

Climate Governance in Somaliland: Policy Gaps, Challenges and Participatory Approaches Towards Pastoral Climate Resilience

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Abstract

This Policy Brief¹ addresses the critical challenge of climate change adaptation in Somaliland, where the impacts of climate change have led to severe social, economic, political, and ecological consequences. Specifically, the paper emphasizes the urgent need for climate policies and adaptation strategies that cater to the context's specific needs, effectively bridging global climate action consensus with localized approaches. Somaliland, situated as a climate hotspot within the region, exemplifies broader regional vulnerabilities to climate change. It has already experienced profound environmental, social, and economic impacts, particularly affecting pastoralists whose livelihoods rely heavily on livestock, making them highly vulnerable to climate variability and change.

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Yet, there is a very limited systematic analysis of what policies and efforts for addressing these challenges exist in Somaliland. This study aims to start addressing this gap by mapping existing policies, policy gaps and possible pathways for starting to address these gaps. The paper is structured as follows. Section one provides the study's background, describing the research area, methodologies utilized, and an overview of climate change in Somaliland. This is followed by the primary analysis and findings (divided into two sections). Section two examines existing policy frameworks related to climate change in Somaliland, highlighting areas requiring further policy development and addressing barriers to effective implementation. Elaborating on key points from section two, section three focuses on participatory climate governance, particularly in the pastoral sector, emphasizing collaboration across national, regional, and local levels, grounded in Somaliland's capacities and leveraging public-private partnerships.

Ultimately, the paper aims to inform pathways for climate governance and adaptation in Somaliland, emphasizing the importance of tailored approaches that integrate global imperatives with local realities. By addressing these challenges, the paper seeks to contribute to the resilience and sustainability of Somaliland's communities and ecosystems in the face of climate change.

Introduction

Climate change is one of the greatest challenges of the twenty-first century. Evidence is now overwhelmingly convincing that climate change is unequivocal and happening at an unprecedented rate (IPCC, 2013; Adhikari et al., 2015;). Global warming, reaching 1.5°C in the near-term, will cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans. The level of risk will depend on concurrent near-term trends in vulnerability, exposure, level of socioeconomic development and adaptation (IPCC, 2022).

Africa has been identified as one of the parts of the world most vulnerable to the impacts of climate change (IPCC, 2014a). Many of the impacts in these areas are characterized by increasing variability in rainfall patterns and extreme weather events such as recurrent droughts, floods and wind storms (IPCC, 2013). These areas, covering large parts of sub-Saharan Africa, are inhabited by an estimated 386 million people, including pastoralists who depend on natural resources for their livelihood (Conway, 2009; IPCC, 2014b; Adhikari et al., 2015).

The Horn of Africa region is at the epicentre of the climate crisis. Compared to other world regions, very low levels of carbon dioxide (CO₂) are emitted into the atmosphere here, but the region suffers greatly from the impact of global greenhouse gas emissions. In the last decade alone, the region experienced a rise in temperature, erratic rainfall and rising sea levels, further exposing it to the effects of climate change. And over the past century and, most significantly, over the last 30 years, droughts have become more frequent and more severe in the Horn of Africa, devastating the lives of millions of people (Mwenda, Krampe & Maihack, 2020).

Indeed, impacts of climate change are cascading, with severe social, economic, political and ecological consequences. These effects interact with other challenges related to conflict dynamics and institutional fragmentation, while external support for climate adaptation and finance remains limited. Long-term strategic support, vital for institutional capacity building, often takes a back seat to short-term priorities such as security and humanitarian aid (Moe, 2024).

Recognizing this context, and focusing on the specific case of Somaliland, this paper emphasizes the pressing need to enhance flexible and context-specific climate policies and adaptation efforts in a manner that aligns with local needs. This ultimately entails finding ways to bridge the global consensus on climate action with localized strategies, which will be essential for effectively supporting adaptation initiatives (Jimenez-Aceituno et al., 2019).

While Somaliland has its own unique dynamics, it also serves as a microcosm illustrating wider trends in the region. Somaliland can be considered one of the 'climate hot spots' within the region, and has already borne the brunt of severe environmental, social, and economic consequences due to climate change. Among those most affected are pastoralists, whose livelihoods are linked to livestock and thus highly susceptible to climate variability and change.

Droughts and other climate-driven hazards such as flooding are increasingly becoming recurrent, disproportionately affecting vulnerable groups. In addition to pastoralists are the specific demographic groups of women and girls, children, the elderly, people with disabilities, and other marginalized groups. Frequent and intense droughts undermine food security and worsen livelihood conditions, fueling societal grievances, and feeding into competition over scarce resources, thereby exacerbating existing community tensions and vulnerabilities (MoPND, 2023). According to reports from the Government of Somaliland, the recent drought in 2021 has affected more than 1.2 million people and has drastically impacted livestock. An estimated 1.1 million livestock were in need of urgent supplementary feeding and veterinary services (NDC, 2022). Many were lost due to lack of water and pasture across Somaliland as result of drought. While the specific dynamics and impacts vary substantially in different contexts, the climate-related challenges facing Somaliland—including food insecurity, pastoralists losing their livelihood, and competition over resources—are prevalent across several countries in the Horn of Africa (and more widely across Sub-Saharan Africa).

Against this backdrop, there is a growing awareness of the acute need to prioritize governance and policies for climate adaptation, while efforts to actually leverage climate change governance face significant challenges.

Benefiting from its relative peace and stability, Somaliland has made important strides in developing policy frameworks and priorities in response to climate change. It also has a Ministry of Environment and Climate Change. Yet, in the absence of international recognition, Somaliland remains ineligible to engage in formal international forums on climate change and support, and lack of access to climate finance leaves it with very limited capacity and funds to implement policies (see also Moe, 2024). Accordingly, despite growing prioritization of climate change adaptation, significant gaps remain, both in regard

to policy frameworks as well as operational barriers to policy implementation, resource constraints, and the underutilized role of private and public collaboration for climate governance.

Against this backdrop, this study aims to further unpack the challenges of climate change adaptation in Somaliland, and also seeks to provide concrete suggestions for starting to address some of these obstacles. Currently, a systematic analysis of climate change policy in Somaliland, including identification of gaps and opportunities for enhancement, is notably absent.

The paper is organized as follows. Section one sets out the background for the study by describing the study area, explaining the data and methods utilized for the analysis and providing a short overview over climate change in Somaliland. Sections two and three present the key analysis and findings of the study. Section two maps out the existing policy frameworks related to climate change in Somaliland, and draws attention to key areas deserving further policy development while it also unpacks the barriers that impede the successful implementation of the climate policies and actions. Building on this, section three offers a focused exploration of one core area for the development of climate change adaptation policy: participatory climate governance, with a particular focus on the pastoral sector. This approach involves pooling efforts across national, regional, and local levels, grounded in Somaliland's capacities, also leveraging the potential for public-private collaboration. The overall aim of the paper is to inform ways forward in addressing climate governance and adaptation in Somaliland.

1. Background

Study Area

The geographical coverage of this study is generally the self-declared state of Somaliland that broke away from Somalia in 1991. It is located in the northwestern part of Somalia, bordered by Ethiopia, Djibouti, and the Gulf of Aden. It was a British protectorate from 1884 until 1960, when it gained independence and merged with Italian Somalia to form the Somali Republic. In 1991, after the collapse of the Somali central government, Somaliland unilaterally declared its independence from Somalia. Since then, it has been functioning as a self-declared independent state, although it has not been internationally recognized as a sovereign state.

Figure 1: Map of Somaliland



Source: Ministry of Planning and National Development (2023):

Somaliland consists of three main topographic zones: (1) A Coastal Plain (Guban) (2) The Coastal Range (Oogo) (3) A Plateau (Hawd). These three topographic zones determine the overall climate situation across different regions in Somaliland. The coastal plain zone (Guban) always has low rainfall, whereas the Oogo and Hawd Plateau receive greater rainfall. The field work activities of the study were undertaken in Buroo, Odweyne, Berbera and Hargeisa districts.

Data and methods

The study employed mixed approaches in data collection. Primary data were collected from the community, government institutions, private sector, and organizations that are involved in climate change and pastoral development activities. The literature review has been undertaken on relevant documents and studies. The data are collected through interviews and focus group discussions. The key informant interviews were conducted with a total of thirteen respondents from government, private sectors involved in livestock trade, and non-governmental organizations. Government officials interviewed were from ministries and government agencies that are involved in climate change and pastoral activities, namely Ministry of Environment and Climate Change (MoECC), Ministry of Agriculture (MoA), Ministry of Livestock and Fishery Development (MoL&FD), Ministry of Rural Development (MoRD), Ministry of Water Resource Development (MoWRD), National Disaster Preparedness and Food Reserve Authority (NADFOR), and National Displacement and Refugee Agency (NDRA), private sector, and non-governmental organizations. Focus group discussions were conducted with committees from six locations/villages where approximately eight persons participated in each discussion. The villages selected were all pastoralists, i.e., Borama, Din-dinta, Jameecadda Ainashe, Kala-Dhac, Bali-Diiriye, and Kaboweyne villages under Burao and Odweyne districts.

A workshop was held in Hargeisa to map the existing policies and legislative documents, gather relevant data on gaps including the challenges and potentials in climate change governance in Somaliland, and implications for resilience of pastoralists. Representatives from Government, academia and civil society organizations participated in the workshop. The participants were selected purposively with the consideration of a) their involvement in climate change activities and programs, b) the direct impact of climate change on the livelihood of the participants selected, c) potential to participate and contribute to future activities related to improving climate change governance and pastoral resilience in Somaliland. The interviews were recorded into an audio-tape device, and the information recorded was transcribed into English. The study utilizes the existing literature on climate data and projections available at national and regional levels to articulate with the existing climate vulnerabilities.

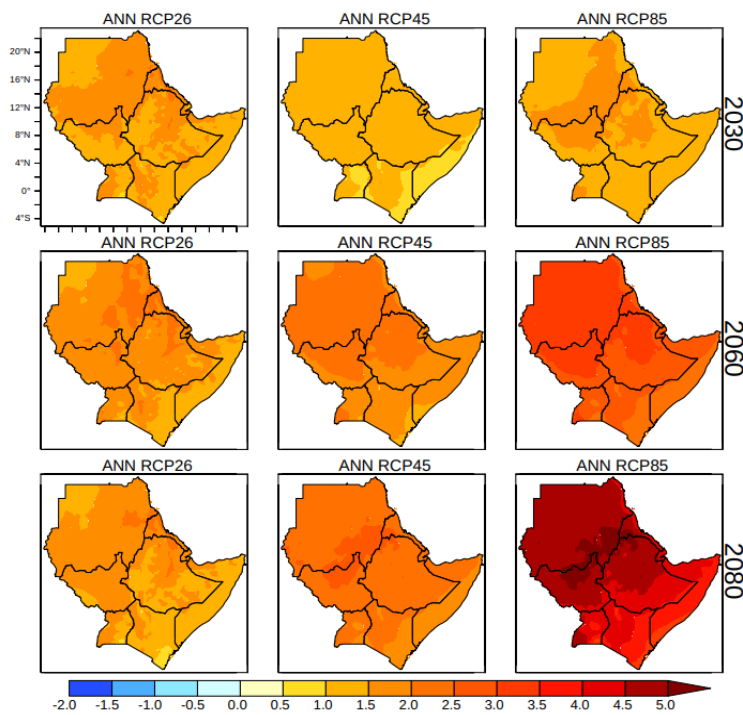
Climate change in Somaliland

Somaliland experiences a bi-modal rainfall pattern, which is dominated by the movement of the Inter-Tropical Convergence Zone (ITCZ). There are high inter-annual and inter-seasonal variations, with drought periods that may persist for several years (MoWRD, 2019).

The first main rainy season of Gu occurs between April and June, when around 50-60% of rain falls. The second rainy season is called Deyr (from August to November) and accounts for 20-30% of total rainfall. The two dry seasons are Jilaal and Hagga, which occur between December and March, and July and August, respectively (Abdulkadir, 2017). Recurrent droughts have significantly reduced the availability of water in Somaliland. Water scarcity kills livestock, dries crops, and forces pastoralists and agro-pastoralists to move from one place to another in search of water and pasture. In urban areas, families prioritize water for

cooking and drinking and forgo bathing and washing clothes during dry seasons when water is scarce and expensive (MoPND, 2023). There has been an increase of temperature in Somaliland, as evidenced by the studies undertaken in Somaliland and across the region. The temperatures over the Greater Horn of Africa region have been observed to have increased significantly since the early 1980s with fewer chilly days and cold nights and an increasing number of warm days and warm nights (Omondi et al., 2013; IRCCS, 2022). The observed trends in temperature are projected to continue and rise faster than the global average increase (James & Washington, 2013; IPCC, 2021). Studies reveal that the climate variability will prevail in Somaliland resulting in the expected rains being either below or above the average, which can be attributed to the prevalence of the climate change phenomenon that impacts the atmosphere and associated natural cycles.

Figure 2: Projected Annual Temp Changes in Great Horn of Africa (2030-2060-2080)



Source: IRCCS, 2022

2. Climate Governance in Somaliland

Mapping Climate Governance in Somaliland: Policy and Legislative Frameworks

Policies and legislation are invaluable instruments in environment and climate governance as they play important roles in guidance, accountability, efficiency, and management of environment issues and associated challenges. Law dictates the structure, boundaries, rules, and processes within which governmental action takes place, and in doing so becomes one of the focal points for analysis of barriers to adaptation as the effects of climate change are felt (Cosens et al., 2017). Thereby, mapping existing policies and legislation can also serve as a useful starting point for analyzing gaps and barriers to adaptation to the effects of climate change.

Global strategies and frameworks on climate change emphasize strengthening climate governance across global, national, regional and local levels as an indispensable measure in responding to climate effects. Yet, in particular in regions affected by conflict, institutional fragmentation, and limited resources for implementation, significant challenges and gaps remain, particularly in regard to the application and promulgation of climate-related policies.

The Somaliland government has shown growing awareness of the importance of developing frameworks and policies to support climate adaptation, and a range of frameworks and legislation related to climate change have been formulated, with some currently under development by the Somaliland authorities.

Yet, according to interviews with officials from Somaliland authorities, numerous relevant policies and acts are yet to be fully designed and developed by the government, whereas those already existing face challenges in implementation. The implementation of the available climate-related policy frameworks and acts will also require systematic monitoring and evaluation, with a view to how to adapt them to the specific challenges and needs of those most impacted by climate change.

The table below maps the public policies and legislation related to climate change established by Somaliland authorities.

Table 1: Existing Policy and Legislation (reviewed, November, 2023)

#	Policy/Legislation	Status	Observation	Leading Government Agency
1	Climate Change Policy	Approved	The policy demonstrates the impact of climate change on various sectors and livelihoods of the people, and emphasizes the need to employ adaptation strategies to combat climate change effects. The policy requires clear demonstration of the coordination and	Ministry of Environment and Climate Change (MoECC)

			enforcement mechanisms required from the government to substantiate policy implementation.	
2	Disaster Risk Management Policy	Draft	The policy demonstrates the need to take proactive and preparedness measures to avoid potential climate risks. It does not clearly illustrate the coordination and enforcement measures required to mainstream this policy across different sectors.	National Disaster Preparedness and Food Reserve Authority (NADFOR)
3	Water Management Policy	Approved	No direct reference to climate-driven water demands, and impacts on water supply systems.	Ministry of Water Resource Development (MoWRD).
4	Livestock Development Policy	Draft	Acknowledges the impact of climate change on the livestock sector and pastoral livelihood. Community-driven proactive and adaptation measures that support the coping capacity of the pastoralists need to be adequately discussed in the policy framework.	Ministry of Livestock and Fishery Development (MoL&FD)
5	Internal Displaced People (IDP's) Policy	Approved	The policy focuses on providing guidance on how to ensure protection and prevention from displacement and puts in place mitigation and contingency measures for effective emergency preparedness and response; and to minimize the effects of internal displacement by providing an enabling environment for upholding the rights and entitlements of IDPs during all phases of displacement.	National Displacement and Refugee Agency
6	Land Tenure Policy	Approved	No direct reference to climate factors that drive conflicts over land and land resources.	Ministry of Public Works, Land and Housing

7	Environmental management Act	Approved	The act discusses principles, obligations and administrative procedures on environment management including climate change. Enforcement mechanisms and capacity building for the authorities are needed to substantiate the enforcement and implementation of the act.	Ministry of Environment and Climate Change
8	Water Resource Act	Draft	Need to demonstrate the application of climate-sensitive water management systems.	Ministry of Water Resource Development
9	Wildlife and Forestry Act	Approved	Need inspection systems and empowerment of enforcement bodies of Government to strengthen the implementation.	Ministry of Environment and Climate Change

Source: Government ministries archive

The following brief overview of legislation and policies, relevant to the field of climate change, demonstrates how climate change is a growing priority for Somaliland authorities, but also shows that significant gaps remain. Against this backdrop, the following subsections draw attention to key areas deserving further policy development and analyze the barriers that impede the successful implementation of the climate policies and actions.

Key areas analyzed include:

- Fiscal budget allocation
- Access to climate finance
- Evidence-based data
- Policy integration and climate mainstreaming
- Decentralization of climate governance
- Consultation and stakeholder participation

Enhancing Climate Policy in Somaliland: Exploring Key Areas for Action

Fiscal Budget Allocation

Government budget processes are a means of weighing competing demands and allocating scarce resources in a way which optimizes welfare and the achievement of policy goals. A government's own budget, financed through domestic taxes, levies, and other own-source revenues, is a particularly well-suited mechanism for financing climate adaptation (Allan et al., 2019). The government of Somaliland has annual budget plans which aim to finance the demands and plans of sectors and government agencies. According to the central government budget of Somaliland in 2023, released by the Ministry of Finance of Republic

of Somaliland, about 1.61% of the government budget is allocated to the environment sector. According to an interview with the Ministry of Environment and Climate Change, half of the budget allocated to the environment sector is spent on operational activities, with the remainder used to finance the environment programs implemented by the ministry. In contrast, about 36.6% of the government budget is allocated to security, whereas Health (5.49%) and Education (8.36%) have a relatively higher budget share than the environment sector. Unequivocally, the environmental sector is underinvested because decisions on how public funds are allocated, managed, expended, and reported against do not adequately prioritize the demands prevailing in the environment sector, including climate adaptation.

Somaliland's history and geographical location has shaped public and political perceptions, placing high priority on security. Indeed, security is considered a core priority for both local and regional stability and development, thus also having high priority in the allocation of public funds. This is a trend that has become common in many countries, including in developed countries, but in particular in conflict-affected and developing countries where public funds are often vastly spent on security and military operations.

In the meantime, climate change is often perceived to be a 'ministry of environment issue' (Allan et al., 2019), leading to insufficient engagement from ministries of finance and planning, which have greater influence over how resources are spent. It can also be argued that public financial management systems do not smoothly accommodate cross-sectoral concerns, such as climate change adaptation. The underinvestment in the environmental sector in Somaliland, however, is an important challenge that impedes government efforts in combating environmental problems, including climate change and associated cross sectoral impacts. It also negatively affects food security and, consequently, human security.

Access to Climate Funds

The international conventions and agreements on climate change emphasize the need for global-local partnership and support among parties and stakeholders. The developed countries and global donor bodies have committed to mobilizing climate funds that can be accessed by developing countries in need of financial support for their local climate mitigation and adaptation plans. The Paris Agreement Article 9 states that the developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the United Nations Framework Convention on Climate Change. At the United Nations Climate Change Conference in Dubai (2023), parties agreed to establish a Loss and Damage Fund for climate vulnerable countries. The conference also recognized that developing nations that have contributed the least to the climate crisis have been facing the brunt of its devastating floods, drought and sea-level rise impacts, thus requiring financial assistance.

The recent agreement on initiatives like the Loss and Damage Fund marks a significant recognition of the imperative to compensate those disproportionately impacted by climate change and related multiplying security risks. This has been welcomed by countries across Africa that bear the brunt of climate change despite contributing the least to its causes (Moe, 2024).

In Somaliland, the government faces challenges in accessing available climate funds due to lack of international recognition. Very limited climate-related funds are provided to the government through partnership with non-governmental actors, United Nation agencies and International Organizations that implement climate adaptation programs in Somaliland. Also due to lack of international recognition of Somaliland's statehood, there is hardly any possibility of accessing loans from global financial bodies (Interview with Government officials). For example, the Green Climate Fund is now preparing a large investment of more than 100 million USD to strengthen climate resilience in Somalia, and while funds will also be allocated to Somaliland, this will be channelled and prioritized by Somalia due to Somaliland's lack of recognition. This complicates efforts to localize climate finance to make it fit for purpose in specific local contexts.

Evidence-based data

In order to devise and tailor-make the appropriate policy and administrative measures to adapt to climate effects, there must be information and data available on specific climate change effects and variability, and this requires a continuous data collection on relevant climate parameters, namely rainfall, humidity, water, pasture condition, agricultural production, livestock, as well as the greenhouse gas emissions. The availability of evidence-based data on these climate parameters is very limited in Somaliland. The relevant sectors and authorities involved in climate change, including agriculture, water, infrastructure, and industry, poorly and inadequately generate climate data. The Food and Agricultural Organization (FAO), in collaboration with the Ministry of Agriculture, has established six automatic weather stations that are sparsely located across regions in Somaliland to observe some of the climate parameters. These mechanisms need further investment and capacity building. Also, the collapse of Somalia central government in 1991 and civil war resulted in the loss of important data and infrastructures. The inadequate availability of evidence-based climate data at different scales, sectors and geographical locations in Somaliland negatively impacts the efforts to design and implement the needed policy actions and adaptation plans.

Policy Integration and Coordination

Policy integration is about policy making in certain policy domains that take policy goals of other adjacent policy domains into account; and policy makers are expected to be aware of cross-sectoral implications of policies and be willing to engage in coordination and integration (Jale & Achim., 2013). The term policy coordination is often understood as cross-sectoral coordination of policy actions from various inter-related sectors. However, according to interviews with government officials and other stakeholders, the policies from various sectors such as water, environment, production, economy are not effectively integrated and coordinated at the sectoral level.

A key case in point in Somaliland—illustrating the urgent need for cross-sectoral coordination—is the livelihood of pastoralism. This livelihood is central to the economy and indeed the survival of large parts of Somaliland's population, while also being severely affected by climate change. Livestock production accounts for 60-65% of the gross domestic product (GDP).

The policies related to pastoral development strongly highlight the need to employ cross sectoral interventions such as coordinated support for de- and re-stocking of livestock, livestock insurance, traditional and modern fodder reserves, and sustainable grazing management. All this has to be coordinated across relevant government and non-government stakeholders in order to promote pastoral resilience to climate change. From a practical point of view, an intervention on rangeland management in a specific area, for example, requires robust collaboration and coordination from the Ministry of Environment and Climate Change (MoECC), as per the responsibility on overall environment management and restoration, the Ministry of Livestock and Fishery Development (MoL&FD), in charge of livestock production and pastoral development, and the Ministry of Agriculture Development (MoAD) as per its mandate on agricultural development, so as to ensure that efforts on development and modernization of agriculture do not result in encroachment on rangeland areas for agricultural purposes or the degradation of the resources.

Another key case in point, illustrating the need for establishing cross-sectoral coordination mechanisms in the face of climate crisis, is the increased frequency of extreme weather events. The Sagar Cyclone that hit in Somaliland in 2018, according to Government accounts, took 53 lives and caused an enormous number of injuries, and affected the lives of about one million people, nearly a quarter of the Somaliland population. The storm affected the lives of the people harshly through destruction of their livelihood assets, environmental resources, and infrastructure. It also caused widespread displacement. Overall, Somaliland's productive sector, and thereby the general economy, suffered severe effects and a sizable economic setback. In the livestock sector, damages were substantial as the storm killed 310,000 head of livestock; the lost crop production was estimated at 128,000 metric tons and 18,000 hectares of cultivated land was destroyed. Also, ten fishing boats were lost which represents an expected loss of 730 tons of fish production estimated over twelve months. The worst damage was observed in the environmental sector where heavy flash flooding caused extensive soil erosion, formation of gullies, and clearance of forests; this has changed the natural landscape by turning the hills into valleys, and valleys into hills. This is an indication of how effects from unpredictable severe climate events ripple across different sectors. To restore the assets lost, recover from the damages recorded in different sectors, and improve the capacity of the community to withstand such unpredictable climate shocks, it is crucial to step up multi-stakeholder and multi-sectoral efforts, and introduce a robust intra-governmental coordination system.

The absence of a robust coordination system among government agencies at sectoral-based level will impede the effectiveness of policy actions in climate resilience and pastoral development. Integration of policy actions establishes a coherence among policy domains which in turn aids policy effectiveness and can lead to better climate governance.

Climate Change Mainstreaming

Climate change mainstreaming is one important aspect of enhancing coordination, and as such relates closely to the above emphasis on taking into account cross-sectoral effects of climate change. Climate change mainstreaming means assessing the implications of climate change in all policy sectors – and vice versa, to assess how policy development in different sectors contributes to climate change or its mitigation.

Mainstreaming climate change into sectoral policies and plans contributes to reducing vulnerability to climate impacts and variability, increases the adaptive capacity of communities and national activities facing climate impacts, and ensures sustainable development and the avoidance of decisions that will generate maladaptation (UNDP, 2011).

The Ministry of Environment and Climate Change (MoECC) of Somaliland organizes quarterly coordination meetings with partners in environment protection. Yet, the agenda of improving climate change adaptation is poorly and inadequately mainstreamed across different developmental sectors. Climate risks are inadequately considered, both in sectors indirectly or gradually impacted by climate change, and those already experiencing direct and evident effects.

For example, infrastructural developmental projects such as construction of road networks and bridges rarely calculate the future climate risks and climate variabilities on account of carrying capacity, which can potentially impact the built infrastructure. It is also clear that some of the local bridges and road networks constructed are already impacted by the intense storms and heavy flooding experienced in some locations, including the Berbera-Hargeisa main road.

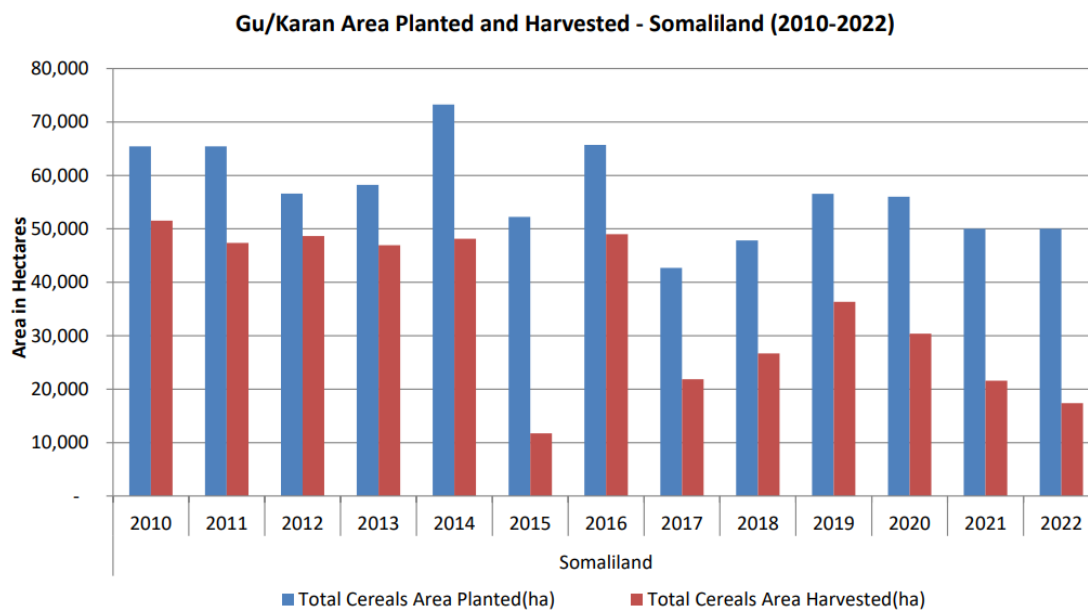
In terms of sectors currently experiencing direct evident effects, the agricultural sector is a key case in point. In this sector, the frequent droughts have severely impacted agricultural productivity and reduced the local production.

In figure 3 (below), in the years 2015, 2017, 2021, 2022 we can observe a decline in cereal production due to droughts. Reports reveal that the areas harvested are always smaller than the areas planted, indicating the loss of the expected harvest. While there can be other factors that impact the agricultural production, in the case of Somaliland, climate is the biggest determinant as agriculture activities are mainly rainfed, and subject to rainfall patterns and climate variability in general. According to an interview with the Ministry of Agriculture Development (MoAD), the agriculture majorly relies on traditional farming practices, and climate smart agriculture practices remain poorly employed in the agriculture sector. Unequivocally, agriculture production is vulnerable to climate change effects, and will decrease drastically if robust climate smart measures and techniques are not promoted by the Government and other actors, and employed by the agropastoral communities.

In sum, the complexity and cross sectoral impacts of climate change observed in different developmental sectors in Somaliland must inform the actions of policy makers in

systematically integrating and mainstreaming climate actions and policy-related frameworks across sectors.

Figure 3: Cereal production in Somaliland 2010-2022



Source: FSNAU, 2022

Policy Decentralization

The decentralization of government services including policies is an invaluable element in public service delivery, and can contribute to solving the grass root problems endured by the general population. According to interviews with government regional actors and communities, one of the key challenges related to implementation of policies at regional and community levels is the absence of a robust and systematic decentralization process from national, regional and district levels to community. The subnational capacities of the government agencies at regional and local levels are limited due to the centralized government system in Somaliland. The Organization for Economic Cooperation and Development (OECD) recognizes that decentralization outcomes depend very much on the way the process is designed and implemented, on adequate subnational capacity and on the quality of multi-level governance, including efficient co-ordination mechanisms across levels of government (OECD, 2019). The absence of an effective decentralization system in Somaliland obstructs the policy implementation process. Over the years, several efforts have been made to improve decentralization. The current climate crisis calls for further stepping up these efforts, and potentially experimenting with specific climate action and climate adaptation support can even serve as entry-points for taking forward decentralization.

Stakeholder Participation

From the outset, most efforts for climate adaptation have concentrated on top-down approaches (Bryan & Behrman, 2013). Yet, future climate change poses significant challenges for society, not least in terms of how best to adapt to the potential impacts to which the world is already committed. Adaptation is a dynamic social process and the ability of societies to adapt is determined in part by the ability to act collectively. The impacts of observed and future climate change are and will be clearly spatially and socially differentiated (Adger, 2001). The Sustainable Development Goals (SDG), under the Climate Action goal, also emphasize stakeholder participation, particularly community involvement—including women, youth and marginalized segments of the population—as an important element in climate-related planning and management, focusing on reaching those most affected by climate change.

The need for more in-depth stakeholder participation in Somaliland was a central point made in focus group discussions for this study. Communities are generally aware of impacts of climate change; however, there is very little community ownership of climate policies and plans because of inadequate consultations during planning and implementation processes. This leads to the need to engage grass root communities, take into account their views and capacities, including indigenous knowledge, that can feed into effective climate planning and policy implementation.

Stakeholder participation should also centrally involve the private sector. Indeed, there is a growing awareness that climate change governance requires not just international and state-level regulation and action, but also must involve collaboration with the private sector (Pattberg, 2022). Certainly, in Somaliland, the private sector could be much more systematically consulted and informed about the need to address climate change issues and associated cross-sectoral impacts. The private sector is at the centre of entrepreneurship and adaptive solutions in several policy, governance and economic domains in Somaliland, and its proper inclusion as a key stakeholder in the domain of climate adaptation is sorely needed.

In sum, as climate change impacts different sectors and stakeholders, and as climate effects often are location specific, adequate attention and consideration must be given to participation of all stakeholders (across national, regional, district and local levels – and across public and private sectors) on matters related to climate planning, policy development and implementation through the application of an inclusive and bottom-up approach.

Consultations

Discussions with the community and local actors in Togdheer region revealed that the policies related to climate change and pastoral development are always prepared at national level with limited participation from the pastoral community and local actors; and this carves out policy actions and frameworks that inadequately reflect the priorities of the communities regarding the pastoralist resilience to climate change. In focus group discussions, communities emphasized that some of the relevant tried and tested local

experience, including indigenous knowledge and practices that community members have, can be useful in efforts related to improving climate change adaptation. They require support and could be leveraged by the Government and other policy actors; however, this useful indigenous knowledge, including the traditional climate forecasting knowledge, or knowledge regarding fodder reserves and water management practices, is untapped and not inculcated into policy processes. The lack of participation of the pastoral community in the policy development process impedes the policy design and implementation outcomes, and eventually can even result in the production of locally inappropriate policy instruments and adaptation plans that cannot meet community ambitions.

It is important to highlight here that what needs to be strengthened is the connection and consultation between the government and other key local institutions and the communities (whereas side-stepping institutions altogether to focus only on implementation at the community level—as has been the tendency for certain external interventions—is also not sustainable as both community needs and knowledge need to be supported through institutional anchoring) (Moe, 2024).

Hence, there is a need to plan and put in place more systematic consultation processes and a mechanism for involving the pastoral community during the planning and development of climate policies and frameworks and to utilise ideas and indigenous practices of the community that can potentially be useful to climate change adaptation.

Whereas the section two has mapped out the key areas deserving further policy development and attention in the face of climate crisis in Somaliland, the section three offers an exploration of one core area for the development of climate change adaptation policy: participatory climate governance with a focus on the pastoral sector. In doing so, it elaborates on a number of the key points made in section two above.

3. Participatory Approach Towards Climate Governance and Pastoral Climate Resilience

Participatory approaches are the staple of multilevel governance, which is receiving increasing attention in debates on climate change governance (Huang et al., 2020). Participatory climate governance brings together different traditions of thought from politics and development studies to provide an alternative to rationalist linear paradigms on conventional environmental management that dominated during the 1990s (Kapoor et al., 2001). Empirical evidence suggests that active participation of civil society, including NGOs and communities, supports the formulation of policies better suited to actual alleviation of specific climate change impacts. For example, civil society plays a key role in improving the accountability of policymakers (Newell, 2008). Local communities are moreover equipped with context-sensitive knowledge that can play essential roles in project design, implementation, monitoring, and evaluation of mitigation and adaptation actions (Bäckstrand & Kuyper, 2017).

The role of the community in designing and implementing climate adaptation and policy measures is indispensable since they experience first-hand the effects of climate change. Also, there are community potentials that need to be leveraged by the government and other non-local actors as far as climate change adaptation is concerned.

Using focus group discussions and putting in place mechanisms for systematic consultation could allow for leveraging the potential of indigenous knowledge held by communities that can significantly support efforts in climate adaptation. These include, for example, the application of traditional climate forecasting practices that can provide a seasonal forecast of rainfall patterns, within which the likelihood of drought occurrences are projected. The important indigenous measures which the community employs to forecast climate include the observation of characteristics of winds, behaviors and propagation of some plant species, movement of some animal and insect species. Also available are traditional astronomers who apply indigenous knowledge in forecasting the seasonal rainfall patterns. Such knowledge cannot stand alone, of course, but can be integrated with modern climate forecasting systems. This holds potential for stepping up relevant climate-sensitive early warning systems. Besides this, in Boorama village, for example, the community has developed local regulations, appropriated by traditional leaders in the village, with the intention of halting some of the human-induced activities that damage the environment, including forest clearance and illegal poaching.

Investing in Climate Adaptation

The Somaliland economy is driven by the private sector. Unlike most other economies in the world, the government footprint is limited, amounting to under 10 percent of the gross domestic product. The resilience, vibrancy, and innovation of Somaliland's private sector are evident in all key aspects of the society. With a very limited enabling environment and minimal government support, the private sector has succeeded in delivering a range of key goods and services to the population (World Bank, 2016). While taking stock of the progress and developments made by the private sector in Somaliland, however, according to the interviews with both private sector and government respondents, the private sector has a limited footprint in climate change adaptation and environmental sustainability. The specific factors behind this include: climate adaptation projects require more resources and time; climate variability and unpredictability make adaptation a challenging task; the private sector tends to lack interest and instead focuses on economically vibrant sectors; and, finally, there is minimal government support for private sector involvement in climate adaptation. These are key factors that limit private sector investment in climate adaptation. In focus group discussions, the community exposed the potentials and possibilities of the private sector, particularly the livestock traders, to undertake investment and developmental projects in water, land, pasture and other environmental amenities. The investment and developmental projects made in these sectors can bolster the pastoralist resilience to climate change, and in effect improve Somaliland's overall economy. For example, if the private sector implements investment-oriented developmental projects in water resources, this can enable the pastoral community to have access to adequate water resources, and continuously provide water to their livestock and farms to supply local products to the market. The observable benefits can be a source of market functions, local economic growth, and strengthened adaptive capacity of communities. From this

perspective, there are opportunities to develop a cooperative investment which is mutually beneficial for all parties, where livestock traders and local financial institutions representing the private sector, government and pastoral communities engage in investment in climate adaptation.

Government Subsidy to the Private Sector

Providing subsidies to the private sector, including financial incentives, tax exemptions and other economic instruments, expedites private sector investment in climate change adaptation. The government subsidy has to be given to private companies that support and finance the adaptation plans of the local community – such as livestock traders and quarantine centres. Moreover, there should be increased efforts to forge Public Private Partnership approaches focused on the government and the private sector directly cooperating in financing and implementing projects that enhance pastoral climate adaptation. Extending government subsidies to the private sector on matters related to climate adaptation motivates the private sector, and also strengthens the climate governance mechanism. Indeed, government can use a variety of policy instruments to encourage individual citizens to take more climate action, such as legislation, taxation, and providing information (Henstra, 2016). One policy measure that is increasingly used to motivate behaviour is subsidies, granted to specific private sectors, that contribute towards the costs of mitigation or adaptation measures.

Livestock Insurance

Elaborating on the potential of stronger private sector engagement, a key opportunity is supporting investments in livestock insurance. Livestock is one of the resources most vulnerable to climate change impacts. Pastoralists have been practicing various methods to cope with climate effects, including herd mobility during drought in order to search for pasture and water, livestock diversification, and grazing management practices. However, the quest to mitigate the unfolding climate effects on pastoralism requires innovative ideas and mechanisms that improve pastoral resilience against climate change. There are opportunities to establish livestock insurance services for pastoral communities in Somaliland, taking into account the availability of vibrant private financial institutions and the need for alternative coping strategies. Livestock insurance provides livestock herders with protection from accidents and unexpected events that affect their livestock. In Somaliland, there are opportunities to offer the livestock insurance services to pastoral communities. There are social networks and structures available at community level in different pastoral villages such as Village Development Committees (VDC), Village Saving Loans (VSL) and farmer associations. These existing communal structures can be linked to local private banks, and various services including livestock insurance, micro-loans, and advisory services can be accessed by communities. The private sector, particularly the local banks, are able and willing to provide insurance services to pastoral communities so that they are insured against costs associated with livestock death and damages caused by the climate effects, particularly recurrent droughts. In support of such insurance mechanisms, the Government can participate through developing relevant policies and acts that can facilitate the livestock insurance services. The insurance service can be customized to meet the needs of pastoral communities, their capacity and available resources. The important

insurance services that can potentially be employed include weather index-based insurance that covers losses caused by extreme climate events such as droughts and flooding. This implies that pastoral communities are insured against losses resulting from extreme events caused by climate change. Weather index insurance products are generally most effective when targeted to protect against catastrophic weather events. The risk management strategies of farm households, including labour and crop diversification, risk-sharing reciprocal relationships of community members and sale of assets, break down when weather shocks result in correlated losses (Benjamin et al., 2009). Yet, there is growing attention to the application of index-based insurance, or so-called weather insurance, as an important mechanism to transfer risks, and sustain the market and local economy in developing countries (see also Collier et al., 2009). Though, with respect to unpredictable and frequent climate related shocks and associated impacts on pastoral livelihood that are felt in various locations, and by different communities in Somaliland, the application of such climate-based insurance services to mitigate the impact of climate change on pastoral livelihood is paramount.

Fostering the Role of the Community

Communities are the most important stakeholders in climate adaptation as they and their livelihoods are directly exposed to climate impacts. There are potential measures through which the pastoral community can participate in climate governance, adaptation, and stewardship of environment resources. Empowering local communities to employ community-driven customs and practices and locally agreed regulations will contribute to halting the negative human-induced environmental problems, including desertification and deforestation activities that contribute to environmental degradation. Also, there is growing recognition that effective climate governance can be achieved by ensuring that all stakeholders participate in the planning process and implementation of climate policies and adaptation plans. The Booramo village in Burao district, for example, has put in place locally designed regulations and associated fines with the purpose of halting human activities that destroy the environment. The adverse human-induced actions that are fined by the community include forest clearance for charcoal production. This is aimed at reducing deforestation. This aligns with research showing that good governance, with grounded legitimacy, occurs when societal norms and practices empower and encourage communities to take increasingly greater control of their own development, without impinging upon the accepted rights of others (Danjuma & Hamidu, 2016).

Making the best use of proximate and available resources to maximize the output achieved is also a key ingredient of a community governance system. However, to strengthen the governance mechanisms and climate adaptation, communities must be empowered to come up with locally designed rules, regulations and practices to safeguard important assets and manage human activities that could impede environmental well-being and community capacity in climate adaptation.

Conclusion and Recommendations

Global strategies and frameworks on climate change emphasize strengthening climate governance across global, national, regional and local levels as an indispensable measure in responding to climate effects. Yet, especially in regions affected by conflict, institutional fragmentation and limited resources for implementation are significant challenges. Gaps remain, in particular with regard to the application and promulgation of climate-related policies.

The Somaliland government has shown growing awareness of the importance of developing frameworks and policies to support climate adaptation. A range of frameworks and legislation related to climate change has been formulated, and some are currently under development by the Somaliland authorities. This demonstrates how climate change is a growing priority for Somaliland authorities, but also shows that significant gaps remain.

Numerous relevant policies and acts are yet to be fully designed and developed by the government, whereas those already existing face challenges in implementation. The implementation of the available climate-related policy frameworks and acts will also require systematic monitoring and evaluation, with a view to how to adapt them to the specific challenges and needs experienced by those most impacted by climate change. Coordination and mainstreaming of the climate agenda across developmental programs and sectors, climate financing, fiscal allocation, stakeholder participation and consultation in climate planning are important interventions that significantly impact the effectiveness of climate policies and adaptation plans.

To build up climate governance and improve pastoral resilience against climate shocks, it is necessary to establish participatory methods where various stakeholders, including the public, private, community and civil society organizations, cooperate in mitigating the climate crisis and reducing vulnerability of the pastoral community to climate effects. As such, private sector investment in climate adaptation programs, application of index-based insurance services, and the capacity building of communities in climate change adaptation are important strategies.

Recommendations to the Somaliland Government and other Somali stakeholders

- The government of Somaliland has to design and develop policy frameworks that are tailor-made to climate change adaptation needs in different sectors, predominantly for the livestock sector due to its economic and livelihood-based values.
- The Somaliland authorities in partnership with relevant stakeholder have to strengthen the operationalization of the established climate-related policy frameworks by providing the necessary technical, enforcement and financial supports.
- A robust intra-government and multi-sectoral coordination system must be established to effectively and systemically coordinate and mainstream the climate agendas.
- Adequate attention and consideration must be given to the participation of all stakeholders (across national, regional, district and local levels – and across public and

private sectors) on matters related to climate planning, policy development and implementation through application of inclusive and bottom-up approaches.

- Special consideration has to be given to community participation in the design and implementation of climate policies and adaptation plans as they are the core group experiencing climate effects; in the meantime, their potentials have to be leveraged, including indigenous knowledge in climate forecasting and environment management.
- Government of Somaliland has to establish mechanisms to provide subsidies to the private sector such as financial incentives, tax exemptions and other economic instruments to expedite the investment in climate change adaptation plans, and the participatory approaches in mitigating the climate crisis.
- Public Private Partnership approaches focused on the government and the private sector that directly cooperate in financing and implementing projects that enhance pastoral climate adaptation must be devised and scaled up.

Recommendations to the international community

- International bodies regulating and allocating climate finance and support to climate adaptation need to consider flexible, accessible and conflict-sensitive schemes to effectively support climate resilience where it is most needed.
- Somaliland's prioritization of climate change policy frameworks and its strong civil society organizations provide entry points for international support and can serve as a strong foundation for strengthening climate resilience in a locally relevant manner.
- The international bodies that provide climate funds and support have to consider providing a space for Somaliland to attend the multilateral and international platforms where the climate financing, scientific and strategic initiatives in climate adaptation in Africa and globally, are discussed.
- The pastoral sector is a central livelihood domain for Somaliland (as well as more widely, across Africa's Horn and the Sahel), and should be better factored into efforts to support the localization agenda toward strengthening climate resilience.

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