Sustainable Natural Resources and Livelihood Program (SNRLP), through co-financing, ensured partnership with Microfinance Institutions that were ready to provide access to credit to beneficiaries to help them meet the beneficiary contribution needed to access seed capital financing. SNRLP offered seed capital support for start-up Natural Resources based MEs in collaboration with partnering financial institutions (PFIs). *(Outputs: Microfinance mechanism designed and tailored poor households' needs in the context of the sustainable natural resources management; Partnership built with identified MFIs and NGOs to support capacity building and access to credit of poorest households).*

4) **Increased household incomes for the poorest households,** for rural women and youth in particular, identifying diversified environmentally sustainable opportunities through the well-tested GALS approach (Gender Action Learning System)[5]. The most appropriate income-generating activities (IGAs) will be selected with the support of the contracted NGOs (such as IGAs addressing market access, storage, processing and preservation) and will contribute to improved nutrition and food security, and reduce losses of agricultural products in quantity and quality; (*Outputs: income-generating identified through GALS; poor households trained, equipped and coached to undertake new IGAs*).

The objective of **Component 2** is to promote a **landscape approach to an integrated management of rangeland and forest ecosystems for land degradation neutrality and biodiversity conservation**.

This will be achieved through three Outcomes:

1) **Rangeland biodiversity enhanced** by reseeding degraded rangelands with drought-resistant native species, by reforesting and undertaking assisted natural regeneration (ANR), and the development of SLM practices to combat erosion and land degradation. Lessons from other Sahelian countries show that regenerating trees in rangelands and on-farm fields for crop production has socio-economic and biophysical impacts, but is also a means of adapting to climate change. The project activities will include the community-based development of an inventory of the state of and multiple uses by the communities of rangeland plant genetic resources, including related underlying causes and the identification of particularly threatened native species; participatory analysis and planning of the ecosystem restoration practices (e.g. ANR, resting of rangeland, reforestation) to be implemented by the communities, particularly women and youth; training of the communities in rangeland restoration and participatory monitoring, especially related to biodiversity conservation. As a result, the project will contribute directly to **restoring the productivity of depleted rangelands** and farmland (*Outputs: participatory inventory of native species, 6,000 ha of degraded rangeland restored, rangeland productivity increased on 55,200 ha*);

2) **Sustainable management of rangeland,** through the development of participatory water and pastoral plans managed by pastoralist community organizations. The project will support the establishment or the reinforcement of conflicts resolution mechanisms on use of land and water. Land use plans will be developed using participatory and gender-sensitive approaches and communities will be trained on the importance of ecosystem restoration, the identification of the challenges faced and the joint development of socio-culturally acceptable solutions. This will include activities such as the participatory

mapping (involving both women and youth) of the rangelands, their state and conflicts and threats, focus groups to develop potential solutions and methods for the communities to implement and monitor them. (*Outputs: Pastoralist community organizations trained; land use plans integrating biodiversity conservatino established and funded; grievance and conflict resolution mechanisms functional to prevent conflict over rangeland and water resources*);

3) **Degraded forests restored** through the establishment of native species nurseries, managed by local cooperatives and/or private entrepreneurs. The project will support local communities to restore the degraded forests by providiing coaching, strengthening management capacities and direct and indirect incentives that will be defined according to specific context. Through the nurseries' production and subsequent reforestation as well as ANR by local communities, the project will restore degraded forests and rangelands in the project area. This project activity could in particular represent job opportunities for both women and youth. (*Outputs: 4 tree nurseries established; community capacity on management of nurseries and sustainable forestry enhanced; 850 ha of forest habitat restored to sustain greater biodiversity; 100 green jobs created)*

Component 3 will provide **institutional strengthening to support land degradation neutrality and biodiversity protection,** through one outcome: **Strengthened institutional capacity and policy environment to achieve LDN and conserve biodiversity**.

Under this outcome the GEF/LDCF project will design and implement, from the local to the federal level, a monitoring and evaluation system for land degradation and biodiversity, including the development of a Geographic Information System (GIS).

Baseline assessments which will contribute to informing the selection of areas for restoration and reforestation will be carried out and benchmarks for monitoring and review will be put in place, in line with the NBSAP and the Somalia National Action Programme for the UNCCD. B-INTACT could be used as a decision-making tool in project design by identifying the biodiversity-related impacts of a specific project area(s) and types of activities, and giving an estimation of the expected value of BD that will be safeguarded thanks to the project. In terms of assessment, monitoring and evaluation of biodiversity during project implementation, participatory biodiversity monitoring would be an appropriate methodology as it is more cost-effective and sustainable than hiring biodiversity experts and at the same time provides employment opportunities for local communities. A further advantage of participatory monitoring is that local communities are actively involved in biodiversity conservation and decision-making on resource management. In order to ensure good quality monitoring, training and guidance through a competent local research centre, NGO or public institution should be provided.

With regard to LDN the data collected will be used to build the SDG indicator 15.3.1 “Proportion of land that is degraded over total land area”, through the evaluation of 3 parameters:

- Trends in land cover,
- Trends in land productivity,
- Trends in carbon stocks above and below ground

Institutional actors' capacities at all levels will be strengthened on M&E of land degradation neutrality (for the collection and the analysis of LDN data which enable measurement of environmental and socioeconomic change), and on M&E of biodiversity as well, through the characterization of the biodiversity status and its evolution. This will contribute to enhancing decision-making at local and national levels.

The GEF/LCDF project will strengthen the Coordination Mechanisms on Natural Resource Management at federal, national and local level. In the specific context of Somalia, characterized by the gradual establishment of administrative structures at all levels, following a long period of conflict, this action is of particular importance considering that it is the first time that sustainable management of natural resources is included as a development goal, through the 9th National Development Plan (NDP-9).

The project will also support the mainstreaming of land degradation and biodiversity objectives into the relevant local, national and federal strategies and plans, notably the NDP-9 , and promote participation of farmers and agropastoralist organizations in policy processes. Indeed, the NDP-9 considers “Better manage Somalia’s environment and its natural resources” as a cross-cutting policy (imperative) to be integrated into each NDP-9 pillar:

Pillar 1: Inclusive politics

Pillar 2: Security and the rule of law
Pillar 3: Economic development
Pillar 4: Social development

(Outputs: LD and biodiversity M&E system established, institutional actors' capacity on M&E of LDN and biodiversity reinforced; NRM coordination mechanisms functional; LDN and Biodiversity addressed in the implementation of the NDP-9 and other strategies and plans).

Component 4 on Knowledge Management and Monitoring & Evaluation will focus on documenting and disseminating best practices as well as the systematic collection and analysis of lessons learned in order to scale up successful experiences, through one outcome: **Project progress and results are captured in real time and capitalized to improve management, promote learning and support upscaling of best practices**.

This outcome will be achieved through:

- The effective implementation of the project's monitoring and evaluation plan;
- The systematic collection of CCA, SLM and community-based conservation and agricultural production best practices. The new knowledge and lessons generated from this project will be captured from case studies, rapid evidence review and project reports. In addition, the Knowledge Management (KM) approach will include activities for the project to learn from other relevant projects and initiatives, to assess, document and share these experiences and expertise with relevant stakeholders. There will be continuous information exchange between the project and other projects of similar focus in the country or the region. The KM will also promote learning and continuous improvement, generating documents for upscaling of lessons and best practices;
- The elaboration and implementation of a Communication strategy. The project will develop a communication strategy for the dissemination of experience and lessons learnt generated by the project and for raising awareness. Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums, and through the website the project will establish to this end. IFAD will ensure that knowledge is also disseminated regionally and globally.

(Outputs: Project M&E plan implemented; Best practices collected; KM products disseminated).

Geographical targeting.
Subject to security and access constraints, the project will target the southern states of Somalia, that have not benefited from investment projects as much as the northern states and where natural resources are the most degraded. Tentatively, the project will identify specific districts within the Galmudug, South West, and Hirshabelle Federal Member States (FMS). Within this initial programme area, the selection of participating districts will be made in line with criteria to be developed during the detailed design phase. The project will aim to target 50 per cent of the rural population in the selected programme area. The target rural population is estimated at 446,400 (72,000 households). The project area may be extended to other states, regions or districts of Somalia based on the vulnerability and opportunity assessments to be undertaken through the detailed design.

Response to the COVID-19 crisis and mitigation of future pandemics. Through the year 2020, fewer than 27,000 SARS-CoV-2 detection PCR tests have been conducted in Somalia. Considering its population of more than 15 million people, this represents one of the lowest rates in the world. Fewer than 4,800 cases have been confirmed, including at least 130 deaths. Given limited testing, these figures are certainly largely underestimated. General awareness of the population is low and social distancing recommendations by the government have been largely ignored. Widespread and rapid vaccination is unlikely because of capacity limitations of health services and traditional reluctance to vaccination in the population. On a positive note, Somalia is endowed with a young population, less likely to suffer the most severe forms of the COVID-19 disease.[6]

Project components, are inherently aligned with the overall objective of stimulating a "green recovery" following the COVID-19 crisis. Also, the project takes into account the One Health Approach. Increased climate change-induced drought and flooding, and higher temperature have resulted in a higher risk of human-wildlife conflicts and an outbreak of zoonotic disease in Somalia. To address the potential risks, the project will provide a regionally tailored, sustainable approach to manage rangelands and forests by providing training to pastoralist community organizations, establishing strengthened coordination mechanisms on natural resource management at federal, national and local levels, and supporting the development and implementation of sustainable pasture management plans, which will take into account specific measures to minimize human, and wildlife conflict. The project will also contribute to reducing the risk and incidence of infectious diseases through various habitat restoration activities enhancing biodiversity

Besides, activities will be designed and implemented to ensure the protection of participants and project staff from the spread of COVID-19 and support the government's response efforts. Specifically:

- The project team will ensure all activities are implemented in compliance with government advisories that may include travel restrictions, confinement orders and/or curfews. Where possible, remote support will be provided and in-person meetings avoided.

- The full project document will feature a contingency plans in the event of COVID outbreaks. This may cause postponment or remote undertaking of certain activities, shifting project locations and/or local partnerships to ensure the safe delivery of project outputs.

- Outreach efforts will be coordinated with public health authorities and/or with health-related projects active in the area. This will contribute to achieve multiple objectives in a cost-efficient manner (e.g. project staff may facilitate the distribution of public health posters, supplies, etc. in target communities).

- All project activities are designed and will be implemented to ensure the protection of participants and project staff from the spread of COVID-19, to raise awareness of water, sanitation and hygiene (WASH) practices as well as risks of wild animal consumption.

- Training and community mobilization activities in the field (that can't be undertaken remotely) will be organized outdoors wherever possible and feature public health messages on disease spread prevention, alongside those contents specific to the project's core technical objectives. Seating of participants will ensure physical distancing and protective supplies will be made available (infrared thermometers, masks, hydro-alcoholic gel). If food is provided, it will be prepared according to strict preventive protocols and served in individual packets (i.e. no "buffet-style" arrangements).

4) Alignment with GEF focal area and/or Impact Program strategies;

The project is aligned with a number of GEF focal areas as presented in the table below.

Table 2: Alignment with GEF focal areas

GEF Focal Areas	Project outputs
BD 1-4 Mainstream biodiversity across sectors as well as landscapes and seascapes through Sustainable Use of Plant and Animal Genetic Resources	Output 2.1.1 Participatory inventory of native species in the target area carried out and their multiple benefits characterized (15500 00 ha of degraded rangeland restored) Output 2.1.2 restoration of degraded rangeland habitat (e.g. assisted natural regeneration, soil and water conservation work) (55,200 ha of rangelands with increased productivity and biodiversity) Output 2.2.1 Pastoralist community organizations trained in sustainable rangeland management Output 2.3.2 Capacity building and coaching provided on nurseries management and community forestry Output 2.3.4 850 ha of forest restored and maintained through agroecological techniques Output 4.4.1 CCA, SLM and community-based conservation and agricultural production best practices and challenges collected systematically
LD-1-1 Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM)	Output 1.2.1 Farmer field schools established for farmers and agropastoralists Output 1.2.2 Adapted and productive agroecological approaches and techniques (for soil, water and biodiversity conservation) identified, based on indigenous knowledge

	indigenous knowledge **Output 1.2.3** Farmers and agropastoralists trained, supported and equipped to facilitate adoption of climate-smart, productive agroacological approaches and techniques
LD-2-5 Create enabling environments to support scaling up and mainstreaming of SLM and LDN	**Output 3.1.1** Georeferenced tracking system for land degradation and biodiversity developed **Output 3.1.2** Institutional actors' capacity to document SDG-related LDN and biodiversity indicators strengthened **Output 3.1.3** Coordination mechanisms on Natural Resource Management at federal, national and local levels strengthened **Output 3.1.4** Land degradation and biodiversity mainstreamed into local, national and federal strategies and plans **Output 4.12** CCA, SLM and community based conservation and challenges collected systematically **Output 4.1.3** Communication strategy rolled out and knowledge products disseminated
CCA-1 Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation	**Output 1.1.2** Water infrastructure built or climate-proofed (e.g. shallow wells, surface water retention dams, household cisterns and floodwater spate irrigation structures) **Output 1.1.4** Solar energy equipment installed **Output 1.2.1** Farmer Field Schools established for farmers and agropastoralists **Output 1.2.2** Adaptive and productive agroecological approaches and techniques (for soil,water and biodiversity conservation) identified, based on indigenous knowledge **Output 1.2.4** Farmers and agropastoralists trained, supported and equipped to facilitate adoption of Agroecological approaches and techniques
CCA-2 Mainstream climate change adaptation and resilience for systemic impact	**Output 1.1.1** Feasibility studies carried out (e.g. hydrological studies, cost/benefit analyses, EIAs, technical specifications & drawings, operation & maintenance guidelines, etc.) **Output 1.1.3** Community maintenance and management groups created/ strengthened to effectively manage the hydraulic infrastructure
CCA-3 Foster enabling conditions for effective and integrated climate change adaptation	**Output 1.3.1** Profitable and climate-proof sources of income identified and promoted through the Gender Action Learning System (GALS) **Output 1.3.2** Poor households trained, equipped and coached to undertake new income-generating activities as micro-entrepreneurs

5) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing;

Scenario without GEF

Without the GEF, the RLRP project would focus essentially on improving the socio-economic living conditions of the targeted populations through the strengthening of community-based institutions and services, and the establishment of an investment fund at the community level to finance infrastructure such as feeder roads, market infrastructure, and water supply for humans and animals, without developing a holistic integrated landscape approach addressing the required investments to combat land degradation, preserve biodiversity and adapt to climate change.

Priority given by the RLRP to productive investments to combat poverty will not be sustainable without the integration of these investments into a holistic approach to sustainable management of natural resources in the context of climate change.

Without the GEF project the issues of land degradation neutrality and biodiversity would not be taken into account in the RLRP's activities concerning the improvement of crop and livestock productions. Best practices in sustainable land and water management and biodiversity conservation will not be systematically documented and shared. The LDN and biodiversity conservation will also not be integrated into local, national and federal economic development plans and strategies, decision-making would be less informed, and farmers and agro-pastoralist groups would not be brought into the policy dialogue.

Scenario with GEF

GEF funding, through the A2R2 project, will link the objective of land degradation neutrality and preservation of biodiversity to the targeted RLRP investments in spatial and land use planning. A2R2 will develop a landscape approach by strengthening the mainstreaming of sustainable natural resource management, combating land degradation and enhancing ecosystem resilience in addition to community resilience. This holistic vision of sustainable development will be made possible through the financing of surface water mobilization infrastructures adapted to climate change, the regeneration of degraded rangelands and forests, and the improvement of biodiversity. As far as agricultural production activities are concerned, the GEF funds will be used to introduce agroecological practices adapted to climate change. To this end the GEF funds will support the creation of agro-pastoral field schools to promote a landscape approach to sustainable natural resource management, integrating biodiversity conservation and adaptation to climate change, food and nutrition security into the RLRP capacity building programmes, with a particular focus on women and youth.

The A2R2 project will ensure that the increased production goes hand in hand with the sustainable management of natural resources. To this end, the project will develop activities to restoring degraded rangelands and forests, re-establishing drought resistant native species, and promoting Assisted Natural Regeneration (ARN) in rangelands. In addition, pastoralist community organizations will be trained in sustainable rangeland management and land use planning. To avoid land-use conflicts the A2R2 project will also support the establishment of conflict resolution mechanisms.

The A2R2 project will reinforce the RLRP objective of increasing of household incomes for the poorest households through the creation of green jobs through, notably, the establishment of tree-nurseries and by targeting diversified alternative sources of income, particularly to the benefit of women and youth, in view of decreasing the pressure on land because of new sources of income.

The A2R2 project, through its Component 3. Institutional strengthening to support land degradation neutrality and biodiversity protection will provide institutional support to the Federal Ministry of Agriculture for mainstreaming Land Degradation Neutrality and biodiversity conservation into local, national and federal strategies and plans, by setting-up a georeferenced LDN and biodiversity M&E system. This will provide an important platform guiding decision-making at policy level.

6) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF);

Adaptation to climate change

A total area of 6,850 ha of land will be restored to deliver enhanced ecosystem services.

72,000 Households will have greater resilience to climate change through increased capacity in water infrastructure management, and by acquiring better knowledge of water management and the use of agro-ecological practices.

Water infrastructures will be more resilient to climate change because their engineering design will be adapted to climate change and dimensioned to cope with the risk of intense climatic events, such as floods or droughts. Community capacities will be strengthened to effectively manage and maintain the structures.

The participatory water infrastructure management of surface water infrastructure will increase the resilience of ecosystems and landscapes due to reduced surface water runoff and soil erosion, and reduce the risk of conflict over access to water.

The expected area of landscapes under improved practices will be of 55,200 ha (excluding protected areas).

The diversification of agro-ecological food production systems will contribute to strengthen the resilience to climate change of the local population, improve food security and access to a diversified diet. Resilience of the communities will be also reinforced by the creation of IGAs and "green jobs", contributing to the improvement of their livelihoods and living conditions.

Climate change mitigation

Through notably the improved and diversified vegetative cover, and the use of solar energy, a contribution of 2,922,412 tCO2 (estimated) to GHG mitigation is expected.

Sustainability of the investments will be supported by strengthening the institutional actors' capacity, from the local to the national level, and by integrating the issues of land degradation, biodiversity and adaptation to climate change within the different socioeconomic development plans, from the federal to the local level.

Land degradation: Through the proposed project, Somalia will develop a M&E system for measuring progress towards LDN and biodiversity targets, and will help global reporting on UNCCD implementation. Specific GEBs can be seen in relation to land degradation; the project will achieve 55 200 ha of landscapes under improved practices through use of agro-ecological techniques and practices that restore land productivity, increase food security, reverse desertification and enhance resilience to disaster, improving groundwater recharge, mitigating soil degradation, enhancing soil development, increasing soil moisture, and enabling soil development and functions. The table below presents a first set of direct contributions to the LDN objectives according to the different changes identified by Somalia.

Table 3: Activities of the project contributing directly to reach the LDN targets.

Change	Direct contribution of the GEF/LCDF project to the Corrective Measures identified in the National Voluntary LDN targets
Conversion of grassland to other land uses with declining productivity	- Improved land-use planning, allow affected rangelands to recover from overgrazing - Rehabilitation of livestock watering & feeding infrastructure on the rangelands, - Mainstreaming community-based conservation and management of village-based land - Sensitization and awareness creation - Strengthening the capacity of relevant national and sub national institutions
Conversion of tree covered land (forests) to grasslands with declining productivity	- Afforestation and sustainable forest management, efficiency in energy use ad promotion of renewable energy, - Strengthening the capacity of relevant national and sub national institutions - Sensitization and awareness creation
Conversion of Cropland to grassland with declining productivity or early signs of decline	- Teach and equip communities/farmers with sustainable land management practices/technologies - Improved access to and adoption of productivity-enhancing and resilient technologies - Integrating with trees-on-farm agroforestry systems - Agroforestry and soil conservation agriculture - Integrated soil health management & extension services - Sensitization and awareness creation - Strengthening the capacity of national institutions

Biodiversity: The GEF fund will support improving rangeland biodiversity and restoring the productivity of depleted rangelands by reseeding and reforesting degraded rangelands with drought-resistant native species, which makes them an essential resource for both maintaining environmental services like biodiversity conservation, soil formation, pollination, hydrological cycle, food, fibre, fodder, other non-timber forest products (NTFP) and as a source of livelihood, especially for rural communities. Among the native species identified are Acacia species, some of which are considered threatened (*Acacia Senegal, Acacia Bussei, Acacia Tortilis, and Acacia Nilotica)* and the Yeheb bush (*Cordeauxia edulus*).

In addition, natural habitat for indigenous flora and fauna will be enhanced through the establishment of nurseries focused on indigenous tree species as well as through reforestation, assisted natural regeneration (ANR) and support for community forestry, to ensure the sustainability of new or enriched shrublands. ANR (tested through IFAD investments on a large scale in Niger) is recognized as a cost-effective forest or rangeland restoration process that can restore biodiversity and ecosystem services in degraded areas, reduce the rate of loss of natural habitats, while also providing income for rural livelihoods. IFAD has significant experience (*inter alia* in Sudan through the GEF-funded Integrated Carbon Sequestration project -ICSP) supporting community forestry that provides reliable income from sustainably managed forests in dryland areas for local populations.

The promotion of agroecology, under the Component 1, Outcome 1.2 aims also at improving and changing production practices to be more biodiversity-positive by promoting soil organic matter and water retention capacities of soils, increasing resource use efficiency, supporting the diversification of farms and the restoration of rangelands through reforestation of native species (particularly endangered species) and improving rangeland management.

In the absence of the final post-2020 Global Biodiversity Framework and targets, the project contributes to Aichi targets as indicated below. This will be updated during project design when the Post-2020 Global Biodiversity Framework will be approved.

Table 4: Contribution to Aichi Targets

Strategic Goals	Aichi Targets	Corresponding A2R2 Outputs

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society	Target 1 By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	Output 2.2.1 Pastoralist community organizations trained in sustainable rangeland management Output 4.1.2 CCA, SLM and community-based conservation and agricultural production best practices collected systematically
	Target 2 By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	Output 2.2.2 Sustainable pasture management plans mainstreaming biodiversity established and implemented Output 3.2.2 Land degradation and biodiversity mainstreamed into local, national and federal strategies and plans
	Target 4 By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.	Output 2.2.2 Sustainable pasture management plans mainstreaming biodiversity established and implemented Output 2.2.3 Conflict resolution mechanisms functional
Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use	Target 5 By 2020, the rate of loss of all-natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	Output 2.1.1 Participatory inventory of native species in the target area carried out and their multiple benefits characterized. Output 2.1.2 Restoration of degraded rangel and habitat (e.g. assisted natural regeneration, soil and water conservation works)
	Target 7 By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	Output 1.2.1 Agroecological productive technologies and practices mainstreamed in target areas through Farmer field schools established for farmers and agropastoralists Output 1.2.2 Farmers and agropastoralists trained on agro ecological technologies and practices Output 1.2. 3 Soil and water conservation methods and techniques identified, developed and tested, based on indigenous knowledge Output 2.2.2 Land use plans considering also biodiversity established and funded

		Output 2.3.1 Four tree nurseries set up and management cooperatives established and s upported **Output 2.3.2** Community capacity on nursery management strengthened **Output 2.3.3** Capacity building and coaching provided on community forestry **Output 2.3.4** 850 ha of forest restored and m aintained through agroecological techniques
Strategic Goal C: *To i mprove the status of biodiversity by safeg uarding ecosystems, species and genetic diversity*	**Target 13** By 2020, the genetic diversity of cultiv ated plants and farmed and domestic ated animals and of wild relatives, inc luding other socio-economically as w ell as culturally valuable species, is m aintained, and strategies have been d eveloped and implemented for minim izing genetic erosion and safeguardin g their genetic diversity.	**Output 2.1.1** Participatory inventory of native species in the target area carried out and the ir multiple benefits characterized **Output 2.1.2** Restoration of degraded rangel and habitat (e.g. assisted natural regeneratio n, soil and water conservation works)
Strategic Goal D*: Enh ance the benefits to all from biodiversity and ecosystem servi ces*	**Target 14** By 2020, ecosystems that provide ess ential services, including services rela ted to water, and contribute to health, livelihoods and well-being, are restore d and safeguarded, taking into accou nt the needs of women, indigenous a nd local communities, and the poor a nd vulnerable.	**Output 1.1.1** Feasibility studies carried out (e.g. hydrological studies, cost/benefit analy ses, EIAs, technical specifications & drawing s, operation & maintenance guidelines, etc.) **Output 1.1.2** Water infrastructure built or cli mate-proofed (e.g. shallow wells, surface wa ter retention dams, household cisterns and fl oodwater spate irrigation structures) **Output 1.1.3** Community maintenance and m anagement groups created/ strengthened to effectively manage the hydraulic infrastructu re **Output 1.1.4** Solar energy equipment installe d and operational **Outcome 1.3** Increased household incomes f or the poorest households
	Target 15 By 2020, ecosystem resilience and th e contribution of biodiversity to carbo n stocks has been enhanced, through conservation and restoration, includin g restoration of at least 15 percent of degraded ecosystems, thereby contri buting to climate change mitigation a nd adaptation and to combating dese rtification	**Output 2.1.2** Restoration of 15,500 ha of deg raded rangeland habitat (e.g. assisted natura l regeneration, soil and water conservation w orks) **Output 2.3.1** Four tree nurseries set up and management cooperatives established and s upported **Output 2.3.4** 850 ha of forest restored and m aintained through agroecological techniques

	rtification.	
Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building	Target 19 By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	Output 4.1.2 CCA, SLM and community-based conservation and agricultural production best practices and challenges collected systematically Output 4.1.3 Communication strategy rolled out and knowledge products disseminated

7) Innovation, sustainability and potential for scaling up.

Innovation. The project will be innovative by including climate considerations in the design of the hydraulic infrastructure for surface water harvesting, by involving the communities in the management of these infrastructures, as well as by integrating biodiversity conservation into land use and sustainable rangeland management. The project will introduce new technologies as well as the use of solar energy for pumping. The project will introduce an integrated approach that combines sustainable range and livestock management activities with rangeland restoration (seeding of drought adapted native species, Assisted Natural Regeneration), resulting in increased and more secure food production and reduced land degradation. In addition, at the farm level, the project will promote climate smart agriculture productive technologies through the farm field schools, which will contribute to a more sustainable land management while contributing in the same time to increasing land productivity. In terms of financial instruments the Project will be innovative by designing and implementing a microfinance mechanism, involving MFIs as well as NGOs, tailored to the need of and capacities of local actors, especially women, and promoting environmentally friendly economic activities adapted to climate change.

Sustainability. By strengthening local community organizations and involving them in the management of hydraulic infrastructure, by developing an integrated approach of rangeland management as well as the establishment of land use plans and the development of tree nurseries the project will provide the tools and the incentive conditions for local authorities and local organizations to continue sustainable land management post-project. Through the design phase, the identification of viable and effective incentives to sustainability and their nature, will be considered. These could be direct incentives (designing mechanisms which are targeted to specific objectives and encourage people to conserve biodiversity by providing rewards for changed behavior), or indirect incentives (designing mechanisms which encourage people to conserve biodiversity by setting in place general enabling conditions that will cause them to change their economic behavior). Concretely, the first direct incentive that will be used in the Project is the development of a microfinance system adapted to the economic conditions of the targeted communities, especially women. Stakeholders will also benefit from the support of specialized NGOs that will provide them with assistance in preparing their financial proposals to submit to MFIs as well as with technical capacity building to help them implement their businesses.

At the national level the establishment of a LDN and biodiversity M&E system will constitute the framework for a continuous support from the national to the local level in view of achieving 2030 SDGs objectives. Building of income-generating activities for women and youth will help reduce youth unemployment and empower women, factors of sustainability. The establishment of conflict resolution mechanisms will allow a peaceful management of natural resources and will contribute to the sustainability of post-project activities.

Potential for scaling-up: Knowledge sharing and lessons learned from experiences constitute an important part of the component 3 of the A2R2 project, the purpose being to enable upscaling of successes from project implementation. The project will systematically collect and disseminate lessons drawn and will catalyze knowledge sharing from the different aspects of the project implementation. The lessons to be learnt could result from different kind of actions developed such as: the different forms of natural resource management promoted by the project, the innovative planning and land management methodologies, the modes of community organization, the women's empowerment or the appropriate conflict management mechanisms implemented. the capacity development though farm field schools promoting climate smart agriculture techniques will develop a model which can be developed in other regions.

[1] The project will particularly build on the findings of the study carried out by SDRI (IFAD, SDRI (2019). Climate change adaptation in Somalia – *Mapping of Climate Smart Agriculture Practices of Somali Women*) on climate Smart Agriculture among Somali women, as a contribution to a deeper understanding of gender perceptions of CSA practices in light of gender equality and women's empowerment (GEWE).

[2] UNDP. 2014.The Role of Somali Women in the Private Sector

[3] World Bank. 2019. Somalia Capacity Advancement, Livelihoods and Entrepreneurship, through Digital Uplift Project

[4] Idem

[5] More information on the GALS methodology is available on the IFAD web site: https://www.ifad.org/en/web/knowledge/publication/asset/39409831.

[6] Associated Press (reproduced in Al Arabiya), "*Coronavirus: In Somalia, COVID-19 vaccines are distant as virus spreads*", 3 January 2021 (https://english.alarabiya.net/en/coronavirus/2021/01/03/Coronavirus-In-Somalia-COVID-19-vaccines-are-distant-as-virus-spreads).

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[1] UN Somalia Common Country Analysis (CCA), October 2020.

[2] World Bank (2021). World Bank Data Portal.

[3] Ministry of Planning, Investment and Economic Development (undated). Somalia National Development Plan 2020 to 2024

[4] UNDP (2012). Gender in Somalia.

[5] UNDP (2019). Human Development Report 2019.

[6] World Bank (2021). Climate Change Knowledge Portal [Last Accessed = 03/03/2021: https://climateknowledgeportal.worldbank.org/country/somalia/]

[7] Office of the Prime Minister (2018). Somalia's First National Communication of Somalia to the UNFCCC.

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[15] Ministry of Natural Resources (2013). Somalia National Adaptation Programme of Action to Climate Change

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[17] Government of Somalia (2016). National Biodiversity Strategy and Action Plan (NBSAP) of Somalia, FAO-Somalia

[18] Ministry of Natural Resources (2013). Somalia National Adaptation Programme of Action to Climate Change

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[20] Federal Republic of Somalia, December 2015. National Biodiversity Strategy and Action Plan (NBSAP)

[21] http://www.faoswalim.org/land/land-degradation

[22] Office of the Prime Minister (2018). Somalia's First National Communication of Somalia to the UNFCCC.

[23] World Bank (2021). Climate Change Knowledge Portal [Last Accessed = 03/03/2021: https://climateknowledgeportal.worldbank.org/country/somalia/]

[24] Office of the Prime Minister (2018). Somalia's First National Communication of Somalia to the UNFCCC.

[25] Office of the Prime Minister (2018). Somalia's First National Communication of Somalia to the UNFCCC.

[26] Office of the Prime Minister (2018). Somalia's First National Communication of Somalia to the UNFCCC.

[27] Ullah, Saleem and Gadain, Hussein (2016). National Biodiversity Strategy and Action Plan (NBSAP) of Somalia, FAO-Somalia

[28] Office of the Prime Minister (2018). Somalia's First National Communication of Somalia to the UNFCCC.

[29] World Bank (2021). Climate Change Knowledge Portal [Last Accessed = 03/03/2021: https://climateknowledgeportal.worldbank.org/country/somalia/]

[30] Office of the Prime Minister (2018). Somalia's First National Communication of Somalia to the UNFCCC.

[31] GFDRR and World Bank (2021). ThinkHazard – Somalia [Last Accessed = 03/03/2021: https://thinkhazard.org/en/report/226-somalia]

[32] World Bank (2021). Climate Change Knowledge Portal [Last Accessed = 03/03/2021: https://climateknowledgeportal.worldbank.org/country/somalia/]

[33] World Bank (2021). Climate Change Knowledge Portal [Last Accessed = 03/03/2021: https://climateknowledgeportal.worldbank.org/country/somalia/]

[34] World Bank (2021). Climate Change Knowledge Portal [Last Accessed = 03/03/2021: https://climateknowledgeportal.worldbank.org/country/somalia/]

[35] The project will particularly build on the findings of the study carried out by SDRI (IFAD, SDRI (2019). Climate change adaptation in Somalia – *Mapping of Climate Smart Agriculture Practices of Somali Women*) on climate Smart Agriculture among Somali women, as a contribution to a deeper understanding of gender perceptions of CSA practices in light of gender equality and women's empowerment (GEWE).

[36] More information on the GALS methodology is available on the IFAD web site: https://www.ifad.org/en/web/knowledge/publication/asset/39409831.

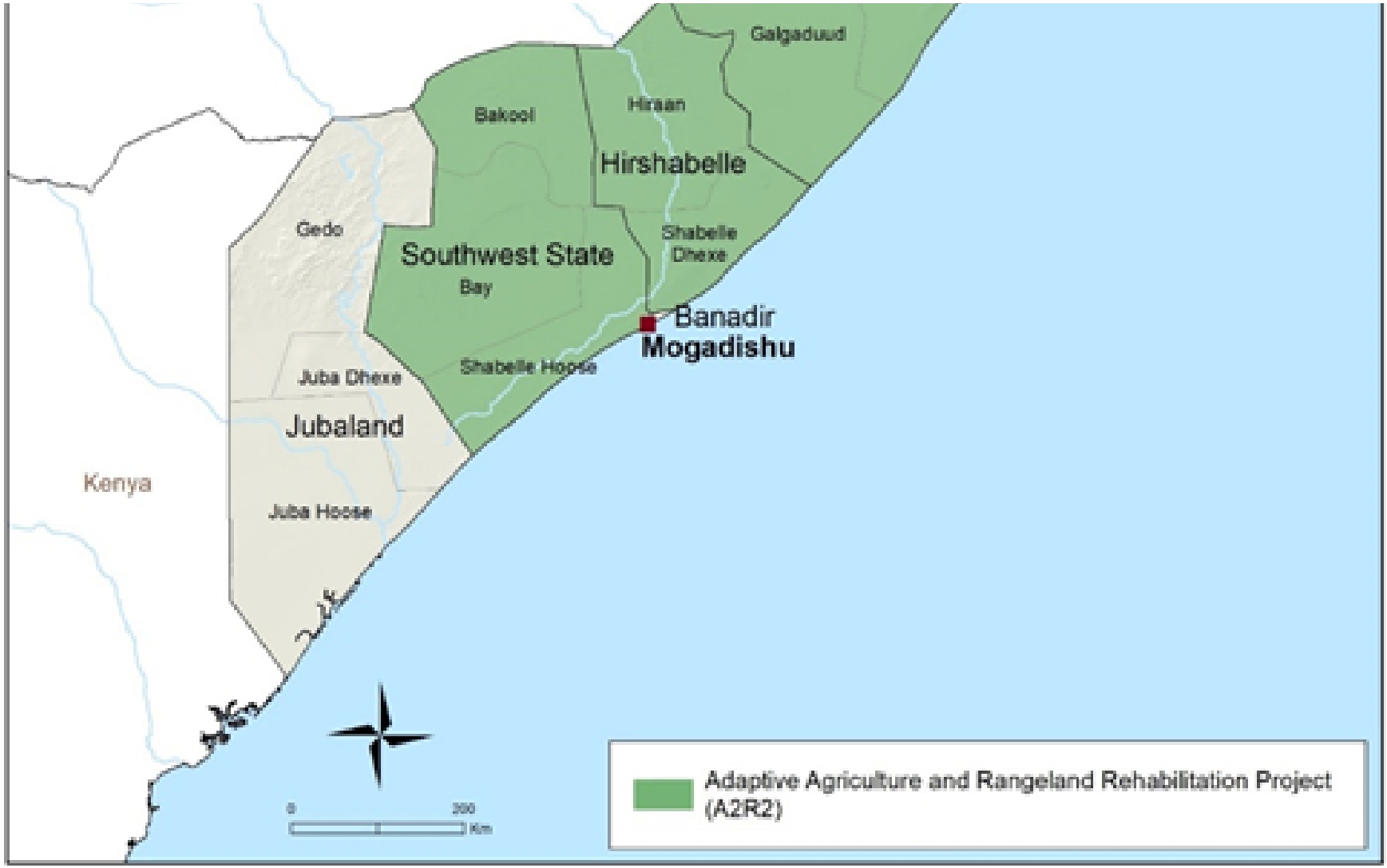
[37] Associated Press (reproduced in Al Arabiya), "*Coronavirus: In Somalia, COVID-19 vaccines are distant as virus spreads*", 3 January 2021 (https://english.alarabiya.net/en/coronavirus/2021/01/03/Coronavirus-In-Somalia-COVID-19-vaccines-are-distant-as-virus-spreads).

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

Subject to security and access constraints, the project will target the southern states of Somalia that have not benefited from investment projects as much as the northern states and where natural resources are the most degraded. Tentatively, the project will identify specific districts within the Galmudug, South West, and Hirshabelle Federal Member States (FMS). The project area may be extended to other states, regions or districts of Somalia based on the vulnerability and opportunity assessments to be undertaken through the detailed design.

Project Map



IFAD

The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD | 01-03-2021

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement

The design of the PIF for the A2R2 builds on the preparation of IFAD's Country Strategy Note (CSN) for Somalia and the concept design of the baseline RLRP investment. COVID-19 limitations have prevented IFAD from conducting a full-fledged field mission to the country. Nonetheless, close interaction with Government and other IFAD counterparts in Somalia was ensured. The mission had a series of consultations with: the Federal Minister of Agriculture and Irrigation (Mr. Said Hussein Iid); the Somalia GEF Operational Focal Point and Deputy Prime Minister (Mr Mahdi Mohammed); the Director of Environment, Office of the President (Mr Ali Mohamed Daud); the Chief Executive Officer (CEO) of SADAR Institute (Mr Mohamed Osman Mohamoud) who is project manager of an ongoing IFAD financed project in Somalia; and key bilateral donors and IFIs present in Somalia.A list of key informants/stakeholders consulted in the development of the proposal is found in Annex F. These meetings were completed by a review of key programmatic and policy documents, ensuring that this PIF presents a relevant and realistic concept, aligned with the international commitments and national priorities of Somalia.

A deeper consultation on technical elements and policy guidance will be undertaken during the detailed design including field visits to the envisaged project areas and interactions with potential project beneficiaries to guide the detailed design of project components. The principal target group of the project will be the most vulnerable rural communities: poor men and women smallholder farmers, agro-pastoralists whose main source of livelihoods is traditional rain-fed or irrigated agriculture, livestock and forest-based activities. Pastoralists and mobile communities will be treated as a priority target group wherever relevant. The target group will be continuously involved in all the phases of the project, from the design to the implementation and its monitoring and evaluation. In addition, the table below presents the other different stakeholders that will be involved in the design and implementation of the project.

Table 5: Role of stakeholders in the project

Stakeholder	Role in the project
Ministry of Agriculture and Irrigation	The mission of Ministry of Agriculture and Irrigation (MoAI) is to improve the livelihood of Somali citizens by ensuring food security through the creation of an enabling environment and sustainable agricultural resources management. The MoAI is expected to be the Project's lead Executing Partner and host the Programme Coordination Unit (PCU), also convening the Project Steering Committee. It would work in close coordination with the Ministry of Livestock, Forestry and Range (MLFR), the Ministry of Women and Human Rights Development and the Directorate of Environment and Climate Change in the Prime Minister's Office.
Directorate of Environment and Climate Change, Office of the Prime Minister	The Directorate of Environment is headed by the Director General for the Environment. This office serves as the National Designated Climate Change Authority and Competent National Authority for the Convention on Biological Diversity. The Office has a mandate that includes formulation of national environmental policies, coordination of environmental issues with federal institutions, Federal Member States, local governments, international partners, and other stakeholders. The Directorate of Environment and Climate Change, Office of the Prime Minister would be represented on the Project Steering Committee.
Ministry of Finance	The Ministry of Finance is the central authority of the Federal Government of Somalia charged with the responsibilities devising and administering economic and financial policy of the country. The Ministry of Finance will be the recipient of the grant and will carry out annually joint missions with IFAD on the performance and fiduciary aspects of the project. The Ministry of Finance would be represented on the Project Steering Committee.
The Federal Ministry of Planning, Investment and Economic Development	The Federal Ministry of Planning, Investment and Economic Development (MOPIED) is in charge of coordination of the whole government agencies and provide advice to the government on medium and long-term strategies for socio-economic development and sustainable economic growth. MoPIED is the coordinating ministry of planning at the national level. Because of its role in the M&E of the National Development Plan implementation the MoPIED will be a key actor in evaluating the contribution of the project to the achievement of Somalia development goals, notably with regard to the SDG 15 on land degradation neutrality.
The local Governments in the States where the project will be implemented.	The focus will be on strengthening their role in facilitating linkages between communities and the State governments around land and natural resource policy issues and development services but also in facilitating linkages between communities across Localities
Communities	Communities are key actors of change. Their capacities will be strengthened on adaptation to climate change, NRM and land-use governance within and between communities. They will play a key role in making functional the conflict resolution mechanisms the project will support on use of natural resources and land.
The private sector	Will be involved as service providers of input supply, innovation and alternative livelihoods and technologies and other services
Community-Based Organizations (CBOs) and Non-Government Organizations (NGOs)	The capacity of existing CBOs and NGOs present in Somalia will be strengthened to promote socio-economic change, and plan, finance, implement and operate community investments. They will be instrumental in project implementation and policy dialogue at local level.
Women and youth groups	The role of women and youth is detailed below.

In line with IFAD Policy, a Grievance Redress Mechanism and a participatory monitoring system will be established and publicized to ensure that, throughout the project, safeguards are upheld and mitigation remains relevant.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

Over the last five years important progress has been made in the field of legislative and policy action. The Federal Government of Somalia (FGS) developed several key frameworks, including the Provisional Constitution (2012), the National Gender Policy, the Somalia Women's Charter and the NDP-9. The Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (Maputo Protocol) has been signed, but not yet ratified, while the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) has neither been signed nor ratified. At the federal level the Ministry of Women and Human Rights Development of the Federal Government of Somalia is mandated to advance the promotion and protection of gender equality and human rights, including the rights of women, children and other vulnerable groups. There has been a commitment to have 30% of parliamentary seats reserved for women. A total of 24 percent of parliamentary seats are now held by women in the FGS (increasing from 14 per cent in 2012). In Somaliland and Puntland, there are less than 1.5 percent of seats held by women, due to the prevailing culture and clan system.

The Ministry of Women and Human Rights Development elaborated key bills on Female Genital Mutilation and Sexual Offences, currently at a drafting stage. At the States level major gender-related bills recently passed or are under development include the Human Rights Commission Bill, the Sexual Offences Bill and the FGM Bill. Other policies in development include the Disability Act (FGS), the draft Child Protection Policy (Somaliland and FGS), and the draft Family Act (Somaliland and FGS).

Despite the progress in legislation women's lives in Somalia are generally governed by patriarchal beliefs and customary laws that put restrictions on the participation of women in a number of areas. For instance, the labour force participation rate (% ages 15 and older) is 19.1% for the women and 74.3% for the men.

The Common Country Assessment[1] finds that societal norms, partial and scant law enforcement, as well as evolving gender roles and conflict, have contributed to the increase in incidences of Gender-Based Violence (GBV) which disproportionately impacts the most vulnerable in society. Female Genital Mutilation (FGM) is still widely practiced, and women are at greatest risk to domestic and other forms of violence. 98% of Somali women aged between 15 and 49 have undergone some form of FGM. The incidence of violence and rape across Somalia has increased, with women suffering from sexual harassment, assault and exploitation. From January to December 2019, gender-based violence (GBV) services (post-rape treatment as well as GBV trauma care) under the Somalia Protection Cluster reached 46,070 individuals (96 per cent women and girls)[2]. About one in ten marriages occurs before a girl is 15 years old, and about half before she is 18. One out of every 12 women dies during pregnancy. While the full scope of sexual violence remains unknown, internally displaced women and girls are particularly vulnerable to rape by armed men, including government soldiers and militia members. In line with IFAD's Policies on Sexual Harassment and on Sexual Exploitation and Abuse, the project will ensure prevention of – and implement protective safeguards against – all forms of harassment, exploitation and abuse. This will include, inter alia, the roll out of a Grievance Redress Mechanism in line with IFAD practice.

With particular regard to women and girls' participation in agricultural activities, women represent about 45 percent of people involved in livestock rearing, crop production and natural resource harvesting. With regard to livestock, women and children usually raise goats and sheep whilst men are responsible for camels. Women are particularly involved in the sale and processing of livestock and control around 80% of milk production. Women represent 60 per cent of labour in subsistence crop production. Women's productivity is, however, undermined by limited access to information on new technologies and equipment, weak land tenure and limited access to extension services, lack of access to financial resources, extreme time poverty linked to domestic and reproductive roles (World Bank and FAO, 2018). Furthermore, due to cultural norms, some agricultural value chains such as frankincense tree propagation and high-value livestock are dominated by males (IFAD and SDRI, 2019).

A recent study (IFAD and SDRI, 2019) on the use of climate smart practices by women has shown that women are knowledgeable about a number of climate smart agricultural practices. In the livestock sector, this includes in-depth knowledge of mixed stocking, use of crop residues for feed and fodder production and varieties, as well as collection of wild fodder. Women were found to have the most knowledge of climate smart practices in crop production, including seed selection and preparation, indigenous crop varieties that are drought and disease resistant, traditional rotation of crops, and crop diversification. The

study also shows that some women are developing agricultural innovations such as Somali Agricultural Girls Association which support women in dedicating themselves to agriculture, a female-founded renewable energy company providing affordable, off-grid, solar micro-leasing systems or the online grocery store app service that allows customers to get fresh vegetables and fruit, built by a student of Computer Science at the University of Hargeisa.

To ensure its contribution to women's active participation and their empowerment, the project will actively engage with various stakeholders including the Ministry of Women and Human Rights Development, local municipalities, and women beneficiaries through participatory approach during design and implementation to adequately address women's needs and integrate their priorities. The project will also develop Gender Action Plan (GAP) to improve project performance on gender equality and poverty targeting. The GAP will guide the project team through a self-assessment on what works and what doesn't for gender equality, women's empowerment and poverty targeting, leading to the development of an action plan to improve project performance in this domain. The GAP activities will deliver 1) increased voice in rural institutions, 2) economic empowerment, 3) equitable workload. The project coordinator/director is accountable for the gender action plan and its implementation, with the support of the gender focal point.

The project will support women in improving their practices through the exchange of information in the FFS. The Gender Action Learning System (GALS) will be used and integrated into the FFS, as a method encouraging the uptake of climate-smart techniques. The GALS will provide the opportunity to improve gender equality while promoting climate smart activities, engaging both women and men in identifying the specific climate related challenges they face and to discover possible solutions.

Through their involvement in FFS, they will also be empowered to represent their interests and participate in decision-making processes.

Youth. In Somalia eight out of ten Somalis are younger than 35 years old, according to population estimates. unemployment, particularly youth unemployment, remains a critical issue in Somalia 25 percent of youth aged 15-24 years are estimated to be unemployed, compared with an overall unemployment rate of 14 per cent. Possibilities for youth to obtain education and employment are limited, and opportunities to engage politically, economically, or socially remain weak or non-existent. The space and opportunities are even further restricted for girls and young women. The lack of education and unemployment creates frustration and demoralization among youth and makes them more susceptible to criminal activities and recruitment by Al-Shabaab or clan militias.

People with disabilities. The Common Country Assessment finds that people with disabilities, estimated as 15 per cent of the population, are at heightened risk of violence and abuse, a situation that is worsened by social stigma associated with intellectual and psychosocial disabilities. People with disabilities face physical, communication, attitudinal and policy barriers which mean they can be inadvertently excluded from receiving appropriate humanitarian assistance or being able to engage in decision-making or accountability processes[3]. Despite the low progress in the reestablishment of rule of law Somalia became the 180th State Party to the Convention on the Rights of Persons with Disabilities (CPRD) after ratifying it. Women and girls with disabilities are likely to experience "double discrimination" – vulnerability to both social discrimination and gender marginalization.

In the IFAD Strategic Framework 2016-2025, gender equality is identified as one of the five principles of engagement at the core of IFAD's identity and values. IFAD complies with the United Nations commitments on gender mainstreaming, including the United Nations System-wide Action Plan (UN-SWAP) on gender equality and the empowerment of women. The Project will promote women economic empowerment, their right to access and use resources and services, and their decision-making power in community development and natural resources management, to mitigate the effects of shocks, and enhance food and nutrition security.

The focus will be on: Including women in agro pastoral field schools for inclusive learning; Investing in time and labour-saving technologies as an incentive to women and youth participation; Improving intra-household gender relations in work and decision-making use of the Gender Action Learning System (GALS); Raising awareness of gender and regular gender training of government staff, agriculture personnel, and community institutions and facilitators.

The project's logical framework and monitoring and evaluation (M&E) system will specify in design and project M&E units collect – gender-disaggregated performance and impact data.

Under the IFAD baseline project, a Social, Environmental and Climate Assessment Procedure (SECAP) will be carried out and will include an Environmental and Social Management Plan (ESMP) that would ensure integrating gender and youth considerations into project activities.

During the Project Preparation IFAD will carry out a gender analysis to facilitate social inclusion, gender equality and the social and economic empowerment of identified target groups. Also, to understand the complexities of social diversity, gender inequalities and the various dimensions of rural poverty within the thematic focus of the project, the following steps will be followed:

1. Review the country context (legal, political, institutional, social, cultural and sector policies) relevant to targeting and gender in relation to the project thematic focus.

2. Conduct a participatory gender-sensitive rural poverty and livelihoods analysis to identify and better understand the needs, priorities and expectations of poor rural people;

3. Identify key issues that may be addressed by the project, disaggregating data by sex and other relevant variables where possible.

4. Taking into account IFAD's Policies on Targeting and on Gender Equality and Women's Empowerment, the gender analysis will: a) Define and profile project target groups, including the gender dimensions of rural poverty; b) Develop a targeting strategy, including targeting and implementation mechanisms, to ensure that project design accommodates the needs and priorities of the target group and facilitates its participation in project interventions, and that the special concerns of vulnerable groups are taken into account; c) Develop a gender mainstreaming strategy, including implementation mechanisms, to ensure that the project identifies opportunities to support gender equality and women's empowerment and facilitates women's participation in project interventions; d) Provide inputs into the M&E framework, project logframe and learning systems to incorporate gender and social inclusion perspectives;

5. the gender analysis will, finally, identify implementation arrangements, risks and mitigation measures, costs and financing to ensure effective implementation of targeting and gender strategies.

[1]
[2] United Nations Somalia. Common Country Analysis 2020
[3] OCHA, Humanitarian Dashboard – December 2019, 14 January 2020
OCHA. Humanitarian Response Plan 2020

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes

closing gender gaps in access to and control over natural resources; Yes

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

The private sector (agribusinesses, input suppliers, marketing partners, extension service providers) will be an important actor during the phase of implementation. The project will employ non-Government organizations (NGOs) or private sector service providers to identify Community Based Organizations, Water User Associations and community leaders as required. The private sector will be strengthened, as needed, to provide services in terms of innovation and alternative livelihoods and technologies such as solar energy. The project will also promote links between beneficiary natural resources management, business and private service providers of machinery, veterinary, input supply and other services. While private sector participation in the project will be part of the project design process, several activities are pre-identified at to be implemented by private sector, such as the construction of hydraulic infrastructure. Where necessary, the private sector input suppliers and marketing partners will also be capacitated to offer business development services to the target groups.

Through the Outcome 1.2 the project will directly support the private sector by contracting MFIs and/or creating a specific budget line to support microfinance activities (based on the results of the feasibility study to be carried out). The role of NGOs in support to the local communities will be also strengthened by the project, as key actors for supporting local communities, women in particular, to create IGAs and SMSEs .

The project will directly support the establishment of small private micro-enterprises through Outcome 1.4 (micro-enterprises for women and youth) and Outcome 2.3 (cooperative or community-based management of nurseries and forest resources).

5. Risks to Achieving Project Objectives

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

The project faces a number of risks, which could have an impact on the achievement of overall objectives and outcomes. The major risks are associated with the insecurity in the country. Areas which are deemed unsafe will be avoided during implementation and project areas will be selected based on areas which are deemed safe.. To address the potential risks, the project will provide a regionally tailored, sustainable approach to manage rangelands and forests by providing training to pastoralist community organizations, establishing strengthened coordination mechanisms on natural resource management at federal, national and local levels, and supporting the development and implementation of sustainable pasture management plans, which will take into account specific measures to minimize human, and wildlife conflict.

Project implementation will ensure that customary dispute resolution mechanisms are used to resolve any conflicts. Climate induced changes and extreme weather events can have a debilitating impact on productive assets and yields. The project has included a range of climate adaptation strategies and practices in all its components to address the climatic risk, as shown in the below table. A project strategy to address specific risks related to the COVID-19 pandemic will also be developed

Table 6 : Risks and Mitigation Measures

Risk categories	Risk Probability	Risk Impact	Mitigations
Rekindling or intensification of insurgency in target areas	High	High	IFAD will collaborate with the UN and the rest of the international community to promote security. IFAD's design will feature a conflict-sensitive approach to minimize the risk of the project aggravating tensions between communities, but also minimize the risk of conflict resurgence affecting the desired outcomes (improved NRM governance, capacity development, etc.). The project will be implemented by IFAD at state and district levels, and will deliver effectively for the benefit of the people on the ground through reliable executing agencies to be identified during the full design phase: Government institutions at the national and federal levels and well-established and locally-accepted NGOs. IFAD will focus on empowering communities and promoting strong stakeholder ownership.
Weak national policy framework	Medium	Medium	The project will be implemented in the framework of the new development and sectoral strategies recently adopted by the Government, the National Development Plan 2020-2024 in particular, contributing concretely to the achievement of its objectives and building its credibility. This will provide the umbrella framework for the project to be in line with sectoral strategies and climate and environment national plans and policies, such as the NAPA, the INDC, the NBSAP and the National commitments with regard to LDN and SDG15. In addition, the project has a specific outcome dedicated to strengthening institutional capacity and the policy environment to achieve land degradation neutrality and conserve biodiversity.
			IFAD will use national consultants and institutions to obtain specific

			IFAD will use national consultants and institutions to obtain specific additional information required to conclude design in view of security risk in parts of the country.
Weak technical capacities and inability to access parts of programme area for data	Medium	Medium	The design will focus on key issues to simplify the component structure of RLRP drawing on lessons learned from its previous portfolio and from partners experience. The project takes into account a flexible community driven approach to ensure technologies address the needs of the target beneficiaries.
Weak institutional capacity for implementation and sustainability (low capacity as a result of prolonged conflict)	High	Medium	The key part of the project implementation strategy is to provide operational support to Government line agencies, local implementing agencies, and community organizations for effective delivery. This will also serve to rebuild their institutional capacity and inspire hope and confidence. As necessary, the project will use third party implementation partners (i.e. national and international NGOs with local contacts and a credible track record) with plan to hand over to government when capacity improves.
Absence of strong national system for procurement	High	High	The project will follow IFAD's Project Procurement Guidelines, Procurement Handbook, and standard bidding documents in the absence of strong national systems. Regular implementation support missions will be planned, with targeted training and support on preparation of bidding activities in compliance with IFAD's requirements.
Co-financing availability	Low	Low	The ongoing discussions at IFAD Management level and with Government of Somalia are well advanced and, subject to agreement on the settlement of Somalia's arrears, the likelihood of having IFAD Performance-Based Allocation (PBA) is high. Negotiations with bilateral donors (e.g. Canada, Italy and OFID) are underway.
Climate risk (risk of climate disasters such as droughts and floods affecting project outcomes)	High	High	The project has included a range of climate adaptation risks and practices in all its components. The components funded through the Biodiversity and Land Degradation focal areas also feature adaptation co-benefits. The project will adopt an agroecological approach and a systematic integration of climate adaptation into investment projects. Specific targeting of women, youth and other vulnerable people will strengthen their resilience to climate change through, inter alia improved access to water and diversification of livelihoods.
			The global COVID-19 pandemic is having an unprecedented impact around the world, both in health and socioeconomic terms and does not spare Somalia. There is an increased risk to public health that is beyond the control of the project. During project implementation, every effort will be made to reduce and mitigate the risk of covid-19 infection. The project will work to reduce COVID-19 associated risks

Public Health and COVID Pandemic	High	High	by following international and WHO standards for the prevention of i nfection and will raise awareness during all training and capacity bu ilding efforts. Should the size of public gatherings be limited, then s uitable alternatives will be sought that are in compliance with best p ractices in reducing the risk of infection. Project beneficiaries will b e taught the most up to date health and safety requirements to limit the risk of contagion.

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

The A2R2 project will benefit from the ongoing projects implemented by other partners as presented in the baseline scenario and will be mainstreamed into the RLRP (or other associate projects) once this project becomes effective and will be jointly implemented through a hybrid process, which integrates third party implementation arrangements and a single Programme Management Unit.

Project oversight. A Programme Steering Committee (PSC) is proposed to be established under the Ministry of Agriculture and Irrigation (MoAI) to approve the annual work plan and budget (AWPB) and review the annual project progress and financial reports. The detailed composition of the PSC will be agreed with the Federal Government of Somalia during design, however it is already agreed that the Directorate of Environment and Climate Change in the Prime Minister's Office and the Ministry of Finance would be represented.

The Programme Coordination Unit (PCU), housed by MoAI will be responsible. for: (i) overall management of A2R2 and RLRP, once it becomes effective; (ii) managing the procurement process of the third party Implementing Partner/s (IP) and goods, works and services; (iii) coordinating the project implementation through the local service providers; (iv) working with the IP to development of the annual work plan and budget (AWPB) and undertaking project M&E activities; (vi) meeting all reporting obligations on the implementation progress and results of the A2R2 to IFAD; and (vii) coordination with the IFAD Country Team to ensure accountability for programme coordination and the safeguard of funds (IFAD has no office in Somalia). The PCU will report to a Project Steering Committee chaired by the MoAI.

Third party implementation arrangements: The competitively recruited third-party implementing partner/s (IPs)/service providers will be selected through a competitive recruitment process, where appropriate due to prevailing situations in Somalia. Under the guidance of the PMU and in close coordination with the MoAI and other technical ministries, the IPs will be responsible for the day-to-day implementation of the two technical components. The service providers will support the visioning and planning process to develop CDPs, and the overall implementation of the A2R2, including M&E of activities. The service providers will also manage and coordinate project activities, and ensure reporting to the PCU.

IFAD supervision. IFAD will supervise the A2R2 directly, using innovative and flexible supervision approaches. Depending on the prevailing conditions, IFAD may conduct field missions through third party arrangements and/or local consultants, supported by remote and off-site supervision through organizing meetings on a regular basis. Given the fragile situation in the country, IFAD will continuously monitor, follow-up and providing implementation support to effectively manage the A2R2, improve policy engagement, knowledge management and partnership building.

The PCU will be responsible for the development of a strong cooperation and coordination with the relevant GEF/LDCF financed projects as well as the other development partners projects identified in the baseline, notably RLACC-II (AfDB), Support for Integrated Water Resources Management to Ensure Water Access and Disaster Reduction for Somalia's Agro-Pastoralists (IWRM), Resilient Livelihood Action to COVID-19 (RLAC-19), Food Security and Sustainability in Fragile Situations (FSSFS), Productivity enhancing technologies to improve pastoralists and agro-pastoralists livelihoods in dry lands (PET), Support to Agricultural Productivity in Somalia (SAPS), Water for Agro-pastoral Productivity and Resilience (WAPR).

The following table presents the complementarity and contributions of these projects to the A2R2 project.

Table 7: Complementarity and contribution of existing projects to the A2R2 Project

Ongoing projects	Contribution to A2R2
Resilient Livelihood Action to COVID-19 (RLAC-1	The GEF project will build on experience from RLAC-19

Resilient Livelihood Action to COVID-19 (RLAC-19)	The GEF project will build on experience from RLCA-19 regarding support and training of small-scale farmers in post-harvest practices to reduce post-harvest losses amongst the target communities and to ensure quality products (grading, storing, drying, etc.)
Food Security and Sustainability in Fragile Situations (FSSFS),	The GEF project will seek for complementarity with the FSSFS, this latter having similar objectives, but implemented at a more reduced level (in Low Shabelle). This programme provides replicable and scalable models for future IFAD and other donor interventions in Somalia and Djibouti, and the A2R2 project will build on the models developed by the PET project with regard to conflict management, rehabilitation of hydro infrastructures, and alternative water sources. A2R2 will benefit from lessons capitalized by the NGO Comitato Europeo per la Formazione e l'Agricoltura (CEFA) on the above subjects. Furthermore, A2R2 will see to what extent the NGOs active in the FSSFS project (The Somali Disaster Resilience Institute (SDRI), AgriTechTalk Africa (ATTA), Vétérinaires Sans Frontières - Germany (VSF-G) could be service providers for the same type of activities that will be carried out by A2R2 in other regions of the country. This will include coaching local communities.
Productivity enhancing technologies to improve pastoralists and agro-pastoralists livelihoods in dry lands (PET)	This IFAD project is implemented in Somaliland, not in the same zone as the GEF Project. However, the PET is intended to provides replicable and scalable models for future IFAD and other donor interventions in Somalia, notably on participatory rangeland irrigation, dryland farming, and watershed management.
Water for Agro-pastoral Productivity and Resilience (WAPR)	The WAPR aims at developing water and agricultural services among agro-pastoralist communities in dryland areas of Somalia. The GEF Project will build partnership with the WB WAPR project and will coordinate its activities on the field, in Galmudug and South West states, where twenty (20) water points are being developed by WAPR for agriculture and livestock interventions.
The Sustainable Charcoal Reduction and Alternative Livelihoods project	The GEF project will work closely with FAO and UNEP to draw lessons from the project experience in promoting alternative livelihoods (such as horticulture, and bee-keeping) for those currently working in charcoal production.
Strengthening national capacities for improved decision-making and mainstreaming of global environmental obligations	The GEF project will coordinate with UNEP for the activities foreseen to mainstream LD and BD into the decision-making processes from local to Federal levels, particularly with regard to the LDN and Biodiversity M&E system the GEF project will set up.
Rural Livelihoods' Adaptation to Climate Change in the Horn of Africa - Phase II (RLACC II)	The RLACC II for Somalia is notably implemented in South-Central Somalia (Galguduud and Hiraan States). The exchange of experience with this project executed by IGA

	xchange of experience with this project executed by IFA D will be highly beneficial for the GEF project for all the a ctivities related to adaptation to climate change and on how to improve the resilience of pastoral and agro-pasto ral communities to climate change (such as introducing adaptation strategies to reduce the negative impacts of climate change; enhancing the capacity of communities to adapt their livelihoods to harsher climatic conditions a nd to manage drought risks; supporting community-led i nitiatives to protect, conserve and restore natural resour ces in a sustainable and climate-resilient manner.
Support for Integrated Water Resources Manage ment to Ensure Water Access and Disaster Reduc tion for Somalia's Agro-Pastoralists (IWRM)	**Coordination with UNDP on the location and consistence of water infrastructure planned** The IWRM planned physical investment in water resourc e retention infrastructure. IFAD will coordinate with UND P on the location and consistence of the water resource retention infrastructure to be built. The present Project w ill provide available data on water resource retention infr astructure and water extraction technologies, with docu mentation, to feed the Water Resources Knowledge Man agement Database (WARKM DB) mentioned in the UNDP Project. **Exchange on knowledge management** The GEF Project will document the UNDP Water Resourc es Knowledge Management Database (WARKM DB) with the training materials developed on water resource man agement and will benefit from the already training materi als produced in the UNDP Project. **Exchange of experience on technical support to Water U sers Associations**. The 2 projects aim at providing suppo rt to Water Users Associations in terms of maintenance of water resource infrastructure. It is intended to share e xperience on technical approaches and benefit from the experience of each project.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assesments under relevant conventions?

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

The project is consistent with the following national policies, strategies and sectoral plans:

- The National Development Plan (NDP-9) 2020-2024, which identifies drought and flood as the major climatic constraints for the country. Its goal is to reduce poverty and inequality through inclusive economic growth and employment, improved security and rule of law, and strengthened political stability. NDP-9 addresses the root causes of poverty and aims to improve the impacts of poverty experienced by households and individuals. Analysis indicates that poverty in Somalia is driven by political fragility, conflict, insecurity and lawlessness, and exacerbated by climate emergencies. In reference to climate change the NDP 9 acknowledges that the poor are the most vulnerable to shocks, and if Somalia is to achieve the objective of poverty reduction it must be through the ability to invest in resilience. Natural resource management, biodiversity and resilience to climate change are considered as cross-cutting policies (imperatives) together with gender, human rights and social equity. In addition, it is important to consider that the NPD 9 foresee, under the Pillar 3 Economic Development, the creation of a Water Master Plan to address the scarcity of water impacts at the household and community level, in health outcomes, as well as in the economy.

- The National Disaster Management Policy (2018), which aims to improve community resilience and preparedness in the face of disaster and climate emergencies in order to significantly reduce the loss of lives and property;

- The Somalia's Intended Nationally Determined Contributions (NDCs), 2015), prepared in line with UN Framework Convention on Climate Change (UNFCCC) and the decision of the "Lima Call for Act"on", include the policy, plans and mitigation and adaptation projects intended to achieve the objectives of the INDCs. The GEF/LCDF project will develop activities that contribute directly to what the INCDs have identified as potential remedial measures to overcome deforestation and pasture degradation, and which are : (1) sustainable land management and food security through enhanced productivity; (2) integrated water management; (3) reducing risk among of vulnerable populations from natural disasters; (4) the utilization of renewable energy resources such as solar, hydroelectric and wind ; (5) reforestation using regional nurseries and forest plantation using indigenous and introduced suitable tree species;

- The National Adaptation Programmes of Action (NAPA, 2013) describe the priority areas and adaptation measures that were subsequently incorporated in the INCDs. The adaptation measures identified by the NAPA, and presented below, serve as a framework for any intervention/action regarding natural resource management and are fully aligned with the A2R2.

Table 8 : Selected adaptation measures

Sector	Proposed adaptation measures
Water	1. Improve access to water supply through provision of piped water supply to ur ban areas and IDP camps. 2. Improve the quantity of water available through rehabilitation of dams, 'berke ds', boreholes and the construction of new dams, reservoirs, water diversions, live stock watering points and irrigation infrastructure. The selection of sites for these boreholes should take into account livestock concentration in the area and should be accompanied by an Environmental Impact Assessment. 3. Improve water capture and natural storage through improved land managem ent 4. Establish a regulatory framework for water management along with local level m anagement structures and capacities for water resource management.

	5. Improve water quality through water treatment plants that should be constructed alongside large-scale water storage projects, low-cost water treatment at the community level and legislation for water pollution control 6. Construction of river embankments, check dams and retaining walls to protect flood-prone areas
Agriculture and Food Security	1. Government support to increase local production and prioritize it over exports through incentives such as small grants, provision of agricultural inputs, strong institutional support and guidance relating to finances, assets and technology and improved extension services. 2. Watershed management through construction of water diversions from streams to farms for irrigation, establishment of boreholes for supply of water for irrigation and support for community-level water capture and storage for agricultural lands. 3. Sustainable land management and reforestation to reduce soil erosion 4. Establishment of an agricultural research institute that employs Somali experts who are familiar with the local context and that focus on the study of hydrology and soils 5. Establishment of an agricultural credit system for farmers along with agricultural cooperatives and associations 6. Diversification of food production appropriate to the natural ecosystem and introduction of high-value drought resistant crops and agro-forestry 7. Improve food security through the construction and maintenance of food storage facilities and seed banks and raising awareness amongst communities, particularly pastoralists on the importance of stockpiling food. 8. Enhance farm-based livelihoods through the improvement of farm-to-market roads, creation of small agro-industries, training in the marketing of farm products and development of markets for agricultural produce 9. Integrated Pest Management to protect crops and reduce risk/increase incentive to farmers
Animal Husbandry, Livestock and Rangelands	1. Land management with emphasis on preventing deforestation, planting new trees, establishing regulations for rotational grazing and protection and supervision of grazing areas. This program should be administered by Ministry of Environment, District Officials and Traditional Elders and Leaders of the communities 2. Provision of veterinary services by the government, ensuring access to remote rural areas and establishing diagnostic labs 3. Support pastoralists in becoming agro-pastoralists or livestock farmers, whereby their livelihoods are diversified. This should include support for the cultivation of fodder crops. 4. Control the export of female livestock due to the negative impacts on the sector 5. Cultivation of drought resistant fodder crops 6. Enhance livestock-based livelihoods through support to small-scale industries (hides, tanning, milk) and training in marketing of animal products (cheeses and yogurt) 7. Provide funding and mechanism for research into animal health 8. Establishment of livestock associations and cooperatives and support to local NGOs working in the sector

Biodiversity (forests, freshwater aquatic, marine and invasive alien species)	1. Protection of forests through charcoal reduction by developing alternative energy plan, encouraging the use of fuel-efficient cooking stoves, supporting alternative livelihoods and banning exports of charcoal. 2. Large-scale tree-planting program which includes the panting of high-value productive trees 3. Construction of check-dams to reduce flooding and destruction of trees 4. Protection of forests through legal frameworks and enforcement by the employment of rangers 5. Widespread awareness campaign on the impacts resulting from the destruction of forests and other natural resources 6. Protection of biodiversity and wildlife through policy measures, particularly focusing on endangered species 7. Establish a research center that studies flora and fauna to understand the advantages and disadvantages of certain species and their impacts on land and water resources, and to further examine sustainable forestry, agriculture and fire management
Natural Disasters	1. Establishment of a National-level disaster management agency responsible for coordination during emergencies, developing early warning systems and developing drought management and emergency preparedness plans 2. Enhanced coordination and information-sharing between relevant ministries and stakeholders 3. Community mobilization and development to enhance ownership by communities of local development problems as they related to climate events so that they become more active participants in developing solutions. This should also include a national level community- based disaster management program. 4. Installation of agro-meteorological stations 5. Utilize local knowledge on forecasting, weather information and agriculture to inform planning and initiatives 6. Create a fund for disasters to be administered by the Ministry of Interior and Local Government

Source: NAPA

Thus, the activities of the GEF/LCDF project are fully in line with the NAPA priority adaptation measures in relation to the three areas of action selected : 1) Sustainable Land Management (including adaption activities related to reforestation campaign including the distribution of seedlings to vulnerable communities; improved rangeland management and development and enforcement of a system for rotational grazing; awareness raising on environment, focusing on natural resource management, strengthening ecosystem services and promotion of alternative fuel/energy sources); 2) Water Resources Management (with adaptation activities related to the development and implementation of regional water resource management plans, the construction of water storage infrastructure (reservoirs) including supply for irrigation, livestock watering points and boreholes, the construction and rehabilitation of community level infrastructure, shallow wells, ponds; and 3) Disaster Management (prevention of drought and flooding).

– The United Nations Convention to Combat Desertification (UNCCD), the project being particularly addressing drought and desertification issues as well as supporting the Land Degradation Neutrality national commitments;

– The National Biodiversity Strategy and Action Plan (NBSAP, 2015), is built on the vision that, in 2050, Somalia's biological diversity is appreciated, restored, conserved and its components are utilized in sustainable manner that contributes to the socio-economic development of the nation. The GEF project will develop activities in line with the 5 NBSAP main priorities: 1) Creating understanding of the drivers of biodiversity degradation together with response measures; 2) Reducing the direct pressures on Somali biodiversity; 3) Safeguarding ecosystems, species and genetic diversity; 4) Enhance the benefits to all from biodiversity with emphasis on sharing it with marginalized groups; and 5) Enhanced participatory planning, knowledge management and capacity building.

- the Impact and Needs Assessment (DINA) and the subsequent Resilience and Recovery Framework (RRF, August 2017). The DINA and the RRF are aligned with the National Development Plan (NDP) and the National Disaster Management Policy;
- The National Youth Policy of the Federal Government of Somalia (2018) aiming at promoting youth participation in all sphere of development.
- The Women's Charter for Somalia, adopted in March 2019, calling for the women's economic empowerment, full participation and socioeconomic rights are cornerstones for equality and sustainable development.

The GEF/LCDF project will also contribute to the achievement of the following Sustainable Development Goals (SDGs):

SDG 1 End poverty in all its forms everywhere

SDG 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture

SDG 5 Achieve gender equality and empower all women and girls

SDG 6 Ensure availability and sustainable management of water and sanitation for all

SDG 12 Ensure sustainable consumption and production patterns

SDG 13 Take urgent action to combat climate change and its impacts

SDG15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

8. Knowledge Management

Outline the knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

The overall purpose of Knowledge Management (KM) is to enable the project to build a credible knowledge base of practical and actionable know-how that can be used to better address challenges related to the community adaptation in their governance of natural resources and combating land degradation in Somalia.

An in-depth analysis will be carried out by promoting broad consultation process aimed to identify and address knowledge and capacity priorities, needs, gaps and solutions. On the basis of this information, ad hoc information materials and training for target groups based on needs assessments will be produced e. those experiences or innovations that can be potentially useful to broader audiences will be collected at the field level and will be used as inputs for the preparation of Knowledge Products (KPs). These products will be shared among all the stakeholders.

The project's overall learning and knowledge management strategy will capture and disseminate knowledge at various levels and will focus on the following priorities: i) generating trust and fostering linkages between partners; ii) managing and sharing information, knowledge and experiences; iii) improving the effectiveness and efficiency of the private sector in adding value and innovating; iv) conducting analysis that can provide the evidence base for policy dialogue and reform; and v) creating conditions for replication, upscaling and sustainability. The project will benefit from the experience of previous IFAD projects in Somalia and in the region by identifying, analyzing, and sharing lessons learned and promoting learning tools that might be beneficial for the different stakeholders. It is the case, for example, of the study financed by IFAD and conducted by the Somali Disaster Resilience Institute (SDRI) on “Climate Change Adaptation in Somalia: Mapping of Climate Smart Agricultural Practices in Somalia”[1]. The study aimed to better understand the social and cultural factors influencing or hindering the adoption of environmentally sustainable climate resilient technologies & practices among Somali women farmers in rural and peri-urban settings and promote CSA practices in the target group. To this end SDRI has undertaken Climate Smart Agriculture research data collection in the 5 states of Somalia; Garowe – Puntland, Baidoa – South West, and Luuq – Jubaland, Galkacyo- Mudug and Jowhar – HirShabelle. The A2R2 project will build on the findings of the SDRI study to develop the content of the activities related to the promotion of agroecology, as well as the training programmes to be developed in the planned field farms schools

The project will generate various knowledge products (e.g. FFS curriculum, water infrastructure, solar energy equipment, climate smart agroecological approaches and techniques, indigenous knowledge on soil, water and biodiversity conservation, GALS), conduct studies (success stories, surveys, etc.), organize study visits/peer-learning events, different meetings/workshops/exhibitions for one to one communication with actual and potential beneficiaries, thereby establishing diligent internal and external information circulation flow available for not only for project stakeholders but for also wider audience. The Project will package and disseminate information to the respective stakeholders including beneficiaries in the appropriate formats (e.g. brochures, studies, articles, newsletter, social media and web). This knowledge-sharing process will be supported by a well-focused series of workshops and joint learning events. A communication strategy will be established and implemented to disseminate in the project results within and beyond the project intervention zone through a number of existing information sharing networks and forums.

[1] SDRI. June 2019. Climate Change Adaptation in Somalia: Mapping of Climate Smart Agricultural Practices in Somalia

9. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

Measures to address identified risks and impacts

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

In line with IFAD's Social, Environmental and Climate Assessment Procedures (SECAP), the A2R2 proposal and the associated RLRP concept underwent a preliminary analysis on the basis of IFAD's checklist "Guiding questions for environment and social screening" (annexed). The screening for this project concludes that the A2R2 project falls in category B, which indicates a project that "may have some adverse environmental and/or social impacts on human populations or environmentally significant areas, but the impacts: (i) are less adverse than those for category A; (ii) are site specific and few are irreversible in nature; and (iii) can be readily remedied by appropriate preventive actions and/or mitigation measures". Through the detailed design phase, IFAD and the Government of Somalia will prepare a full SECAP Note that will include a Gender Assessment, site-specific technical studies (hydrological, hydrogeological, soils, etc.), a Climate Risk Assessment, an Environmental and Social Management Plan (ESMP) and a Grievance Redress Mechanism that will be integrated in the Project Implementation Manual (PIM).

Supporting Documents

Upload available ESS supporting documents.

Title	Submitted
ESS Document-Somalia-PIF-Annex E	

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And GEF Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

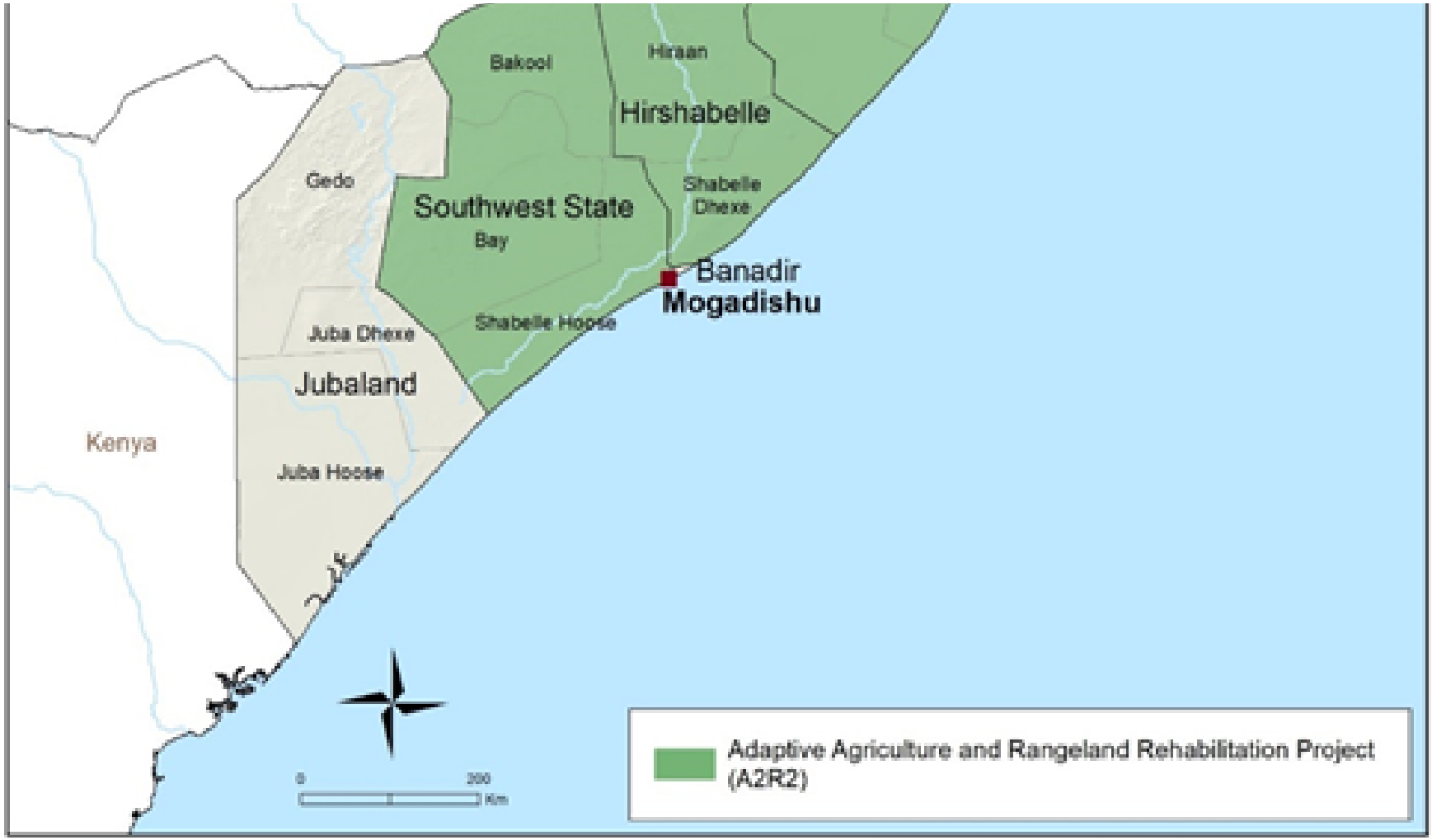
Name	Position	Ministry	Date
H.E. Mahdi Mohamed Gulaid	Deputy Prime Minister	Environmental Affairs	1/21/2021
PIF-Somalia		IFAD	3/24/2021
Annex C	Ex-ante Carbon Balance tool Analysis	IFAD	3/24/2021
Annex C-Rev	Ex-ante Carbon Balance tool Analysis	IFAD	4/23/2021
Review comments doc		IFAD	4/23/2021
CC Adaptation results Framework		IFAD	4/23/2021
PIF clean		IFAD	4/23/2021
PIF track		IFAD	4/23/2021
Review comments doc		IFAD	4/29/2021
PIF clean		IFAD	4/29/2021
PIF track		IFAD	4/29/2021

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place

Subject to security and access constraints, the project will target the southern states of Somalia, that have not benefited from investment projects as much as the northern states and where natural resources are the most degraded. Tentatively, the project will identify specific districts within the Galmudug, South West, and Hirshabelle Federal Member States (FMS). The project area may be extended to other states, regions or districts of Somalia based on the vulnerability and opportunity assessments to be undertaken through the detailed design.

PROJECT MAP



IFAD

The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD | 01-03-2021