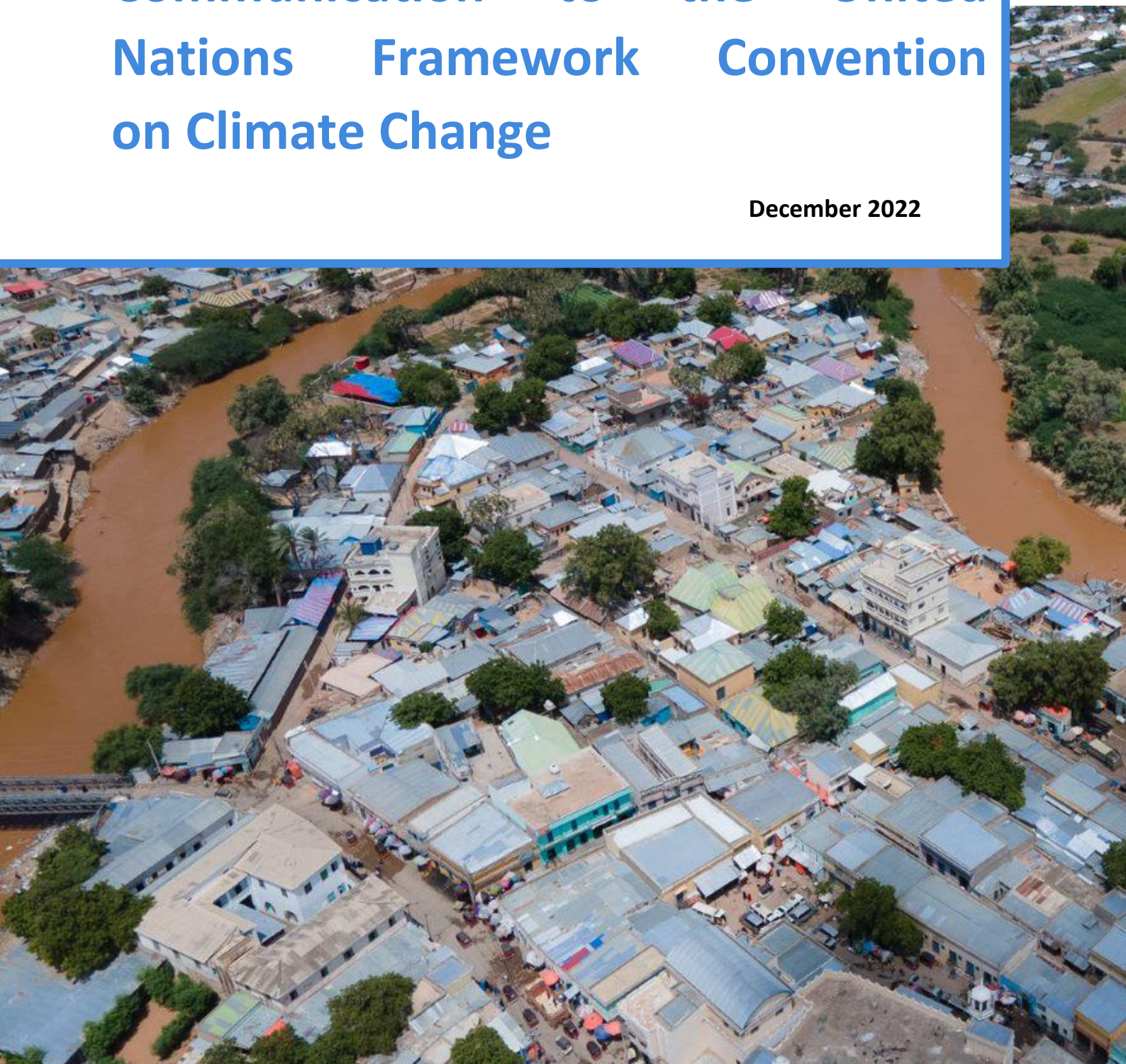


Somalia's First Adaptation Communication to the United Nations Framework Convention on Climate Change

December 2022



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Somalia's First Adaptation Communication to the United Nations Framework Convention on Climate Change (UNFCCC)

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FOREWORD

Somalia is extremely vulnerable to the effects of climate change and extreme weather events. Climate change continues to cause devastation to lives and livelihoods in the country and threatens the modest development and stability gains the country has achieved over the past few years. Adaptation to climate change and building resilience of the society is of utmost importance in our sustainable development agenda.

Somalia is pleased to submit its first Adaptation Communication (AdCom) in response to Article 7 Paragraph 10 and 11. This report is prepared in accordance with relevant UNFCCC decisions so as to provide timely input to the global stocktake. Somalia AdCom captures key information on climate change risks and impacts on the country, adaptation priorities and plans, ongoing adaptation projects as well as support needs and challenges that to be addressed.

As part of the international community, Somalia continues to play its part in championing ambitious climate action including by helping the most vulnerable people to effectively respond to the adverse effects of climate change.

The goals and priorities elaborated in this report remain aspirations and will be difficult for the country to implement without international support in the form of finance, technology and capacity development. We call on all partners to support our country in its journey to climate resilience, peace and sustainable development.

H.E. Amb. Khadija Mohamed al-Makhzoumi
Minister, Environment and Climate Change
Federal Government of Somalia



Executive Summary

Somalia's Adaptation Communication (AdCom) is a report designed to reflect the country's adaptation progress, priorities, and needs going forward. The purpose of the AdCom is to: i) strengthen adaptation action and enhance resilience to the impacts of climate change; ii) increase the visibility and profile of adaptation globally and nationally; iii) improve learning and understanding of adaptation needs and responses throughout Somalia and the region; iv) enhance resource mobilization for adaptation action in the country; and v) provide input to the synthesis report of the Global Stocktake under the Paris Agreement (United Nations Framework Convention on Climate Change [UNFCCC], Decision 9/CMA.1).

Somalia is a least developed country in the Horn of Africa. The country suffers from extreme vulnerability to climate change and variability, with much of its territory considered arid and semi-arid land. The population's vulnerability to climate is exacerbated by the fact that livelihoods are heavily climate dependent: agricultural production, including livestock and fisheries, accounts for more than 70% of livelihood sources, particularly in rural settings (Federal Government of Somalia [FGS], 2020). Compounding these challenges, the country is rebuilding state institutions amid recurrent and protracted conflict, concentrated mainly in the south. Thirty years of conflict have fragmented the country, destroyed legitimate institutions, and created widespread poverty and vulnerability. Coupled with climate-related disasters, this has undermined investment in key sectors such as agriculture, water, and infrastructure, further exacerbating poverty. Throughout this period, Somalia's natural capital has been severely damaged and stressed, and political disagreements and divisions continue to threaten the prospects for sustainable governance (World Bank, 2020). The outlook, however, is not bleak; in the last decade, Somalia has made great strides in establishment of political, social, environmental, and economic systems that are showing great signs of progress, however fragile.

This AdCom, informed by the Paris Agreement and related decisions, provides information on the national circumstances that underpin Somalia's adaptation efforts, the progress it has made on adaptation, its adaptation priorities and plans, and the support it needs from the international community. The report was informed by an extensive review of existing literature, including national documents, as well as stakeholder consultations and validation. Preparation and submission of this first AdCom to the UNFCCC is in response to the Paris Agreement, Article 7, paragraph 10. It is submitted to inform synthesis reporting for the Global Stocktake.

The climate impacts that undermine Somalia's economic and peacebuilding efforts include extreme and frequent droughts, floods, desert locusts and other extreme weather events. Key sectors affected include agriculture, water, ecosystem, energy, and human health. Responding to climate change challenges and opportunities, the federal government has developed and enacted critical climate change-relevant policies, legislative, and institutional frameworks. These include Somalia's National Climate Change Policy (2020), its Nationally Determined Contributions (2021) under the UNFCCC, the Disaster Management Policy, and the Environment Policy, among others. Climate change adaptation has also been recognized as critical to the Federal Government of Somalia's development and climate agenda, and has been included in the National Development Plan (NDP-9) 2020–2024 and the

Resilience and Recovery Framework. However, clear gaps remain in the policy and regulatory landscape. At the international level, Somalia has signed and ratified the UNFCCC and its Paris Agreement and is committed to taking measures to meet its obligations.

The country is currently in the early stage of its National Adaptation Plan (NAP) process and is implementing the NAP Readiness Project funded by the Green Climate Fund and implemented with the support of the United Nations Development Programme. This project aims to advance Somalia's adaptation planning and enhance capacities for implementation. To ensure the country maximizes the benefits of the readiness support and avoids duplication of efforts, a NAP Framework has been developed to guide the NAP process. The key principles guiding Somalia's adaptation planning and implementation are that the NAP is: country-driven; aligned with national development and peacebuilding agendas; gender responsive; participatory; inclusive; and guided by best-available science and local knowledge.

Somalia submitted its updated Nationally Determined Contribution to the UNFCCC in 2021 with elaborate adaptation and mitigation priorities. Adaptation priority actions are listed for eight broad sectors of the economy, including agriculture, water, disaster risk reduction, energy, and environment. It is estimated that Somalia requires USD 58.5 billion to implement its adaptation actions for the period 2021–2030. However, the country continues to be faced with significant financial, technical, technological, and capacity constraints. Somalia will thus require significant support, investment, and partnerships to achieve its adaptation goals in the short, medium, and long terms, and to protect its population from the negative effects of climate change.

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Abbreviations and Acronyms

AdCom	Adaptation Communication submitted to UNFCCC
CSOs	civil society organizations
DG	Director General
DINA	Somalia Drought Impact and Needs Assessment
FAO	Food and Agriculture Organization of the United Nations
FMS	Federal Member States
GCF	Green Climate Fund
INC	Initial National Communication to the UNFCCC
INDC	Intended Nationally Determined Contribution
IPCC	Intergovernmental Panel on Climate Change
LDC	least developed country
MEL	monitoring, evaluation, and learning
MoECC	Ministry of Environment and Climate Change
MRV	measurement reporting and verification
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NCCP	National Climate Change Policy
NDC	Nationally Determined Contribution under the Paris Agreement
NDP	National Development Plan
NGOs	non-governmental organization
SDGs	Sustainable Development Goals
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

1.0 Background and Context

Somalia is extremely vulnerable to climate change and variability. Much of the country's economy and people's livelihoods depend on climate-sensitive sectors, such as agriculture, grazing, water, energy, tourism, wildlife, and health, which are becoming more vulnerable to climate change. Increases in the intensity and magnitude of weather-related disasters like droughts and floods, combined with rising temperatures and more unpredictable rainfall, continue to destroy livelihoods, aggravate conflicts, increase the country's internally displaced populations, and threaten the country's socio-economic development.

Almost 69% of Somalia's population lives below the international poverty line (FGS, 2020). Additionally, the country has experienced over two decades of conflict and fragility, limiting the capacity of the government to effectively respond to the growing impacts of climate change. Climate impacts and conflicts double existing threats to Somali people's food and water security, productive livelihoods, health, and human development. Interactions between the two also create a vicious cycle: conflict increases climate vulnerability among the population, while climate impacts exacerbate tensions and conflicts over natural resources. This all presents significant challenges to the population, including those displaced by both violence and extreme weather events. All of these challenges are underpinned by gender and social inequalities: women and youth, who make up more than half of Somalia's population, are extremely vulnerable to climate change and are more likely to experience poverty, making it difficult for them to recover from climate change impacts (FGS, 2013). Adequately addressing these challenges will require an inclusive and gender-responsive approach to climate action.

The country faces the challenge of rebuilding its state institutions in a recurring and protracted conflict, predominantly concentrated in the southern part of the country. Thirty years of conflict have fragmented the country, destroyed legitimate institutions, and created widespread vulnerability. This, coupled with climate-related disasters, has undermined investment in key sectors such as agriculture, water and infrastructure, further exacerbating poverty. In fact, Somalia's National Development Plan (NDP) recognizes climate variability, climate-related disasters, and conflict as key root causes of poverty that must be addressed.

Since the adoption of a new constitution in 2012, Somalia has made great strides not only in terms of stability but also institution building, including the establishment of political, social, environmental, and economic systems that are showing great signs of progress, despite their continued fragility. The country is gradually transitioning from insecurity and emergencies toward peace and stability, paving the way for the development of long-term policies and strategies to achieving sustainable development. This progress presents an opportunity to align the National Adaptation Plan (NAP) process with the government's continued efforts to support national development and peacebuilding in the country.

The National Development Plan (2017–2019) and the subsequent NDP-9 (2020–2024) lay the foundation for plans and policy developments aimed at achieving socio-economic transformation in a sustainable and gender-sensitive approach. To address the climate change threat, Somalia has developed several policies, including its National Adaptation Programme of Action (NAPA) (Federal

Government of Somalia, 2013), Somalia's Resilience and Recovery Framework (RRF), and the National Climate Change Policy (2020).

Beyond policies and plans, Somalia is also implementing a number of climate change adaptation projects highlighted in Annex I of this report. The United Nations Development Programme (UNDP)-funded Green Climate Fund (GCF) NAP Readiness Project will play an important role in strengthening capacity and coordination at the national and state levels for the planning and implementation of climate change adaptation in Somalia. As Somalia gradually transitions from insecurity and emergencies to peace and stability, the NAP process is seen by the government as an opportunity to align climate change planning with the national development and peacebuilding agendas in the country. The NAP is also designed to address the priorities outlined in the Nationally Determined Contribution (NDC) and is consistent with Somalia's NDP-9. This will require that any actions around the NAP are aligned with broader national efforts to rebuild the country after decades of civil strife and instability.

Through its NAP process, Somalia aims to develop a blueprint for adaptation and the coordination mechanisms and institutional requirements for climate adaptation in the country. The NAP process, led by the Ministry of Environmental and Climate Change, is still in its early stages. A NAP Framework was developed in 2021 to guide the country's NAP process. The Framework, developed through extensive consultation with stakeholders, provides a vision, guiding principles, and general approach that the government will take as it initiates its NAP process.

In line with the Paris Agreement and relevant decisions of the Conference of Parties (UNFCCC, 2018) and considering the utmost importance of adaptation, the Federal Government of Somalia submits its the first AdCom to the UNFCCC Secretariat to inform the first Global Stocktake and to facilitate enhanced action.

2.0 National Circumstances

2.1 Location and Demography

Somalia is located in the Horn of Africa region and borders Ethiopia to the west, the Gulf of Aden to the north, and Kenya to the southwest. Somalia's 3,333-kilometre coastline is the longest in mainland Africa and endows the country with considerable marine resources.

Figure 1. Map of Somalia



Source: Mapsland, 2022

Somalia has a population of about 14.3 million, of which about 60% are nomadic and semi-nomadic, and 60% live in rural areas (FGS, 2020). Like many countries in sub-Saharan Africa, Somalia's population is predominantly young, with an estimated 75% under the age of 30 and nearly 50% under the age of 12. Women make up just over half (50.14%) of the population. Life expectancy at birth is estimated to be 58.3 years for both men and women. The average number of people per household is about six. According to the 2017–2018 Somalia High Frequency Survey, Somalia is also rapidly urbanizing, with 40% of its population living in urban areas, including Mogadishu. Nomads make up 26% of the population, and farmers make up 23%.

It is estimated that 69% of Somalis live under the international poverty line of USD 1.90 a day (FGS, 2020). Disaggregated data, along with the levels of severity of poverty, indicate that internally displaced persons (IDPs) and the rural population (both agro-pastoralists and nomads) have the highest rates of monetary poverty. An additional 10% of the population lives within 20% of the poverty

line, making almost 80% of the entire Somali population vulnerable to external shocks such as natural disasters, conflict, and economic disruption, however small.

Somali households are mainly headed by men. About 81.3% of households are headed by men, and women lead 18.7% of households. Households with children as heads account for 0.2% of households, single-parent households account for 12.4%, and 66% of them are women (FGS, 2020). Nomadic and rural communities have the highest proportion of households headed by men, at 92.9% and 81.3%, respectively. Compared to nomads and rural communities, urban and refugee camps have a lower percentage of households headed by men, at 77.6% and 75.6%, respectively (FGS, 2020).

Much work remains to be done to achieve gender equality in Somalia. According to the UNDP *Gender in Somalia* brief (2014), Somalia's gender index was 0.776 in 2014 (up to 1 indicates complete inequality). This puts Somalia in fourth place in the world. The report also states that Somalia continues to be a highly unequal society in terms of income, gender, and geography. Climate change and gender inequality are inextricably linked. Meanwhile, climate change has slowed progress toward gender equality and poses challenges to poverty reduction efforts. Gender inequality, on the other hand, can exacerbate the effects of climate change (AfDB, 2011).

2.2 Climatic Conditions

Arid and semi-arid areas account for more than 80% of Somalia's land and are characterized by extreme weather patterns such as high average surface temperatures, long-term droughts, very unstable rainfall, and strong winds. Rainfall in Somalia is generally light and volatile, with an average annual rainfall of about 250 mm. The plains of the North Sea are very hot and dry, with an average annual rainfall of less than 250 mm, while the South Sea average is about 400 mm, and the Southwest Sea 700 mm. Rainfall in the central semi-arid region of the country is only 50 to 100 mm/year. Some small areas along the coastal zone of Somalia are classified as sub-humid (FGS, 2013).

The country has two rainy seasons, Gu (April to June) and Deyr (October to December), and two dry seasons, Hagaa (July to September) and Jilaal (January to March). The population relies on long Gu rains and short but important Deyr rains for agricultural production, pasture regeneration, and replenishment of rivers, dams, and groundwater supplies. Traditionally, Gu was the main rainy season. However, long rains are declining overall, affecting the frequency of droughts and floods across the Horn of Africa. Historical trends indicate that droughts occur regularly in Deyr at intervals of 2–3 years and in consecutive seasons of Deyr and Gu at intervals of 8–10 years. This can lead to serious seasonal difficulties, and the situation is getting worse. The country is increasingly suffering from repeated droughts due to climate change and variability ([World Bank](#)).

2.3 Socio-economic Characteristics

Despite the devastating effects of the civil war and the 2016–2017 drought, Somalia's economy is estimated to have grown 2.5% in 2017, and Somalia's gross domestic product (GDP) grew 2.8% in 2018 (FGS, 2020). The economy relies heavily on livestock, remittances, remittance companies, and telecommunications. After growing at only 2% per year over the last 4 years, GDP per capita in 2017 was estimated at only USD 446 (World Bank, 2018). In 2016 alone, remittances were estimated at USD 1.2 billion to USD 2 billion, or 23% to 38% of GDP (World Bank, 2018). Remittances increase household income and provide cushioning against shocks, but they are not only vulnerable to diaspora patterns

that change as new generations emerge but also mitigate the risks of the international financial system (FGS, 2020).

Agriculture and livestock continue to dominate the economies of Somalia's provinces and autonomous regions, accounting for about 65% of GDP and employment. Livestock accounts for about 40% of GDP and more than 50% of export revenue (FGS, 2020). Other major products of the economy are fish, charcoal, and agricultural products such as bananas, sugar, sorghum, and corn. According to the Central Bank of Somalia, total imports of goods average about USD 460 million annually, which stands above the levels prior to the 1991 civil war. In addition, annual exports of approximately USD 270 million exceeded the total pre-war export value (before 1991). But it still brings about USD 190 million in trade deficit annually (AfDB, 2013).

The Somali economy is dominated by the informal sector, based on an international trade network managed by a group of wealthy businessmen. Most of the population lives on a self-sufficient level and is active in small businesses as traders and producers of cattle and grains. The private sector has demonstrated resilience and vitality in areas such as telecommunications, livestock, finance, water, electricity, and fisheries. Private telecommunications companies offer wireless services in most major cities, offering the lowest international calling rates on the continent. In addition, the large Somali diaspora community has played an important role in injecting large amounts of money into the economy by leveraging a strained banking system.

3.0 Policy, Legal, and Institutional Frameworks

3.1 Policies and Legal Frameworks

Somalia has made great strides in recent years in developing policy, legal, and institutional frameworks related to climate change and the sustainable management of natural resources. The **National Development Plan NDP-9 (2020–2024)** lays the foundation for climate change plans and policy developments aimed at achieving socio-economic transformation using a sustainable and gender-sensitive approach. Climate change is mainstreamed into the economic development pillar of the NDP, with an emphasis on enhancing adaptation and building the resilience of the agriculture and livestock sector to the challenges posed by climate change. NDP-9 outlines priority interventions in all climate-vulnerable sectors of the economy that are needed to prevent and respond to the climate crisis and its effects. These include investments in water management investments, social protection, and renewable energy for Somalia.

Somalia's **National Climate Change Policy (2020)** provides governments with strategic directions for climate change, especially adaptation and mitigation. This policy includes sectoral laws and policies that provide a legal basis for specific activities that need to be evaluated for potential improvements to address climate change challenges and improve their ability to seize new opportunities. This policy enables better coordination of domestic climate protection activities and facilitates cooperation and cooperation opportunities between national and quasi-national governments as well as with development partners and both international and regional agencies. Similarly, this policy sets out a national vision and policy that recognizes the importance of climate change, international agreements, and domestic commitments to climate change.

The **National Environment Policy (NEP) (2020)** supports the country's overall sustainable development agenda. The NEP provides the necessary government policy toward its climate change response, in particular how this relates to the protection of biodiversity, waste management, clean technology, and adaptation to climate change.

Somalia's Updated **NDC (2021–2030)**, developed in the context of the Paris Agreement, signals the country's commitment to a low-emission and climate-resilient sustainable development pathway. The updated NDC considers adaptation a high priority due to the vulnerability of Somalia's economy and population to climate change-related shocks. Climate change adaptation priorities in Somalia from 2021 to 2030 are based on adaptation baseline assessments and on Somali national and local adaptation plans and policies.

The **NAP Framework (2022)** aims to address and coordinate Somalia's medium- to long-term adaptive needs in a coherent and coordinated manner to guide and advance the Somali NAP process. This framework details the vision, approach, themes, and guiding principles of the Somali NAP process. This is intended to ensure that the NAP process does not contribute to the proliferation of planning processes and related documents, but it can build the momentum needed for the NAP process and maximize the benefits from adaptation projects.

The **Somali National Disaster Management Policy (2018)** aims to build community resilience and readiness for disasters and emergencies. This policy aims to create a legal framework for disaster management within national institutions while strengthening the coherence and coordination of humanitarian assistance from international partners and donor organizations. It also provides guidelines for incorporating disaster risk reduction into the national development planning process and outlines prioritized investments in disaster risk reduction, early warning, mitigation, and recovery. This policy outlines the institutional support needed and provides an entry point for leveraging the synergies between disaster risk mitigation and climate change adaptation by developing a project pipeline.

The **Somalia Resilience and Resilience Framework (RRF) (2018)** helps Somalia progress from early drought recovery to long-term resilience and mitigation of disaster risk, with vulnerabilities caused by frequent climate-related issues. It aims to break the cycle of humanitarian crisis. The 3–5-year framework is primarily aimed at facilitating a more efficient financial response by the Somali government and its development and humanitarian partners, using current funding methods and aid coordination structures. The RRF prioritizes areas and outcomes in agriculture, food, water, sanitation and hygiene (WASH), education, transportation, the environment, social protection, gender, governance, and disaster management.

Other relevant policies and plans include:

- Integrated Water Resources Management Strategic Plan 2019–2023
- National Voluntary Land Degradation Neutrality Targets (2020)
- The National Biodiversity Strategy and Action Plan (2015)
- National Food Security and Nutrition Policy (2020)
- The UN Strategic Framework Somalia (2020)
- National Drought Plan (2020)
- National Water Resource Strategy 2021–2025
- Somalia National Action Programme for the UN Convention to Combat Desertification (2016)

3.2 Institutional Arrangements and Governance

The National Climate Change Policy (2020) identifies the following institutions that play an important role in climate change response in Somalia:

Ministry of Environment and Climate Change (MoECC)

The Ministry of Environment & Climate Change (MoECC) was established in August 2022 by the new Federal Government of Somalia to enhance the country's environment and climate change response. The Ministry provides overall policy coordination and guidance on the environment and climate change and acts as the focal institution for all multilateral and regional environmental agreements. The ministry will play a critical role in setting up effective strategies for protecting, managing, and preserving natural resources and allocating budgets to develop awareness and knowledge among citizens on the importance of the environment and climate change and coordinate relevant actions by federal sector ministries and Federal member states. The Ministry replaced the Directorate of

Environment and Climate Change under the office of the deputy Prime Minister. The Ministry is expected to further elaborate the enhanced institutional coordination structures building on those created under the directorate.

Federal Member State Governments

Somalia's federal system has established six federal member states (FMS) and one special status region: Galmudug, Hirshabelle, Jubaland, Puntland, Somaliland, Southwest State and the special region of Benadir. The FMSs have mandates and responsibilities over natural resources and local environmental issues and oversee policy development and implementation in their respective regions. Each FMS has a Ministry of the Environment responsible for environment and climate change matters.

Sectoral Ministries

The National Climate policy recognizes that climate change is a multi-sectoral effort and success depends on the cooperation of government agencies/ministries responsible for various aspects of the environment. The MoECC at the federal level is delegated to provide oversight and coordination of all environmental issues.

National Climate Change Committee

The National Climate Change Committee is a high-level policy coordinating committee of multiple stakeholders responsible for overseeing the overall implementation of climate change activities in Somalia. It consists of the Prime Minister (or Deputy Prime Minister), the Director of the Department of Environment and Climate Change, the Directors of ministries and agencies, the Ministers of the Environment of Member States, the private sector and Civil Society representatives.

Cross-Sectoral Committee on Climate Change

The Cross-Sectoral Committee on Climate Change brings together officials from all departments of the government working on climate change to share information and knowledge, consult, coordinate, and agree, on the government's response to climate change. It is chaired by the Minister of Environment and Climate Change.

Centre for Climate Change Research

This is a new Centre for Climate Change Research to be established to facilitate climate change research, coordinate interdisciplinary research on climate change mitigation and adaptation, vulnerability, and prediction, and disseminate research results to all interested parties.

Non-state Actors

Recognizing the important role of civil society in climate change governance in Somalia, the government is working to establish mechanisms to strengthen the role and participation of civil society organizations (CSOs). Similarly, Somalia's private sector is making progress in making various environmental and climate-related investments, and the government engages them in climate change debate and policy implementation.

Despite the ongoing development of regulatory and proposed institutional frameworks, the country continues to face challenges related to its technical capacity to respond effectively to climate change. These challenges include inadequate and unskilled staff, a low level of climate and disaster management skills and staff knowledge, insufficient knowledge- and information-management skills, inadequate physical assets and infrastructure, and limited financial resources, among others. The country also lacks adequate operational coordination mechanisms for climate change, and there are only weak links between MoECC and other government structures and sectors which hamper efforts to address environmental and climate challenges. Overall, the ability of Somali government agencies to function effectively and the overall capacity of Somali government institutions to effectively and holistically address climate change remain limited, and this requires support.

4.0 Climate Change Impacts, Risks and Vulnerabilities

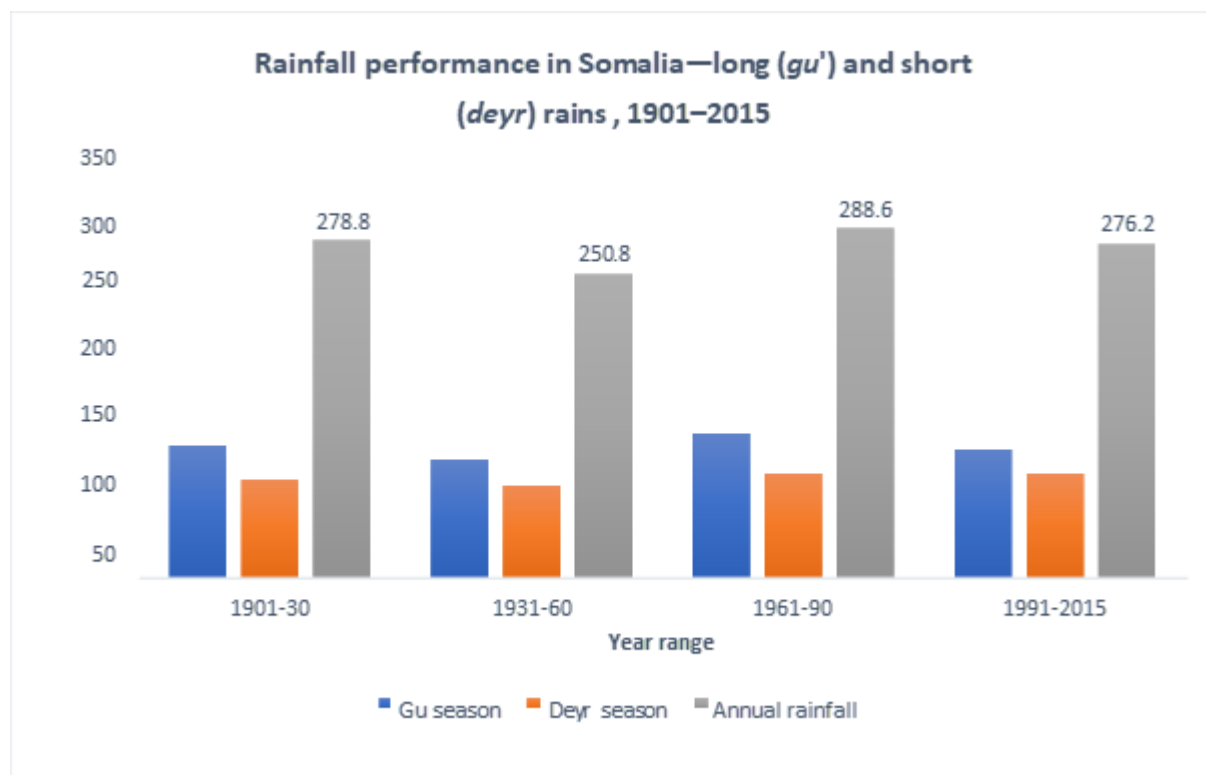
4.1 Climate Trends and Impacts

Somalia lies between two subtropical ridges, the main meteorological pattern of which is caused by seasonal monsoon winds. Due to differences in average national precipitation distribution, the north is dry and semi-dry, and the south is moist. The predominantly hot and dry climate is suitable for livestock, and some areas, such as those along the Juba and Shovel rivers, support farming. The Intertropical Convergence Zone, monsoon winds and currents, Somali jet streams, tropical cyclones, eastern waves, and the conditions of the adjacent Indian Ocean and Red Sea all affect Somalia's climate patterns to varying degrees (Troll et al., 2017).

4.1.1 Rainfall Patterns

Somalia's rainfall patterns for both the long (*gu'*) and short (*deyr*) rains from 1901–2015 indicate no significant changes in rainfall amounts received (World Bank, 2020). However, other evidence points to decreased precipitation associated with climate variability, especially in the last few decades, with severe consequences for livestock and agricultural production in the country.

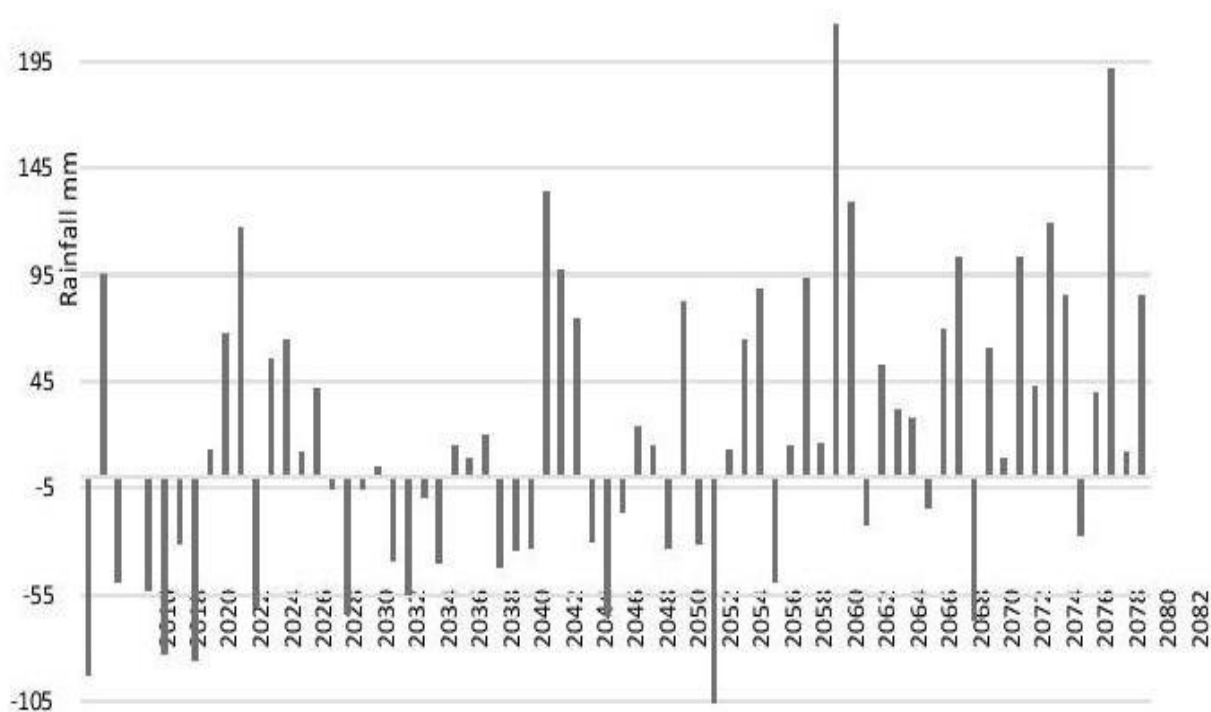
Figure 1. Rainfall performance in Somalia, 1901-2015



Source: FGS, 2021- Somalia Adaptation Baseline report 2020.

Projected rainfall patterns over Somalia from 2016 to 2085 point to increased rainfall variability, with mean annual rainfall expected to rise by 3% by 2050 and 4% by 2080 (World Bank online portal). This will have negative implications for Somalia's fragile agriculture sector, which remains dependent on predictable rainfall patterns. Also, the projections indicate potential seasonal rainfall variability (both *Gu* and *Deyr*), especially for Central and Southern Somalia (Ogallo et al., 2017).

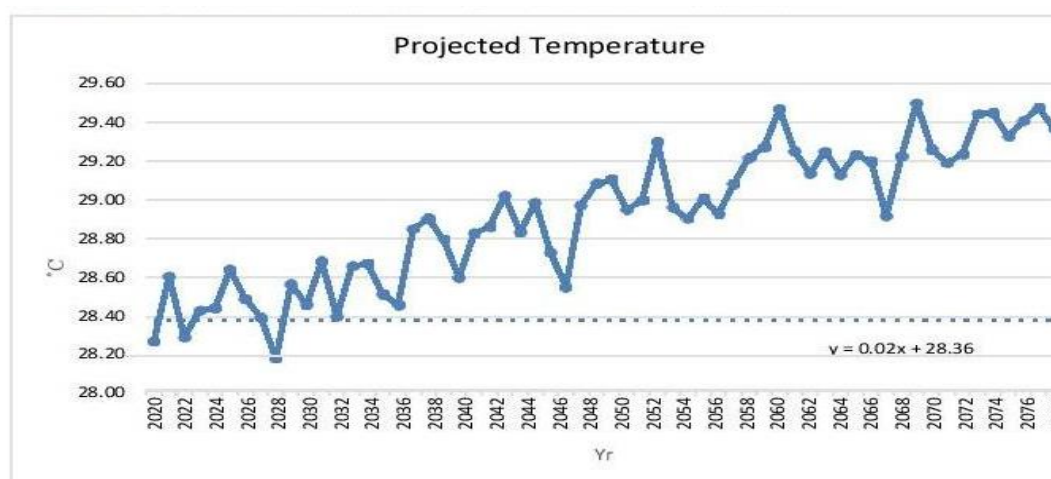
Figure 4. Projected annual average rainfall anomalies (2016–2085)



4.1.2 Temperature Patterns

Over the last 30 years, Somalia has experienced an increase in average annual temperature. The average annual temperature is almost 30°C nationwide, which has a great impact on the agricultural and pastoral communities. Increased minimum and maximum temperatures have been experienced in the Lower Juba region of Somalia, aggravating the problems for poor households in an already-vulnerable region through increased shortages of water and pasture and increased desert locust infestation, with increased temperatures also favouring the faster breeding of disease vectors.

Projections indicate that Somalia is likely to experience increased temperature fluctuations over the next 50 years (World Bank online Climate Change portal). By the year 2080, the mean temperature over Somalia is projected to increase between 3°C and 4°C, a significant rise that will have serious implications for the agriculture and livestock sector, affecting countless livelihoods and foreign exchange earnings. Also, other critical sectors, including water, health, disaster risk management, and environment, and vulnerable populations such as women, children, and IDPs, risk experiencing extended droughts, intermittent floods, storms, and diseases, among other climate shocks, further increasing vulnerability in the country (Ogallo et al., 2018).

Figure 5. Projected annual average temperature (2020–2076)

4.1.3 Recurrent and Severe Droughts

More than 80% of Somalia is made up of fragile arid and semi-arid ecosystems that make the country very vulnerable to climate change impacts. Somalia has been experiencing recurrent droughts for the last 60 years, and their frequency and severity have been on the rise, especially in the last few decades.

Historically, drought trends in Somalia occur every 2 to 3 years during the Deyr season (October–December) and 8 to 10 years during the Deyr and Gu consecutive seasons (April–June). This has prolonged the seasonal difficulties for millions of people who depend on rainfed agriculture, livestock, and fishing (FGS, 2018). The report further elaborates that between 1918 and 1975, only 10 major droughts were registered in Somalia with significant escalation experienced in the last three decades, although droughts also occurred in 1979–80, 1983–86, and 1989–1990 leading to loss of life, livelihoods, and displacement.

The 1992 famine killed nearly 300,000 people in Somalia, with the majority being children that died because of malnutrition and starvation. Hundreds of thousands were also forced to migrate (Clark, 1992). Other severe droughts occurred in 1999, 2001, 2004, 2010–2011, the latter being one of the worst droughts in the Horn of Africa for over 60 years, killing more than 250,000 people, mostly children under the age of 5 and resulting in the destruction of livelihoods, particularly in the agriculture and livestock sectors (FGS, 2018).

This resulted in a humanitarian catastrophe; a massive increase in the number of people unable to meet their basic needs to survive. The drought pushed nearly a million Somalis into Ethiopia and Kenya, creating a humanitarian crisis in the refugee camps within the host countries also devastated by the famine. The crisis was exacerbated by ongoing conflict in Somalia and subsequent delayed humanitarian actions, leading to a massive loss of life (Seal & Bailey, 2013).

The 2016–2017 drought resulted in a shortage of water for livestock and agricultural production thus leading to loss of livestock and crop production (FGS, 2018). The drought extended to 2018, exacerbating food insecurity and malnutrition, especially among children under 5 years. In 2019, Somalia experienced another drought, which reduced crop and livestock productivity in the country. In 2020 Somalia witnessed floods and droughts in different parts of the country coupled with insecurity, a swarm of desert locusts, and the COVID-19 pandemic, undermining overall food security

targets in the country. The country is currently experiencing prolonged droughts—the worst in 40 years—which have affected millions of people.

4.1.4 Flooding

Somalia has been experiencing climate extremes since the 1960s, leading to destruction and loss of lives. Climate change-related floods were experienced as early as 1961, 1977, 1981, 1997–98, 2005, 2006 and 2009, 2011, 2013, 2015, 2016, 2018, and 2019 (Federal Government of Somalia, 2013; Food and Agriculture Organization of the United Nations [FAO] SWALIM, 2019). Floods occur in many parts of the country, especially in the heavy rainy season, but mostly in the Gu rainy season, especially in the central Shabelle and Hiran regions. This resulted in massive migration, loss of life, and destruction of infrastructure. The increased frequency of floods is of significant concern, with flooding increasingly wreaking havoc in different parts of the country.

Heavy rains in 2016 in both Somalia and Ethiopia, for example, caused massive flooding, affecting many people in the Belet Weyne and Hiran regions, leading to the loss of livelihoods, infrastructure, and livestock (UN OCHA 2021). In 2018, torrential rains and river flooding were estimated to have affected more than 770,000 people and displaced 230,000 persons from their areas of residence, with residents of Belet Weyne town accounting for the majority of the displaced (UN OCHA, 2021).

4.1.5 Cyclones

Somalia experiences tropical cyclones once a year, with serious implications for areas along the long coastline. Heavy rains and strong winds cause flash floods along the coast and inland. These cyclones have resulted in increased mortality and destruction. For example, [Cyclone Gati](#) landed in the Bari region of Puntland in November 2020, affecting 120,000 people, expelling and killing many. Cyclones also caused livelihood damage, livestock deaths, building and infrastructure damage, and farm and fishing gear damage.

4.2 Climate Change and Sector Impacts

Climate change undermines basic livelihood sustainability and threatens household food security, access to water, gender equality, health, and has other socio-economic impacts. Women, children, IDPs, and poor rural populations make up the majority of those most vulnerable to sectoral climate change impacts in Somalia. Climate shocks, especially extended droughts and floods, exacerbate existing vulnerabilities and marginalization of these groups, leading to more disparities. Drought exposure for long periods continues to undermine the limited adaptive capacities of the vulnerable groups—especially women, who have limited social capital. Instability and conflicts exacerbate these challenges.

Without proper adaptation measures, the projected rise in rainfall and temperature will continue to undermine the safety of Somalia's ecosystems and human health (Lobell et al., 2007). The need to strengthen Somalia's ability to cope with disasters such as long-term droughts, floods, storms, and desert locusts is important for implementing national development plans within a defined timeline (IUCN, 2006). Below is a brief description of the effects of climate change on the country's vulnerable sectors.

a. Agriculture

Agriculture (crop, livestock, and fisheries) continues to be the backbone of the Somali economy, accounting for more than 75% of GDP and employing millions directly and indirectly, especially in rural areas (Mohamed & Nageye, 2020). Livestock is the largest contributor to livelihood in Somalia, which is based on pastoral and agro-pastoral systems. Due to its dependence on predictable rainfall patterns and favourable temperatures, the sector is very susceptible to climate variability. Somalia's agricultural production faces many challenges in addition to the variability of rainfall, including repeated droughts, continuous soil degradation, frequent pest outbreaks, and lack of effective research and extension services. These issues can result in decreased pasturelands, limited water storage capacities, the death of livestock, decreased productivity, reduced incomes, massive crop failures, food insecurity, and loss of livelihoods.

b. Water

Climate change-related seasonal and annual rainfall variations increasingly hamper access to freshwater resources, leading to water shortages for livestock, agriculture, and human consumption. These increased water shortages often exacerbate conflict over access and control of water points, especially among pastoral communities during drought periods. Overall, climate change impacts the water sector by reducing the quantity and quality of available water, including through floods and sedimentation, resulting in higher costs for fresh water in both urban and rural areas of Somalia (Akkaraboynia & Adem, 2018). Women and girls are especially vulnerable. They are forced to travel long distances in search of water and food for their families, depriving them of educational opportunities and improving food security for families facing climate change (Lwanga-Ntale & Owino, 2020).

c. Health

Health-related vulnerabilities to climate change is determined by environmental, economic, and societal contexts. These include: climate conditions, health system infrastructure, disaster risk preparedness and mitigation mechanisms, and general socio-economic resources as well as individual factors such as education, income, and health status. Climate change continues to exacerbate Somalia's existing health problems, shifting much of the burden to vulnerable people, who are forced to deal with climate-related health problems, including infectious diseases, such as malaria and malnutrition.

Climate change impacts on the public health sector in Somalia are particularly challenging given the destruction of much of Somalia's health infrastructure and the challenges faced by the government, non-governmental organizations (NGOs), and health sector partners in meeting public health needs, which exposes vulnerable populations to a high disease burden and malnutrition cases. During drought periods, a significant majority of the population faces household food insecurity, leading to increased malnutrition, mostly among lactating mothers and children under 5 years of age. Riverine and agro-pastoralist groups and IDPs register a higher nutritional vulnerability to climate change-related shocks—floods, drought, displacement, and disease outbreaks—in comparison to urban dwellers. Furthermore, the lack of reliable water supply and sanitation services increases the risk of infectious diseases, such as cholera, diarrhea, acute respiratory infections, typhoid fever, and measles.

d. Biodiversity

Climate change has significant implications for many aspects of Somali biodiversity, including its impact on ecosystems, their components, genetic diversity within species, and ecological interactions. Somalia's biodiversity is characterized by a number of drought-adapted flora, including deciduous acacia and *Komifora* species, and undergrowth species such as Euphorbiaceae and aloe. Climate change destroys people's livelihoods and, compounding the challenges associated with the country's civil conflict, increases pressure on forests, wetlands, and other critical ecosystems to meet needs such as access to water, firewood, charcoal, medicinal plants, and construction materials, among others. In addition, changes in temperature and precipitation rates are leading to increased numbers of pests and pathogen infestation, flooding, soil erosion and loss of nutrients, illegal hunting for bush meat, wildlife migration, reduced aquatic reproduction, and productivity of habitat, all of which threaten biodiversity and the extinction of local species.

e. Forestry

Somalia has between 6.4 million and 7.1 million hectares of forest resources, covering about 10% of the country's territory. Most of these are classified as sparse forests, with closed forest coverings accounting for less than 3% of the area, emphasizing the arid nature of Somalia's geography (FAO, 2015). Before the onset of the country's civil conflict, total forest cover was estimated at 62% of Somalia's landmass—a precipitous decline over the past 30 years. The most critical vegetation in the country includes tree and woody species used during extended drought periods, throughout which they support the livestock sector's drought and risk management strategies (FAO 2015). Annually, Somalia has lost about 1% of its forest cover due to overexploitation, weak governance, and poor enforcement mechanisms coupled with climate change-related droughts that undermine overall forest density growth, increase the risk of bushfires, and raise the risks of desertification. This leads to reductions in the already-fragile woody cover and subsequent degradation of forest ecosystems in Somalia. Soil erosion is also contributing to declining forest productivity, as are climate change-related floods, desert locust infestations, and storms.

f. Energy

Over 80% of Somalia's population depends on biomass for their energy needs, namely charcoal and firewood (AfDB 2015). The high dependence on biomass energy is the key driver for deforestation in the country, further exacerbating climate change impacts. Poor rural populations directly depend on the natural environment to access firewood, building materials, and charcoal, which puts direct pressure on Somalia's forests, reducing its critical carbon sinks. Importantly, climate change is impacting the energy sector in Somalia through rainfall variations, with changes in precipitation and increased risk of drought influencing patterns of energy and water use. Also, climate change-related flooding and intense storms continue to damage the country's vulnerable power infrastructure, affecting the overall productivity of the energy sector.

g. Coastal Marine Environment and Fisheries

The Somali coast is considered particularly vulnerable to climate change given the unique characteristics of its marine ecosystem. Marine species are exposed to extreme environmental conditions, increasing illegal fishing and overexploitation, pollution, climate-related changes in water temperature, ocean acidification, oxygen deficiency, and other factors. This has led to changes in

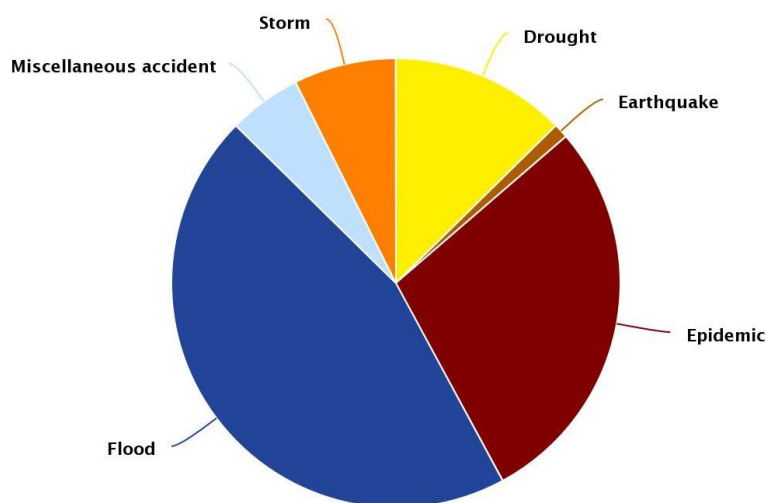
fishing patterns and species in particular resulting from sea level rise, extreme storms, and changes in ocean circulation.

Also, the sea level rise associated with climate change erodes and inundates coastal ecosystems and eliminates wetlands, threatening the livelihoods of coastal communities and destroying rich ecosystems (Jacobs et al., 2021). Climate change is resulting in coastal flooding and disruption of coastal and marine ecosystems.

4.3 Vulnerability to Climate Change

In Somalia, the effects of climate change, such as droughts, floods, pests, and storms, pose the greatest threat to the country. The chart below provides annual hazard occurrences in Somalia. Climate-related hazards such as flooding, droughts, storms, and epidemics are more frequent in the country.

Figure 2. Average annual hazard occurrences for 1980–2020 in Somalia



Source: World Bank's climate change knowledge Portal.

Factors that contribute to the country's vulnerability to climate change include high levels of poverty, political instability and related security issues, poor institutional capacity and lack of disaster preparedness, poor infrastructural development, lack of information on climate change among communities, and rising costs of living among others. Children, women, people with disabilities, the elderly, internally displaced persons, and the poor are particularly vulnerable to the effects of climate change (Federal Government of Somalia, 2013).

5.0 Priority Adaptation Actions, Plans, and Goals

5.1 Climate Change Adaptation Goals

Climate change adaptation has been recognized as critical to the Federal Government of Somalia's climate agenda through the NAPA (Federal Government of Somalia, 2013), NDP-9 (2020–2024), National Climate Change Policy 2020, RRF and—importantly—the National Adaptation Planning process. A NAP framework has been developed to guide the Federal Government of Somalia in developing, coordinating, and implementing various policies, plans, strategies, and laws that will help meet medium- to long-term adaptation needs as the country pursues development and peace building.

The primary objective of climate change adaptation actions in Somalia is to protect people, improve their adaptability and livelihoods, and protect the country's overall development toward economic progress, peace, and people's well-being. Somalia's goal is to pursue development plans and programs in which adaptation to climate change reduces vulnerability and contributes to resilient economic growth in the face of extreme climate events such as droughts and floods. Climate change affects all parts of the country, so the solution requires the participation of all stakeholders. In addition, Somalia's response to climate change aims to integrate measures to empower women and children's well-being, as well as to improve the well-being of the elderly, disabled, and displaced. In the short term, the goal is to build the capacity needed to mainstream climate change adaptation into all public and private development initiatives. These efforts are built on current best practices for integrating and scaling up these interventions.

5.2 Priority Adaptation Actions by Sectors

As described in its NDC, Somalia aims to enhance adaptive capacity, strengthen resilience, and reduce vulnerability to climate change through mainstreaming climate adaptation into sustainable development. The priority areas for climate change adaptation in Somalia from 2021 to 2030 are informed by technical assessment and based on Somalia's national and sub-national adaptation plans and policies, including the National Development Plan 2017–2019 and the subsequent NDP-9 (2020–2024), and the NAPA (2013) that provide a climate change adaptation strategy and a plan. Somalia aims to improve adaptive capacity, strengthen resilience, and reduce climate change vulnerability by integrating climate adaptation into sustainable development (FGS, 2021). Somalia's 2021–2030 climate change adaptation priorities are based on technical assessments, NDP-9 (2020–2024), NAPA (2013), and other sectoral policies and plans.

In addition, the country has begun its NAP process and will prepare a detailed NAP document to further elaborate on medium- to long-term adaptation priorities. NAP will be the primary guide tool for implementing national adaptation priorities. It provides a reference point for summarizing diverse adaptation planning efforts from different sectors and scales of decision making. Alignment between the NAP process and existing policies and strategies—including on adaptation with peacebuilding, conflict, and gender equality—is essential. Key other principles elaborated in the NAP Framework

include gender-responsive adaptation planning and implementation as well as consistency with ongoing peacebuilding efforts.

As shown in the table below, the main priority areas for adaptation actions and resilience investment for the country are as follows: agriculture and food security; water and public health; disaster preparedness and response; coastal and marine environment and fisheries; energy; forestry and environment; human settlements; and infrastructure.

Table 1. Priority adaptation actions identified under Somalia's Updated NDC

#	Proposed adaptation actions	Estimated investment required (USD, 2021–2030)
1.	<p>Agriculture and food security</p> <p>1.1 Livestock sector</p> <p>1.1.1 Strengthen livestock institutions at FMSs levels and enhance capacities of staff on climate change</p> <p>1.1.2 Improve the livestock value chains</p> <p>1.1.3 Build livestock market sheds in the main cities</p> <p>1.1.4 Support development of Livestock strategies and policies</p> <p>1.1.5 Reopen central veterinary laboratories in Mogadishu and invest in veterinary services to address climate-related diseases</p> <p>1.1.6 Development necessary infrastructure to increase resilience</p> <p>1.1.7 Restocking program for pastoralists & agro-pastoralists</p> <p>1.1.8 Promote weather-based insurance products for pastoralists</p> <p>1.1.9 Establish disease-free zones to enhance quality for export of livestock products</p> <p>1.1.10 Improve animal productivity and animal breeds to increase resilience to climate change</p> <p>1.1.11 Implementing feed and fodder production and sustainable rangeland management program to reach livestock feed security system to mitigate prolonged recurrent drought</p> <p>1.1.12 Improve access to weather information services</p> <p>1.2 Crop production</p> <p>1.2.1 Establish agricultural institutions to research drought-resistant crop varieties</p> <p>1.2.2 Provision of seeds and seedlings that are drought resistant to farming communities</p> <p>1.2.3 Put in place climate-responsive policies and regulatory frameworks</p> <p>1.2.4 Develop irrigation systems, including dams, channels, and water reticulation systems</p> <p>1.2.5 Improve and establish marketing systems and infrastructure for farming communities, e.g., cooperatives and cooling systems for perishable goods</p> <p>1.2.6 Build marketing facilities and infrastructure for crops and livestock in urban centres</p>	USD 20 Billion

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	<p>1.2.7 Support small and medium-sized enterprises to promote value addition of the crop and livestock products, e.g., cooling facilities</p> <p>1.2.8 Promote weather-based insurance products for farmers and pastoralists</p> <p>1.2.9 Invest in veterinary services to address climate-related diseases</p> <p>1.2.10 Establish disease-free zones to enhance quality for export of livestock products</p> <p>1.2.11 Build adaptation capacity in climate-resilient agronomic practices for smallholder farmers</p> <p>1.2.12 Improve animal productivity and animal breeds to increase resilience to climate change</p> <p>1.2.13 Manage grazing areas and rangelands in a sustainable manner and enhance the development of livestock infrastructures and services, including feed storage</p> <p>1.2.14 Improve access to agro-weather information services</p>	
2.	<p>Water resources management and public health</p> <p>2.1 Conduct assessment of the water system</p> <p>2.2 Enhance water conservation and management through better institutional arrangements</p> <p>2.3 Establish and maintain strategic water reserves, from mega-dams to shallow wells, to capture runoffs</p> <p>2.4 Develop solar-powered boreholes</p> <p>2.5 Invest in basic and portable water supply for households</p> <p>2.6 Construct and operationalize water pans</p> <p>2.7 Promote rainwater harvesting and conservation of water, including improved water use efficiency</p> <p>2.8 Develop drainage and storm water systems in urban centres, especially Mogadishu, Baladweyne, Jowhar, and Kismayu</p> <p>2.9 Implement an integrated water resources management strategy</p> <p>2.10 Launch public health awareness campaign, targeting rural areas on climate change effects and public health-related issues</p> <p>2.11 Establish and operationalize public health facilities in rural areas</p>	USD 15 Billion
3.	<p>Disaster preparedness and management</p> <p>1.1 Establish effective early warning systems and disaster risk management policies to improve resilience to extreme weather events</p> <p>1.2 Establish meteorological networks to enhance early warning systems</p>	USD 10 Billion

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	<p>1.3 Development of necessary infrastructure to increase the resilience of communities, infrastructure, and ecosystems to droughts and floods</p> <p>1.4 Promote enhanced disaster coordination and information-sharing between relevant ministries and stakeholders</p> <p>1.5 Establish disaster-response systems for the country, including facilities and settlements for IDPs</p> <p>1.6 Strengthen the adaptive capacity of the most vulnerable groups, including women, children, elderly persons, and IDP communities, through social safety nets</p> <p>1.7 Extend livelihood support for the vulnerable groups</p>	
4	<p>Coastal, marine environment, and fisheries</p> <p>4.1 Develop and implement coastal zone policy, strategy and management plan</p> <p>4.2 Improve capacity for fishers in terms of equipment, nets, and boats</p> <p>4.3 Support the private sector to establish cooling systems for coastal areas, including appropriate equipment for storage and transportation of goods</p> <p>4.4 Invest in value addition for fisheries</p> <p>4.5 Enhance the resilience of the fisheries value chains by promoting climate-smart fisheries development</p> <p>4.6 Promote livelihood diversification within coastal communities and promote community conservation efforts</p> <p>4.7 Improve monitoring and early warning systems of both sea level rise impacts and extreme weather events</p> <p>4.8 Design and implement a mangrove and shoreline restoration program</p> <p>4.9 Strengthen key fisheries management services for sound development and resilient management of the fishery sector</p> <p>4.10 Invest in research and development in the sector and establish appropriate training centres</p>	USD 3 Billion
5.	<p>Energy</p> <p>5.1 Enhance energy investments to adopt diversified, adaptive energy technologies for sustained livelihoods</p> <p>5.2 Develop national grid systems and increase the generation capacity to address the widespread energy poverty</p> <p>5.3 Increase production of non-forest biomass fuel briquettes, e.g., from agricultural waste, sawdust, and human waste, with emphasis on empowering women and youth</p> <p>5.4 Improve the adoption of energy-efficient kilns and cooking stoves</p> <p>5.5 Integrate climate change adaptation in energy investments and infrastructure</p> <p>5.6 Develop and adopt policy and legislative frameworks to promote clean energy solutions</p>	USD 5 Billion

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6.	<p>Forestry and environment</p> <p>6.1 Increase agroforestry and reforestation activities in degraded forests</p> <p>6.2 Enhance the participation of women and youth in activities related to adaptation and environmental conservation to empower them and enhance their adaptive capacity</p> <p>6.3 Promote climate change-resilient traditional and modern knowledge of sustainable pasture and range management systems</p> <p>6.4 Increase climate change communication, education and public awareness raising</p>	USD 300 million
7.	<p>Human settlements</p> <p>7.1 Promote a green and climate-resilient building industry</p> <p>7.2 Enhance awareness on the impacts of climate change in the context of human settlements promoting sustainable land management systems and climate-sensitive human settlement developments</p> <p>7.3 Facilitate provision of, and access to adequate, affordable and climate-sensitive shelter to vulnerable groups, including IDPs</p>	USD 200 million
8.	<p>Infrastructure including roads and bridges</p> <p>8.1 Climate-proof infrastructure developments</p> <p>8.2 Establish climate-resilient road infrastructure networks and drainage systems</p> <p>8.3 Strengthen the climate resilience of public and commercial-sector buildings</p> <p>8.4 Maintain and upgrade roads and other infrastructure with appropriate drainage systems to cope with flooding</p>	USD 5 Billion
	Grand Total	USD 58.5 billion

Source: Adopted from Somalia Updated NDC (2021).

5.3 Status of Somalia's NAP Process

Adapting to climate change is crucially important in Somalia's pursuit of sustainable development and stability. To date, climate adaptation actions in Somalia have been implemented by sector ministries, FMS, and CSOs, with support from development partners. There is, however, limited scale of implementation and coordination of actions.

The newly formed MoECC is the overall policy and technical body responsible for coordinating climate change measures and implementing climate change policies. However, MoECC's role is hampered by the lack of technical, human and financial capacity to effectively carry out its mission. This has resulted a fragmented response to climate crises and climate-related humanitarian emergencies, as well as a weak link between humanitarian response and long-term adaptation and development.

The Government of Somalia recognizes the importance of adaptation planning and the important role of its NAP in addressing these challenges. Somalia is currently in the early stages of the NAP process and is implementing a NAP Readiness project funded by the GCF and undertaken by the UNDP. The overall goal of the Readiness project is to strengthen national and state capacity and coordination for the planning and implementation of climate change adaptation in Somalia. The results of the project are as follows: First, the capacity for domestic institutional coordination and adaptation planning has improved. Second, capacity building for climate change adaptation planning at the state level. Third, strengthening financial plans for adapting to climate change (GCF Readiness Project document 2020).

Through its outcomes and results, the project aims to serve as a foundation and support the establishment of a NAP process to guide future climate change adaptation strategies and projects. The NAP report and process will identify Somalia's medium- and long-term adaptation needs and will be informed by the latest assessment and reports. To guide the NAP process, a NAP Framework has been developed that lays out the NAP's vision, guiding principles, and approach, among other things. It is designed to inform the development of Somalia's NAP process at the outset of the readiness project. Some of the priority themes of Somalia's NAP process include enhancing vertical and horizontal integration, alignment of adaptation with national development and peacebuilding processes, and that the NAP be participatory and inclusive, take a whole-of-society approach, and be gender responsive.

5.4 Linkage to Peacebuilding Initiatives

Although Somalia's security situation has improved in recent years, it remains vulnerable and the improvement could be reversed if it is not preserved and strengthened. Climate change effects, such as droughts leading to lack of water and grazing, are recognized as the main causes of conflict in the Somali nomadic community. Repeated droughts and associated environmental shocks have contributed to increased poverty, evacuation, increased biodiversity loss, and, ultimately, increased conflict (FGS, 2020).

To strengthen the sustainability of both climate adaptation and peacebuilding efforts, it is essential that conflict-sensitive, inclusive, and gender-responsive climate action is integrated into the peacebuilding and state-building efforts and vice versa. Some of the key policies on peacebuilding efforts in Somalia and the links to climate change adaptation include the National Reconciliation Framework, the National Stabilization Strategy, and the Wadajir Framework for Local Governance

5.5 Linkage With COVID-19 Preparedness and Response Plan

The Somalia COVID-19 Country Preparedness and Response Plan is a joint plan by UN agencies and cluster partners, including NGOs, to address the direct public health and indirect immediate humanitarian and socio-economic impacts of the COVID-19 pandemic. The plan recognizes climate change as a threat multiplier aggravating the already-fragile situation, increasing threats to food security and livelihoods and thus social tensions and conflicts, increases in domestic violence, human rights violations, violence against vulnerable populations, as well as inter- and intra-communal and clan violence. As the country undertakes economic recovery plans, it is essential that climate change adaptation and resilience building be incorporated into these planning and budgeting processes. This can be included in all vulnerable sectors that are also a priority in recovery efforts, including water, agriculture, and livestock, energy, and the informal sector. Additionally, it is important that international funding for economic recovery in the wake of COVID-19 be guided by Somalia's adaptation and resilience priorities.

5.6 Contributions to Other International Frameworks

Somalia's adaptation plans and actions will be designed to support the achievement of other related and complementary commitments it has made on the international stage.

Sustainable Development Goals (SDGs)– The Federal Government of Somalia's adaptation actions contribute to other international frameworks as well. The NDP 9, the NAPA 2013, Somalia's Initial National Communication (INC) (2018), the National Climate Change Policy, the NAP Framework, and the Updated NDC for Somalia all contribute to the achievement of the SDGs. The NDP 2020–2024 identifies climate change as one of the leading causes of national poverty and emphasizes climate-resistant economic growth (SDG 13 on Climate Change actions). The plan recognizes the country's vulnerabilities to climate change impacts, such as frequent and intense floods and droughts, which exacerbate displacements, conflicts, and poverty in the country. The plan recognizes those suffering from multidimensional poverty as the most vulnerable to the impacts of climate change and the need to mainstream climate change into the economic development pillar of the plan, with a particular emphasis on enhancing adaptation and building resilience in the agriculture and livestock sector (SDG 1: No Poverty, SDG 2: Zero Hunger, SDG 3: Good Health and Well-being). NDP-9 outlines priority interventions in each of the three pillars and all vulnerable sectors of the economy to both prevent and respond to the climate crisis and its effects. These include water management investments (SDG 6: Clean Water and Sanitation), social protection (SDG 11: Sustainable Cities and Communities), and investment in renewable energy for Somalia (SDG 7: Affordable and Clean Energy).

Convention on Biological Diversity – The Federal Government of Somalia is committed to its obligations under the Convention on Biological Diversity (CBD) and recognizes the important role that ecosystem-based approaches to climate change adaptation can play in helping Somalia fulfill its CBD commitments. The National Biodiversity Strategy and Action Plan for Somalia (2015) provides a strategic and action framework that aims to systematically rehabilitate and conserve Somalia's biodiversity. The synergies between climate and biodiversity agendas are of the utmost importance to secure a sustainable future. Somalia's National Environment Strategic Action 2021–2025, the Updated NDC, the NAPA, and the NDP 2020–2024 all consider the importance of biodiversity conservation and the role of adaptation in meeting the convention commitments.

Convention to Combat Desertification – Somalia developed the National Action Programme for the UN Convention to Combat Desertification in 2016 and the National Voluntary Land Degradation Neutrality Targets in 2020 to address the challenge of increasing land degradation and risks of desertification. The two documents recognize the critical role adaptation plays in meeting the target of sustainably managing Somalia's land resources.

Sendai Framework for Disaster Risk Reduction – The Government of Somalia is moving forward to fulfill its commitments under the Sendai Framework for Disaster Risk Reduction through the implementation of national disaster risk management policies and strategies. One of the major milestones achieved since the Sendai Framework for Disaster Risk Reduction was approved in March 2015 is the creation of an independent government agency, the Ministry of Humanitarian Disaster Management. Similarly, Somalia's DRR is guided by the country's DRM strategy. This strategy aims to guide multi-hazard reduction and disaster risk management.

5.7 Gender-responsive and Inclusive Adaptation Action

The Federal Government of Somalia has made efforts to integrate gender into development and climate change response through policies, plans, measures, and strategies. For example, the NAP Framework is guided by the principle of gender responsiveness in climate adaptation planning, implementation, and monitoring and evaluation in the country. Somalia's Updated NDC 2021 considers the need for identifying challenges to the empowerment and participation of women and other vulnerable groups in contributing to each sector's targets, existing gaps in resources, and the opportunities for policy articulation to strengthen the integration of gender equality into NDC planning and implementation processes. However, women are still at a disadvantage compared to men in all socio-economic and human development indicators. Climate change exacerbates gender inequality in Somalia, with women affected by the impacts of climate change due to vulnerability and lack of control, as well as lack of access to critical resources to adapt to changing climate conditions. The updated NDC calls for promotion gender equality and empowerment of vulnerable groups in climate change decision making.

Somalia's NAPA (Federal Government of Somalia, 2013) states that women and girls, especially in rural areas, are most vulnerable because of their special relationships with ecosystem life, their family responsibilities, and their role in ensuring community survival. Women are at the forefront of the challenges that climate change presents to family life and health. Women and other vulnerable groups have made significant contributions to Somalia's efforts to adapt to climate change, informed by their knowledge, experiences in natural resources management and leadership at the local levels. However, they lack the capacity and resources to respond to the challenges. It is therefore crucial to mainstream gender issues and promote gender equality into climate change responses for recovery, sustainable peace, and development.

Effective and gender-responsive adaptation to climate change depends not only on the active and sustained involvement of stakeholders, including vulnerable groups such as women and youth, but also on the effective use of traditional knowledge. The local communities have in-depth knowledge of adaptation and experience in coping with the effects of climate change; this knowledge should be used to inform national and local planning and adaptation initiatives. The local and traditional knowledge should complement the scientific information to ensure that measures to build climate resilience and adaptation promote replication of effective practices, encourage innovation, and

introduce, where appropriate, external technology to help address new or magnified challenges. Strategies and programs should be monitored and evaluated to ensure that learning is captured and made available to promote efficiency and effectiveness.

6.0 Implementation of Adaptation Interventions

6.1 Ongoing Adaptation Actions

With support from development partners, Somalia has implemented a number of adaptation projects and programs. These actions are implemented by the government (both federal and state level), CSOs, and the private sector in various parts of the country. Below is a highlight of some ongoing adaptation projects in the country.

i. Water for Agro-Pastoral Productivity and Resilience – The “Biyoole” Project

From 2016 to 2018, the World Bank-funded Agro Pastoral Livelihood Pilot Project (WALP) was implemented in Somaliland and Puntland. This project is intended as the first step in a longer journey and was designed as a pilot to learn the right tools and knowledge to guide future processes. The project was relatively short (2.5 years) and small (USD 2 million) to more easily manage the provision of valuable resources subject to both cooperation and occasional conflict.

Building on WALP, the Biyoole project, with the support of the World Bank, aims to develop water and agricultural services in the arid community of Somalia. The Biyoole project aims to provide improved water and agricultural services to the drought-prone arid areas of Somalia's agricultural and livestock communities, improving productivity and resilience to climate-related shocks. The project aims to achieve development goals by strengthening community-level watershed management and facilitating the adoption of techniques and practices that improve sustainable land management and productivity. This project was approved by the World Bank in July 2019 and will be effective until June 2023.

The Biyoole project has significantly expanded its activities in Somaliland and Puntland, with gradual expansion in both Somalia's Galmudug and South-West. In future phases, it is expected that the project activities will be expanded to other FMS (Hirshabelle and Jubaland) and the current project will support preparatory activities for the expansion.

ii. Somalia Crisis Recovery Project

The Somalia Crisis Recovery Project (SCRCP) is a World Bank-funded flood and disaster recovery and reconstruction project through the Federal Ministry of Finance. The total value of the project is USD 187.5 million from 2020 to 2025. It is based on DINA's assessment and subsequent response to the numerous resilience and resilience needs identified in the National RRF and aligns with existing national guidelines such as NDP-9. The overall goal of the project is to help restore livelihoods and infrastructure in flood and drought-affected areas and strengthen disaster risk mitigation capabilities across the country. The project is primarily targeted at the flood-affected states of Hirshabelle, South-West Jubaland states of Somalia. However, it responds to other challenges such as COVID-19 emergency response, desert locust crisis, and food security.

iii. UN Joint Programme for Sustainable Charcoal Reduction and Alternative Livelihoods (PROSCAL)

PROSCAL is an inter-agency program implemented by the Federal Government of Somalia in collaboration with the United Nations Environment Programme, UNDP, and FAO and funded by the European Union and the Governments of Sweden and Italy. This program provides a response in support of Security Council resolutions. There are four specific purposes for this program: 1) Help the Government of Somalia develop relevant legal documents and strengthen enforcement mechanisms at the national, regional, and local levels; 2) Promote alternative energy sources to reduce local charcoal consumption; 3) Provide an alternative livelihood for charcoal value chain beneficiaries involved in charcoal production and charcoal trade; and 4) Nationwide reforestation and planting to regain the productivity of environmentally devastated land.

The Joint Programme works in partnership and in consultation with key stakeholders including, government institutions, local communities, CSOs, the private sector, UN agencies, and research and academic institutions, to monitor both the demand and supply side of the charcoal value chain

iv. NAP Readiness Project

Somalia is implementing a NAP Readiness program funded by the GCF through the UNDP. The project will cost approximately USD 2.7 million between 2021 and 2023. The overall goal of the project is to strengthen the capacity and coordination at the national and state levels to plan and implement climate change adaptation in Somalia. The project has three primary outcomes, each of which is divided into sub-outcomes and outputs to address the barriers to mainstreaming climate change adaptation in national systems (Somalia GCF Readiness Project doc, 2020). The outcomes of the project are: i) National institutional coordination and capacity for adaptation planning enhanced; ii) Strengthened capacity for climate change adaptation planning at the state level; and iii) Strengthened financial planning for climate change adaptation (GCF Readiness Project doc, 2020). Through its outputs and outcomes, the projects aim to support establishment of a national climate change adaptation plan to serve as a baseline and to guide future climate change adaptation policies and projects.

v. Water Infrastructure Development Program for Resilience in Somaliland

The program, has been funded by the African Development Bank from 2016 to 2022, with the Government of Somaliland as the implementing partner. The overall goal of this program is to contribute to a resilient and sustainable water and sanitation sector that meets the needs of all Somaliland users to improve livelihoods and build resilience to climate change. Key components of the project include support for water and sanitation infrastructure for resilience (including construction and rehabilitation of earth dams, construction of solar systems, etc.), capacity building, and institutionalization.

vi. Joint Resilience Program in Jubaland by KfW, Germany

This 3-year programme funded by the Government of Germany through the German Development Bank (KfW) aims to improve access to education; health, hygiene and nutrition; and food security for underprivileged families. In first year of implementation, this third phase of the programme which builds on the successes of the first and second phases initiated since 2018, will reach about 146,000 people; 147,000 in the second year; and 148,000 in the third year (UNICEF, 2021). People targeted for

inclusion include very young and school-aged children; vulnerable adolescents; internally displaced and food-insecure communities; and malnourished children and pregnant and breastfeeding women.

vii. Somalia – Kismayo – Baidoa urban water supply – AFDB

The project aims to contribute to improving quality of life, inclusiveness, and resilience through the provision of sustainable water supply and sanitation services. The project focuses on increasing access to safe water, improving sanitation, and strengthening capacity for improved delivery of water and sanitation services in Kismayo (Jubaland State) and Baidoa (South-West State) towns. The project aims to reduce the economic and social exclusion of poor and vulnerable groups in the two towns, where an estimated 65% of the population live below the basic needs poverty line, and 70% of the population is younger than 30 years and mostly unemployed, by improving access to safe and reliable water supply. The project will improve access to an affordable water supply and sanitation services in Kismayo and Baidoa, particularly for the IDPs. They comprise 43% of the population, have contributed significantly to the growing urban informality in the two towns, and are facing great hardship in accessing clean water and improved sanitation. Selected education, health, and market facilities will also benefit from improved water and sanitation facilities and hygiene training and promotion. The cost of the project is estimated at 9,589 million UA and it will be implemented for the period 2019–2023

6.2 Lessons Learnt and Good Practices

The following are key lessons learnt through Somalia's adaptation efforts:

1. Climate change adaptation is a cross-cutting issue and intertwined with development, particularly for conflict-affected countries like Somalia, it is thus essential to mainstream climate change into development planning and budgeting processes. The NDP-9 considers climate change and conflicts as root causes of poverty in the country. Thus, adaptation, development, and peacebuilding initiatives and actions must be aligned to most effectively address the shared drivers of vulnerability for Somalia, and to set the country onto a strong path of resilience, stability, and peace.
2. There is a need for sustained support and investments to build resilience of communities and ecosystems beyond emergence responses—Somalia has received significant humanitarian support in response to the immense crisis, 80% of which is seen as “quick fixes” and not contributing to resilience building and sustainable development. It is essential that such humanitarian responses are planned to go beyond crisis response and support the country and vulnerable communities to build resilience to reduce the effects of future shocks.
3. The link between conflict and climate change effects is not well understood by many, thus undermining the holistic approach to adaptation and building resilience. There is a need to consider these issues in broader international discussions and inform national and regional climate response processes.
4. The lack of institutions is a big weakness in achieving the adaptation targets in conflict-affected countries. There is a need to support establishment and strengthening of institutional structures including for coordination as a key part of advancing adaptation and building resilience.

5. It is important to integrate gender issues into the NAP process to ensure equal participation and influence of men and women in the adaptation decision-making processes, as well as in the implementation of adaptation activities. Although Somalia is lagging in gender equality, we see climate change response as an opportunity to advance gender-responsive approaches and action that leads to more resilient communities, as the wealth of knowledge of all groups is effectively utilized.
6. The NAP process, including the recently developed NAP Framework, will be critical in guiding Somalia's adaptation efforts and maximizing opportunities for implementation rather than proliferation of policy documents.

Below are some good practices that need to be further strengthened:

a. Establishment of an Aid Information Management System (AIMS) in Somalia.

Somalia has established a system for monitoring aid flows that facilitates greater transparency and accountability between the government and the international community as well as with the citizens. Information and data on aid flow are integral to national planning and budgeting, aid and debt management, and monitoring and evaluation. Building on this, there is a need to establish a robust online monitoring and evaluation system to better coordinate adaptation and inform decisions

b. Establishment of a Donor Coordination Committee

The country has put in place a high-level donor coordination committee managed through the office of the Prime Minister. This forum chaired at Prime Minister who is head of Government coordinates and discusses development issues, including climate change adaptation. This confirms the importance of high-level consideration of climate change adaptation and the need for mainstreaming adaptation into the country's development discourse.

7.0 Support and Implementation Needs

7.1 Support Needs

Somalia's Updated NDC submitted to UNFCCC in July 2021, highlights the country's NDC actions and related costs. A significant portion of the NDC costs (amounting to at least USD 48.5 billion) is allocated toward adaptation and resilience-building interventions for the 2021–2030 period. The priority adaptation actions in the NDC also captured in the NDP include:

- Climate-smart agriculture actions to address food insecurity and poverty
- Water sector development and management
- Health systems development and improvement
- Disaster risk reduction and management
- Development of the blue economy sector
- Energy sector development to address energy poverty and related climate shocks
- Environmental restoration and management
- Resilient human settlement development
- Resilient infrastructure to facilitate adaptive capacities
- Strengthening the capacities of institutions and communities for enhanced action

Because Somalia is a least developed country with unique circumstances, the government does not have the financial capacity to mobilize funds to implement NDC measures and will need the support of international partners. There is a need to strengthen the capacity building of the various institutions involved in climate change and to strengthen the political and legal frameworks that help Somalia improve its ability to adapt and build resilience to climate change.

In particular, there is a need to improve these institutions' ability to access multilateral and bilateral sources of climate funding, remove barriers, strengthen private sector investment in climate action, and mobilize and effectively use climate funding. There is also a need to help establish effective institutional mechanisms, monitoring, evaluation, and learning systems, and strengthen institutional structures with the right infrastructure and human resources to track climate change adaptation and financing. Also important will be support to enhance awareness of climate change policies, strategies, plans, and actions among various stakeholders at both the federal and state levels. The country has received support from United Nations Environment Programme to undertake its technology needs assessment. This process is expected to define priority technologies in key sectors and is currently at the initial stages; it is expected to be completed in 2022. The country requires support for technology development, innovation, and transfer to respond to climate change.

7.2 Constraints and Gaps

The country is faced with myriad constraints and gaps in effectively responding to climate change. These include:

- a. Incomplete and weak policy and regulatory frameworks

- b. Inadequate financial resources, especially for core institutions
- c. Weak institutional arrangements, including deficiency of mandates and lack of effective coordination on climate change
- d. Lack of technical capacity on climate change including to mobilize resources for climate action (e.g., in developing concept notes and funding proposals)
- e. Lack of mechanisms for enforcement of existing policies and laws
- f. Low levels of knowledge on climate change among key stakeholders in the country, including the private sector
- g. Lack of monitoring and reporting systems for climate adaptation action
- h. Insecurity in some areas of the country, making implementation more expensive and difficult
- i. Weak gender mainstreaming in adaptation efforts

8.0 Monitoring, Evaluation, and Learning

Monitoring, evaluation, and learning (MEL) is critical to the overall goal of assessing the achievement of the different targets included in Somalia's climate change adaptation agenda. MEL is essential to informing the development and the design of adaptation policies programs and projects, as well as their continuous improvement over time.

Somalia lacks a national climate change adaptation monitoring system with recognized indicators that can be tracked and evaluated. Most of the monitoring and evaluation that exists is limited to specific projects but is not used for tracking the success of federal-level adaptation actions. Through the Biennial Update Report for Somalia, a measurement, reporting, and verification (MRV) system for tracking Somalia's emissions is being developed. The MRV system will also track progress on adaptation actions and sustainable development benefits from the implementation of NDC actions.

Somalia's NAP Framework recognized the need for establishing an online national adaptation monitoring and evaluation system, identification of indicators, the establishment of effective climate adaptation coordination structures, and the need to develop legislation and regulations that require federal institutions, FMS, and non-state actors to annually report on their adaptation activities.

9.0 Next Steps for Adaptation Process In Somalia

Somalia has made great strides in developing adaptation-related policy, legal, and institutional frameworks, but many implementation challenges remain. The following actions will need to be undertaken to advance Somalia's NAP process. Some of these actions will be implemented through the NAP Readiness Proposal while others will require support:

Stocktaking – Governments and their partners will endeavor to review available information on climate change impacts, vulnerabilities, and adaptations and assess the gaps and needs that have to be addressed to create an enabling environment for the NAP process.

Establishment of effective climate change adaptation coordination mechanisms – The newly formed Ministry responsible for climate change will need to establish technical and high-level adaptation institutional structures to lead the NAP process to facilitate cross-sectoral coordination with government agencies, CSOs, state governments, development partners, and private sector representatives. The coordination structures will facilitate mainstreaming of adaptation actions and support effective implementation and tracking of actions for national monitoring as well as international reporting.

Capacity building and awareness raising – Governments will need to generate information and outreach materials to educate stakeholders within the government about the NAP process. Key among the actions will include holding consultative meetings to raise awareness of the country's NAP process. This will facilitate the engagement of a wide range of stakeholders in the process. Stakeholders to be engaged include federal-level government institutions, FMS, private sector actors, civil society actors, and academia, among others.

Development of the NAP document – This will focus preparation of detailed NAP document for Somalia that will include, among other aspects: a vulnerability assessment (sector- and state-level assessments), identification of adaptation priorities, draft adaptation concept notes tied to the priorities, and an M&E plan. The plan is also expected to support formalizing the institutional roles and responsibilities for federal agencies concerning climate change adaptation at the national level in Somalia and clarify the scope, objectives, and timeline for the process (GCF Project doc, 2020).

Establish a climate change adaptation training program – For the NAP process to be effective, there is a need to develop and deliver a series of training modules and supporting materials (e.g., instructional resources, workbooks, exercises) specifically geared toward federal-level agency staff and creating a common understanding of the challenges of climate change across sectors. These face-to-face materials will need to be developed in the Somali language in collaboration with international experts and university partners.

Establishment of knowledge management and information system for climate change adaptation – Governments will need to put in place a platform for providing information on weather forecasts, with data and information accessible to sectors, states, and other government stakeholders and the general public. The platform would also consolidate information on completed or ongoing climate

change adaptation projects at all levels of government, including projects carried out by national and federal governments and NGOs, and a database for eliciting planning and implementation lessons.

Development of climate change legislation – At the federal level, climate change legislation is required to support implementation of the Climate Change Policy. To promote climate action mainstreaming across the country and facilitate the transition from adaptation planning to implementation, there is a need for strong climate change policies and legislative frameworks at the state level.

Undertake measures to promote gender mainstreaming – To promote an inclusive and gender-responsive NAP process, an in-depth gender analysis should be undertaken. This is the first step toward gender mainstreaming, through assessing the complexity of the climate change challenge and the different ways in which it affects men and women, with the aim of refining and informing a NAP process that is gender responsive and transformational.

Establishment of private sector engagement strategy and platform – The engagement of the private sector in climate change adaptation in Somalia is critical to the effectiveness of the NAP process (GCF Project doc 2020). The government should develop a private sector engagement strategy for its NAP and establish a private sector coordination platform to help increase the engagement of these actors in the process. Both should be established through a consultative process. The platform should support the coordination of climate adaptation actions by the private sector and work to address barriers to private sector investment in climate change adaptation.

Development of Resource Mobilization Strategy – The government will need to spearhead development of a NAP resource mobilization strategy to implement the adaptation actions. This will include a climate finance coordination mechanism, the establishment of a Somalia Climate Fund among others, to ensure the government can mobilize the necessary resources for the implementation of adaptation actions. There is a need to establish federal- and state-level resource mobilization committees as part of the resource mobilization strategy.

Establishment of monitoring and evaluation systems for climate change adaptation – Somalia lacks national climate change monitoring and evaluation systems. The NAP Readiness Project will provide technical support to the MoECC to develop indicators and methodologies for gathering data for monitoring the impacts of climate change, as well as for evaluating the progress of climate change adaptation projects.

Incorporation of the NAP into development plans and peacebuilding processes – Through close collaboration with responsible federal ministries and state-level governments, the MoECC will aim to ensure that the NAP is integrated into both development and peacebuilding processes, and that these processes are well reflected in the NAP. This will include ensuring that climate adaptation priorities are incorporated into subsequent iterations of the NDP and peacebuilding initiatives of the country. This will also involve providing guidance to FMS to incorporate adaptation into development and peacebuilding plans.

10.0 Conclusion

Adaptation and building resilience are priorities for the Government of Somalia in pursuit of the country's sustainable development and peace while contributing to global efforts toward addressing climate change under the Paris Agreement. The country has made strides in advancing policy frameworks and mainstreaming climate change into development planning processes at both national and sub-national levels. Somalia submits this AdCom elaborating its adaptation goals and priorities, barriers and challenges, and support needs. These actions are expected to be implemented by all Somali stakeholders, including government (federal and FMS), the private sector, and CSOs. As a poor and highly climate vulnerable country, Somalia, will require significant international support in the form of finance, technology development and transfer, and capacity building to meet its plans and aspirations as elaborated in this AdCom.

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Annex. List of adaptation projects including related humanitarian projects

(generated from AIMS Somalia)

Table A1

	Project title	Source of support	Amount (USD)
	Resilience projects		
1.	Integrated Water Resources Management for Building Climate Resilience of Agro-pastoral Communities	GEF through UNDP	10,000,000
2.	Rural Livelihoods Adaptation to Climate Change (RLACC II)	GEF	10,000,000
3.	Joint Programme for Sustainable Charcoal Reduction and Alternative Livelihoods (PROSCAL)	Sweden, EU, Italy - AICS, UNDP	5,000,000
4.	NAP readiness Support	GCF through UNDP	2,700,000
5.	Improving and sustaining food security in rural Somalia	USAID and FAO	16,863,000
6.	Resilient, Inclusive and Competitive Agriculture Value Chain Development in Southern and Central Regions of Somalia (OUTREACH)	EU	5,580,000
7.	Somalia Crisis Recovery Project (SCRP)	World Bank	187,500,000
8.	Biyoole Project - Water for Agro-pastoral Productivity and Resilience	World Bank	42,000,000
9.	Water Infrastructure Development for Resilience In Somaliland (WIDER)	Africa Development Bank	6,000,000
10.	Sustainable Land Management in Somaliland, Somalia	Germany	8,000,000

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	Humanitarian programs/projects		
11.	SOMALIA RESILIENCE PROGRAM	Sweden	8,600,000
12.	Improving disaster risk management and food security to strengthen resilience in Somaliland	Germany	11,000,000
13.	Say no to Famine: Short-Term Regional Emergency Response Project (STRERP)	Africa Development Bank	27,500,000
14.	Building Resilience In Middle Shabelle (BRIMS)	Sweden	3,000,000
15.	Building Resilience: Supporting food-insecure people to withstand shocks and stresses better throughout the year	Canada, China, Denmark, Switzerland, France, IIDA, South Africa, Japan, World Bank, USAID (USA), Multilateral donors, Germany, FCDO, DFID	132,000,000
16.	Building Resilience: Supporting food-insecure people to withstand shocks and stresses better throughout the year in South-central Somalia	Germany	15,000,000
17.	Building Resilient Communities in Somalia (BRCiS)	EU/FCDO	63,000,000
18.	Combatting Poverty and Vulnerability in Somalia through Social Protection - Phase II	Italy	3,000,000
19.	Community Resilience in Somaliland and Puntland (CRISP)	EU	1,522,399
20.	Somalia Drought Impact Response	UNDP	3,400,000
21.	Emergency Food Security Program Phase two (EFSP II)	USAID	30,000,000

