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Report No: PAD4925

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT

IN THE AMOUNT OF SDR 54.7 MILLION
(US$70 MILLION EQUIVALENT)

TO THE

FEDERAL REPUBLIC OF SOMALIA

FOR THE

'BARWAAQO' SOMALIA WATER FOR RURAL RESILIENCE PROJECT

November 16, 2022

Water Global Practice
Eastern and Southern Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective on September 30, 2022)

Currency Unit =	Somali Shilling (SOS)
US$1.00 =	SOS 568.50
US$1 =	SDR 0.78

FISCAL YEAR
January 1 – December 31

Regional Vice President:	Victoria Kwakwa
Country Director:	Keith E. Hansen
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Practice Manager:	Catherine Signe Tovey
Task Team Leaders:	Chantal Richey, Jeehye Kim

ABBREVIATIONS AND ACRONYMS

CDD	Community-Driven Development
CIG	Common Interest Group
CIP	Community Investment Plan
COVID-19	Coronavirus Disease 2019
CPF	Country Partnership Framework
CSA	Climate-Smart Agriculture
E&S	Environmental and Social
EAFS	External Assistance Fiduciary Section
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FFS	Farmers' Field School
FGS	Federal Government of Somalia
FM	Financial Management
FMS	Federal Member State
FRS	Federal Republic of Somalia
FSRP	Food Systems Resilience Project
FY	Financial Year
GBV	Gender-Based Violence
GHG	Greenhouse Gas
GM	Grievance Mechanism
GW4R	Horn of Africa—Groundwater for Resilience Project
Ha	Hectare
IPC	Integrated Food Security Phase Classification
LDN	Land Degradation Neutrality
M&E	Monitoring and Evaluation
MDA	Ministries, Departments, and Agencies
MIS	Management Information System
NDP	National Development Plan
NPCU	National Project Coordination Unit
NWRS	National Water Resources Strategy
O&M	Operation and Maintenance
PFM	Public Financial Management
PIU	Project Implementation Unit
POM	Project Operations Manual
PP	Procurement Plan
SEA/SH	Sexual Exploitation and Abuse, and Sexual Harassment
SEP	Stakeholder Engagement Plan

SLM	Sustainable Land Management
SOC	Soil Organic Carbon
SOE	Statement of Expenditure
STEP	Systematic Tracking of Exchanges in Procurement
SSAHUTLC	Sub-Saharan Africa Historically Underserved Traditional Local Communities
TA	Technical Assistance
TIMP	Technology, Innovation, and Management Practice
TPM	Third Party Monitoring
TTL	Task Team Leader
UN	United Nations
VDC	Village Development Committee
VMG	Vulnerable Member Group
WA	Withdrawal Application
WALP	Water for Agro-Pastoralist Livelihoods Pilot Project
WET	Wadi Evaluation Tool

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Somalia	Barwaaqo - Somalia Water for Rural Resilience Project	
Project ID	**Financing Instrument**	**Environmental and Social Risk Classification**
P177627	Investment Project Financing	Substantial

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[✓] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[✓] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[ ] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	[ ] Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
09-Dec-2022	29-Feb-2028

Bank/IFC Collaboration

No

Proposed Development Objective(s)

To develop water, agriculture, and environmental services for rural communities in Somalia's drylands.

Components

Component Name	Cost (US$, millions)
Development of Multiuse Water Sources	26.30

Development of Agriculture and Livestock Services Around Water Points	15.50
Development of Environmental Catchment Services in Project Areas	10.00
Project Management, Community-Driven Development and Enhancing Livelihoods Planning	17.50

Organizations

Borrower:	Federal Republic of Somalia
Implementing Agency:	Ministry of Planning Investment and Economic Development

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	70.00
Total Financing	70.00
of which IBRD/IDA	70.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	70.00
IDA Grant	70.00

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
Somalia	0.00	70.00	0.00	0.00	70.00
National Performance-Based Allocations (PBA)	0.00	70.00	0.00	0.00	70.00
Total	**0.00**	**70.00**	**0.00**	**0.00**	**70.00**

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2023	2024	2025	2026	2027	2028	2029
Annual	0.75	6.00	14.20	14.50	11.00	22.30	1.25
Cumulative	0.75	6.75	20.95	35.45	46.45	68.75	70.00

INSTITUTIONAL DATA

Practice Area (Lead)

Water

Contributing Practice Areas

Agriculture and Food, Environment, Natural Resources & the Blue Economy

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	High
2. Macroeconomic	High
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Moderate
6. Fiduciary	High
7. Environment and Social	Substantial
8. Stakeholders	Substantial
9. Other	High
10. Overall	Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Relevant
Cultural Heritage	Relevant
Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Sections and Description

Schedule 2, Section I. A. 2. (a)(1). The Recipient shall not later than one (1) month after the Effective Date,

establish, and thereafter maintain, throughout the implementation of the Project, a Project steering committee ("Federal Inter-Ministerial Steering Committee") at the federal level with functions, composition and resources satisfactory to the Association.

Sections and Description

Schedule 2, Section I. A. 2. (b). The Recipient shall cause the Ministry of Planning Investment and Economic Development to establish no later than ninety (90) days after the Signature Date and thereafter maintain a national project coordination unit ("National Project Coordination Unit" or "NPCU"), to be responsible for overseeing and monitoring the progress of the Project. The Ministry of Planning Investment and Economic Development shall be responsible for the overall supervision of Project activities within its jurisdiction, under the general guidance of the Federal Inter-Ministerial Steering Committee.

Sections and Description

Schedule 2, Section I. A. 2. (c). The Recipient shall maintain, throughout the period of implementation of the Project, the EAFS Unit, established within MoF's Office of Accountant General, with competent, experienced and qualified staff, in sufficient numbers and under terms of reference acceptable to the Association, and vested with such powers, financial resources, functions and competencies, acceptable to the Association and set forth in the Comprehensive Operations and Accounting Procedures (COAP) Manual, necessary to assist the NPCU with the day-to-day financial management and fiduciary responsibilities under the Project, including carrying out the internal controls, and Internal audit, preparing the interim financial reports, preparing the Project's Financial Statement and coordinating their external audit.

Sections and Description

Schedule 2, Section III.3. No later than thirty (30) months after the Effective Date, the Recipient shall, in conjunction with the Association, carry out a mid-term review of the Project (the "Mid-term Review"), covering the progress achieved in the implementation of the Project. To this end, the Recipient shall prepare - under terms of reference satisfactory to the Association - and furnish to the Association not less than three (3) months prior to the beginning of the Mid-term Review, a report integrating the results of the Project's monitoring and evaluation activities, on the progress achieved in the carrying out of the Project during the period preceding the date of such report, and setting out the measures recommended to ensure the efficient carrying out of the Project and the achievement of the objective of the Project during the period following such date.

Sections and Description

Schedule 2, Section I. F. No later than one-hundred and eighty (180) days after the Signature Date, the Recipient shall enter into a contract with a Third Party Implementing Entity to implement Project activities in the Agreed Areas.

Sections and Description

Schedule 2, Section I.C.1(a). Prior to implementing any activities under their Respective Activities under the Project and prior to provision of any funds to any of the Federal Member States or Somaliland for the purpose of carrying out of their Respective Activities under the Project, the Recipient shall make part of the proceeds of the Financing available on grant terms, to each Federal Member State and Somaliland under such agreements ("Subsidiary Agreements") between the Recipient and such Federal Member States and Somaliland respectively, under terms and conditions acceptable to the Association.

Sections and Description
Schedule 2, Section I.C.2 (a). The Recipient shall prepare and furnish to the Association on an annual basis, by no later than October 31of each calendar year, commencing on October 31, 2023, the annual work plan and budget containing all activities proposed to be included in the Project during the following Fiscal Year, and a proposed financing plan (setting forth the proposed amounts and sources of financing) for expenditures required for such activities; Notwithstanding the foregoing, the Annual Work Plan and Budget for the first year of Project implementation shall be prepared by the Recipient by not later than one (1) month after the Effective Date.

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	Article IV. Section 4.01 (a).The Recipient has prepared and adopted a Project Operations Manual, pursuant to Section I.B.2(b) of schedule 2 to this Agreement and, in a manner and substance satisfactory to the Association.
Type	Financing source	Description
Effectiveness	IBRD/IDA	Article IV. Section 4.01 (b). The Recipient has adopted the Environmental and Social Management Framework, Labor Management Plan, Resettlement Policy Framework, and Stakeholder Engagement Plan, in accordance with the Environmental and Social Commitment Plan and, in a manner and substance satisfactory to the Association.
Type	Financing source	Description
Disbursement	IBRD/IDA	Schedule 2, Section III.B.1(b). No withdrawal shall be made under category one: For payments made prior to the Signature Date; Until the Recipient has established the National Project Coordination Unit pursuant to Section I.A.1(b) of Schedule 2 to this Agreement; Until at least two Subsidiary Agreements have been signed between the Recipient and two Federal Member States; and Until the Recipient has established and operationalized the Project's grievance redress mechanism, in a manner and substance satisfactory to the Association.
Type	Financing source	Description
Disbursement	IBRD/IDA	Schedule 2, Section III.B.1(c). No withdrawal shall be made under Category (2) until Somaliland has: Executed the Subsidiary Agreement for its Respective Activities under the Project; Prepared and formally adopted the Project Operations Manual for its Respective Activities under the Project; Established the institutional arrangements set forth in the Project Operations Manual for implementation of its Respective Activities under the Project; and Prepared all necessary environmental and social risks management

		instruments in accordance with the ESCP; all in a manner and substance satisfactory to the Association.

I. STRATEGIC CONTEXT

A. Country Context

1. **Recovering from conflict, Somalia has been on a trajectory toward political stabilization and reconstruction**. In 2012, a Provisional Constitution was adopted, establishing the Federal Government of Somalia (FGS). Following this political transition and the establishment of the Federal Member States (FMSs) (Puntland, Galmudug, Hirshabelle, South West State and Jubbaland), the 2017 elections were peaceful and established the current administration. The sustained political, economic, and institutional reforms have enabled the rebuilding of core state functions, though the country's fiscal position remains largely supported by official development assistance, remittances, and foreign direct investment. The country still faces persistent insecurity, conflict, and unresolved political tensions, as demonstrated by the delay of the elections from 2020 to 2022. A new President was officially inaugurated on June 9, 2022.

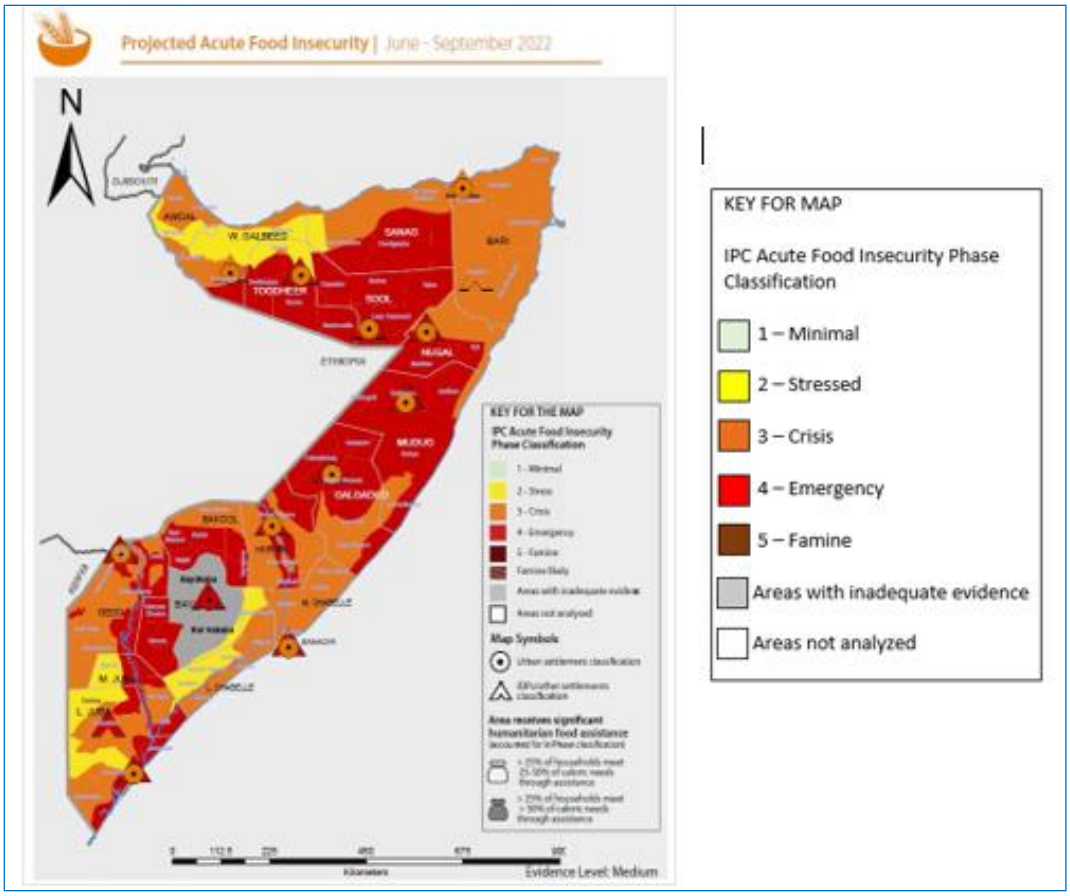
2. **Poverty remains pervasive, with almost 70 percent of Somalis living on less than US$1.90 a day in purchasing power parity terms.** Poverty rates are elevated among internally displaced people living in settlements, people living in rural communities, and nomads, with almost 90 percent of households deprived in at least one dimension of poverty and nearly 70 percent suffering in two or more.[1] The poorest also have lower access to services, while women have lower rates of literacy and educational attainment (only 40 percent of women are literate compared with 50 percent of men).[2] About 7.8 million Somalis have been affected by the worst drought in four decades, with more than 1 million displaced by drought including nearly 99,000 in August 2022.[3] In the absence of further humanitarian assistance, famine is projected in the Baidoa and Burhakaba districts, Bay region, during October-December 2022.[4] The severe drought combined with the effects of war in Ukraine have led to inflationary pressures. Inflation is projected at 8.5 percent in 2022 and year-on-year food inflation reached 16 percent in September 2022.[5] Over 2.6 million Somalis have been displaced by the effects of war, floods, droughts, and loss of livelihoods.[6] In 2022, there is a risk of famine, as multi season drought and soaring food prices affect food insecurity and malnutrition. The current rising costs of water and livestock feed, as well as migration to distant areas in search of pasture and water, have led to very high debt burdens among pastoral households. Agro-pastoral and riverine livelihood zones have recently had several consecutive failed cereal harvests. In the coming months, the production and supply chain impact of the war in Ukraine is expected to put further upward pressure on food prices, thereby threatening the food security of millions across Somalia. There are concerns about weakening coping capacity of the poor and vulnerable population.

3. **Somalia's arid to semi-arid climate is vulnerable to natural hazards, particularly drought and floods, and is projected to be at even greater risk in the future due to climate change**. Historically, shocks from droughts and flooding, coupled with land degradation have contributed to loss of agricultural production, poverty, displacement, biodiversity loss, and conflict. Somalia has one of the highest inter-annual variations of rainfall in Africa, which influences pastoral and agro-pastoral production systems. Between 2000 and 2015 Somalia lost 27 percent of its total land area to land

[1] World Bank. April 2019. "Somalia Poverty and Vulnerability Assessment: Findings from Wave 2 of the Somalia High Frequency Survey."
[2] World Bank. April 2019. "Somalia Poverty and Vulnerability Assessment: Findings from Wave 2 of the Somalia High Frequency Survey."
[3] United Nations Office for the Coordination of Humanitarian Affairs. August 2022. "Somalia Situation Report."
[4] United Nations Office for the Coordination of Humanitarian Affairs. August 2022. "Somalia Situation Report."
[5] World Bank. June 2022. "Somalia Economic Update." And Federal Government of Somalia National Bureau of Statistics, October 2022.
[6] Norwegian Institute of International Affairs (NIPI) and Stockholm International Peace Research Institute (SIPRI). 2021. Climate, Peace and Security Fact Sheet Somalia. Accessed March 1, 2022: *https://reliefweb.int/sites/reliefweb.int/files/resources/210203FINALFactSheetSomaliaSkisserLR11.pdf*

degradation while deforestation is also prevalent.[7] There is an increasing difficulty in predicting weather phenomena.[8] Somalia has experienced at least one drought every four years since the 1960s, and is, yet again, currently facing severe food insecurity, as shown in Figure 1 in the latest Integrated Food Security Phase Classification (IPC) projections map. Looking into the future, project beneficiaries will face increased risks of flood and drought, which will further undermine their coping mechanisms, leading to increased displacement and higher poverty rates. Pastoral livelihoods and agricultural production are likely to be negatively affected, with a detrimental impact on the national economy. Flood hazard risks, which are anticipated to increase in terms of intensity and frequency because of climate change, are particularly high in areas in the southwest, where a large proportion of the land is cropped. Other parts of the southwest, along with the middle and northwest are the most drought prone.[9]

Figure 1. IPC Integrated Food Security Phase Classification[10]



[7] World Bank. 2022. "Somalia needs its trees to restore landscapes and livelihoods." [Online]. Accessed November 7, 2022: *https://blogs.worldbank.org/africacan/somalia-needs-its-trees-restore-landscapes-and-livelihoods#:~:text=A%202020%20Somali%20government%20report,biological%20degradation%2C%20and%20gully%20erosion*

[8] IBRD and FAO. 2018. Somalia Country Economic Memorandum: Rebuilding resilient and sustainable agriculture in Somalia. International Bank for Reconstruction and Development/The World Bank and the Food and Agriculture Organization of the United Nations (pp. 42).

[9] Due to limitations of climate modelling, uncertainties with respect to the increases in frequency or intensity of events and impacts.

[10] The IPC Acute Food Insecurity (IPC AFI) classification, ipcinfo.org, provides strategically relevant information to decision makers that focuses on short-term objectives to prevent, mitigate or decrease severe food insecurity that threatens lives or livelihoods. In particular, the IPC Acute Food Insecurity classification differentiates between different levels of severity of acute food insecurity, classifying units of analysis in five distinct phases: (1) Minimal/None; (2) Stressed; (3) Crisis; (4) Emergency; and (5) Catastrophe/Famine. Each of these phases has important and distinct implications for where and how best to intervene. Map sourced from https://www.ipcinfo.org/

4. **Somalia is in a record-breaking five-season drought, further worsened by rising global food prices.** Multiple areas of Somalia face a risk of famine (IPC Phase 5) amid an exceptionally severe drought, soaring staple food prices, and heightened conflict and insecurity. The September to November Deyr rain[11] has been performing very poorly, making it the fifth consecutive failed rainy season. Approximately 6.7 million people across Somalia are expected to face Crisis (IPC Phase 3) or worse acute food insecurity outcomes between October and December, including 2.2 million people that will likely be in Emergency (IPC Phase 4) and at least 300,560 people that will likely be in Catastrophe (IPC Phase 5).[12] Record-high global food prices have also had an outsized impact on Somalia, which typically imports over half of its national food supply. Household purchasing power is at a decade low, particularly in Bakool, Gedo, Bay, and Middle Jubba.

B. Sectoral and Institutional Context

5. **Natural resources such as agriculture, livestock, and fisheries are important for rural Somali livelihoods.[13]** Somalia encompasses large areas suitable for livestock grazing, browsing, and fodder production. Fertile alluvial soils allow for staple cereals, oil seeds, legumes, and horticulture crops, while forests provide prized gums and resins, as well as charcoal for cooking. The agriculture and livestock sectors are dependent on water of sufficient quantity, quality, and affordability. Many rural Somalis earn their living from agriculture (notably animal husbandry and crop farming), but water scarcity has led to widespread crop devastation as well as livestock and human deaths. There are concerns that without preventive approaches to address the effects of climate change and extreme weather, existing vulnerabilities will be exacerbated, reducing livelihood options, which may negatively impact on stability and security.[14] Agriculture, forestry, and other land uses contribute 96 percent of national greenhouse gas (GHG) emissions in Somalia, of which 43 percent result from loss of soil carbon in grasslands due to conversion to other uses.[15] From a climate change mitigation perspective, increasing soil carbon stocks and halting the degradation exacerbated by droughts and floods are central.

6. **Lives are shaped by uncertain water supplies and water insecurity is growing.** The Shabelle and the Jubba Rivers in the south are Somalia's only two permanent rivers—all others are ephemeral. In nonriverine regions, in times of severe drought, boreholes are an important source of water, but water from deep aquifers is often unsuitable for drinking or irrigation (salty or hard) and extraction costs are high. The population relies mostly on small water reservoirs (berkads), open dams, shallow hand-dug wells, and springs, which depend on groundwater and fluctuating rainfall. For only a few months in the year, this water also supports a small but growing horticultural production. In recent decades, expansion of private enclosures on traditionally communal rangelands, especially along livestock migration routes, jeopardizes the mobility of pastoralist communities, thereby weakening their capacity to cope with adverse climate conditions. Existing tensions and conflict risks are amplified during extended dry periods.

7. **There are several prevalent gender gaps in Somalia which are deeply linked to water insecurity.** The first is the time females spend on fetching water: in 2020, only a third of Somali households had water piped to their homes, with 42 percent depending on communal water taps and 16 percent on groundwater point sources. [16] As a result, 41 percent

[11] There are, broadly, four seasons in Somalia: two rainy seasons—the Gu (main rainy season from mid-March to June) and Deyr (secondary rainy season from mid-September to November). The two dry seasons are Haagal (July to September) and Jilaal (December to March).
[12] FSNAU (Food Security and Nutrition Analysis Unit) of the Food and Agricultural Organization (FAO)of the United Nations, Somalia Post Gu assessment results, September 2022.
[13] World Bank. 2018. "Somalia Systematic Diagnostic."
[14] Norwegian Institute of International Affairs (NIPI) and Stockholm International Peace Research Institute (SIPRI). 2021. Climate, Peace and Security Fact Sheet Somalia. Accessed March 1, 2022: *https://reliefweb.int/sites/reliefweb.int/files/resources/210203FINALFactSheetSomaliaSkisserLR11.pdf*
[15] Office of the Prime Minister (OPM). 2018. Somalia's First National Communication to the United Nations Framework Convention on Climate Change (UNFCCC), the Federal Republic of Somalia. Accessed January 13, 2022: *https://unfccc.int/sites/default/files/resource/THE%20INITIAL%20NATIONAL%20COMMUNICATION%20FOR%20SOMALIA.pdf*
[16] Food and Agriculture Organization (FAO). 2021. National Gender Profile of Agricultural and Rural Livelihoods;

of Somalis do not have access to a regular and stable improved water source for drinking.[17] As the main providers of water to the household, women and girls are particularly impacted, spending an average of three to six hours per day collecting water.[18] This time is deducted from what could be spent on productive activities or education. The second gap is decision making and leadership: women rarely have a voice in water governance. At the national level, gender inequality is evident in women's low participation in leadership/decision-making roles.[19] The third gap is agricultural productivity and income generation: women play important roles in agriculture and livestock production, but productivity is limited by lack of access to markets, inputs, extension services support, and training, as well as time taken for domestic responsibilities. The employment gap is also affected by the water collection burden as well as low levels of education, and cultural views of women's roles and abilities. Lastly, poverty, food insecurity, and environmental degradation have a disproportionate impact on rural women's health, due to their inferior socioeconomic, legal, and political status and roles as producers and household managers. All these gender gaps result in higher levels of malnutrition and lower food security among women.

8. **Environmental challenges, exacerbated by climate change, affect the rural economy and impact the urban economy.** With over a quarter of Somalia's territory degraded, coupled with deforestation and loss of soil,[20] rural livelihoods are under threat, a process that has occurred over decades. These environmental challenges, along with droughts, cause pastoralists to lose their livestock (main source of wealth and income), while farmers and agro-pastoralists lose their harvest (which is their main source of food). Given that pastoralism and agriculture are important to the economy, land degradation leads to reductions in income and food security and affects rural livelihoods, with a direct knock-on effect on the urban economy. It is estimated that approximately 54 percent of Somalia's population live in urban areas[21] and a shift to urban hubs has increased pressure on existing water infrastructure. Scarce water resources must be shared between rural communities and growing urban centers.

9. **Soil and water conservation measures are vital to reversing land degradation, increase the resilience of the rural economy, and restore and conserve soil organic carbon (SOC).** Opportunities exist to increase water storage across Somalia's drylands[22] by deploying low-cost, small-scale water harvesting and storage technologies. These, combined with soil improvement techniques, can reduce run-off and erosion, promote infiltration, reduce evaporation losses, and contribute towards restoring soil carbon sequestration capacity. Such measures can improve the adaptive capacity of drylands by helping sustain vegetation biomass during dry periods and drought,[23] with some technologies able to supply water for domestic, livestock, and agricultural consumption. Increasing soil carbon stocks double up to enhance carbon sinks.

10. **Somalia's relatively embryonic but steadily improving institutional capacity to manage water, agriculture, livestock, and environmental resources still requires strengthening.** Institutional roles need ongoing clarification to

https://reliefweb.int/sites/reliefweb.int/files/resources/NATIONAL%20GENDER%20PROFILE%20Somalia.pdf
Also see: Croome and Husain. 2020. Climate crisis, gender inequalities and local response in Somalia/Somaliland. *https://www.fmreview.org/sites/fmr/files/FMRdownloads/en/issue64/croome-hussein.pdf*

[17] 2021 Somalia Joint Multi-Cluster Needs Assessment. Accessed March 2022: reliefweb.org

[18] FAO (2021), pg. 19.

[19] Gender inequality is alarmingly high in Somalia at 0.776 out of a value of 1 (complete inequality), with Somalia at one of the lowest positions globally on the Gender Inequality Index. Women suffer severe exclusion and inequality in all dimensions of the index—health, employment, and labor market participation (UNDP 2015).

[20] World Bank. 2022. "Somalia needs its trees to restore landscapes and livelihoods." [Online]. Accessed November 7, 2022: https://blogs.worldbank.org/africacan/somalia-needs-its-trees-restore-landscapes-and-livelihoods#:~:text=A%202020%20Somali%20government%20report,biological%20degradation%2C%20and%20gully%20erosion

[21] World Bank. 2020. Somalia Urbanization Review.

[22] The term 'drylands' refers to areas characterized by large water deficits because potential evapotranspiration is much greater than precipitation.

[23] Ryan and Elsner. 2016. "The potential for sand dams to increase the adaptive capacity of East African drylands to climate change."

better manage and successfully implement investment opportunities. United Nations' (UN) managed sector cluster systems are gradually becoming country managed with government beginning to take responsibility for sectoral oversight. The Ministry of Energy and Water Resources recently published the National Water Resources Strategy which is helping to position the Ministry to the forefront of sector leadership. The Ministries of Agriculture, Livestock and Directorates, and the Ministries of Environment, are on a similar trajectory, albeit at slower paces. Social development is needed to fuel and sustain economic growth, through human capital development, social protection, and disaster risk management, with the government's Ninth National Development Plan (NDP9) aiming to address the root causes of poverty.

11. **Somalia has shown that it is possible to rely on low-cost, low to zero-carbon energy, small-scale water harvesting, and storage technologies to enhance rural communities' access to water in drylands.** The Second Water for Agro-Pastoral Productivity and Resilience Project, or 'Barwaaqo' project,[24] builds on and scales up the activities of the Water for Agro-Pastoral Productivity and Resilience Project (Biyoole, P167826) under implementation since January 2020 and will continue to provide low-cost, low to zero-carbon energy, small-scale water harvesting and storage technologies.[25] Both projects invest in water, agriculture, livestock, and environmental services and the institutions that manage them. In so doing, the projects address climate vulnerabilities, land degradation, deforestation depleted soil carbon stock, decreased land cover and soil erosion, as well as climate change mitigation using solar energy, rather than fossil fuels for water lifting. Somaliland and Puntland State tested the development of sand dams under the Water for Agro-Pastoralist Livelihoods Pilot Project (WALP, P152024). This pilot paved the way for the ongoing Biyoole project, which is scaling up the adoption of sand dams and other water-harvesting technologies across Puntland, Galmudug, and South West States.

C. Relevance to Higher Level Objectives

12. **The project is aligned with the World Bank Group Country Partnership Framework (CPF) for the Federal Republic of Somalia (FY19–22) (Report No. 124734-SO) discussed by the Board on September 25, 2018.[26]** The project supports priorities in the two Focus Areas: (1) Strengthening institutions to deliver services; and (2) Restoring economic resilience and opportunities. Ongoing governance programs will be strengthened to improve the provision and quality of key social services and resilience in Focus Area 1 while economic resilience will be increased in Focus Area 2 to provide a base upon which durable poverty reduction and inclusive growth strategies can be made. The CPF is aligned with the development priorities set by the government's NDP9, the Drought Impact Needs Assessment, Recovery and Resilience Framework and the other individual Sector Strategic Plans. The Performance and Learning Review of the Country Partnership Framework, concluded in September 2022, introduced a new Focus Area 3 focused on strengthening resilience to support Somalia's resilient recovery and capacity to respond to shocks. Focus Area 3 includes an expanded objective on strengthening rural resilience and food security, which this project embodies.

13. **The World Bank brings Somalia a comparative advantage in supporting institution building and on-budget financing.** At present, the World Bank portfolio represents approximately 28 percent of Somalia's total official development assistance. Other donors are playing a major role in financing rural community-based resilience, generally through joint UN programs or those directly implemented by nongovernmental organizations or the private sector. The protracted humanitarian situation and limited use of country systems has led to a fragmented aid environment which, unless managed, will continue to undermine the capacity of national institutions and state-building initiatives. Relative to the other main actors, the World Bank's comparative advantage in Somalia has been to strengthen institutions at the

[24] 'Barwaaqo' is the new Somali vernacular project name for the Biyoole 2 project. It means prosperity.
[25] Water for Agro-Pastoral Productivity and Resilience Project – Biyoole. P167826, US$42 million, approved July 1, 2019.
[26] The Performance Learning Review extended the County Partnership Framework through FY23.

national and subnational levels, through supporting the establishment of clear norms and standards mostly by channeling funds through government systems. Until now, the World Bank has channeled more than US$745 million through these country systems (2019–2021).

14. **The proposed project contributes to higher-level objectives consistent with the World Bank's twin goals of ending extreme poverty and promoting shared prosperity.** Improving access to water resources in a dryland environment can significantly improve human health and well-being and reduce the effects of poverty. The project seeks to reduce the risks and impacts of climate change–exacerbated floods and droughts through the introduction of technologies and practices that provide year-round water access, reduce the likelihood of localized flooding, and increase soil water content, thus enhancing the resilience of communities to extreme water-related weather events which, in turn, contribute to poverty reduction. The project will support income generation for vulnerable people and catalyze economic growth in rural areas. By promoting sustainable use of natural resources, the project will improve the availability of water for longer periods, thus reducing water-related displacement and attenuating the drivers of resource-based conflicts. The project is aligned with the World Bank Group Climate Change Action Plan (CCAP 2021–2025) objectives by promoting a low-carbon and climate resilient development approach as well as the World Bank Group's Green, Resilient, and Inclusive Development (GRID) approach, which addresses the risks to people, the planet, and the economy in an integrated manner and tailored to needs.

15. **The project is aligned with the World Bank Group Crisis Response Framework (GCRF)**. The project components will contribute to Pillar 1—Responding to Food Insecurity (supporting thematic areas 'support production and producers' and 'facilitate increased trade', and 'scale up social protection to support the vulnerable') by providing water and agricultural inputs for small scale farming and livestock production, which is used for household consumption and sale in local markets; Pillar 3—Strengthening Resilience to be better prepared for any future crisis and challenges (supporting thematic areas 'nutrition sensitive and sustainable food systems' and 'climate resilience') is addressed through the sand dams ability to harvest and store water through long dry periods, and the introduction of the environmental catchment service to promote soil conservation; and Pillar 4—Strengthening Policies, Institutions, and Investments for Rebuilding Better to utilize the opportunities the crises provide to improve long-term development outcomes (supporting thematic areas 'resilient reconstruction', green and sustainable growth, and 'institutional strengthening and capacity building'). Each component in the project has a sub-component (1.3, 2.3, 3.2 & 4.2) that includes specific technically focused institutional and capacity building activities that are designed to support the strengthening of country systems to be able to build climate resilient infrastructure.

16. **The project is aligned with the 2021 National Water Resources Strategy (NWRS), including the Somaliland Water Sector Strategic Plan (2022–2026).** A first for Somalia, the NWRS describes the critical economic and social importance of water in Somali society. Access to water is identified as a key stepping-stone for socioeconomic development and an entry point to peace building. The project is also aligned with Somalia's updated Nationally Determined Contribution (2021), which includes a GHG emissions reduction target of 30 percent versus business as usual by 2030, focused on the Agriculture, Forestry and Other Land Use sector. This includes activities such as promoting rainwater harvesting and conservation of water, agroforestry practices, rangeland restoration and rehabilitation. The United Nations Convention to Combat Desertification proposes the overarching target of achieving Land Degradation Neutrality by 2030. This project supports the realization of activities planned in these international climate commitments and thus facilitates the attainment of the goals set therein. The project is aligned with the Somaliland policy and strategy documents (Water Strategic Plan, National Agriculture Plan, Animal Health and Production Strategy, and Environment Strategic Plan).

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

To develop water, agriculture, and environmental services for rural communities in Somalia's drylands.

PDO Level Indicators

17. **Achievement of the PDO will be measured by the following outcome-level indicators**:

- Number of people provided with access to improved water sources (of which proportion of females).
- Farmers adopting improved agricultural technology (of which proportion of females).
- Land area (hectare) under sustainable landscape management practices.

18. **The Barwaaqo project will build on the investments under the Biyoole project.** The proposed project will increase activities in the existing project areas of Somaliland, Puntland, Galmudug, and South West States and will expand to two additional FMSs—Hirshabelle and Jubbaland—where it will focus on the areas situated away from the floodplains of the Shabelle and the Jubba rivers. The project will work in areas that are of low security risk and will adopt a flexible approach to selecting new sites should security concerns emerge. The project will provide water to 500,000 people—representing 15 percent of the rural population who currently only have access to limited service, and unimproved or surface water.[27]

19. **While much of the core elements of the Barwaaqo project will build on the Biyoole project, such as investments in water points and livelihoods that depend on them, there will be some notable changes.** The project will add environmental services as a new set of activities in the catchment areas around the water points. This includes climate change adaptation and mitigation measures. In addition, the project will support the strengthening of natural resources management—including water, land, forests, rangelands around the water points, to increase the sustainability of investments. As demonstrated in the infographic turning sand into water (Figure 4), the project aims to conserve, harvest, and store rainwater, helping to slowly 'green' drylands. Lastly, institutional strengthening, which was a standalone component under Biyoole, will be incorporated into each component. The rationale for this is described comprehensively in the 'Lessons Learned' section. Institutional strengthening will include measures to assess and increase the employment of women, particularly in technical and managerial roles, in the participating water and agriculture institutions.

B. Project Components

20. **This project integrates water supply development, agriculture (farming and livestock) development, and environmental management with a focus on climate adaptation and climate mitigation.** The project will continue to build the capacity of the government to provide water, agriculture, and environmental services to improve water access, strengthen sustainable livelihoods, and reduce vulnerabilities to extreme climate events, contributing to pillars 1, 3, and 4 of the Global Crisis Response Framework (GCRF). The project comprises four interlinked components: (a) Development of Multiuse Water Sources; (b) Development of Agriculture and Livestock Services around Water Points; (c) Development of Environmental Catchment Services in Project Areas; and (d) Project Management, Community Development and Enhancing Livelihoods Planning.

[27] WHO UNICEF/JMP 2020: https://washdata.org/data/household#!/table?geo0=country&geo1=SOM

Component 1: Development of Multiuse Water Sources (US$26.3 million IDA equivalent)

21. **This component will be implemented by the Ministries of Water in Somaliland and FMSs,[28] and Puntland Water Development Agency.** The component aims to improve water availability for domestic use, farming, and livestock, and to address the effects of climate change–exacerbated droughts and floods by developing water supply infrastructure that provides reliable supply, including small sand and subsurface dams in dry riverbeds (wadis) and surface water storage infrastructure (for example, berkads and hafir dams). Component 1 activities will contribute to Pillar 1 of GCRF-*Responding to Food Insecurity* - by supporting small-scale farm and livestock production and producers through improved water access. The construction and rehabilitation of water points, including sand dams, will contribute to Pillar 3 of GCRF-*Strengthening Resilience*- through promoting soil conservation and storage of water against long dry periods. In line with the project's climate mitigation emphasis, all water lifting will be done via low- to zero-carbon energy units, that is, solar pumps, coupled with elevated storage and gravity-fed auxiliary structures such as cattle troughs, water points for human use, and irrigation. This will eliminate carbon emissions by avoiding the use of fossil-based energy sources. By incorporating climate resilience into the planning process as well as into the design, new infrastructure, rehabilitation and/or retrofitted facilities will be more reliable (reduced risk of system failure), and less likely to be affected by climate-related shocks such as floods and droughts. This will in turn make the residents of the targeted areas more resilient to climate change–exacerbated water shortages and flooding. These investments will be the anchor assets around which other project activities in each selected sub-catchment will seek to capitalize and manage. The project will work in areas that are of low security risk and will adopt a flexible approach to selecting new sites should security concerns emerge. The project will complement the advisory services and analytical work undertaken through the Untapping Resilience: Groundwater Management and Learning in the Horn of Africa's Borderlands project (P178786), which looks to enhance regional cooperation on groundwater management in the Horn of Africa (HoA) with a focus on sustainable groundwater service delivery.

a. Subcomponent 1.1: Construction of new water points (US$17.8 million IDA equivalent)

22. **This subcomponent will finance the development of new, climate-resilient water infrastructure.** To mitigate evapotranspiration (which is a significant challenge for surface water storage in Somalia) appropriate technologies for harvesting water in wadis,[29] such as sand and subsurface dams, will be the principal form of infrastructure used. In situations where wadi water harvesting is not technically possible, other options such as berkads[30] or balleys[31] will be acceptable. As a last resort, and only if no surface storage options are feasible, the subcomponent may support construction of boreholes for groundwater extraction, particularly in project areas where seasonality plays a bigger role. These climate-informed infrastructure investments will enhance the resilience of beneficiaries as extreme temperatures and frequent droughts will be witnessed due to climate change. Site selection, including completed construction investment reports,[32] of the new 100 sites would be done in quarterly batches with 25 sites selected by March 2023, cumulative 50 sites by June 2023, 75 sites by September 2023, and finally all 100 new sites by December 2023.The project will coordinate closely with the Horn of Africa—Groundwater for Resilience Project (GW4R, P174867) to ensure complementarity. In communities where traditional technologies used in the Biyoole project as listed above are not feasible, the GW4R project may be requested to support the construction of boreholes.

[28] FMSs refer to Puntland, Galmudug, Hirshabelle, South West State, and Jubbaland.
[29] Dry river beds, also known as 'toggas'.
[30] Water basin to store surface water (3–12 m^3). It is an improved design that separates human and livestock offtake points.
[31] Earth dam at runoff concentrating flow path without clear stream bed, structures made of soil with a storing capacity of 3,000 m^3 to 12,000 m^3.
[32] Construction Investment Reports are detailed feasibility studies prepared by the backstopping engineering firm.

b. Subcomponent 1.2: Rehabilitation of existing water points (US$6 million IDA equivalent)

23. **This subcomponent will finance the rehabilitation of existing water infrastructure and small prioritized boreholes.** Selected sites can include multiple interventions in terms of infrastructure and catchment protection to ensure adequate water through periods of drought and for multiple purposes. Facilities may be extended or expanded to increase water storage capacity. Given that it is not only the water infrastructure itself but the surrounding catchment, which is central to fostering drought and flood resilience, appropriate catchment protection measures need to be considered fully. Catchment interventions will be integrated into activities under Component 3. Increasing water storage capacity is a key component of building resilience to drought. In times of severe drought, emergency borehole rehabilitation will be fast tracked.

c. Subcomponent 1.3: Institutional and capacity development (US$2.5 million IDA equivalent)

24. **This subcomponent will finance global learning exchanges and capacity-building activities for Somaliland, FGS, FMSs, and community structures to manage water points and prepare and institutionalize water sharing agreements, thereby making water shortages less likely, and the residents more resilient to droughts.** The governing structures are responsible for planning and selecting sites, procuring works, overseeing the construction and rehabilitation of community water points, monitoring results, and undertaking hydrogeological monitoring for water development as well as developing government capacity to plan and design climate-resilient infrastructure. The criteria for site selection, design, and works planning will be based on consideration of low-carbon emissions, coupled with taking measures that increase resilience to floods and droughts, as per the needs of the specific geographic areas. This work will be guided by World Bank analytical[33] work as well as consideration of acute need and social inclusivity. With the maturing of water services' institutions, the foundation is laid to deepen water allocation discussions ensuring that services are provided equitably. Building on the Wadi Evaluation Tool (WET)[34] developed under WALP, and modified during the Biyoole project and under the Barwaaqo project preparation, the project will pilot the application of an innovative web tool, the 'water harvester explorer', designed by the World Bank, and implemented in West Africa, to facilitate the selection of water harvesting interventions in the field.[35] Somalia water technologies (as described above) are reproduced repeatedly and opportunity exists to explore more innovative water storage and water access options, which in turn will further enhance resilience of beneficiaries to droughts. Sustainability of water points is an area that needs deeper focus in Somalia, and more understanding of what the roles and responsibilities from community to state level are.

25. **To help ensure sustainability of investments, operations and maintenance (O&M) guidelines prepared under the Biyoole project will be strengthened under the project.** The preparation of the guidelines initially drew on good practices from other contexts and was complemented by consultative workshops to review and validate the guidelines. While endeavors in this regard were initially acceptable, guidelines will be strengthened under the Barwaaqo project. Introductory information is needed regarding what the purpose of the document is, as well as key information on sites, such as year of construction, site characteristics, location, number of beneficiaries and users of the O&M guidelines. The

[33] World Bank. 2015. Macro-level study on the integrated development potential of sand-river wadis of Somaliland and Puntland.

[34] The WET is a site selection decision support tool for identifying potential for water harvesting infrastructure on a broad spatial scale. It is operated in the open source QGIS environment and is a model concept based on the spatial analysis of available remote sensing data. The spatial overlay is of up to 30 different thematic data layers.

[35] The 'water harvesting explorer' is a web tool that allows for exploration of opportunities for rainwater harvesting and water storage in the landscapes of the Western Sahel**.** It is important to integrate the hydrological objectives in the selection and design of interventions, especially in the semi-arid areas that are already facing acute water scarcity. Accordingly, the project will pilot the application of an innovative web tool designed by the World Bank to facilitate the selection of water harvesting interventions in the field. The web tool is developed with publicly available data and will be adapted for the project areas, with the aim of providing the users with a long list of water harvesting and storage interventions suitable for a given location. The tool will draw from many lessons already learned under the Biyoole project from developing and using the Wadi Evaluation Tool. The water harvest explorer can be accessed at *https://sahel.acaciadata.com/*

issues of who owns the infrastructure, operates it and manages it, and has the right to use the water will be of particular importance. Supported by the World Bank's technical assistance, standardized O&M guidelines will be finalized, based on experiences from the Biyoole project, and adopted nationally. This process will contribute to the development of national policies for O&M.

Component 2: Development of Agriculture and Livestock Services around Water Points (US$15.5 million IDA equivalent)

26. **This component will be implemented by the Ministries of Agriculture and Livestock in the FGS, FMSs, and Somaliland.** It will support interventions aimed at creating and strengthening sustainable and productive livelihoods for communities around water points, ensuring that access to water translates into improved livelihoods while addressing vulnerabilities to flood and drought. By financing the integration of improved technologies for enhanced agricultural and livestock production, Component 2 activities will contribute to Pillar 1 of GCRF. It will scale up agriculture support services in the existing approximately 100 sites targeted by the Biyoole project where water infrastructure has already been installed and Community Investment Plans (CIPs) are available. In the 150 communities targeted in the Barwaaqo project, once the water points are constructed, the priority agricultural services as identified by the CIPs developed under Component 4.2 will be implemented. The agricultural activities supported by the project will improve food security and reduce the gender gap in agricultural and livestock productivity, as well as assets, through several measures targeted towards women and women-owned businesses and collectives. This component will provide the foundation for possible future support to Somali agriculture under the Regional Food Systems Resilience Program for Eastern and Southern Africa (P178566).

a. Subcomponent 2.1: Increased sustainable farming production and development (US$7 million IDA equivalent)

27. **This subcomponent will finance the introduction of technologies, innovations, and management practices (TIMPs) related to improved water use efficiency and climate-smart agriculture to farm communities around each of the developed water points.** The intention is to build up terrestrial carbon stocks while increasing the production of diversified agricultural products for improved household food security and incomes, and to increase the resilience of farmers to drought. TIMPs will be introduced using a community-based extension architecture and will include micro-irrigation systems; high-yielding drought-tolerant seeds/planting materials, balanced soil fertility management; integrated pest management; and farm machinery for conservation agriculture and efficient harvest and post-harvest handling. The project will promote the use of TIMPs, which will hence incorporate climate-smart agricultural practices while reducing GHG emissions through activities like solar pumping, minimum soil tillage, and intercropping. The subcomponent will support mobilization and strengthening of farmers into common interest groups (CIGs) of 15–20 members each and Farmer Producer Organizations, including female-led associations, cooperatives, and self-help groups, for ease of access to extension services, inputs, and output markets. Mobilization and subsequent support to CIGs will focus on high inclusion of female farmers and vulnerable member groups and development of resources and capacity at the community level for long term sustainability. Female extension agents will be engaged to facilitate access to extension services by female farmers, and female-led groups and collectives. Where possible, access to capital will be facilitated for female groups to improve their farm productions. This subcomponent will also support building a community-based extension ecosystem, complementing farmer-level interventions, and anchoring various promotional support for TIMPs' adoption by farmers. To build a robust community-based extension architecture, the project will support the development of demonstration plots at each water point, identification and training of lead farmers tagged to CIGs for ongoing extension support and establishment of farmer field schools (FFS). The project will also invest in upgrading infrastructure for a community-based extension such as local tool banks, mini-labs, mobile service delivery systems, and digital infrastructure. Community-based extension facilitators will also be recruited to anchor FFS and function as

mentors and master trainers to lead farmers. In addition to community-based extension facilitators at the FFS level, every CIG will be supported to identify best practicing lead farmers among themselves, with the strong encouragement of female lead farmers, who will be provided with intensive training support to deliver ongoing extension services to other group members. Participating farmers will then be provided with microproject grants at the CIG level to facilitate their adoption of climate smart TIMPs promoted under the project.

28. **Microproject investments will fall under four windows: (a) farmer-led irrigation development for farmers with access to developed water resources; (b) sustainable land management for farmers with rain-fed farms; (c) targeted support to vulnerable and marginalized groups (VMGs); and (d) nutrition mainstreaming.** Eligible microproject activities must meet the expected outcomes criteria, including enhanced agricultural productivity, improved marketing and agribusiness, and sustainable management of natural resources. Microproject grants will be co-financed in cash and in-kind, either using farmer's own capital or under microcredit. Community contributions will depend on the nature of the micro-projects. For example, microprojects will support labor-intensive public works where feasible. The project's grants will cover not only the required technical support services, training, and capacity strengthening activities, but also infrastructure, equipment, and inputs that have a high 'public good' element and a high-risk level. The training sessions will be offered at times and locations that are convenient to women given the demands for their time from other duties, and child-care will be provided to facilitate their participation. Where possible, the training on climate-smart agriculture will be designed to train family units together, which has been found to not only increase women's access to training but also increase awareness among all family members of the role women play. Where necessary, community resource centers will be established to host meetings and training, as well as demonstrate new technologies/practices and improved crop varieties described above. Key messages on climate-smart agriculture will be developed and disseminated to community members using appropriate methods that consider the low literacy rate and that can facilitate female farmers' access to the messages. Minority and marginalized groups will also be included where possible. The Ministries of Agriculture and Irrigation at FGS and FMS Levels, and Somaliland, will implement this subcomponent.

b. Subcomponent 2.2: Increased sustainable livestock production and development (US$6.5 million IDA equivalent)

29. **This subcomponent will support the development and diversification of livelihoods among target pastoralist communities.** It will facilitate improved grazing management, the demand-driven delivery of climate-smart livestock production assets, appropriate activities that enhance carbon stock, and extension services based on community-specific priorities and context-specific conditions. Based on CIPs developed and prioritized livelihoods, the Ministries of Water will be supported to estimate water availability and water use demand for animal consumption and poultry production. Training on climate-smart livestock management will be offered by the Ministries of Livestock for family units to increase female participation. The project will train and deploy female extension agents and veterinarians to support female livestock keepers and facilitate the formation of inclusive cooperatives and self-help groups. Where possible, access to capital will be facilitated by the Ministries of Livestock to enable female pastoralist groups to improve animal stock. The subcomponent will build on significant gains realized under the Biyoole project in animal husbandry and veterinary services. Like subcomponent 2.1, support will be provided by the Ministries of Livestock for the mobilization and strengthening of pastoralist communities into strong farmer institutions to help access animal health and production extension services, inputs, and markets. Pastoralist field schools will be established to intensify the training of farmers on fodder production and management, animal health and disease control, and rangeland management. Microproject grants will be provided at the CIG level to support participating farmers to adopt promoted technologies—including but not limited to improved drought-tolerant breeds; dairy farming; improved animal finishing; fodder production and management, and improved animal health and disease control. The Ministry of Livestock at FGS and FMS levels, and Somaliland, will implement this subcomponent.

c. Subcomponent 2.3: Institutional and capacity development (US$2 million IDA equivalent)

30. **This subcomponent will strengthen the FGS and FMSs, Somaliland government, as well as the Ministries that are responsible for agriculture and livestock, to create an enabling environment for agriculture and animal husbandry.** This will build their capacity to boost food security and livelihoods' development among rural communities as well as their capacity to plan and design climate-resilient interventions that support sustainable agricultural and livestock production. This subcomponent will strengthen the capacity of national and state institutions to plan, implement, and monitor integrated agriculture and livestock development programs. It will finance the establishment of a coherent agriculture (farming and livestock) extension ecosystem that combines public, private, and community-led extension services. It will also provide targeted support to improve linkages between the nascent agricultural research system to the community-based extension ecosystem to be developed, thereby supporting farmers with context specific climate-smart agro-weather and market advisories. To the extent possible, the subcomponent will also support agriculture digitization, including geo-tagged registration of participating farmers, digitization of prioritized TIMPs for delivery to farmers, and provision of digital agriculture solutions to targeted farmers. Building on ongoing pilot work under the Biyoole project, the focus on digital agriculture will incorporate access to solar-powered irrigation systems, the provision of e-extension and advisory services, bundled with digitally enabled access to inputs and technologies to improve productivity. Other agro-tech innovations include access to finance and marketing of livestock and farm produce from targeted farming and pastoral communities. It will also focus on capacity building on climate-smart agriculture technologies and support to women and youth as e-extension service providers. In addition, the subcomponent will include targeted exposure visits to neighboring countries to learn from similar work. Enhancing the institutional and regulatory capacity of Somali institutions will ultimately lead to increased resilience to floods and droughts by ensuring that the necessary knowledge and skills are embedded in government, rather than mainly with external agencies.

Component 3: Development of Environmental Catchment Services in Project Areas (US$10 million IDA equivalent)

31. **This component will be implemented by the Ministries of Environment in the FGS, FMSs, and Somaliland.** It aims to address vulnerabilities to extreme climate events and enhance the benefits from the sustainable management of catchments in project areas. It includes the promotion of rangelands restoration (thus contributing to Land Degradation Neutrality) and introduction of appropriate practices for Sustainable Land Management (SLM) (thus reinforcing national climate mitigation measures to increase forest cover and SOC). More specifically, increased vegetation cover, riverbank protection, and promotion of water storage will contribute to mitigate the impacts of flooding, while soil and water conservation techniques reduce soil loss and increase soil moisture content and thus help to reduce vulnerability to droughts. The project will invest in efforts to restore ecosystems and mitigate, as well as adapt to, climate change. This will not only improve livelihoods and contribute to poverty reduction, but also help to mitigate the effects of Somalia's variable climate. It will increase the much-needed water harvesting opportunities—key to increasing water security and, thus, communities' resilience to droughts. It will further strengthen the capacity of the different government and community institutions to develop and implement environmental activities and regulations. Furthermore, through building climate-resilient infrastructure and practices, Component 3 activities will contribute to Pillar 4—*Strengthening Policies, Institutions and Investments for Rebuilding Better*—of the GCRF. The Directorate of Environment and Climate Change at FGS level, and the Ministries of Environment at FMS levels and Somaliland, will implement this component. This component will complement the Somalia Climate Change Program (P176246), which aims to strengthen and mainstream climate change actions in rural water and agricultural projects, and urban and infrastructure investments.

a. Subcomponent 3.1: Environmental restoration (US$8 million IDA equivalent)

32. **This subcomponent aims to support ecosystem restoration interventions while enhancing the livelihoods of beneficiary communities around the water point, and addressing land degradation, flooding, and desertification.** There will be an emphasis on climate mitigation measures such as increasing carbon stocks, and climate adaptation measures, particularly those that mitigate against extreme climate events. The subcomponent will finance nature-based solutions and approaches to SLM at micro and macro levels, such as: the regeneration of naturally growing trees, increasing SOC, regeneration of shrubs and grasses; local (village) level approved rules and regulations for use and sanctions; restoration of degraded and severely destroyed ecosystems; the promotion of suitable water harvesting for soil and water conservation techniques (for example, semi-circular bunds, soil bunds, and rock catchments); promotion of improved rangeland management and assessments and surveys of soil and erosion. It will consider ecosystem-based adaptation (EbA), a win-win approach that uses ecosystem services as part of a holistic adaptation strategy. This may include, for example, socioeconomically and ecologically viable species producing nontimber forest products for commercial extraction while minimizing the risks of environmental destruction. To avoid decreasing downstream water availability and to increase upstream productivity, the project will introduce techniques to manage invasive plant species. The subcomponent will consider sedimentation, dry season water flows, flood reduction, broader disaster risk reduction, and will work closely with local government for planning and monitoring. The subcomponent includes technical assistance and support to the capital investments for financing market-based mechanisms that support the above.

b. Subcomponent 3.2: Institutional and capacity development (US$2 million IDA equivalent)

33. **This subcomponent will strengthen the capacity of the FGS, FMSs, and Somaliland governments on environmental protection, and the development and implementation of nature-based solutions and SLM practices.** The aim is for them to support social and environmental protection, enhance resilience to extreme climate events, particularly droughts and floods, reduce land-based GHG emissions and ultimately optimize the usage of the country's natural resources. It will also raise awareness about the natural resource conditions and climate variability, as well as how these link to the livelihood opportunities financed under Component 2. Basic resources will be put in place (offices, equipment, staff) forming the foundation for environmental management. This subcomponent will explore opportunities for partnering with national and international organizations[36] that specialize in water and soil monitoring, climate adaptation and climate mitigation. It will also monitor key elements (for example, change in organic matter, soil composition, and vegetation cover) over an extended period, and link this to the precipitation pattern to have an assessment of the performances of the water point, ideas for improving those in the future, and to contribute to strengthening future climate change adaptation processes. Monitoring systems for land degradation, dynamic mapping, and early warning systems, such as Hydromet,[37] and enhanced early warning systems developed by Somali institutions, such as the Somalia Water and Land Information System, will be utilized to promote resilience to extreme climate events and monitor changes in soil organic and above-ground carbon stocks, thereby also helping government institutions be better prepared and respond to extreme climate events. Communities will be consulted regarding community labor and modalities preferred, for example, volunteer contributions or cash for work. Enabling conditions, local leadership, culture and common law (known as Xeer in Somali culture) volunteering antecedents, and social mobilization experiences will guide the choice of implementation modality. The project will consider that rehabilitation works, soil conservation measures, and nature-based solutions require significant cheap labor; the procurement designs of these activities require special attention. Cash injection into communities provides immediate benefits but can create long term dependency problems which will reduce sustainability. The pros and cons will be unpacked in the early stages of community

[36] For example: University of Mogadishu and the Global Center for Adaptation: *https://gca.org/*

[37] Hydromet services provide real-time weather, water, early warning, and climate information products to end users, based on weather, water, and climate data.

engagement and mobilization. The project will support the construction or rehabilitation of Ministry of Environment buildings. Access to climate financing or adaptation funds is important to mitigate climate change and the project will support the development of relevant project proposals.

Component 4: Project Management, Community Development, and Enhancing Livelihoods Planning (US$17.5 million IDA equivalent)

34. **This component will be implemented by the Ministries of Planning in the FGS, FMSs, and Somaliland.** This component, coordinated through the Ministries of Planning, will finance the operational costs of the project management units in Somaliland and FMSs and a national project coordinator and fiduciary support unit at the FGS level. Aligned with Pillar 4 of the GCRF, this component will support the strengthening of policies, institutions and investments for 'Rebuilding Better to improve long-term development.' The project will develop policies at a national level and implement these policies through the sectoral line ministries implementation strategies in the FMS. This will enable a process of standardization of implementation that will connect national policy to community activities thereby building institutions and capacity and promoting sustainable growth. The successful targeting of beneficiaries and the achievement of improved water balance, access and management, adoption of SLM practices, select indicators for soil moisture and/or SOC (as appropriate), enhanced agricultural productivity, as well as gender and nutrition-related outcomes will be among the main performance indicators to be monitored. To promote livelihoods development around water points and implement Components 1 to 3, this component will also support the development of village profiles, ensure inclusivity through mapping of marginalized or disadvantaged groups such as occupational minorities and other marginalized groups and including their needs in CIPs. It will support monitoring and evaluation (M&E), knowledge management and learning, and Security Risk Management.[38] By facilitating women's participation in the CIPs' preparation, the project will enhance women's participation in decision-making processes, thus addressing a gender gap.

a. Subcomponent 4.1: Project management (US$10 million IDA equivalent)

35. **This subcomponent will ensure that the project is implemented efficiently, on time, and in accordance with the Financing Agreement.** This will be the responsibility of the National Project Coordination Unit (NPCU) at the Federal level and Project Implementation Units (PIUs) at state levels. The NPCU at the Federal level and PIUs of Puntland, South West, and Galmudug and the PIU in Somaliland, were already established under the Biyoole project. The PIUs for Jubbaland and Hirshabelle will be set up under the project. This subcomponent will support (a) the incremental operating costs for ministry staff managing the project and for inputs from other technical ministries, departments, and agencies (MDAs: water, livestock and agriculture, environment); (b) the cost of procurement and financial management (FM) specialists and the development of procurement guidelines for contractors giving extra points in bidding to female friendly firms; and (c) outreach and communications on the governments' role and leadership on the project to the broader Somali community.

b. Subcomponent 4.2: Community-driven development (CDD) planning (US$1.2 million IDA equivalent)

36. **The CDD approach introduced under the Biyoole project will be developed further in the project.** This subcomponent will refine institutional responsibilities and support the Ministries of Planning in their mandates of overseeing development from State to district to community level. The multisectoral nature of the project, and the need for cross ministry coordination for multisectoral support for economically viable and resilient communities, require the PIUs to manage community engagement. A CDD approach remains highly relevant for this project given the

[38] Sites in areas or states considered to be high-risk will be subjected to Security Risk Assessments (SRA). This will also cover engagement of security risk management where necessary.

interdependency focus on rural, local area development, and natural resources management, and pulls together the activities under Components 1, 2, and 3 into one holistic livelihoods development project. It will also deepen familiarization of communities to the principles of women and youth as agents of change, inclusion, and transparency, building on successes and experience achieved in the current project. Expertise in CDD and CIPs will be contracted to build the capacity of the Ministries of Planning, which have limited expertise in managing and delivering CDD.

37. **Community mobilization and planning.** Community development specialists housed in the PIUs, along with the focal points from the technical line ministries, will use the community engagement guidelines developed under the Biyoole project to discuss options for use of the water asset, duly considering local precipitation patterns and hydrology to avoid maladaptation, and then to develop CIPs to support its sustainable use. Each state government and Somaliland will oversee the community mobilization process, which will engage communities throughout the project to help them identify their priority water interventions (costs and benefits of different technologies), how they will manage their water infrastructure, and how the community will use the water to increase their food security and income opportunities. Given capacity and human resource constraints at the state level, the project will provide funds to contract implementation support of the mobilization activity. The approach will bring together all members of a village, ensuring the inclusion of all stakeholder groups, for example, pastoralists, irrigation farmers, rainfed farmers, landless laborers, women, and youth. The 50 CIPs developed under the Biyoole project will be revisited and updated based on the evolution of community needs, and 150 new CIPs will be developed in the new sites identified under this project.

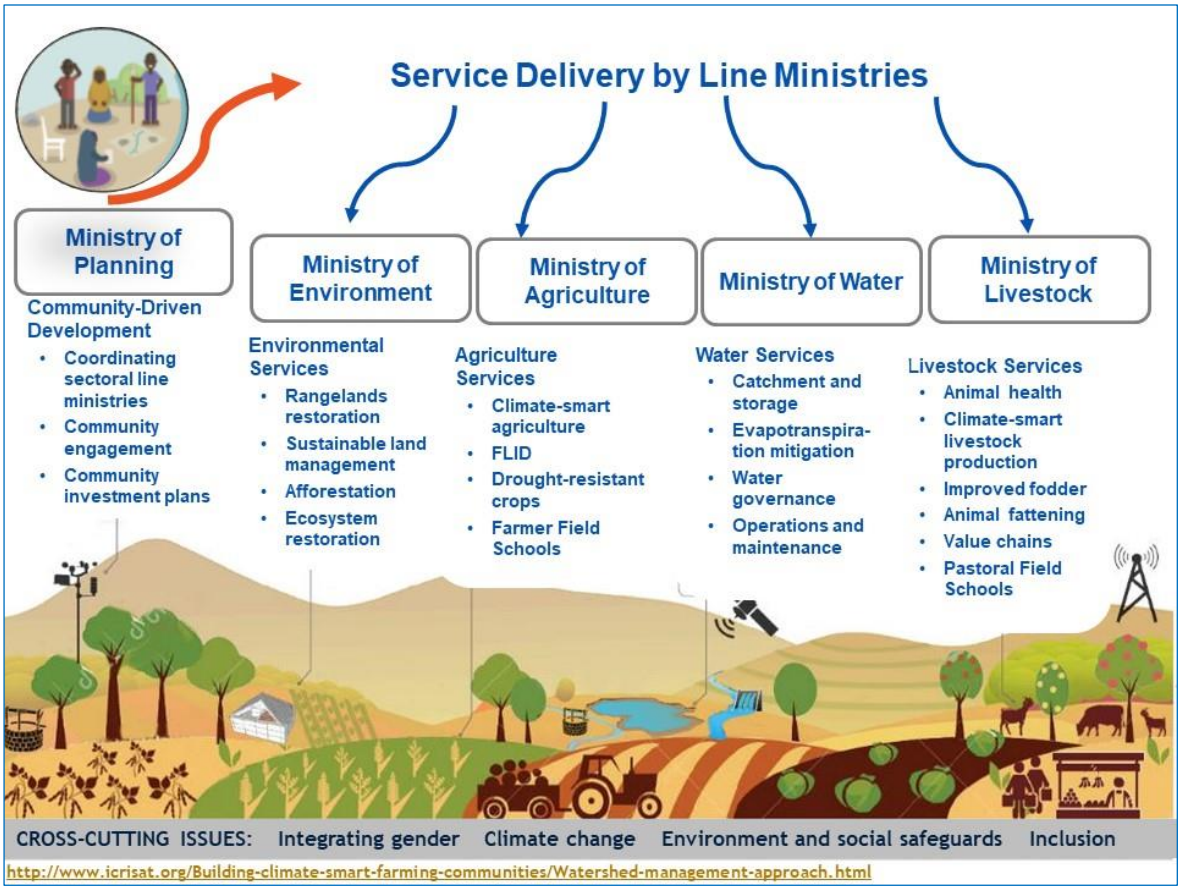
38. **Engagement of Village Development Committees (VDCs) right from the early stages of water point identification will be a cornerstone of community engagement to ensure local ownership of the asset and envisaged livelihood activities.** This early engagement of the VDC, along with continued involvement of local authorities from the different sectors, will help to maintain the support and momentum of the planned activities. Community facilitators trained by the Community Development Specialists will facilitate CIP discussions to promote ownership. The project team will ensure that a minimum 30 percent of the trained facilitators are female. The CIP female facilitators will receive additional sessions on leadership to increase their capacity to promote active participation of women in the CIP discussions. The gender specialist of the project will assist the CIP female facilitators to develop awareness-raising messages on women's knowledge and experience in water management and the importance and benefits of women's participation and leadership in community level organizations and discussions. The CIP female facilitators will also lead women-only sessions to discuss and propose CIP priorities. The diagram below (Figure 2) depicts how the Ministries of Planning will engage with communities and coordinate service delivery by line ministries.

39. **Coordination with large regional projects, in particular the Ground Water for Resilience Project (GW4R) and the Food Systems Resilience Project (FSRP, P178566), is essential.** Formalized coordination platforms will be hosted by the Ministries of Planning NPCU at FGS and FMSs' PIUs. At FMS level, the Biyoole project has built capacity to implement projects in the sectoral line ministries—it may be possible that the line ministries' PIUs can manage the implementation of both the Biyoole and the GW4R projects in the case or the Ministries of Water and Ministries of Agriculture and Livestock for FSRP. This will save on costs and institutionalize coordination; the Ministries of Planning Biyoole PIUs can facilitate dialogue in this regard. The Barwaaqo project coordinators will provide technical advisory support to the GW4R and the FSRP; this advisory support will be mentoring in nature and focused on guiding new project coordinators in implementation of World Bank projects. At community level the primary entry level that should be leveraged by all projects is the VDC, this is the central community organization for development planning and implementation. The Biyoole project's PIUs housed in the ministries will ensure that coordination with other projects is done well. There are mutually benefitting opportunities for all projects, and coordination followed by consultations on design and implementation information sharing will help to increase resilience levels. In the early stages of project mobilization, the PIUs will host workshops with the GW4R and the FSRP projects to discuss community mobilization, collaboration, and

planning. The project will draw social safety net and inclusion learnings from the Shock Responsive Safety Net for Human Capital Project (P178730) and will share experiences with the Strengthening Social Cohesion, Inclusion and Resilience through Community Institutions Project (P179287). The use of CDD methodologies and preparation of CIPs are the tools that will be used as ways to organize working across projects.

40. **The project will support continuous learning and adaptable knowledge management, using the Ministry of Planning's web-based management information system (MIS) and M&E systems.** A web-based MIS will be set up to track real-time performance of the project and is linked to an M&E system to focus on project results and outcomes, including sex-disaggregation of staffing, training, and other project data. This subcomponent will finance baseline, concurrent monitoring of inputs and outputs and monitoring of Environmental and Social (E&S) aspects, conflict, and gender, and will focus on developing and disseminating knowledge generated through various project activities. Subcomponent activities will incorporate new modern technology such as geo-tagging of site investments, collection of field data with tablets/smartphones, and application of geospatial imaging for quantifying before-and-after comparisons for specific indicators. With a view to obtain more information and knowledge on the extent and period of flood, this subcomponent will support technical work such as flood mapping and support to information sharing. Thus, improved availability and quality of data from the monitoring network will be essential while planning for, and responding to, climate change vulnerabilities.

Figure 2. Community-Driven Development



c. Subcomponent 4.3: M&E, knowledge management, and learning (US$6.3 million IDA equivalent)

41. **Given the nascent institutional capacity of multisectoral rural resilience in Somalia, additional layers of support are helpful.** This subcomponent will allow the FGS to engage a suitably qualified and experienced international independent firm to provide quality enhancement and implementation support to the project. The objective of the support will be to provide additional and independent monitoring and quality assurance, ensuring that project funds are used for the purposes specified in the project financing agreement. The firm will be contracted by the FGS and will support Somali authorities to fulfill their monitoring and supervision obligations with respect to all four project components. The firm will also be responsible for monitoring the development of capacity within recipient organizations and agencies such that it advises on capacity-building needs to carry out the FM, procurement, and project management obligations.

d. Subcomponent 4.4: Contingent Emergency Response (US$0)

42. **Contingent Emergency Response Component.** This subcomponent will support immediate and rapid response to an eligible crisis or emergency, as needed. This zero-cost component will finance eligible expenditures under the Immediate Response Mechanism (IRM) in the case of natural or manmade crises or disasters, severe economic shocks, or other crises and emergencies in Somalia. It can be triggered through formal declaration of a national emergency by the government authority and upon a formal request from the Federal Republic of Somalia (FRS) to the World Bank through the Ministry of Finance (MoF).

43. In such cases, funds from any of the other project components will be reallocated to finance emergency response expenditures to meet agricultural crises and emergency needs. The emergency response would include mitigation, recovery, and reconstruction following crises and disasters, such as severe droughts, floods, disease outbreaks, and landslides, among others. Implementation of this subcomponent will follow a detailed Contingent Emergency Response Implementation Plan satisfactory to the World Bank that will be prepared for each eligible emergency.

44. A CERC manual will be prepared within the first three months following project effectiveness, and will include implementation arrangements for (a) structures or institutional arrangements for coordinating and implementing the CERC; (b) specific activities, eligible expenditures required, and any procedures for their inclusion; (c) financial management arrangements; (d) procurement methods and procedures; (e) documentation required for withdrawals of Financing amounts to finance Emergency Expenditures; (f) a description of the environmental and social assessment and management arrangements for the Contingent Emergency Response Part; and (g) a template Emergency Action Plan. The Project Operations Manual (POM) will have a dedicated annex for a CERC in line with the October 2017 guidelines.

Table 1. Project Budget

Project Components	Subtotal (in US$)	% Split Per Component
Component 1. Development of Multiuse Water Sources		
1.1 Construction of new water points	17,800,000	
1.2 Rehabilitation of existing water points	6,000,000	
1.3 Institutional and capacity development	2,500,000	
Total component budget	**26,300,000**	38%
Component 2. Development of Agriculture and Livestock Services around Water Points		
2.1 Increased sustainable farming production and development	7,000,000	
2.2 Increased sustainable livestock production and development	6,500,000	
2.3 Institutional and capacity development	2,000,000	

Project Components	Subtotal (in US$)	% Split Per Component
Total component budget	**15,500,000**	22%
Component 3. Development of Environmental Catchment Services in Project Areas		
3.1 Environmental restoration	8,000,000	
3.2 Institutional and capacity development	2,000,000	
Total component budget	**10,000,000**	14%
Component 4. Project Management, Community-Driven Development, and Enhancing Livelihoods Planning		
4.1 Project management	10,000,000	
4.2 Community-driven development planning	1,200,000	
4.3 Monitoring and evaluation, knowledge management, and learning	6,300,000	
4.4 Contingent Emergency Response	–	
Total component budget	**17,500,000**	25%
Subtotal of the components	**69,300,000**	99%
Contingency	700,000	1%
TOTAL	**70,000,000**	100%

C. Project Beneficiaries

45. **The primary project beneficiaries are the more than 500,000 rural people (of which 175,000 are women) in Galmudug, Puntland, South West State, Hirshabelle, Jubbaland, and Somaliland.** The project will provide benefits in the form of access to improved water sources for multiple uses (domestic, livestock, agriculture, horticulture, environmental strengthening); agricultural extension services (livestock and crops); improved livelihood resilience; and adaptive know-how.

46. **In Somalia, women and children are typically responsible at the household level for collecting wate**r. Access to improved water supply and sanitation facilities is expected to contribute to poverty reduction and better gender equality among the beneficiary populations by addressing burdens borne by women and girls. This includes the benefits of reduced time and effort spent in collecting water, as well as associated benefits such as personal security, health, and economic productivity. The project will emphasize the role of women in the decision-making process at various stages of system design, implementation, and management. To maximize inclusion in decision making, implementation, and benefits, the project will identify beneficiaries affected with disability, so they are included in the design of the infrastructure, in the prioritization of livelihoods, and in linking to assistive services.

47. **Given the large role that women play in both agriculture and livestock activities, the project will address challenges that have traditionally limited women's productivity, particularly access to extension services and inputs.** Drawing on lessons from ongoing agro-pastoral investments in Somalia, the project will reserve 20 percent of leadership positions for women in VDCs that participate in the project, while also supporting targeted and culturally-sensitive outreach and engagement strategies through PIUs and trained female facilitators to enhance women's voice in decision-making and planning processes, especially in areas where female participation is lacking. An audit of processes will be conducted to determine risk points where women tend to be excluded, for example, selection for asset transfers and labor-intensive public works. Other training will be designed and delivered at times and in locations that are convenient to women given the demands on their time from other duties, and childcare will be provided to facilitate their participation. Acknowledging women's low levels of education and literacy, training materials will be customized for low

literacy groups. The POM will clarify how this is going to be tracked.

48. **The Somalia Country Economic Memorandum 2021, 'Towards an Inclusive Jobs Agenda',[39] outlines how job creation is a top priority for growth, development, and social stability in Somalia** (refer to Box 1 on 'Climate, Water, and Growth in Somalia'). By mobilizing and empowering women and youth as positive agents of change and supporting the growth and development of rural livelihoods, the project will help address key drivers of intergenerational poverty and conflict. In project areas, the construction of infrastructure (for example, dams, offices, and community centers) and related procurement of goods and services will create new jobs and revenue streams for local businesses. Environmental management and livelihood support interventions and cash for work programs under Components 2 and 3 will provide communities and households with crucial productive assets and income-generating opportunities. Core project interventions will be complemented by targeted investments in mobilizing and capacitating women and youth groups to engage in diversified income-generating activities, provision of animal health and nutrition services, and community gardening. The project will also explore income-enhancing opportunities through value addition and, where feasible, linking communities with surplus production to downstream markets.

Box 1. Climate, Water, and Growth in Somalia

Climate change has contributed to extreme weather events in Somalia, such as recurrent droughts and floods. These extreme conditions affect agricultural production due to crop failure and low vegetation, contributing to food insecurity and displacement. Without sufficient water, Somalia will not be able to develop agricultural value chains, which can be a source of diversification to support growth. Some of the key challenges around water management in Somalia are related to inadequate infrastructure, poorly managed public services, and inadequate water resources. Urbanization trends highlight the need, in the long term, for increased investment in urban water and sanitation supply.

Recognizing the importance of the water sector, the Federal Government of Somalia approved the National Water Resource Strategy 2021–2025. The Strategy includes the policy and institutional reforms required to develop the sector, such as a new Water Bill and the establishment of interministerial cooperation structures. Given the vast water infrastructure needed, the Strategy also advocates for a water sector financing policy, a systematic prioritization of investments, as well as disaster risk reduction schemes. Within Somalia, major investments are needed to diversify water supply sources, water use efficiency, and improve the coverage of water and sanitation services in rural and urban areas. Investments are currently largely supported by official development assistance and the implementation of the Strategy will support the sector to provide country-led oversight and coordination.

Within the Horn of Africa, further investments and collaboration are needed to manage water supply. Watershed management in rangelands is crucial for the Horn of Africa nomadic communities' resilience, and transboundary groundwater aquifers hold immense potential for water provision in the Horn of Africa.

Source: Somalia Country Economic Memorandum (2021).

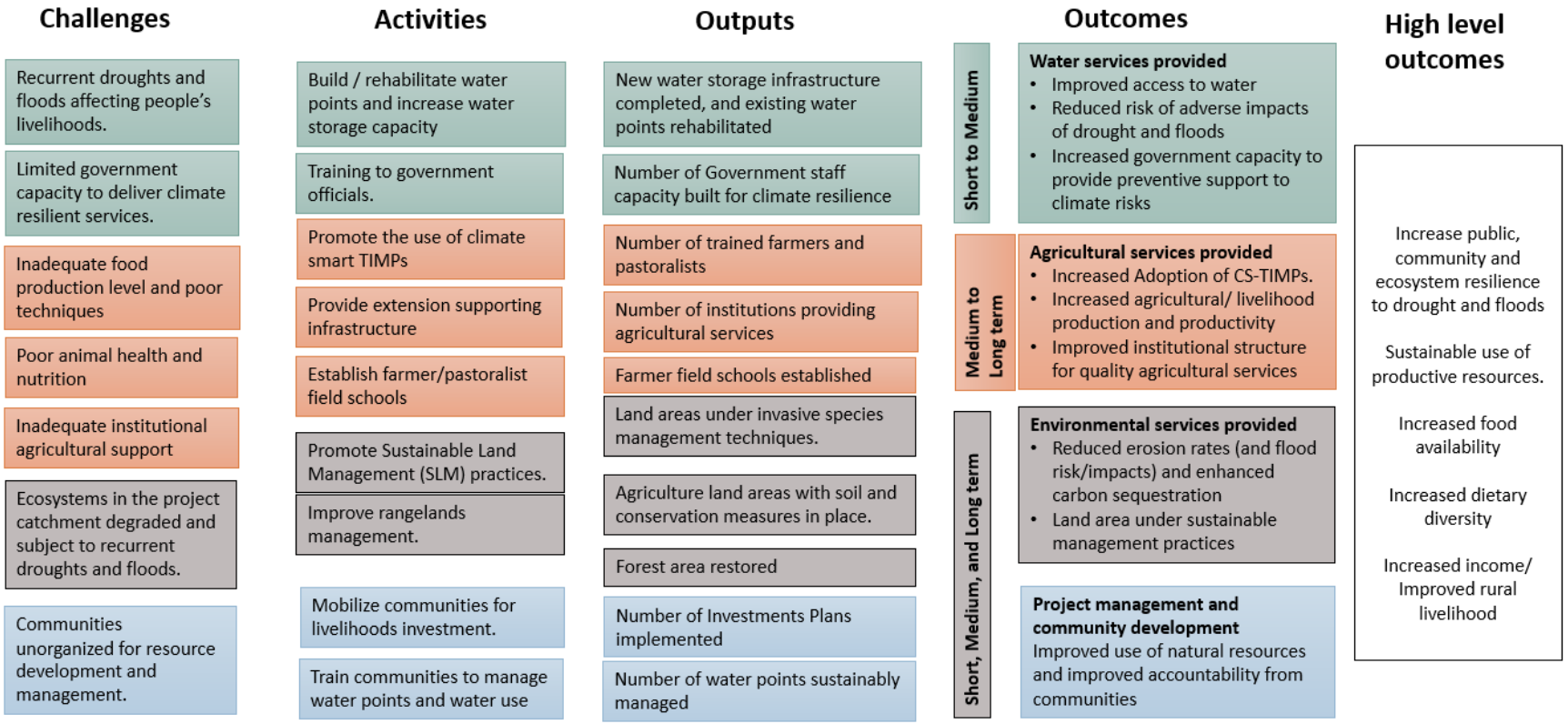
[39] World Bank. 2021. Somalia Country Economic Memorandum.

D. Results Chain

49. The Projects Results Chain is presented in Figure 3. Rural communities in Somalia's drylands suffer challenges relating to lack of access to water, agriculture, and environmental services. Government capacity to manage water, agriculture, livestock, and environmental resources requires strengthening, and institutional challenges remain also at community level. Activities will address these constraints, and include the development of infrastructures (water points), the financing of SLM practices, and the enhancement of soft skills for extension service, rangeland management, and community mobilization. In the medium term, this will contribute to the provision of water, agriculture, and environmental services, in turn increasing public, community and ecosystem resilience to drought and floods, sustainable use of productive resources, increased food availability, increased dietary diversity and increased income and improved rural livelihoods.

Figure 3. Theory of Change

PDO: To develop water, agriculture, and environmental services for rural communities in Somalia's drylands.



Critical Assumptions

- No unexpected crises (Force majeure) occur to render multiple interventions (infrastructure, catchment protections, etc.) around the water points and environment services unusable and inadequate.
- Sufficient political will exists to continue to support and engage in capacity and institutional building interventions.
- The number of beneficiaries that can qualify for community investment plans meets or exceeds the project estimates.
- Communities will be responsible for maintenance responsibilities of implemented investment plans.

Figure 4. Illustrative Depiction of Turning Sand into Water and Building Rural Resilience

E. Rationale for Bank Involvement and Role of Partners

50. **Building country systems is essential.** As described in Section C on 'Relevance to Higher Level Objectives', while other donor countries and agencies have gone a long way in financing rural community-based resilience via UN programs, nongovernmental organizations, and/or private sector contractors, the World Bank offers its experience in building state institutions, financing state budgets, and embarking on multisectoral/multistakeholder programs. Through this project, the World Bank will help ensure progress toward its twin goals of ending extreme poverty and increasing the incomes of rural poor. The rural poor are predominantly pastoralist or agro-pastoralist, and the agro-livestock contributes significantly to strengthening Somali food security while, at the same time, contributing to poverty alleviation through improved livelihoods of rural citizens. Improving livestock practices is more sustainable and less risky to animal and human health. In addition to providing basic water services, and improving livelihoods and eco-systems, the project has the additional benefit of creating jobs in these sectors, thus contributing to linking the rural economy to the urban economy through agriculture and livestock added value processing opportunities.

F. Lessons Learned and Reflected in the Project Design

51. **The design of the project has considered lessons learned from the World Bank's engagement in fragile and conflict settings in general, and directly in Somalia during the past three to seven years.** More importantly, the project design is based on lessons from the Water for Agro-Pastoralist (WALP) pilot (P152024) and the Biyoole project. These lessons include the following.

52. **The multisectoral aspect of the project remains at the heart of the project's strength but lessons in coordination and collaboration have been learned, such as the importance of intergovernmental liaison and consultation**. Chief among them is that the community-driven development, engagement, and preparation of CIPs should be coordinated at the PIU level in the Ministries of Planning to avoid the perpetuation of sectoral silos. As such, under the project, these activities and associated staff will be situated in the Ministries of Planning and not the Ministries of Environment where they are situated in the Biyoole project, which has caused confusion over institutional responsibilities and has distracted the Ministries of Environment from their core business of providing environmental services. The sectoral meetings that have been initiated and organized in the Biyoole project are encouraged to continue under the project on an annual basis to enhance the collaboration between the similar federal and state ministries.

53. **The use of country systems has multiple advantages.** The Biyoole project is building the capacity of FGS and FMS institutions to deliver water services for improved livelihoods in rural communities, and this project is expected to further this effort. Reestablishing a limited but core public sector role in agricultural innovation would help reintegrate markets for private goods with support for public goods and extend the reach of services across the country. Over the past decade the private sector role in agriculture has grown. For example, commercial suppliers market new seed varieties and private associations of veterinary practitioners provide animal health services. The growing role of the private sector has spurred agricultural knowledge and innovation for private goods where there is good access to urban markets (for example, for veterinary drugs, improved seeds, and fertilizers). While much aid has also been channeled to public goods and knowledge (for example, climate-smart land management technologies to improve soil, water, and rangelands management) through the UN and civil society organizations to more remote areas, this has largely bypassed nascent public sector institutions and constrained the public sector role. Reintroducing a core public sector role in agricultural innovation is essential to helping traditional rural livelihoods adapt to climate change—it could help drive innovation in the growing horticulture sector and develop new markets for fodder to buffer times when pasture is scarce.

54. **Under the Biyoole project there is a standalone component for institutional strengthening, and it should be included separately into each component instead of being a standalone component.** Lessons learned show that it is better from both technical and budgeting perspectives that each ministry, and therefore each component (because components are institutionally aligned), are responsible for their own institutional strengthening. Institutional strengthening that is cross-cutting (for example, project management and leadership development, procurement, FM and safeguards training), will be procured/provided centrally. The contracting of backstopping engineering support, third party monitoring and security assessments will also be done centrally to ensure standardization and cost benefits from economies of scale.

55. **Budgeting needs to be detailed and coordinated centrally.** Budget activities under the project should have detailed input and cost computation notes. If activities are not disaggregated in detail, it hinders implementation whilst ministries try to figure out what exactly to do. Time spent developing detailed budgets with activities under each component placed correctly, and allocation per component well considered during budgeting will help implementation. Prepared in advance of project implementation and approved on achievement of effectiveness, a five-year budget is to be held at the FGS level, annual budget plans from the five-year budget are to be prepared by each state and submitted to the FGS' NPCU to align them to the five-year project budget before submission. Budgets will be updated every six months; budgets will be prepared by the FMS' PIUs and NPCU and submitted for World Bank clearance in September of each calendar year ahead of the government budget schedule.

56. **The project will strengthen the relationship between the FGS and Federal Members' state/line ministries and intrastate.** The project initiated and implemented specific sectoral meetings and workshops which were held in the participating FMSs but led by the federal line ministries. This has increased intergovernmental collaboration between the federal and state ministries within the project implementation and follow-up with the activities by the sectors. Standardized site and community selection criteria must be agreed to and, within this criteria, political factors must be 100 percent free from initial selections—besides demand, the other factors to be considered are water demand, number of beneficiaries, accessibility, and geographical areas (in terms of reachability).

57. **Community mobilization and maintaining momentum of planned activities requires sustained engagement**. Rural resilience is not a one-time activity, it requires champions and solid community engagement. In the WALP project (P152024), community expectations for water provision were raised only to discover that technically there would be problems with building sand dams in certain areas. In the Biyoole project, initial community engagement was, at first, focusing on engineering aspects and technical in nature until the Ministry of Water had confirmed the feasibility of sites, and only after the feasibility of a site was confirmed did full community engagement proceed. The community engagement strategy developed in Biyoole will be rolled out earlier with the VDCs, and more comprehensively, and there will be continuous involvement of local authorities from different sectors throughout the duration of the project.

58. **Gender involvement and empowerment are fundamental to the project and will be mainstreamed at all levels—from the implementing entity level to the beneficiaries.** The Biyoole project benefited from having cross-cutting and sectoral integration with women. Women's participation in the project activities and decision making at all levels of the project will continue to be strengthened. This is key to the success of the interventions. An additional lesson learned is that there needs to be a specific strategy in place, and a gender champion, to ensure females are recruited for PIU positions. With the Biyoole project, it was difficult to find experienced and qualified candidates; the project developed female trainee recruitment guidelines and established an internship program to build up a female candidate base. Under the Barwaaqo project, these activities will be anchored in a wider female recruitment and retention strategy to support increased women's employment in participating line ministries as well as public and private water institutions and PIUs. Procurement guidelines will give extra points in bids to female-friendly contractors.

59. **Contractors' and service providers' skills remain weak and the NPCU and PIUs should plan to conduct training sessions for contractors and service providers.** There has been an improvement, particularly in Puntland, of contractor capacity to bid for and implement World Bank–financed projects; however, there is still a long way to go. This was a lesson learned in the WALP pilot (P152024) and the Biyoole project planned to address this problem. The Coronavirus disease (COVID-19) pandemic, however, undermined plans to deepen contractor skills because World Bank procurement staff were not able to travel and provide on-the-ground training. Efforts will be made under the project to strengthen the private sector by developing contractor skills to understand bidding documents.

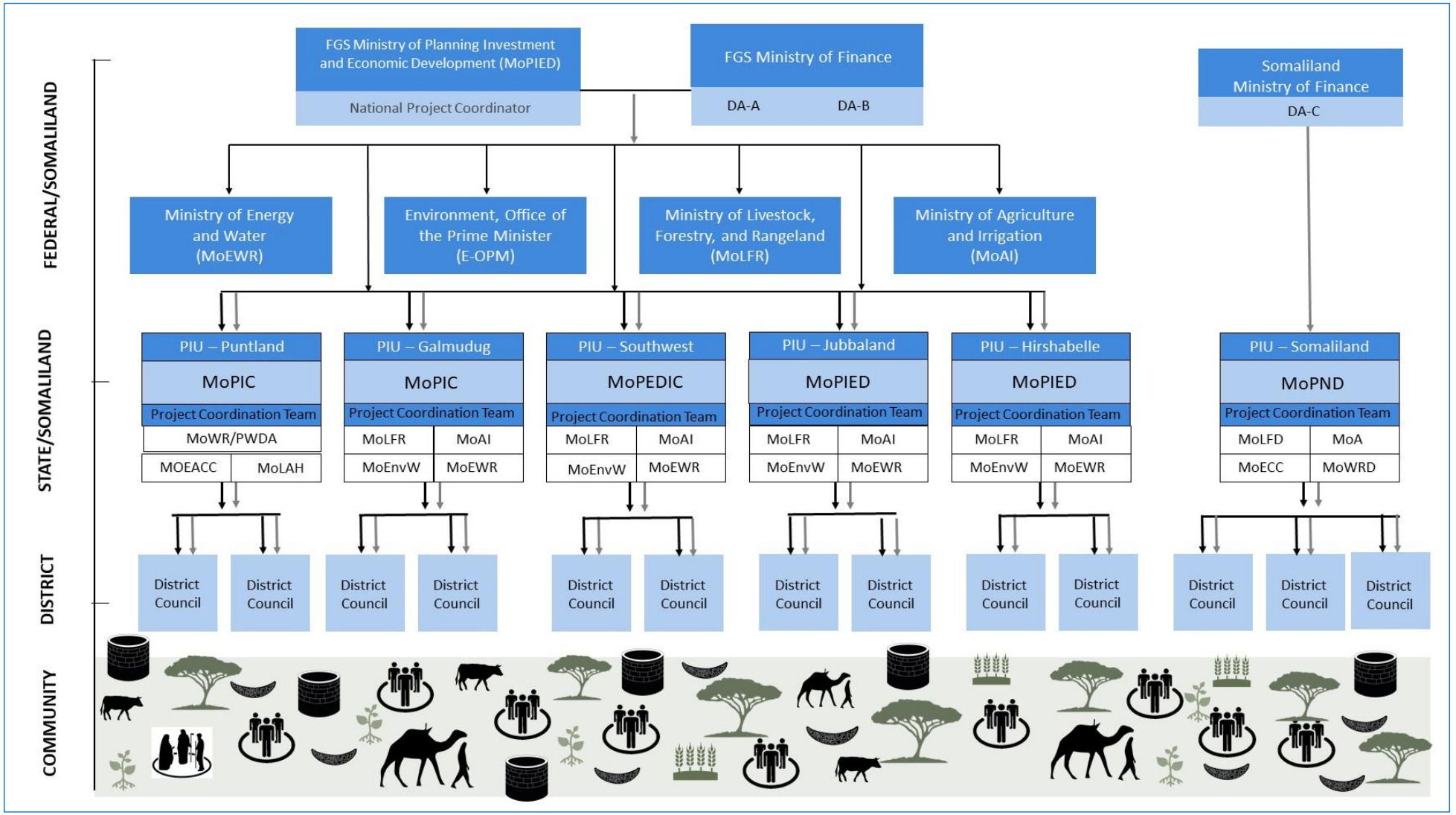
III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

60. **Project locations.** The project will be a fully national project implemented in all five FMSs (Puntland, Galmudug, Hirshabelle, South West State, and Jubbaland) and Somaliland. Systemized approaches will be followed to select project areas; prioritization criteria based on areas of extreme water scarcity, availability of sustainable water and drought susceptibility will be the driving factors. In Somaliland and all FMSs, the relevant disaster management agencies will be consulted regarding communities most in need, and these will be overlaid with the relevant national development plans to determine project locations. To provide water, agriculture, and environment services to the people in the regions of Sool and Sanaag—where there is a lack of clarity regarding administrative responsibility—the Federal Government will contract third party implementers. Funds to the value of US$3 million for a total of eight sites has been ringfenced for these areas from project budgets.

61. **Implementation arrangements will remain as per the Biyoole project, except for the CDD approach which will be implemented by the Ministries of Planning.** The existing and established Federal Inter-Ministerial Steering Committee, NPCU and the State PIUs', and Somaliland model will continue to serve the Barwaaqo project. The project will be implemented by the existing Ministries of Planning—lead coordinating ministry and responsible for Component 4; existing Ministries of Water/relevant agencies, for example, PWDA in Puntland—Component 1; existing Ministries of Agriculture and Livestock—Component 2; and existing Ministries of Environment—Component 3. All four components will be implemented in each Barwaaqo project community in Somaliland and the FMSs, meaning that every Barwaaqo project community will be developed with water, agriculture, and environmental services. The NPCU will support Hirshabelle and Jubbaland to establish the PIUs under their Ministries of Planning; lessons learned under the current project will be used to increase staff skills, build capacity, and mitigate risks. At the FGS level, the Ministry of Planning will have FM, procurement, M&E, social/community development, gender/gender-based violence (GBV), communication, environmental, security, and water specialists. State-level and Somaliland PIUs will replicate this structure; some roles, however, will be merged. Given the limited capacity at the municipal level, the project will support building the capacity of the districts and village development community management committees. An External Assistance Fiduciary Section (EAFS) unit already exists in the Ministry of Finance based in Mogadishu and at FMS levels that manages the designated accounts and project accounts.

Figure 5. Organizational Flow of Services and Project Resources from Federal Government to Community Level



62. **The role of districts and communities is critical in the management of rural resilience infrastructure projects**. The FGS prepared community engagement operational guidelines as a comprehensive guide to the processes and procedures for engaging and working with the communities participating in the Biyoole project. These will be revisited and updated for the Barwaaqo project —this is particularly important given that the mandate for the CDD approach has moved to the Ministries of Planning. Using these guidelines, this project will support building the capacity of the districts and community management committees. A project steering committee that tracks project implementation progress and provides support and guidance as required at the Federal level is established. State-level project steering committees will be established to provide oversight and guidance at the FMS level. The Ministries of Planning will play a coordination role in community engagement and development to ensure inter-agency linkages are enhanced. O&M of water points is particularly critical and the local government, in this case the District Council, where the community is located, will be handed over the responsibility of the O&M of the water point, and its related infrastructure developed under the project. Districts with council structures in Somaliland and Puntland will be started as pilot districts and the capacity of the districts will be developed for the O&M of the infrastructures in close collaboration with the target community. Lessons from these pilots will contribute to the O&M guidelines to be developed under Component 1.

63. **Strengthening institutional infrastructure and operations is essential.** To boost institutional capacity and support to relevant government entities that lack adequate budgetary allocations, the project's budget will allow for the procurement of vehicles, office supplies and equipment, and renovation and/or building of dilapidated or nonexistent office buildings. This aspect plays into the institutional capacity development dimension at the core of the project. Project staff's competency to draft quality work plans, Procurement Plans (PPs), and other reports will be fast-tracked to allow for PIUs to get accustomed to the Systematic Tracking of Exchanges in Procurement (STEP) and other World Bank procedures.

B. Results Monitoring and Evaluation Arrangements

64. **The existing M&E framework from the Biyoole project will be reworked and updated.** A baseline survey and an end-line beneficiary survey will be carried out to measure who and to what extent people benefit from the infrastructure as well as how it affects their lives in both social and economic terms. The M&E system will document case studies capturing the impact of the project on communities, considering the gender dimension, impacts on vulnerable or marginalized groups, and how they may ultimately contribute to stronger rural resilience.

65. **A web-based MIS was developed under the Biyoole project to enable real time loading of data and monitoring.** The web-based MIS aims at providing the PIU staff and other stakeholders of the project with an indication of the project's performance in terms of achievements made in the different time periods as well as the progress towards delivering the intended results. The PIU staff will be able to collect data, and clean and aggregate them before visualizing them in a dashboard giving insights to the project progress against sets of indicators agreed upon in the M&E Framework. The dashboard will store photos of implementation and updated maps of locations.

66. **Narrative Reporting.** Narrative reporting in the project will be quarterly, aligned with interim financial reports , in addition to the MIS in place and providing real-time data. A full project report will be prepared on an annual basis, a mid-term report will be prepared ahead of the Mid Term Review and, finally, by the end of the project, a Project Completion Report will be done which will feed into the World Bank's Implementation Completion Report (ICR).

67. **Third party monitoring (TPM) will be contracted to provide monitoring support in South West State, Hirshabelle, and Jubbaland.** Given the complexity of operating in these FMSs, the TPM will provide remote supervision, fiduciary compliance, and real-time risk and safeguards monitoring. The TPM will independently verify results on the ground and

help ensure that funds are used for the intended purposes. It will also be able to provide technical guidance on the reliability of government M&E systems.

C. Sustainability

68. Experience in the agricultural and water sectors has shown that the impact of multiple social, economic, technical, institutional or environmental factors operating over a long period may influence the sustainability of services in rural areas. Based on lessons learned from similar projects, the project design will work toward strengthening and supporting sustainability of systems through activities aimed at, among others:

(a) Supporting the involvement of beneficiary communities and strengthening the participation and role of women and marginalized groups in all cycles of project design and implementation.
(b) Strengthening the units responsible for postconstruction O&M support at all levels.
(c) Supporting the enabling environment for active participation of the private sector to support O&M.
(d) Supporting continuous and periodic refresher training for user communities and directly related institutions at different levels.
(e) Supporting the choice of services and appropriate technologies, such as water technologies and agricultural services, during scheme design and implementation.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic, and Financial Analysis

69. **The economic and financial analysis follows World Bank guidelines and reflects evidence from similar projects in Somalia and elsewhere in the region.** Annex 11 in the project files presents the detailed results. The cost-benefit model developed analyzes cash flows over a 15-year period discounted at 6 percent under the base-case scenario. The fact that Somalia is a fragile state, the probability of assets lasting much longer is very low. From a technical standpoint, the main components of the systems, such as solar panels and associated submersible pumps, usually have a lifetime of around 15 years, while pump components will require replacement before that period.

70. **The project will improve water access to around estimated 500,000 people across five FMSs and Somaliland.** The benefits identified are direct financial savings and improved livelihoods and health for the project beneficiaries. While the economic analysis considers the entire project and investments, the benefits focus on the water points' development component of the project. Based on the analysis, each million-dollar investment in the water infrastructure and livelihood development activities is estimated to generate a discounted return of US$7.2 million under the baseline assumptions. The net present value of the total benefits is estimated to be US$371.7 million with an economic internal rate of return of 74 percent against a discounted World Bank investment of US$63.5 million.

Table 2. Project Cost-Benefits Analysis Summary

Project Cost-Benefits Analysis Summary	
COSTS	
World Bank investment	70,000,000
Other costs	27,206,000
Total cost	97,206,000
Discounted World Bank investment	63,508,518

Project Cost-Benefits Analysis Summary	
Discounted total cost	87,467,478
BENEFITS	
Total benefits	734,681,730
Discounted total benefits	459,164,557
Discounted net benefits	371,697,079
Net Present Value	371,697,079
Internal Rate of Return	74%
Discounted investment leverage ratio	7.23

B. Gender

71. **Barwaaqo addresses gender gaps in productivity and assets within the agriculture and livestock sectors.** A study from Somalia shows that only 14 percent of women own farms and 28 percent own livestock.[40] Compared with men, Somalia women are marginalized in terms of access to agricultural and livestock assets, extension services, inputs and credit, and therefore have lagging productivity levels.[41] The project addresses several constraints that undergird these gaps, including lack of female extension agents, social norms and the gendered division of household labor, and women's limited mobility and skills.[42] To enhance women's participation and increase community awareness of women's role in the sector, project-supported training in crop and livestock management will train family units together; schedule sessions at times and locations that are convenient for women; offer childcare support; and involve female extension agents and veterinarians. Female farmers and pastoralists will also be supported in forming associations and cooperatives and accumulating capital. These actions are expected to enhance productivity of female farmers and livestock producers/managers through improved access to inputs, knowledge, technology, and capital. The impact of these actions will be measured through the following results indicator(s) and target(s): (a) Female share of farmers with increased productivity measured as ratio of production per hectare cultivated (target: 30 percent); (b) Female share of livestock managers with increased productivity measured as ratio of production to herd size (target: 30 percent); and (c) Female share of farmers/clients participating in project agricultural and livestock extension activities who report increased incomes (target: 30 percent female).

72. **The project enhances women's leadership and voice in village-level planning and development.** Community-level decision making in Somalia is predominantly undertaken by patriarchal clan-based structures, in which women's representation is negligible or often nonexistent. Hence, women's needs and concerns are typically excluded in key development decisions that impact their lives. To address this gap, the project will require that women hold at least 30 percent of leadership positions in existing and newly-formed VDCs,[43] and therefore enhance their voice in critical community investment planning, execution, and management. The project will conduct a study on female recruitment in existing VDCs within the gender actions. This study can then inform efforts to boost female participation and leadership across all VDCs (both old and new). The formation of CIPs by VDCs will be supported by female facilitators (at least 30 percent of the total), who will conduct women-only discussions to ensure women's priorities are reflected. Women's groups will also be included in decision making for the microwatershed management plans. The impact of these measures

[40] World Bank. Somalia: Country Economic Memorandum. Volume 1.
[41] FAO. 2021. National Gender Profile of Agricultural and Rural Livelihoods: *https://reliefweb.int/sites/reliefweb.int/files/resources/NATIONAL%20GENDER%20PROFILE%20Somalia.pdf*
[42] FSNAU, FAO, and UNDP data. add titles of publications/ references.
[43] This will represent a 10 percent improvement on the current share of VDCs with women in leadership positions, as seen in the Biyoole project.

will be measured through the following results indicator: Female share of leadership positions in VDCs (target: 30 percent).

73. **The project also supports women's employment in participating state level ministries of water and agriculture, as well as public and private sector water institutions.** Female labor force participation in Somalia is 36.3 percent, compared with almost 60.3 percent for men.[44] Women's representation in water sector employment is also limited, particularly due to gendered patterns of occupational segregation and women's lack of relevant skills and experience. Global data show that women comprise only 18 percent of staff in water utilities, and 23 percent of staff in engineering and managerial positions.[45] Data from countries in Sub-Saharan Africa show similar, and often even lower, rates for female employment in water utilities.[46] Interviews with PIU and other staff suggest that the work environment in government ministries is not an enabling one for women. Most lack separate toilets and prayer rooms for women, and women are excluded from decision making and subject to sexual harassment. Hence, the project will support a comprehensive assessment of the institutional barriers that limit women's recruitment and retention in water and agriculture ministries in the participating states as well as public and private water institutions This will inform a holistic female recruitment and retention strategy to engage women in full-time positions within relevant line ministries and create a pipeline of female talent for future recruitment through actions such as internships, mentoring, and on-the-job training programs. It will also improve the enabling environment in the workplace through measures such as separate toilet facilities and prayer rooms for females. Project procurement guidelines that will be developed for contractors to offer extra points in bidding to female-friendly firms (in terms of staffing, equal pay for equal work, inclusive policies). The impact of these measures will be captured through the following results indicators: (a) Female share of PIU staff and interns employed as staff in line water and agriculture ministries (target: 30 percent); (b) Female share of management and technical staff seconded in water, agriculture, livestock and environment ministries (target: 25 percent); and (c) Share of contracts awarded to contractors with gender-inclusive hiring, promotion policies and/or women in technical and management positions (target: 20 percent).

74. **Citizen engagement is central to the project design and for implementation.** CDD is a critical element in this project and is essential for sustainability of project outcomes. The project will work through VDCs to ensure community engagement in the project, including identifying and mobilizing all groups in the community for participation, jointly agreeing on investment priorities, and organizing the community to deliver those investments in collaboration with the government and other service providers. The project implementation team will train community facilitators to lead CIP discussions to help communities identify their priority water interventions (costs and benefits of different technologies), how they will manage their water infrastructure, and how the community will use the water to increase their food security and income opportunities. The CIPs will guide decisions related to the project activities and implementation process. The community will be informed on decisions taken regarding project activities through community meetings. In addition, the project will learn from the citizen engagement component and platform of the Somalia Recurrent Cost and Reform Financing Project—Phase III (P173731). The component includes a virtual citizen engagement platform with a toll-free complaints line and the ability to send messages and robocalls to community representatives to get periodic feedback on various aspects of the project.

75. **The multitiered, multichannel Grievance Redress Mechanism (GRM) being implemented under the Biyoole project will be enhanced under the project, with options of using free mobile technology and physical interface from community to national level.** The mechanism will be such that the complaints launched at the local level will have a 360-degree monitoring and reporting process in place, to enable tracking of complaint resolution time, along with frequency

[44] UNFPA. 2019. Gender Equity: Hit or miss in the Somali population. UNFPA Somalia: Nairobi, Kenya.
[45] World Bank. 2019. *Women in Water Utilities: Breaking Barriers*. World Bank: Washington, D.C.
[46] World Bank. 2019. *Women in Water Utilities: Breaking Barriers*. World Bank: Washington, D.C.

of feedback to the complainant about the complaint status. Monitoring tiers will be defined from the local level to the PIU. Local community groups will be involved in the inputting and in providing feedback on the process as well as identifying local GRM focal points in new implementing areas. This system will include identification and inclusion of key channels outside traditional dispute resolution or grievance redress mechanisms to enable safe and confidential reporting of incidence of SEA/SH. Identified GM focal points will also be trained on effective response to cases of SEA/SH should they occur. A separate worker GM will also be established.

76. **GRM and monitoring tools will be used to gather onsite beneficiary feedback and level of satisfaction**. The project team will also collect community feedback through regular community meetings. Similarly, any decisions/changes made on the project activities and implementation process will be communicated to the beneficiaries through such meetings. The Intermediate Results Indicators under Component 4 include: Beneficiaries that feel project investments reflected their needs (end target: 70 percent); and Grievances registered related to delivery of project benefits that are addressed (end target: 75 percent). The indicator, beneficiaries that feel project investments reflected their needs, to measure beneficiary feedback is included in the Results Framework (end target: 70 percent).

77. **Given the capacity and human resource constraints at the state level, the project will provide funds to contract implementation support of the community engagement process and mobilization activity.** Anchored by a robust and inclusive consultative process, community engagement activities will serve to inform the team's evolving understanding of the risk landscape and, thereby, will help ensure that appropriate risk mitigation measures are implemented, and project interventions are conflict sensitive. The approach will bring together all members of a village, ensuring the inclusion of all stakeholder groups, for example, nomadic herders, farmers, landless laborers, women, disabled people, minority groups, and youth.

78. **Climate mitigation and climate adaptation measures, which enhance infrastructure and community resilience, are central elements of the project.** Somalia has extremely low per capita carbon dioxide emissions compared with other countries and yet is among the top 10 countries in terms of vulnerability to climate change.[47] Floods and droughts are particularly relevant to the targeted areas—leading to a frequent lack of water and pasture, as well as crop and livestock losses alongside price shocks. The project aims to increase the resilience of the targeted areas' residents to droughts and floods by building new infrastructure (especially water points) and rehabilitating existing infrastructure; expanding water storage capacity; promoting the uptake of climate-smart agricultural practices among farmers and introducing soil and water conservation measures, which will reduce soil erosion, improve water retention, and enhance floodwater detention, as well as enhance carbon sinks. These activities will ensure that the project beneficiaries have year-round access to water—allowing them to withstand longer and more intense droughts—and benefit from a reduced flood risk.

C. Fiduciary

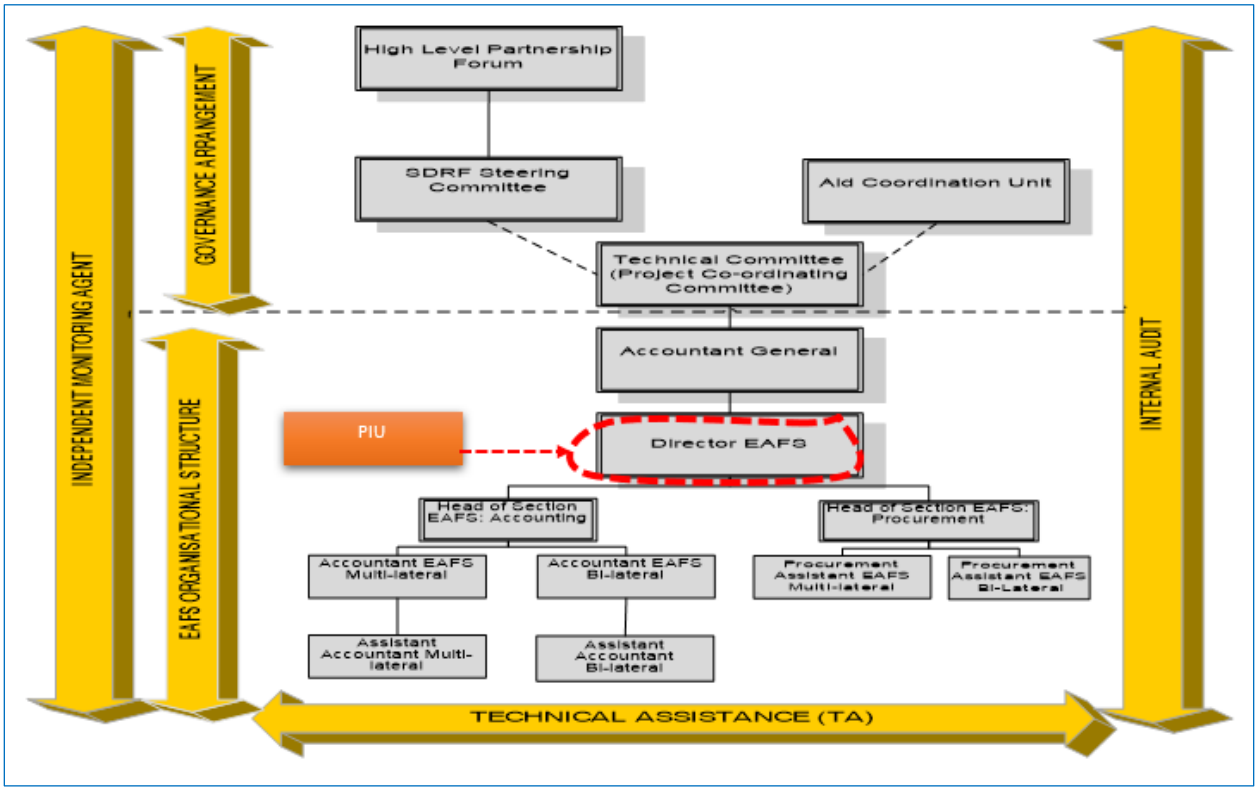
(i) Financial Management

79. **Financial management summary**: The FM risk is assessed as 'High'. FM capacity challenges that are likely to affect the project exist. The country level risk is high due to lack of unified Public Financial Management (PFM) legal architecture characterized by emerging PFM systems and legal PFM frameworks. In addition, the country's political context hinders timely legislations of PFM legal instruments. Coordinated interventions to improve the overall PFM legal framework and capacity are ongoing. Potential change in political regime in the upcoming elections and subsequent changes to the current key PFM institutions' leadership—Office of the Auditor General, Accountant General, and Director Generals—is

[47] University of Notre Dame (2022) Rankings [Online]. Accessed November 7, 2022: *https://gain.nd.edu/our-work/country-index/rankings/*

likely to further exacerbate the fiduciary risks.

Figure 6. Organizational Structure for the External Assistance Fiduciary Section



(ii) Procurement

80. **Procurement for the project will be carried out in accordance with the requirements in the Procurement Regulations for Borrowers under Investment Project Financing (IPF):** Goods, Works, Non-Consulting Services and Consulting Services July 1, 2016 (updated November 2020); the *Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants*, revised July 1, 2016; and the provisions stipulated in the Financing Agreement.

81. **Procurement implementation arrangements:** The existing *procurement* implementation arrangement of the ongoing Biyoole project will be maintained and strengthened under the Barwaaqo project in the FGS and FMSs (Puntland, Galmudug, and South West states), and Somaliland. Also, the implementation timelines of the Biyoole project (stipulated to be closed on February 28, 2023) and the Barwaaqo project are overlapping and hence the expertise gained, and institutional memory will be beneficial for implementation of the Barwaaqo project. The PCU/PIUs are already staffed with project coordinators and procurement specialists, among other key staff. An adequate number of officials dealing with procurement in the PCU/PIUs either directly or indirectly have undergone procurement training with focus on the World Bank's procurement regulations. Under the new project, the World Bank will continue to provide support by conducting training aimed towards addressing procurement capacity issues for the PCU/PIU staff and technical departments/stakeholders. The new PIUs for the additional states of Hirshabelle and Jubbaland will be established during project implementation. The assessment of the new PIUs revealed lack of adequate previous experience in World Bank Procurement Regulations. To mitigate the risk, the PIUs will recruit qualified procurement specialists with experience acceptable to the World Bank, among other staff. Also, during project implementation, the capacities of the PIUs will be

strengthened. In this regard, the procurement capacity will be enhanced through on-the-job training, hands-on support, and mentoring by the World Bank Procurement team during project implementation. Also, additional staffing will be considered as needed.

82. **Project Procurement Strategy for Development (PPSD) and Procurement Plan (PP):** The World Bank's New Procurement Regulations will apply to the project. In this regard, the Borrower has prepared a PPSD to formulate the best procurement approach/solution based on which the PP for the first 18 months of project implementation has been developed. The PP sets out the selection methods to be followed by the recipient during project implementation for procurement of goods, works, and consulting services. The PP also includes cost estimates, time schedules, the World Bank's review requirements, brief descriptions of the activities/contracts, and so on. The PP was confirmed and agreed to during the negotiations and will be disclosed on the World Bank's external website. Also, the PP will be updated in agreement with the World Bank annually, or as required, to reflect the project's actual implementation needs and improvements in institutional capacity. Each update shall require World Bank Group approval.

83. **Procurement management risk is assessed as 'High'.** The procurement environment in Somalia remains challenging. The main procurement associated risks are (a) limited number of competent procurement staff; (b) weak capacity of bidders and limited service providers; (c) high price bids/proposals due to security conditions in some parts of the country; (d) fraud and corruption; (e) collusion among bidders due to limited competition; (f) inadequate experience in procurement planning, monitoring, and contract management; (g) delays in procurement implementation should the COVID-19 crisis remain prolonged due to disruptions in supply chains resulting in price volatility and unavailability of items; (h) weak legal and financial institutions (Bank and insurance agencies are not well established); and (i) lack of enforcement of Public Regulatory Framework.

84. **Proposed mitigation measures include** (a) ensuring that PCU/PIUs always have in place dedicated procurement specialists with relevant and adequate qualification and experience acceptable to the World Bank as well as ensuring that the POM includes a well described procurement management process; (b) all procurement activities regardless of value, nature, category or package will be treated as prior review and reviewed by the World Bank; (c) training of the PMU/stakeholders' staff by the World Bank on the New Procurement Regulations; (d) creating awareness among the government, private sector, and other stakeholders on the key issues regarding integrity in procurement and FM; (e) supporting procurement reforms; (f) application of flexibilities provided by the World Bank's Procurement Framework; (g) encouraging international firms to have joint ventures with local firms due to insecurity; and (h) involving probity advisor where appropriate.

85. **Main procurement activities.** The main procurement activities under this project will be (a) Works (construction of new community water points and rehabilitation of existing water infrastructure and small boreholes, among others); (b) Consultancy Services (technical assistance, backstopping engineering firm, security risk management firm, TPM firm); and (c) Goods (vehicles, office equipment, solar equipment, and office supplies). To standardize quality, achieve cost efficiencies, and reduce procurement transactions, three key contracts will be procured by the FGS (this does not apply to Somaliland). Barwaaqo will centralize the procurement of three key large contracts: Security Risk Assessments, TPM, and backstopping engineering support.

86. **Forced labor risk in the procurement of solar panels/components.** There is a significant risk of forced labor in the global supply chain for solar panels and components. To support forced labor risk mitigation, the World Bank requires Borrowers to strengthen procurement documents that include solar panels/components for the "core functions of a project" as defined in the World Bank Environmental and Social Framework (ESF). These strengthened measures include forced labor bidder declarations, qualification requirements, strengthened forced labor contractual provision, and mandatory prior review/No Objection by the Bank. The new requirements apply to both international and national

competitive procurement and any direct selection/direct contracting within the scope of application.

87. There are allegations of forced labor risks associated with the polysilicon suppliers. The Borrower will require bidders to provide two declarations: a Forced Labor Performance Declaration (which covers past performance), and a Forced Labor Declaration (which covers future commitments to prevent, monitor and report on any forced labor, cascading the requirements to their own sub-contractors and suppliers). In addition, the Borrower will include enhanced language on forced labor in the procurement contracts.

88. **Systematic Tracking of Exchanges in Procurement (STEP).** The World Bank's STEP approach will be used to prepare, clear, and update PPs and conduct all procurement transactions for all implementing agencies of the project. Staff of the current PCU/PIUs have been trained on using STEP system. Other procurement staff of incoming implementing agencies not familiar with the STEP system will be trained on how to use it.

D. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	Yes
Projects in Disputed Areas OP 7.60	No

89. The Policy on Projects on International Waterways (OP 7.50) applies to this project because the project will finance activities that may use water from the Shabelle and Jubba river systems and connected aquifers (shared between Ethiopia, Somalia, and Kenya), which are considered international waterways according to Paragraph 1 of the Policy. In accordance with the Policy, on September 5, 2022, riparian countries (Ethiopia and Kenya) were notified of the proposed project, and no responses have been received by the deadline set out in the notification letter sent to the riparian countries to respond on the project (October 6, 2022). A memo on the notification process and exception to the notification requirement related to investments in the Shabelle and Jubba river systems and connected aquifers has been processed and approved by the regional vice president on October 18, 2022.

E. Environment and Social

90. **The project will be implemented following the World Bank's ESF**. The existing institutional environment and social arrangement under the old safeguards policies for the Biyoole project will be enhanced and the capacity of the PIUs will be strengthened to be able to address the additional requirements of the ESF. To sufficiently resource the PIU through the preparation and implementation of this project, a national level social/CDD specialist, a national level security advisor and a full-time GBV and gender specialist will be recruited to support the environmental specialist at the NPCU, with environmental and social/CDD and GBV/gender specialists at FMS level. Additionally, there will be E&S focal points within each implementing ministry responsible for overseeing and reporting on E&S implementation. The capacity of the national- and state-level implementing agencies will be strengthened to implement the project in line with the ESF.

91. **Social and environmental tools.** The project has prepared and disclosed the Environment and Social Commitment Plan (ESCP), Stakeholder Engagement Plan (SEP), Environmental and Social Management Framework (ESMF) which includes a SEA/SH prevention and response action plan, Resettlement Planning Framework (RPF), and Labor Management Procedures. During preparation of these instruments' meaningful consultation, participation, and disclosure of information on the project was conducted on June 21 and July 7, 2022, in accordance with ESS10 requirements. Disclosure of final instruments was done on September 5, 2022, on the government's Biyoole project

website,[48] and September 29, 2022, on the World Bank external website.[49] A site-specific comprehensive Environmental and Social Management Plan (ESMP) (including social assessments, inclusivity plans, Labor Management Plan (LMP), SEA/SH and Resettlement Action Plans/Livelihood Restoration Plans), and Security Management Plan will be prepared and approved before contracting, and in place before implementation. A projectwide security risk assessment and management plan will be created within three months of the grant effectiveness.

(i) Environment

92. **The project activities, if not properly implemented and managed, could result in Environmental, Health and Safety (EHS) risks and associated impacts.** There are impacts due to development of multiuse water sources under Component 1 (including small sand and subsurface dams in dry riverbeds (wadis) and surface water storage infrastructure (for example, berkads and hafir dams) and potential impacts from use of water extracted in terms of contamination (for example, discharge of wastewater from community systems, discharges and waste from livestock, impacts from irrigation under Component 2). The project activities could also cause loss of vegetation due to construction/rehabilitation activities, occupational and community safety, and health risks, particularly from inefficient waste disposal and management, more focus for hazardous waste generation from damaged batteries, solar appliances, panels, and pesticides containers; aesthetic quality; air, and noise quality; loss of biodiversity localized as a result of construction and rehabilitation activities, water diversions, impact riverbeds and floodplain, limit access, or decrease water throughput to users downstream, and so on.

93. **There are also positive environmental contributions of the project activities. Component 3 focuses on developing services for environmental protection and climate change adaptation.** This component aims to maximize the benefits people and communities obtain from managing ecosystems sustainably. The project will invest in improving ecosystem services, focusing primarily on provisioning services and regulating services. This component will also enhance resilience to climate change risks such as floods and droughts. It will further strengthen the capacity of the different government and community institutions to develop and implement environmental plans and regulations. However, the ecosystem restoration intervention may bring about unintended impacts if not well designed or managed. Small-scale construction may lead to the introduction and spread of foreign and invasive species which could negatively impact on biodiversity in the subproject area. This component will be led by the Directorate of Environment and Climate Change at federal level, and the Ministries of Environment at FMS levels.

94. **The ESMF prepared for the Somalia—Water for Agro-Pastoral Productivity and Resilience (P167826) project will be adapted no later than effective date to cover ESF requirements for activities under Components 1, 2, and 3.** The ESMF will include relevant measures from World Bank Group General Environmental, Health, and Safety Guidelines (EHSGs) as well as relevant global international industry practice to address environmental, social, health, and safety risks. The EHSGs on construction sites will ensure the safety and security of workers per ESS2 requirements. Based on the outcomes of the screening and national regulations, 'High' risk projects will be excluded from financing, 'Low' and 'Moderate' projects will apply ESMP, and 'Substantial' risk projects will apply Environmental and Social Impact Assessment (ESIA) and ESMP. ESIAs and ESMPs shall be developed for subprojects to identify potentially adverse environmental and social impacts and risks, and to provide input to the design of the subproject under the project at an early stage. The ESIA process will include analysis of alternatives to select the most feasible project option. Cumulative impacts associated with the project will also be evaluated as part of the ESIA process.

95. **The project will follow the same methodology as the Biyoole project and will receive support and experience**

[48] https://biyoole.mop.gov.so/environmental-and-social-management-framework-esmf/,
[49] https://documents1.worldbank.org/curated/en/099110209282235797/P1776270bb76370b08d1b08a729d18b859.docx

sharing from staff. E&S staff will be employed within the Federal Government and Member states including E&S, GBV, and security specialists. The capacity of the PCU will have to be strengthened with respect to the ESF approach, which is new to the project.

96. **Forced labor risk.** Regarding the risk of forced labor, under Environmental and Social Standard 2 (ESS2), where there is a significant risk of forced labor related to primary supply workers, the Borrower requires the primary supplier to identify those risks and if forced labor cases are identified, the Borrower will require the primary supplier to take appropriate steps to remedy them. Ultimately, where remedy is not possible, the Borrower will, within a reasonable period, shift the project's primary suppliers to suppliers that can demonstrate that they are meeting the relevant requirements of ESS2. Prior to beginning the procurement process, the Borrower will undertake market analysis to identify the possible sellers of solar panels to the project. The bidding documents will emphasize forced labor risks in solar panels and components and will require that sellers of solar panels to the project will not engage or employ any forced labor among their work force. Bidders will be required to provide two declarations: a Forced Labor Performance Declaration (which covers past performance), and a Forced Labor Declaration (which covers future commitments to prevent, monitor and report on any forced labor, cascading the requirements to their own sub-contractors and suppliers). In addition, enhanced language on forced labor will be included in the procurement contracts. The Bank will prior review procurements of solar panels and components to ensure that enhanced provisions are used by the Borrower.

97. **Social. The social risk rating is 'Substantial'. Activities under Component 1, which focus on rainwater harvesting and groundwater infrastructure, both for people and to support livelihoods, could lead to a range of social risks and impacts.** There is the potential to exclude disadvantaged and vulnerable groups from decision making and project benefits (particularly women and minority groups). In addition, the project will require land to develop water infrastructure in locations where land is unregistered or has been subject to land grabbing and has a range of claims. Lack of access to an adequate network of water structures that supply water for both livestock and domestic purposes has often been a cause of conflict between pastoralists and settled communities, which will need to be managed through consultation between communities and include women who also have critical domestic needs. There are many contextual risks of operating in remote, conflict-affected areas with complex social contexts where effective and inclusive community consultations and meaningful stakeholder engagement are challenging. Furthermore, developing effective grievance redress mechanisms will be complex due to rural locations, traditional decision-making structures and existing social tensions.

98. Labor influx is likely to be limited as most contractors are local and unskilled labour will be employed from the local communities. However, the presence of even relatively small numbers of external workers can result in social tensions, increased risk of transmission of diseases and the risk of sexual exploitation and abuse, sexual harassment, and other forms of GBV. The project will be subject to a range of labor risks, including occupational health and safety risks, safety and security risks, and the potential use of child labor. Local contracting arrangements may also mean that project workers do not have contracts or are subject to unfair conditions (lack of breaks, irregular pay, and so on). Female workers may be discriminated against in terms of employment but are also at higher risk of SEA/SH, and other forms of GBV. COVID-19 may continue to play a role in influencing project implementation, notably around stakeholder engagement and face-to-face gatherings. Virtual options for meetings will be limited due to poor connectivity and a lack of familiarity with such forums.

99. **Water infrastructure and services to communities, both for people and to support livelihoods, could lead to a range of social risks and impacts.** There is the potential for exclusion of disadvantaged and vulnerable groups (for example, minority and marginalized groups, internally displaced people, communities living in remote areas where access is limited, people living with disabilities, women and female-headed households) from decision making and project benefits with associated elite capture. The project will give special consideration to vulnerable and disadvantaged groups

who are often excluded from programs and historically face difficulties to participate in project activities due to social, economic, and physical barriers. The existing formal structures based on the 4.5[50] power sharing clan structure provides some groups more political and economic influence than the others. The lack of social awareness, limited information available on project-targeted communities, and poor community engagement processes often limit the participation of the disadvantaged groups in the project design and implementation processes. The historical clan-based resource management structures have perpetuated the systematic exclusion of these groups. The project will adopt a robust SEP, taking into consideration the equity and inclusivity of all stakeholders during the identification of the project sites and implementation of project activities. The SEP will look at the distribution of power and resources between different groups and individuals and will outline how the project will include the vulnerable and disadvantaged groups in consultations throughout the project so that they can input into the design, and not be excluded from project benefits. The SEP will be informed by a comprehensive mapping of communities in the project target locations which will analyze the social dynamics and patterns of clan-, gender-, and age-based exclusions and marginalization in the target areas. The mapping exercise will confirm the presence of Sub-Saharan Africa Historically Underserved Traditional Local Communities (SSAHUTLC) as per ESS7 to determine the applicability of the SSAHUTLC plans, and if groups fitting the ESS7 criteria are found in the areas of implementation, SSAHUTLC plans will be prepared. Apart from ensuring that disadvantaged groups are not excluded from the identification of the project locations, the environment and social considerations of this project will also look at the inclusivity in the project decision making, human resources recruitment, procurement, and other key processes throughout project implementation.

100. **In addition, the project will require land to develop water infrastructure, community and household irrigation areas.** In locations where land is likely to be subject to communal ownership and usage rights, and to multiple and overlapping claims, developing agreements over land and water sharing agreements may be challenging. This may contribute to potential risks of increased social tension within and between communities associated with rights to access water, irrigated land and benefit sharing, siting of facilities, and costs. The Resettlement Policy Framework details the approach to accessing land based on national laws and customary land rights. All land-related agreements will be done through government-mediated processes where all claimants or potential claimants agree to the use and protection of the land required for the public benefit and access. In cases where the infrastructure is not for the benefit of the owners, or assets are destroyed or livelihoods negatively affected, acquisition and compensation procedures will be required. The project will prepare site-specific Resettlement Action Plans (RAPs) or Livelihood Restoration Plans (LRPs) and land agreements for subproject sites as required. The RAPs and LRPs will take into consideration the specific needs of the disadvantaged groups. Any construction of physical assets will only occur when plans and documentation required by ESS5 have been finalized and approved by the World Bank.

101. **Women's inclusion in project activities will be supported by dedicated staff at the PIU level.** The project Gender specialist will ensure women's inclusion in the decision-making authority, such as PIUs, government institutions, and local committees. The gender specialist will facilitate tailor-made training on gender awareness and the importance of women's role in water management and conservation throughout the project cycle. Lastly, the project will adopt a grievance redress mechanism to ensure that women can submit feedback and grievances, and get responses, including on GBV-related complaints.

102. **Gender-based challenges are pronounced, with GBV a significant challenge in Somalia.** SEA/SH risk assessment indicates that the project risks are anticipated to be 'Substantial'. GBV risks are linked in part to poverty and resource vulnerability; women and girls might face an increased risk of sexual assault and violence while traveling through unsafe

[50] The 4.5 system is the clan-based electoral system in Somalia. The 4.5 formula is the division of the Somali population into five groups along clan lines, where four of the five groups are the 'major clans', and the fifth group includes all other clans and peoples not covered by the first four groups.

or remote locations to reach water facilities for domestic or livestock use. In the situation of displacement linked to climate change, community tensions might arise over water resources, which can lead to violence, particularly for women and girls who are often responsible for water collection. Exposure to GBV can in turn heighten food insecurity, especially for agriculture and livestock, which can affect a survivor's capacity to work, limiting their ability to produce or secure food for themselves and their families. Other factors such as unequal gender and power relations can exacerbate the risks of GBV within the project, such as the potential of sexual harassment for female project workers. The project will adopt a robust series of SEA/SH risk mitigation measures to prevent incidences from occurring: (a) conducting NPCU and PIU sensitization and capacity-building sessions to improve understanding, management, and monitoring of SEA/SH risks throughout the life of the project; (b) recruiting a GBV advisor to support the project implementation as well as guide the operation while continuously identifying potential risks and mitigation measures to be adopted; (c) reinforcing Code of Conduct (CoC) that address GBV/SEA/SH to cultivate an environment free from GBV and SEA/SH; (d) ensuring regular community consultations to raise awareness of the risk of GBV/SEA and measures for reporting and response; (e) ensuring that grievance redress measures include mechanisms for safe and confidential reporting of cases of SEA/SH; (f) mapping out GBV service providers and relevant government systems that support GBV survivors, identifying a dedicated referral process for GBV/SEA/SH incidents and developing accountability frameworks for handling allegations; and (g) conducting regular safety audits around water infrastructure with the community to assess potential GBV-related safety risks through consultations. SEA/SH risk mitigation requirements have been established in an SEA/SH prevention and response action plan prepared and cleared for the project (as part of the ESMF) and are also addressed, where relevant, in social risk management instruments.

103. **There are widespread security risks in Somalia to varying degrees for communities, contractors, and project staff.** Implementation will not be possible in al-Shabab–controlled areas and security issues need to be carefully assessed and managed elsewhere. The use of security firms either during travel or to protect sites will need to be carried out in line with the World Bank's Good Practice Note on Assessing and Managing the Risks and Impacts of the Use of Security Personnel. There are a range of contextual risks of operating in conflict zones with complex social contexts where effective and inclusive community consultations and meaningful stakeholder engagement is challenging.

V. GRIEVANCE REDRESS SERVICES

104. **Grievance redress.** Communities and individuals who believe that they are adversely affected by a project supported by the World Bank may submit complaints to existing project-level grievance mechanisms or the Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the Bank's independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm occurred, or could occur, as a result of Bank noncompliance with its policies and procedures, and the Dispute Resolution Service, which provides communities and borrowers with the opportunity to address complaints through dispute resolution. Complaints may be submitted to the AM at any time after concerns have been brought directly to the attention of Bank Management and after Management has been given an opportunity to respond. For information on how to submit complaints to the Bank's Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the Bank's Accountability Mechanism, please visit https://accountability.worldbank.org.

VI. KEY RISKS

105. **The overall risk of the project is rated ('Substantial').** Somalia represents a complex operational environment

with substantial risks that have the potential to derail project activities and impede achievement of the project's objectives. Some risks are rated 'High', except for Sector Strategies and Policies, Technical Design of Project and Institutional Capacity for Implementation and Sustainability risks which are rated 'Moderate'.

106. **Political and governance ('High').** Relations among the FGS and FMSs could impact project implementation. Further, the current new administration could heighten existing tensions in Somalia and shift development priorities. The project design is simple, community development–based and, as such, is protected from the higher-level political issues. However, political instability can quickly result in insecurity. Fighting in Somalia tends to be isolated and, in the event of the security situation suddenly deteriorating, project activities and funds can be reallocated to more secure states. Strong intergovernmental relations built up under the Biyoole project will help mitigate political and governance risk.

107. **Macroeconomic ('High').** Somalia's economy is subject to low and volatile levels of growth. Upon reaching the Heavily Indebted Poor Countries Initiative Decision Point milestone in 2020, growth was projected at 3.2 percent. However, numerous shocks such as COVID-19, floods, and desert locust infestation caused an economic contraction of 0.3 percent in 2020. While there was a modest economic recovery in 2021, with growth estimated at 2.9 percent, severe drought and famine conditions are emerging, which is contributing to high levels of food insecurity (affecting 7.1 million people) and internal displacement. Growth in 2022 is projected at 2.2 percent, below the population growth rate of 2.9 percent. Furthermore, inflation is projected at 8.5 percent in 2022 as global commodity prices increase and domestic agricultural production falls. The production and supply chain impact of the war in Ukraine is expected to put further upward pressure on food prices. The Somali authorities have limited policy options to address shocks, as the country has negligible fiscal space and no monetary policy instruments. These risks are being partly mitigated through ongoing support from the World Bank, the International Monetary Fund and other international partners to improve revenue generation and the management of public resources. Efforts to improve water supply and management are also expected to support the response to climatic shocks.

108. **Fiduciary ('High').** The FM and procurement environment in Somalia remain challenging, with some potential levels of mismanagement, fraud, lack of transparency, and corruption. Although anticorruption and public sector regulations are in place, problems persist, contributing to low levels of trust in government institutions. Appropriate risk mitigation measures, including periodic extended implementation support activities complemented by close monitoring, will be undertaken in addition to providing on-the-ground fiduciary capacity support to the project. The World Bank FM supervision will be essential, and mitigation measures for fiduciary issues have been built into the project design in the form of strict fiduciary control mechanisms and application of World Bank fiduciary rules as well as a focus on social accountability. The project will ensure that the PIUs always have in place dedicated procurement and FM specialists who are adequately trained jointly with the EAFS Unit and other relevant staff within the Office of the Accountant General. A series of on-the-job fiduciary training and the World Bank's periodic review and implementation support will help in mitigating these risks.

109. **Environmental and Social risks ('Substantial').** Project activities may pose potential for changes in the natural resource asset base, including land access. Components 1 and 2, which will involve construction of multiple water sources, could cause potential risk of overdevelopment/overexploitation and pressure on existing resources. Poor community management of water points can result in soil fertility loss, degraded pasturelands, increased land and water pressures, poorly managed farming (including use of pesticides that potentially generate dispersed waste, even if in small volumes), and poor water quality, all of which have the potential to amplify tensions within communities and lead to conflict. The security situation is complex, and areas could suddenly experience conflict situations, affecting access to subprojects and making monitoring difficult. The implementing institutions' existing E&S risk management capacity and prior experience are weak, particularly in the states where the Biyoole project is not currently being implemented. Water infrastructure and services to communities, both for people and to support livelihoods, could lead to a range of social

risks and impacts. There is the potential for exclusion of disadvantaged and vulnerable groups (for example, women, minority groups, nomadic herders, internally displaced people, and persons with disabilities) from decision making and project benefits (with associated elite capture). In addition, the project will require land to develop water infrastructure, community and household irrigation areas, and so on, in locations where land is likely to be subject to communal ownership and usage rights, and multiple and overlapping claims. Developing agreements over land and water sharing agreements may be challenging. This may contribute to potential risks of increased social tension within and between communities associated with rights to access water, irrigated land and benefit sharing, siting of facilities, and costs. There are also risks of SEA/SH from the project, particularly due to the presence of even relatively small numbers of external workers. The project will be subject to a range of labor risks including occupational health and safety risks, safety and security risks, and the potential use of child labor. Local contracting arrangements may also mean that project workers do not have contracts or are subject to unfair conditions (lack of breaks, irregular pay, and so on). Female workers may be discriminated against in terms of employment but are also at higher risk of SEA/SH. The project will mitigate these risks by engaging communities at the outset in broadly inclusive and sustained community planning and development processes that will ensure that local livelihood dynamics, resource conditions and, most importantly, community priorities drive project interventions. A special emphasis will be placed on strengthening communities' capacity to manage the assets and to develop equitable and sustainable water-use plans that incorporate the interests of all stakeholders.

110. **Stakeholders' risks ('Substantial').** There is a risk that state agencies will overestimate their capacity to deliver activities, resulting in slow implementation. Resulting disruptions could fuel tensions and jeopardize nascent state-citizen relations and the well-being of rural communities who rely on services provided by nonstate actors. To mitigate these risks, the project will support the government to better understand how to leverage nonstate actors and bring them under government direction and oversight. At the federal and the FMS level, the use of a Steering Committee composed of key ministries, strong involvement of federal and state authorities, working with the various development pillar working groups and the robust capacity building embedded in the project will help further mitigate these risks.

111. **Other: Security situation risk ('High').** Parts of Somalia remain in conflict, which affects access to the project sites and insecurity for staff of both government agencies and contractors. There will be flexibility regarding the selection of the project sites subject to the security situation, and the project implementation will consider contingency plans and require the contractors to put in place standard operating procedures to undertake project activities in case of restricted sites' access. Specifically, the project component design offers flexibility to undertake the activities in areas that are of low security risk and, when required, to select new sites. Security Risk Assessments and Security Risk Management Plans will be developed for each site or in batches where a collection of sites is geographically close. Lessons learned from the Biyoole project will help this process and an additional layer of mitigation exists whereby ESMP clearance will be provided only if the site Security Risk Management Plan is in place. Project coordinators will be responsible for security activities during the project implementation with guidance from the national security advisor.

VII. RESULTS FRAMEWORK AND MONITORING

Results Framework
COUNTRY: Somalia
Barwaaqo - Somalia Water for Rural Resilience Project

Project Development Objectives(s)

To develop water, agriculture, and environmental services for rural communities in Somalia's drylands.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	End Target
Number of people provided with access to improved water sources (of which proportion of females)			
People provided with access to improved water sources (CRI, Number)		0.00	500,000.00
People provided with access to improved water sources - Female (RMS requirement) (CRI, Number)		0.00	150,000.00
Farmers adopting improved agricultural technology (CRI, Number)		0.00	200,000.00
Farmers adopting improved agricultural technology - Female (CRI, Number)		0.00	60,000.00
Land area under sustainable landscape management practices (CRI, Hectare(Ha))		0.00	8,000.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	End Target
Component 1 - Development of Multiuse Water Sources			
New water points constructed to reduce the risk of water shortages in drought-prone rural areas (Number)		0.00	100.00
Existing water points rehabilitated to reduce the risk of water shortages in drought-prone rural areas (Number)		0.00	50.00
Number of government staff gaining capacity to plan and design climate-resilient infrastructure (Number)		0.00	175.00
Female number of government staff gaining capacity to plan and design climate-resilient infrastructure (Number)		0.00	53.00
Component 2: Development of Agriculture & Livestock Services around water points			
Number of functional Farmer Field Schools established (Number)		0.00	150.00
Number of Animals that received veterinary services (Number)		0.00	1,800,000.00
Number of Community Animal Health workers (CAHWs) trained (Number)		0.00	500.00
Female number of Community Animal Health workers (CAHWs) trained (Number)		0.00	150.00
Number of institutions providing veterinary services/certifications strengthened (Number)		0.00	15.00
Livestock managers with increased productivity (Percentage)		0.00	70.00
Female share of livestock managers with increased productivity (Percentage)		0.00	30.00
Component 3: Development of Environmental Catchment Services			
Land area under invasive species management techniques (Hectare(Ha))		0.00	1,000.00
Agricultural land area with soil and water conservation measures (Hectare(Ha))		0.00	3,000.00
Forest area restored (Hectare(Ha))		0.00	500.00

Indicator Name	PBC	Baseline	End Target
Component 4: Project Management, Community Development and Enhancing Livelihoods Planning			
Efficient and functional web-based Management Information System (MIS) (Number)		1.00	2.00
Beneficiaries that feel project investments reflected their needs (Percentage)		0.00	70.00
Project Implementation Units (PIUs) staffed (Number)		4.00	6.00
Female share of PIU staff, interns & seconded staff at line ministries & other water institutions (Percentage)		12.00	30.00
Proportion of contracts awarded to female friendly contractors (Percentage)		0.00	20.00
Women's share of leadership positions in Village Development Committees (VDCs) (Percentage)		2.00	20.00
Grievances registered related to delivery of project benefits that are addressed (Percentage)		0.00	75.00
Community Investment Plans Developed (Number)		0.00	150.00
Number of line Ministry buildings, laboratories and offices constructed (Number)		16.00	6.00
Number of line ministry buildings, laboratories, offices renovated (Number)		17.00	10.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
People provided with access to improved water sources	This indicator measures the cumulative number of	Bi - Annually	PIU reports	Periodical supervision	PIU

	people who benefited from improved water supply services that have been constructed through operations supported by the World Bank.				
People provided with access to improved water sources - Female (RMS requirement)	This indicator measures the cumulative number of people who benefited from improved water supply services that have been constructed through operations supported by the World Bank.	Bi-annually	PIU Reports	Periodical supervision	PIU
Farmers adopting improved agricultural technology	This indicator measures the number of farmers (of agricultural products) who have adopted an improved agricultural technology promoted by operations supported by the World Bank. NB: "Agriculture" or "Agricultural" includes: crops, livestock, capture fisheries, aquaculture, agroforestry, timber and non-timber forest products. Adoption refers to a change of practice or change in use of a	Bi-annually	PIU reports	Periodical supervision	PIU

	technology that was introduced or promoted by the project. Technology includes a change in practices compared to currently used practices or technologies (seed preparation, planting time, feeding schedule, feeding ingredients, postharvest storage/ processing, etc.). If the project introduces or promotes a technology package in which the benefit depends on the application of the entire package (e.g., a combination of inputs such as a new variety and advice on agronomic practices such as soil preparation, changes in seeding time, fertilizer schedule, plant protection, etc.), this counts as one technology. Farmers are people engaged in farming of agricultural products or members of an agriculture related business (disaggregated by men and women) targeted by the				

	project.				
Farmers adopting improved agricultural technology - Female		Bi-annually	PIU reports	Periodical supervision	PIU
Land area under sustainable landscape management practices	The indicator measures, in hectares, the land area for which new and/or improved sustainable landscape management practices have been introduced. Land is the terrestrial biologically productive system comprising soil, vegetation, and the associated ecological and hydrological processes; Adoption refers to change of practice or change in the use of a technology promoted or introduced by the project; Sustainable landscape management (SLM) practices refers to a combination of at least two technologies and approaches to increase land quality and restore degraded lands for example, agronomic, vegetative, structural, and management measures that, applied as a combination, increase the	Bi-annually	PIU reports	Periodical supervision	PIU

	connectivity between protected areas, forest land, rangeland, and agriculture land.				

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
New water points constructed to reduce the risk of water shortages in drought-prone rural areas	This indicator measures the number of new water points constructed to reduce the risk of water shortages in drought-prone rural areas.	Bi-annually	PIU reports	Periodical Supervision	PIU
Existing water points rehabilitated to reduce the risk of water shortages in drought-prone rural areas	This indicator measures existing number of water points rehabilitated to reduce the risk of water shortages in drought-prone rural areas	Bi-annually	PIU reports	Periodical supervision	PIU
Number of government staff gaining capacity to plan and design climate-resilient infrastructure	This indicator measures number of government staff that took trainings on capacity to plan and design climate-resilient infrastructure.	Bi-annually	PIU reports	Periodical supervision	PIU
Female number of government staff gaining capacity to plan and design climate-resilient infrastructure	This indicator measures the number of female government staff gaining capacity to plan and design climate-resilient	Bi-annually	PIU reports	Periodical supervision	PIU

	infrastructure.				
Number of functional Farmer Field Schools established	This indicator measures the number of farmer schools established and that are functional.	Bi-annually	PIU reports	Periodical supervision	PIUs
Number of Animals that received veterinary services	This indicator measures the number of livestock (goats, camels and other) that received treatment, vaccination, and veterinary support.	Bi-annually	PIU reports	Periodical supervision	PIUs
Number of Community Animal Health workers (CAHWs) trained	This indicator measures number of Community Animal Health Workers (CAHWs) that received training (both theoretical and on the job) disaggregated by Gender	Bi-annually	PIU Reports	Periodical Supervision	PIUs
Female number of Community Animal Health workers (CAHWs) trained	This indicator measures the number of female community animal health workers (CAHWs) trained. It is estimated that 30% of the total trainees will be female.	Bi-annually	PIU reports	Periodical supervision	PIU
Number of institutions providing veterinary services/certifications strengthened	This indicator measures the number of formal/government institutions that provide veterinary services that have been supported and strengthened through the	Bi-annually	PIU Reports	Periodical Supervision	PIUs

	project.				
Livestock managers with increased productivity	The intermediate indicator measures cumulative number of livestock managers with increased productivity (measured as number of livestock)	Bi-annually	PIU reports	Periodical Supervision	PIUs
Female share of livestock managers with increased productivity	This indicator measures the female share of livestock managers with increased productivity (measured as number of livestock) with a female target of 30% from the total increase.	Bi-annually	PIU reports	Periodical supervision	PIU
Land area under invasive species management techniques	This indicator measures the land area in (hectares) that is under invasive species management techniques	Bi-annually	PIU Reports	Periodical Supervision	PIUs
Agricultural land area with soil and water conservation measures	This indicator measures the land area that has been restored, with soil and water conservation interventions.	Bi-annually	PIU Reports	Periodical Supervision	PIUs
Forest area restored	This indicator measures the land area that has been afforested. (new or restored)	Bi-annually	PIU Reports	Periodical supervision	PIUs
Efficient and functional web-based Management Information System (MIS)	This indicator measures having a functional Web-Based Information Management System that is	Bi-annually	PIU Reports	Periodical Supervision	PIUs

	efficient and gives real time data across the Federal Member States and Federal Government of Somalia				
Beneficiaries that feel project investments reflected their needs	This indicator measures the level of beneficiary (client, community) satisfaction due to project intervention across Federal Member States	Bi-annually	PIU Reports	Periodical Supervision	PIUs + independent consultant
Project Implementation Units (PIUs) staffed	This indicator measures the number of Project Implementation Units (PIUs) established and staffed across Federal Member States	Bi-annually	PIU Reports	Periodical Supervision	PIUs
Female share of PIU staff, interns & seconded staff at line ministries & other water institutions	Female share of PIU staff and interns seconded as staff in line ministries & other water institutions (Target of 30%)	Bi-annually	PIU Reports	Periodical supervision	PIUs
Proportion of contracts awarded to female friendly contractors	This indicator measures the share of contracts awarded to female friendly contractors (in terms of staffing, equal pay for equal work, inclusive policies) - (to be defined e.g. regarding hiring, advancement, share of technical and management of employees)	Bi-annually	PIU reports	Periodical supervision	PIUs

Women's share of leadership positions in Village Development Committees (VDCs)	This indicator measures the percentage of women leading the Village Development Committees (VDCs) e.g. Chair or vice chair of the VDCs	Bi-annually	PIU Reports	Periodical Supervision	PIU Reports
Grievances registered related to delivery of project benefits that are addressed	This indicator measures the number of Grievances received and addressed in relation to the delivery of the project. The timeline for addressing grievances will be about 10 days.	Bi-annually	PIU reports	Periodical supervision	PIU
Community Investment Plans Developed	This indicator measures the number of Community Investment Plans (CIPs) developed. These are reports derived from the Community Engagement Reports (CERs) and other technical assessments.	Bi-annually	PIU reports	Periodical supervision	PIU reports
Number of line Ministry buildings, laboratories and offices constructed	This indicator measures the number of offices, buildings constructed for line ministries, diagnostic laboratories etc constructed using the project fund	Bi-annually	PIU reports	Periodical supervision	PIU
Number of line ministry buildings, laboratories, offices renovated	This indicator measures the number of line ministry buildings, offices, laboratories renovated by the Project	Bi-annually	PIU reports	Periodical Supervision	PIU

Annex 1: Implementation Arrangements and Project Support Plan

Project institutional and implementation arrangements

(a) **Strategy and approach for implementation support**. A core technical team will provide hands-on support to implementing agencies and liaise with development partners, including a Task Team Leader (TTL) and co-TTL based in Nairobi, Kenya, providing the much-needed link with World Bank Headquarters. Moreover, the World Bank's implementation support team will leverage the presence in the Somalia Country Office of Procurement and FM, all of whom have had significant experience in supporting programs in fragile and conflict settings. The World Bank will devote about 150 staff weeks per year and a total of about 400 staff weeks through FY29 to help the government implement the project and supervise progress.

(b) **This is a project under a challenging operational environment.** Enhanced security risks may not allow supervision of implementation with standard World Bank supervision budget allocation. Considering this challenge, the project has allocated resources for the FRS to engage an international independent firm to provide third party monitoring support to the project. This has an objective of providing additional independent monitoring. The firm will support Somali authorities to fulfill their fiduciary, procurement, monitoring, and supervision obligations with respect to all four project components. The firm will be expected to provide advisory as well as monitoring support to the World Bank to the extent of undertaking interim implementation review visits and providing the World Bank team with status reports.

(c) **Supervision missions.** Twice yearly formal implementation support missions and additional interim implementation support missions every quarter will be carried out. Security permitting, all sites will be visited at least once in person by the project team. Where access is not possible, monitoring will be done using remote technology such as unmanned aircraft systems (drones) and the Geo Enabling Method for Monitoring and Supervision (GEMS). Ongoing support and dialogue will be maintained throughout to monitor progress and address pertinent issues. An implementation support strategy will be included in the POM.

(d) **Ongoing dialogue.** Regular dialogue, at least on a weekly basis, will be maintained through direct contact, audio, and virtually between the World Bank team and the FRS and FMS, and Somaliland officials to assure regular follow-up to agreed actions during project implementation.

(e) **Fiduciary support.** The Finance Specialists, Procurement Specialists and World Bank Finance Administration Finance Officers will play a central role in supporting the federal government, federal FMSs and Somaliland entities in the implementation of sound financial and procurement practices as well as disbursement oversight, in accordance with the World Bank's fiduciary requirements.

(f) **Safeguards support.** World Bank safeguards staff will provide needed support with respect to environmental and social safeguards as needed. They will conduct staffed missions to project areas at least once a year and will remain available to support as needed on safeguards aspects.

(g) **M&E. The existing M&E framework will be reworked and updated.** A baseline survey and end-line beneficiary survey will be carried out to measure who and to what extent people benefit from the infrastructure as well as how it affects their lives in both social and economic terms. The M&E system will document case studies capturing the impact of the project on communities, considering the gender dimension, impacts on vulnerable or marginalized groups, and how they may ultimately contribute to stronger rural resilience. A web-based MIS was developed under Biyoole to enable real time loading of data and monitoring. The web-based MIS aims at providing the PIU staff and other stakeholders of the project with an indication of the projects performance in terms of achievements made in the different time periods as well as the progress towards delivering the intended results. The PIU staff will be able to collect data, clean, and aggregate them before visualizing the same in a dashboard, giving insights to the project progress against sets of indicators agreed upon in the M&E Framework. The dashboard will store photos of implementation and updated maps of locations.

(h) **Mid-term review (MTR).** The MTR mission will require participation of the entire spectrum of specialists having participated to appraisal. The Implementation Support Plan will be reviewed at least once a year to ensure that it continues to meet the implementation support needs of the project.

(i) **Political and security risk will exist over the course of the project.** In the event of deteriorating security situation not allowing implementation in one or more states, in consultation with the FRS, the project will be structured to allow implementation to continue in the other states. The team will continue to monitor and, as the need arises, MTR could be an appropriate milestone for that kind of consideration.

Table A1.1. Implementation Support Plan and Resource Requirements

Time	Focus	Skills Needed	Resource Estimate (US$, million)
First 12 months	Project start-up, signing of advanced procurement contracts, preparation of safeguards instruments, training fiduciary staff, establishment of PIU in Hirshabelle and Jubbaland, enhancement of MIS, and initiation of procurement	See Table A1.2	0.5
12–48 months	Implementation support missions, leverage community-based platforms, facilitate recruitment of local facilitators, support formulation, and implementation of plans, and foster citizen engagement	See Table A1.2	1.0
Total			**1.5**

Table A1.2. Skills' Requirements

Skills Needed	Number of Staff Weeks	Number of Trips
Team Leader	30	6
Sector Specialists (lead and senior)	20	4
Procurement Specialist	15	3
Financial Management Specialist	15	3
Environmental Safeguards Specialist	15	3
Social Safeguards Specialist	15	3
GBV Specialist	10	3
Technical Specialists: • Rural Water Supply and Storage • Agriculture and Livestock • Sustainable Land Management • Community Development	70	12