

NATURAL RESOURCES MANAGEMENT

SYSTEMS REPORT

MOYALE CLUSTER



Vast dry land that sustains pastoral farming is the main natural resource in Moyale Cluster. Browsers - camel and goats do well in this environment

DISCLAIMER

This report was produced at the request of the Cross-Border Community Resilience (CBCR) Activity implemented by Chemonics and ACDI/VOCA through funding from the United States Agency for International Development (USAID). The report was prepared independently by the Centre for Research and Development in Drylands (CRDD). The views expressed in this report do not necessarily reflect the views of the USAID or the United States Government.



FOREWORD

Commissioned within the context of the Cross-Border Community Resilience (CBCR) Activity, this Natural Resources Management (NRM) assessment report presents a comprehensive overview of the existing resource and natural resource management systems in the Moyale cluster. In so doing, the assessment examines the existing natural resources in the cluster, ownership and control of these resources among men and women, the formal and informal NRM arrangements at the local, national and regional levels, and changes in the natural resources over the years, as occasioned by climate change, human activity and large-scale infrastructure projects.

The report goes further to identify the main gaps in equitable and peaceful resource sharing and NRM including capacity needs at various levels, how arrangements can be strengthened, and how cross-border policies can be harmonized. Overall, this assessment provides crucial insights into the natural resource governance systems in the Moyale cluster, as well as the opportunities, deficiencies, and changes therein.

Such contextual information is important for the CBCR's programming, particularly with regards to contributing to the livelihood and social cohesion domains in the Activity's implementation. By and large, this NRM systems analysis is an invaluable tool in the CBCR's goals of contributing to the resilience of the cross-border communities, and thus reducing their need for humanitarian assistance.

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ACRONYMS

ACDI/VOC Agricultural Cooperative Development International and Volunteers in Overseas

A Cooperative Assistance

CCCF County Climate Change Fund

CIFA Community Initiative Facilitation and Assistance

CSO Civil Society Organizations

DRM Disaster Risk Management

DRR Disaster Risk Reduction

FAO Food and Agriculture Organization of the United Nations

FGD Focus Group Discussion

IUCN International Union for Conservation of Nature

KII Key Informant Interview

NGO Non-Governmental Organization

NRM Natural Resource Management

MoEFCC Ministry of Environment Forests and Climate Change

MoEF Ministry of Environment and Forests

MoWR Ministry of Water Resources

SND Strategies for Northern Development Africa

USAID United States Agency for International Development

WCCPC Ward Climate Change Planning Committees

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EXECUTIVE SUMMARY

The primary objective of this cross-border natural resource systems analysis is to present a comprehensive overview of the existing resource sharing and natural resource management (NRM) systems in the Moyale cluster. To this end, this study collated information on cross-border natural resource use systems in the cluster, examining the existing formal and informal governance structures, mechanisms and arrangements of natural resource access. It further assessed the changes in the governance structures, identifying the barriers to equitable and peaceful sharing and management of natural resources.

The study found that the existing formal and informal mechanisms and arrangements are generally inadequate in governing natural resource use and management across the cluster. The cluster's cross-border natural resource management (NRM) system comprises customary and formal systems, with the former being the most dominant governing system over resources such as wells, rivers, and water pans. In the past, the customary systems, through the application of indigenous knowledge, fulfilled the vital resource management role (even in the absence of secure ownership rights) and successfully controlled and regulated access to the area and the natural resources it contains. Nevertheless, the authority of the customary institutions has waned over the years as formal administrative systems were introduced that usurped parts of its authority. This makes them vulnerable to interference and disregard of customary rights by the government. At the same time, the national policy discourse in Kenya and Ethiopia has largely prioritized sedentary agriculture in national development plans, and shown less understanding of how pastoralist livelihoods and arrangements for natural resources management function both within and across borders.

Furthermore, at the inter-state levels, poor coordination efforts between the two countries to adopt existing regional policies to the local context is a limitation. The lack of a policy framework on how to integrate main policy to national and county-specific intervention frameworks is a huge impediment. Additionally, low policy literacy on cross-border natural resource management has limited effective policy engagement among cross-border communities and their respective administrations.

Gaps in equitable and peaceful resource sharing and natural resource management were found to include weakened indigenous institutions and increased disregard for them by the state. This disregard is manifested through the establishment of institutions such as committees that have legal legitimacy but no strong presence on the ground. Additionally, sections of communal grazing areas have been taken out of pastoral production systems by ventures such as large scale development projects and commercial agriculture and conservation agencies, often without consideration of the natural resource use systems and their impact on people's livelihoods.

This has created barriers for pastoral mobility, which is the main adaptive strategy used by pastoralist communities in their highly variable environment. These restrictions of movement have a direct impact on the productivity of the pastoral systems and result into further degradation of the land.

Moreover, the relevant government institutions mandated to support resource governance and sharing have limited manpower and capacity on the ground to initiate change. Often, staff in such institutions have low capacity on NRM and climate change, which hinders the localization and implementation of policies at the lowest administration levels in both countries.

Due to weaknesses in policy inclusion and adoption, less investment in infrastructure and public sectors has isolated pastoral communities from development, and created stigmatization of their livelihood systems which are viewed as "backward". As a result, policies that address pastoralist issues are absent or, where they do exist, are insufficiently implemented and have secondary impact. These policy gaps are coupled with changing environmental conditions that have increased the breadth and vulnerability of pastoralists. For example, the unprecedented and prolonged drought experienced at the time of this study is reported to be the worst in the last 40 years, and has thus weakened livelihoods systems and exacerbated food insecurity.

Shifts in institutional structures from customary to hybrid institutions, have seen improved considerations to include women, youth and people living with disability (PWDs) in various NRM-related committees. These changes have resulted from attempts to enforce gender-related laws and policies, which has somewhat improved the inclusion of the traditionally marginalized groups highlighted above. However, many of the institutions are still male dominated, and little attention has been paid to the power dynamics, participation, accountability, or independence of their mutually competing interests and spheres of influence.

In order to improve resource sharing and natural resource management in the Moyale cluster, this study recommends the following:

- There is a need to advocate for and support necessary policy reforms on inclusion and recognition of indigenous institutions in legal structures in order to integrate them within the formal institutions. Specific focus ought to include: facilitating policy literacy workshops to establish and guide implementation of the NRM legislative and policy framework at the local administration and community levels.
- Supporting local policy dialogues in order to raise awareness on the local/national/regional policies and legislation to effectively engage with the local governments on NRM issues.
- The capacity of indigenous institutions on integrated NRM systems, gender inclusion, and conflict resolution mechanisms needs to be strengthened.
- Empowerment of grassroots institutions, civil society, and local government agencies to take greater responsibility in cross-border natural resource governance and on the broader national governance changes is also recommended.
- Enhancement of advocacy to address the gender imbalances in governance systems and structures by providing targeted capacity building for women and vulnerable groups in order to facilitate their meaningful participation and influence in decision-making related to NRM in the cross-border areas.
- Overall, with the improvement of technological infrastructure in the region over the past decade, management and sharing of natural resources can benefit from application of improved communication using cell-phones and monitoring of resource conditions through advanced satellite systems.

1. INTRODUCTION

The Moyale cross-border cluster is found in the arid and semi-arid lands along the north of Kenya and southern Ethiopia borderlands. The area is characterized by high temperatures, high rainfall variation, low vegetation scrublands, and patch grazing resources¹. However, these cross-border areas are endowed with a wide array of shared natural resources, including water resources, grazing lands forests, salt licks, minerals such as gold and limestone, and a huge variety of grasses, sand, gravel, honey, and plants and shrubs that are used for livestock grazing and browsing, for medicinal plants, and other purposes.

The Kenya-Ethiopia Moyale borderlands are inhabited by various ethnic communities that include the Gabra, Borana, Turkana, Somali, and the Dassanach. The majority of these populations practice pastoralism as their main source of livelihood, with a small proportion practicing crop production and trade². They keep varied livestock species that mainly comprise cattle, camel, goats, and sheep. These livestock make use of naturally regenerated pastures whose occurrence highly varies over space and time. The communities use mobility as an adaptive strategy to track the highly varied grazing resources. Production in these environments requires reliable management systems to sustain livestock productivity. These management systems have been actualized through longstanding indigenous institutions that play key roles in governing access rights to the varied resources by the different communities, and require intricate negotiations and regulation of sharing of water and pasture resources³.

These cross-border localities are also characterized by chronic vulnerability, particularly from frequent droughts that limit regeneration of the natural pastures, resulting in feed shortages that lead to mass deaths of livestock. The climatic threats to the border population pose further risks to the local pastoralist economy, affecting livelihoods, and further worsening food insecurity in the border region.

The trans-border interaction between Kenya and Ethiopia is rife with economic activities and natural resource sharing by the local communities due to their shared language, culture, and trade. The strong interrelationship in the socioeconomic and sociocultural characteristics makes management of shared natural resources an ecological and livelihood necessity. Such shared resources are easily affected by factors such as unpredictable weather patterns, poor resource governance regimes, conflict, and inadequacy in infrastructure distribution. The exchanges and interactions between the communities along this border play a critical role in the stability and sustainability of the livelihoods of the communities.

In addition to the increased variability, weakening of indigenous institutions has seriously curtailed the mobile system of utilizing the natural grazing resources. Secondary and increasing colonization of formerly productive rangelands by invasive species further reduces the availability of livestock forage, reduces forage quality and grazing potential of their landscapes, predisposing the pastoralists to the impacts of the changing climate.

¹ Coppock D. L. (1994). *The Borana Plateau of southern Ethiopia: synthesis of pastoral research, development, and change, 1980-91*. International Livestock Research Instititute. https://digitalcommons.usu.edu/envs_facpub/242/

² Marsabit County. (2013). *Integrated development plan (CIDP) 2013-2017*. https://repository.kippra.or.ke/handle/123456789/90

³ Pavanello S. and Levine S. (2011). *Rules of the Range: Natural Resources Management in Kenya–Ethiopia Border Areas.* Humanitarian Policy Group (HPG). https://www.files.ethz.ch/isn/133574/5976.pdf.

Moreover, the overall resilience of community institutions and livelihoods systems has been weakened by the recurrent tensions and violent conflicts in the cross-border areas of the Moyale cluster. The ecological connectivity and inter-relationship among the economic, social, and environmental traits of the cluster imply that there is an interdependency and sharing of natural resources by the populations in the Ethiopia-Kenya borderland. Although there are various regional and national level policy frameworks to promote cross-border utilization of resources by the pastoralists to enhance resilient livelihoods, cross-border mobility is hindered by various hurdles. Limited economic and livelihoods diversification is a key risk factor that aggravates the levels of vulnerability of cross-border pastoralist communities. Thus, their vulnerability is exacerbated by unpredictable weather patterns, poor governance structures, conflict, and inadequate infrastructure.

It is against this background that Chemonics International and ACDI/VOCA, under the East Africa Feed-the-Future and the USAID Resilience Challenge Fund, have commissioned the cross-border natural resource systems analysis in the Moyale cluster. The study sought to engage stakeholders in the Moyale cluster to articulate the current cross-border natural resource management (NRM) scenario, and to explore emerging NRM-related opportunities and challenges on governance and equitable resource sharing, with the view of informing the Cross-Border Community Resilience (CBCR) Activity. The purpose of the CBCR Activity is to contribute to the resilience of cross-border communities, including those in the Moyale Cluster, with the goal of reducing their need for humanitarian assistance.

The primary objective of this cross-border natural resource systems analysis is to present a comprehensive overview of the existing resource sharing and NRM systems in the Moyale cluster. As in other borderlands, communities in the Moyale cluster rely heavily on land and water for opportunistic farming and livestock production. At the same time, these resources, particularly land and water, face multiple threats from large-scale infrastructural development, extractive industries, and climate change among others. Existing resource sharing arrangements and mechanisms among cross-border communities continue to weaken in the face of these changes, as conflict over resources escalates. To this end, the analysis of cross-border NRM systems also involves an examination of informal and formal governance structures, mechanisms, arrangements, and relevant legislative frameworks, strategies, and policies at national, regional, and international levels. Thus, the analysis identified some of the main gaps in equitable and peaceful resource sharing and NRM, including capacity needs at various levels, how arrangements can be strengthened, and how cross-border policies can be harmonized.

This study reveals that natural resource governance in the Moyale cluster primarily occurs via the interactions of formal and informal institutions. While customary institutions were previously the main stewards of the natural resources, their influence has waned as their authority has increasingly been usurped by formal administrative systems. In a bid to strengthen natural resource governance, hybrid institutions that borrow management principles from both customary and formal institutions have been established to manage various natural resources. However, such hybrid institutions have not been able to command the level of legitimacy previously commanded by the customary institutions.

On the other hand, facilitation of the access to cross-border resources by the communities in the cluster continues to be hampered by weak interstate coordination of the adoption of existing regional policies to the local contexts. Moreover, the relevant government institutions mandated to support resource governance and sharing are limited in human resource capacities to initiate change on the ground. Additionally, as other development projects also compete for land, pastoral resources are being lost as the grazing areas are converted to other uses such as large scale development projects, commercial

agriculture, and conservation initiatives. This challenges resource management and utilization practices such as strategic mobility.

The report suggests that in order to improve resource sharing and NRM in the Moyale cluster, there is a need to advocate for and support necessary policy reforms to enhance recognition and inclusion of customary institutions in legal governance systems for improved authority and governance. There is also a need to facilitate policy dialogues in order to raise the awareness of communities and policy implementers in local government on existing local/national/regional policies and legislations for effective utilization in natural resource governance. Further, the capacity of customary institutions on integrated NRM systems needs to be strengthened for improved gender inclusion and conflict resolution. Moreover, the management of natural resources needs to take advantage of the advancement in technology such as satellite systems and cell phone capabilities.

This report is organized into four sections. After this introduction, the next section presents the methods used for collecting and analyzing the primary and secondary data on which this report is based. After that, the report presents findings on the formal and informal governance structures, mechanisms and arrangements, and changes in structural governance, and highlights the gaps in equitable and peaceful resource sharing and NRM. Finally, the report summarizes the findings and suggests some key recommendations for the CBCR Activity on improving natural resources sharing and management in the Moyale cluster.

2. METHODOLOGY

In the frame of the objectives of natural resource systems in the CBCR Activity's areas of operation, this study's approach involved: 1) identification of the key natural resources and the key actors that utilize and manage the shared resources, 2) characterization of the key NRM policy frameworks and structures within and across borders, and 3) identification of supporting and constraining factors in equitable resource sharing and NRM for peaceful co-existence.

The study therefore employed a qualitative approach starting with secondary research/desk review, after which primary data was collected through key informant interviews (KIIs), focus group discussions (FGDs), and a participatory resource mapping exercise. A total of 47 local interviews were carried out, including with community leaders and representatives of government, local and international non-governmental organizations (I/NGOs) in the study areas highlighted below.

2.2 Study Area

The study was conducted in the Moyale cluster along the northern Kenya and southern Ethiopia borders. The population in the Moyale cluster have shared language and culture. The cluster is mainly composed of the Borana, Garre, Gabra, Rendille, as well as other smaller ethnic entities. The study area also shares important links with the South Sudan southeastern border and the Ugandan Karamoja region (also called the Karamoja cluster).

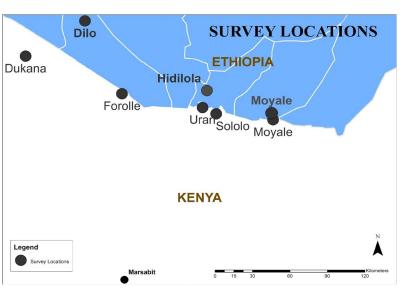


Figure SEQ Figure * ARABIC 1: Location of study sites in Kenya and Ethiopia (sketch by CRDD research team)

This study was conducted in Uran,

Sololo, Dukana, Forole, Moyale Town (Odha) in Marsabit County, Kenya, and Moyale town (Hararsam), Hidilola, and Dillo in the Borana plateau of Ethiopia.

Country	County/	Villages	Target Beneficiaries
Region	Zone		
Kenya	Marsabit	Uran, Sololo, Moyale town	Women's groups, youth groups, village committees (rangeland, water, DRR etc.)
		Dukana, Forole	community members village elders, chiefs, religious leaders, women's and youth groups' leaders, government officials,
Ethiopia	Borana zone	Moyale town, Hidilola, Dillo	development partners

2.3 Data Collection and Analysis

As already highlighted, the study builds on secondary literature with relevant contexts in order to provide information that is specific to Kenya and Ethiopia, and the region's cross-border natural resource sharing and management. In addition to the literature, the study employed qualitative research tools, which included semi-structured interviews with 23 key informants, FGD guides, and participatory mapping in 24 sessions (using interactive rather than extractive methods).

The collected data was transcribed and coded, triangulated, synthesized, and summarized for analysis. Notes were used to populate a pre-analysis template to identify and highlight important points, compare emerging themes, and identify gaps and informative quotes by triangulating data via identification of consistencies and inconsistencies across different interviewee/discussion accounts.

The study used content analysis to identify the concepts within textual data and combined them into segments for separate units of analysis (themes): NRM landscape, policy process and implementation, changes in governance structure, and natural resource use and equity. Selective coding was used to further sub-categorize the key concepts based on the themes in order to extend the theories on the commonly held perceptions and identify patterns in the data. Nvivo was used to synthesize the emerging themes by tabulating across the different components of research, identifying complementarities and contradictions in the various research findings, and the overarching stories they convey.

Data triangulation involved cross-checking different interviewees' accounts for consistency, and in cases where accounts disagreed, conducting further analysis or data collection. Investigator triangulation involved multiple analysts contributing to the analysis, and in cases where interpretations differed, data was re-examined before reaching an agreed interpretation.

2.4 Limitations of the Study

The qualitative study was a combination of interviews with key informants and desk review of relevant literature. However, not all the key informants/official respondents were accessible due to other urgent commitments, the severe drought situation at the time of the study, the slow return to work after the August elections in Kenya, and uncertainty on transfers and bureaucratic constraints within the study area.

The limited time reduced the possibility of alternative interview appointments as follow-up through phone calls and email was also not as successful as expected. However, more data and guidance were sourced from further literature review. Moreover, the draft report presentation at the validation meetings on October 5-6, 2022, in Marsabit (Kenya) and Moyale (Ethiopia), respectively, yielded additional information through feedback and sharing of literature in order to ensure that most information gaps were addressed.

2. FINDINGS

This section provides details on the current resource sharing mechanisms among the inhabitants of the Moyale cluster, and the management systems that oversee natural resource management (NRM) in the region. As a start, it should be acknowledged that being predominantly pastoralists, the communities regard grazing resources (pasture and water) as the primary resources that enable life and livelihoods. The resource sharing mechanisms, according to study respondents, and the corresponding management systems are majorly based on these resources.

The main communities that are involved in resource sharing in the Moyale cluster are majorly the Gabra and the Borana that reside along the Kenya-Ethiopia border. These two communities share language, culture, and natural resource governance and resource sharing systems. This section, therefore, is based mainly on the resource sharing principles used by the two communities and the NRM systems. Further, a reflection on the influence of cross-border resource availability and sharing arrangements on human and livestock mobility is provided.

3.1. Existing resource sharing mechanisms and NRM systems among cross-border communities

Natural resource sharing through reciprocity is at the core of pastoral livelihoods globally, and the Moyale cluster is not an exception. Given the erratic and high variability nature of rainfall in the region, the distribution of grazing resources varies over space and time, and it is not possible to predict where the occurrence of the resources may be⁴. Thus, cooperation and resource sharing in the pastoral commons is the norm. While proponents of Malthusian theories⁵ posit that resource scarcity is central to disputes over resource utilization among communities, other studies⁶ argue that even in conditions of scarcity, resource sharing mechanisms allow access among communities. Where conflict occurs, it is often coupled with other underlying socio-economic and political factors⁷.

The Gabra and Borana of the Moyale cluster have had longstanding arrangements of resource sharing mechanisms within and between the two groups. The resource sharing mechanisms among these communities predate the colonial times. Because the two communities were regarded as one by colonial administrators, they were grouped together in the resource sharing plans that separated grazing areas of other ethnic groups⁸. Even in such closely related groups, there have always been some form of negotiations where elders send emissaries informing their counterparts of their intention to access certain resources. The elders on the other side usually allocate the requesting party settling areas and accommodate them in the watering roster, which is an important resource used to control access to the corresponding grazing areas.

The Gabra and Borana have an intricate water access system that is managed through well-established ownership structures. Water points such as wells and pans are clan owned, with their management vested in a clan appointed elder (*abba herega*) whose main role is to manage the watering roster

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⁴ Krätli, S., & Schareika, N. (2010). Living off uncertainty: The intelligent animal production of dryland pastoralists. *European. Journal of Development Research*, 22, 605–622. https://doi.org/10.1057/ejdr.2010.41

⁵ Homer-Dixon, T.F. (1994) Environmental scarcity and violent conflict: evidence from cases. *International Security*, *19* (1),5–40. https://doi.org/10.1162/isec.19.1.5

⁶ Bogale A., & Korf, B. (2007). To share or not to share? (non-) violence, scarcity and resource access in Somali Region, Ethiopia. *The Journal of Development Studies*, 43()4, 743-765, DOI: 10.1080/00220380701260093

⁸ Kenya National Archive - KNA/PC/NFD 1/2/1 Marsabit district annual report 1922

allocated by the elders (*Jarsa deedha*). While the grazing lands of these communities collectively belong to the members, the strict management of water resources is what determines access and sharing of the resources⁹. This resource sharing mechanism is embedded within an overarching institutional framework, which we now turn our attention to.

3.1.1. Institutional landscape for natural resource governance

Sustainable natural resource governance requires an institutional framework that interacts with and is strongly embedded in the social and ecological systems. Governance structure, in this study, is broadly defined to include informal and formal organizations, laws, customs, and social practices that influence peoples' behavior in a society or economy¹⁰. To address institutional gaps in cross-border natural resource management (NRM) effectively, it is important to understand the institutional structures in place. The nature of interaction between the formal and informal institutions determines the kind of resource governance outcomes.

Historically in these cross-border areas, as with many communally owned and primarily pastoralist areas, indigenous institutions have fulfilled the vital resource management role (even in the absence of secure ownership rights), and have successfully controlled and regulated access to the area and the natural resources it contains. The borderland communities have a customary common property regime and vested land ownership, which have established associated community institutions to manage the land.

The study findings reveal that in both countries, the indigenous institutions are under the *Gada* among the Borana, and the *Yaa* system among the Gabra pastoralists. These institutions oversee the social-cultural and resource management among the pastoralist communities, with the broad aim of safeguarding communal interests¹¹. According to the community respondents, these institutions strengthen surveillance of their communal resource boundaries, governing access to the natural resource by determining what can be used, when, and for how long. The respondents further reported that these institutions ensure that the negotiations for access to grazing resources is according to community rules and norms, and guide social organization for transparent decision-making. This is organized through different assemblies, thus creating peace, security, and law and order, in accordance with the roles of community policing and conflict management.

The *Gada* and the *Yaa* are composed of selected clan elders who provide leadership over a given period of time ¹². The membership of these institutions is entirely made up of men with, the women providing support in performance of rituals and ceremonies within the villages where the *Gada* and the *Yaa* reside. The decision-making processes by these institutions, therefore, do not directly include women participation. The *Gada* and the *Yaa* do not indulge in day-to-day management and resource sharing duties but are rather legislative assemblies that provide direction to the overall natural resource

⁹ Tache B. and Irwin B. (2003). *Traditional institutions, multiple stakeholders and modern perspectives in common property: Accompanying change within Borana pastoral systems*. International Institute for Environment and Development Change (IIED). https://www.iied.org/9238iied

¹⁰ Bevir, M (2012). Governance: A Very Short Introduction. Oxford University Press.

¹¹ Ketema, D. (2015). Beyond the commonality and expression of Oromo civilization: The mediating role of Gada system for commons management of natural resources. *International Journal of Current Research*, 7, 20223–20229.

¹² Tablino, P. (1999). *The Gabra: Camel nomads of northern Kenya*. Paulines Publication Africa; Legesse, M. (1973. Gada: *Three approaches to the study of African society*. The Free Press.

governance. They are vested with powers of legislation that include undertaking law reforms, reiterating old laws, and enacting new ones.

The management of natural resources among these communities is through sets of elders organized at various levels (see Table 2) that work under the general guiding framework provided by the *Gada* and the *Yaa*. This organization is mainly guided by the location of permanent water wells and the associated grazing lands. At the larger level, the grazing lands are divided into *deedha*, which encompass several permanent wells and adjacent grazing areas, and are managed by elders referred to us *jarsa deedha*. Below the deedha are the *madda*, which are specific water wells, and grazing is overseen by *jarsa madda*. The *jarsa madda* are comprised of elders from village encampments (*jarsa ardaa*) associated with a given permanent water source. At the lowest level are the specific water point managers, the *aba herega*, who oversee water management, and *aba deedha* overseeing pasture management.

In all these levels of customary institutions, women are not directly appointed as members, thus limiting their ability to directly engage in resource sharing and management. However, given that access to the resources is communal, women's access to these resources is not necessarily hindered by these institutional arrangements. Grievances on access are usually channeled through the graduated levels of elders, with the ultimate decision being made by the *Gada* and the *Yaa*.

Table 2: Summary of the indigenous institutions for natural resource governance among the Gabra and the Borana borderland communities

Governance mechanisms	Roles and responsibilities	General gaps in governance
Gada/Yaa	 They are a group of elders responsible for coordinating and managing the institutions for rangeland management and access to water, in addition to managing other social and cultural affairs of the communities. 	 They lack recognition in the countries' legal systems, which limits their capacity to enforce rules. In recent times, they are also
Jaarsa deedha	 These comprise elders from areas served by several wells, and they manage the associated grazing lands. They are responsible for coordination of access of cattle to shared seasonal grazing areas. Are also responsible for negotiation of access between the neighboring ethnic communities 	disregarded by certain sections of the community e.g., the youth Roles and responsibilities usurped by other administrative arms of government, such as internal
Jaarsa madda	 They are a special assembly of elders that govern the grazing areas associated with a specific permanent water source. They are responsible for the coordination of each well with the use of adjacent pasture and assembly during emergency at clan level. 	security, that have no mandate in NRM
Jaarsa ardaa	 They head the smallest level of settlement, usually 30 to 100 households. Composed of heads of households who are responsible for the affairs of encampment at its initial stage and decide when and where to move cattle. 	
Abba herrega/Abba deedha	They are a distinct group of elders in charge of administration of water and grazing resources respectively.	

Source: Adapted from interviews with key informants

These institutions, which collectively comprise the *deedha* system for NRM, stipulate the relocation and concentration of livestock settlement in a pattern that demarcates wet and dry season grazing sites. Though these informal institutions may lack the legal mandate to govern natural resources within and across borders, they have legitimacy with regards to the importance of their roles and enforcement of rules as elders.

With the weakening of the customary NRM systems, there has been development of hybrid institutions. These hybrid institutions are based on formal systems but incorporate some governance principles from the customary practices. According to study respondents, the hybrid institutions are supposed to work collaboratively with the local administration towards a shared goal or objective, such as in peace negotiations and enforcing penalties in case of aggrieved parties across borders. These institutions take the form of committees and associations such as the water users' committees, grazing committees, environmental, and peace committees. One of the motivations for creating such institutions was the need to improve gender representation in resource governance and decision-making.

The study findings reveal that the Moyale cluster communities have constituted several NRM committees who independently represent community members from their respective territories. These formal and hybrid committees collaboratively work together in the borderlands of Ethiopia and Kenya, but are unilaterally formed in each state.

For instance, on the Kenya side of the Moyale cluster, the study re-affirmed the existence of formal committees that govern the shared resources. These include climate change committees, water users' committees, forest users' committees, and rangeland management committees; all of which have specific mandates. For example, the water users' committees manage water sources around the settlements, such as boreholes, and collect revenue for maintenance of the boreholes. The county and ward-level adaptation committees are responsible for the prioritization of County Climate Change Fund (CCCF) expenditure, and ensure that most of climate finance reaches vulnerable communities at the local level. They work together with the lower-level Ward Climate Change Planning Committees (WCCPC), which ensure that the development needs of the community are taken into consideration. The community forest users' committees protect and co-manage conservation of forests with the county and central government.

The conception and operation of these hybrid institutions are linked to various policy and legal provisions in Kenya. One major guide is the 2010 Constitution, particularly Article 42 of chapter four, which recognizes a healthy environment as a right to every person and calls for "sustainable exploitation, utilization, management and conservation of the environment under article 69(2)". It is from that basis that the national and county policies provide a legal framework for the establishment of NRM institutions with legislative bodies such as the water resource users' association¹³, rangeland users' association¹⁴, and forest users' association¹⁵.

¹³ Water Act, 2016.

¹⁴ Republic of Kenya. (2021). *Range management and pastoralism strategy 2021-2031*. Ministry of Agriculture. https://www.iyrp.info/sites/iyrp.org/files/Kenya%20Range%20Management%20%2B%20Pastoralism%20Strategy%202021-31.pdf

¹⁵ Republic of Kenya. (2020). *National forest policy 2015*. https://kewasnet.co.ke/download/national-forest-policy-2015-23-03/

The institutional infrastructure in Ethiopia is similar to that of Kenya. Ethiopia has established water committees that are responsible for managing water points in the communities, including maintenance and repair of the water supply systems. Similar to the water users' associations in Kenya, the respondents cited that they have received a lot of government support to maintain broken water points through the provision of a technical person to repair boreholes. The environmental management committees are based at the *woreda* (district) level, and their role is protection and conservation practices (water, forestry). Additionally, they are responsible for preparing and implementing community environmental management plans.

Study respondents revealed that the main challenge with these hybrid institutions is that their mandate is limited to resource use at the settlements, with no legal authority to enforce rules within or across borders. They do not also necessarily take care of the pastoralists' interests due to the void in policy and law in dealing with NRM within and across borders.

However, as a departure from the past, women's inclusion has particularly improved after influence from global campaigns on gender rights that have equally been incorporated in the states' legal systems. For example, on the Kenyan side of the cluster, the two-thirds gender rule is something the respondents of the study were aware of and acknowledged its adoption in the various committees¹⁶. At the same time, it was observed that in certain cases, gender inclusion is done to basically tick the box of legal provisions, and it is not enforced for quality participation by women and the youth.

In summary, on both sides of the Moyale cluster, the evolution of institutional architecture is similar, with a strong foundation of traditional institutions for shared resource management that are complemented by state institutions spread across a number of line agencies. However, due to constrained institutional capabilities and shifting governance, pastures, water sources, and dry lands forests continue to deteriorate in both countries. This is especially so in a context of insecure land rights, weakened indigenous institutions, and impacts of unprecedented drought. The use and consumption pattern of these resources on both sides of the cluster is determined by many factors, ranging from the number of livestock, human population size, vagaries of climate change, and the level of enforcement of national and cross-border policies.

According to one of the participants in a FGD in Sololo, Kenya, "...before there was no large population, but right now the population is huge." The participant further observed, "In the past, the grazing land [was] enough, there was no cultivation of land but now the grazing field has reduced, all these changes have caused problems." 18.

The changing context requires institutional frameworks to adapt and effectively govern these dwindling resources. However, the weakness in the existing informal institutions limits their ability to respond to the changes. Furthermore, the degradation of natural resources has been reported to be aggravated by

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¹⁶ The two thirds gender rule is a constitutional rule in Kenya articulated in Articles 81, 175 (c), 197 (1) that stipulate that not more than two-thirds of the members of elective or appointed public bodies shall be of the same gender. This is diffused downwards to representative bodies such as committees at the local level.

¹⁷ FGD participant, Sololo, Kenya, 24 August 2022.

¹⁸ Ibid.

lack of comprehensive government policies, institutions, processes, and the power relations affecting governance of natural resources¹⁹.

Although hybrid institutions work with the support of the government administration, they have not gained legitimacy among the communities to the same level as the indigenous institutions. Respondents pointed out aspects such as corrupt practices as the undoing of the hybrid institutions. With increased recognition of the former indigenous institutions, there is need to entrench influential indigenous practices in government level policies and frameworks.

3.1.2. Policy landscape for natural resource governance

Political and institutional reforms in both Kenya and Ethiopia have resulted in decentralized governance and institutional structures. In both countries, there is authority to manage political territory, including mobility, in regard to security, trade, infrastructural investment, or national borders. This section of the report discusses the formal institutions in policy formulation and implementation on multiple levels - local, national, and regional - together with the technical dimensions of cross-border NRM. For each of the two countries that the Moyale cluster straddles, the various policy frameworks related to resource sharing and management are analyzed with additional details provided in the appendices of the report.

ETHIOPIA

The Ethiopian 1995 federal constitution provides for some rights of the people and the responsibilities associated with protecting the environment²⁰. As a result, the Ethiopian government has formulated and implemented socio-economic development policies, strategies, and programs in various sectors in support of NRM and climate change. Local level entities consist of regional states, and zonal and *woreda* governments. The federal government is responsible for drawing up general policies pertaining to common interests and benefits, while regional governments are usually implementers of these policies²¹.

Ethiopia's national policies embrace a multisectoral approach that integrates NRM components within multiple sectoral policies. Institutionally, the NRM department is within the Ministry of Agriculture that hosts inter-ministerial committee representatives from the Ministries of Health, Industry, Water, Energy and Mines, and the Environmental Protection Authority²². As such, the multi-sectoral approach implies that the policy environment has well-established frameworks to coordinate and facilitate implementation. The Environmental Policy of Ethiopia 1997, the National Occupational Safety and Health Policy 2014, and the Climate-Resilient Green Economy (CRGE) strategy have guidelines and regulations on climate change. The summarized policy matrix is annexed to this report.

Although Ethiopia's policy frameworks are integrated, none has a structural framework that reaches the lower administration levels to facilitate implementation. Implementation of the Environmental Policy of Ethiopia 1997 and the Ethiopia Water Resources Management Policy (WRMP) 1999, in particular,

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¹⁹ Springer, J., Campese, J., & Nakangu, B. (2021). *The natural resource governance framework: Improving governance for equitable and effective conservation*. International Union for Conservation of Nature (IUCN). https://doi.org/10.2305/IUCN.CH.2021.16.en

²⁰ Hagos, M. (2021). Environmental policy of Ethiopia: Implementation and challenges. *International Journal of Political Science and Development*, *9*(4), 43-149.

²¹ Tamrat, I. (2008). *Policy and legal framework for water resources management in Ethiopia*. Forum of Federations. https://forumfed.org/document/policy-and-legal-framework-for-water-resources-management-in-ethiopia/

²² Mitike, G., Motbainor, A., Kumie, A., Samet, J., & Wipfli, H. (2016). Review of policy, regulatory, and organizational frameworks of environment and health in Ethiopia. *The Ethiopian Journal of Health Development, 2016*(30), 42-49.

is complex and they are yet to be adequately translated on inter-sectoral programs of joint actions. This is because they lack the capacity to set up appropriate institutional arrangements in different aspects of NRM. Several studies indicate that the Ethiopian government lacks coordination and effective communication with different stakeholders, local development organizations, and environmental promoters, thus negating the purpose of having a multisectoral approach²³.

Additionally, the WRMP 1999 is yet to be translated into specific laws, regulations, plans, and strategies. Without these provisions, the resultant overlapping and, at times, conflicting responsibilities among the various local levels of governance and institutions makes enforcement of rules and regulations a challenge. For example, the Ministry of Water and Resources (MoWR) is mandated to issue permits for water use among other functions, but lacks the mandate to regulate water use as that function is based regionally with the river basin organizations (RBOs). In addition, the MoWR has the overall jurisdiction over the management, utilization, and administration of the water resources, including trans-regional or trans-boundary resources.

However, there is an exception in the water resources policy whereby ground waters and lakes are confined within regional states' boundaries. This creates a significant impediment on the management and planning of the water sector. This is problematic in resolving conflicts, for example, with respect to water allocation and prioritization of projects within the basin. This is because of lack of clear mandate on the authority to handle such disputes even across borders on shared water projects²⁴. The Ethiopian government made positive strides to initiate a water policy review in 2020, though at the time of the study, it could not be ascertain if the reform process was actualized.

Another key challenge is that the Ethiopian policy environment on NRM requires all the agencies to have very efficient and effective institutional mechanisms to implement the policies. This leaves no room for change or readjustment of strategies, which hinders policy implementation and adaptation to the current development challenges. Furthermore, some policies such as the Rural Land Administration, the Land Use Proclamation (No. 456/2005), and the Environmental Policy of Ethiopia1997 were formulated more than two decades ago, with no or limited reforms since.

Most policies are formulated at the federal level where most of the technical experts are situated. There is a lack of skilled technical persons at the lower levels of policy implementation. Additionally, it was evident during the study that the policy literacy among state officials, civil society, and local communities is very low. This hinders effective operationalization and translation of policies enunciated at the federal level at the local and community levels due to lack of knowledge on the community's experience on accessibility to natural resources. Multiple policies need to be revised in order to encompass the current development challenges experienced by cross-border communities, especially pastoralists.

KENYA

The policy framework in Kenya has made reasonable attempts to incorporate more pastoral friendly institutional provisions. Numerous instruments for NRM have been implemented to strengthen

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²³ Zikargae, M. H., Amanuel G. W., & Terje S. (2022). Assessing the roles of stakeholders in community projects on environmental security and livelihood of impoverished rural society. *Heliyon 8*(10), 1-7.

²⁴ Mbaku, J. M. (2020). *The controversy over the Grand Ethiopian Renaissance Dam.* Brookings. https://www.brookings.edu/blog/africa-in-focus/2020/08/05/the-controversy-over-the-grand-ethiopian-renaissance-dam/; Peña-Ramos, J. A., José López-Bedmar, R., Sastre, F. J., & Martínez-Martínez, A. (2022). Water conflicts in Sub-Saharan Africa. *Frontiers in Environmental Science*, 1-18.

decision-making at lower levels, with key roles played by recognized indigenous systems of governance. Furthermore, the key ministries handling different natural resource areas have been instituted to administer the policy and legal framework at both the national and county level.

In the last decade, the policy formulation in Marsabit County has been very slow. To this end, the respondents revealed that several policies such as the Environment and Natural Resource Management policy and Rangelands Management policy have been drafted, and are awaiting approval by the County Assembly. Some of the challenges the respondents cited were lack of capacity within the county departments, parliament committees, and civil society, which has greatly impeded the policy process in the county.

Additionally, there is heavy reliance on external funding to support policy formulation, and poor political will in the County Assembly to make commitments towards policy engagement processes. The "devolution of resource management and financing such as the Constituency Development Fund (CDF) provides opportunities for "real" community participation in planning and decision-making"²⁵ at all levels of administration. However, the study findings reveal that public participation only entails budget planning. Respondents, however, mentioned that they go through the stated development activities and discuss budget allocations with no prior knowledge or understanding of how the allocation process came to be, and if their views on the budgetary process are taken into consideration, they do not get any feedback.

Therein lies the opportunity to support policy processes at the county by strengthening policy literacy and engagement at the administrative, institutional, and community levels, and supporting policy engagement forums to influence policy actions and engagement. Developing a policy literacy strategy to demonstrate functional approaches will work towards incorporating research evidence to inform NRM development practice and further the adoption of functional policies that address cross-border NRM.

The study findings revealed several factors that support coordination, integration, and engagement in policy processes. One of these factors is the presence of an enabling Disaster Risk Management (DRM) policy framework to support policy implementation both at county and national levels. According to the study respondents, this policy framework has capitalized on research evidence to guide disaster management response activities and development programming in disaster management adaptation and mitigation plans. However, evidence suggests that under the Disaster Risk Reduction (DRR) policy framework, strong institutional structures such as the National Drought Management Authority (NDMA) and the grazing management committees, currently being formed at the ward (community) level, have enhanced the capacity in drought response and mitigation, in coordination with the local authorities and civil society. Additionally, there has been a proactive management and coordinated multisectoral approach in policy processes through the County Steering Group that has received a lot of external funding, goodwill, and technical support from both the political elite and international/local partners.

Despite these progressive initiatives, Marsabit County still has a long journey ahead to enhance policy engagement processes. Evidence suggests that there are a limited number of policies that address cross-border NRM at the county and national levels. The benefit sharing of natural resources has been

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²⁵ Yatich, T., Awiti, A. O., Nyukuri, E., Mutua, J., Kyalo, A. M., Tanui, J., & Catacutan, D. C. (2007). *Policy and institutional context for NRM in Kenya: Challenges and opportunities for Landcare*. World Agroforestry Center. http://apps.worldagroforestry.org/downloads/Publications/PDFS/WP15330.pdf

addressed through various bills and acts, for example, the Natural Resource Bill, the Community Land Act of 2016²⁶, and in the Mining (Community Development Agreement) Regulations, 2017. However, the policy making process does not promote holistic approaches. Instead, a specific sector is pursued with little or no harmonization with other sectors and cross-cutting policies or strategic plans that would ensure that NRM-related issues are linked to other development processes²⁷.

The lack of an integrated policy framework for equitable utilization of natural resources, such as transboundary pasture zones and water, has, in some cases, led to cross-border conflict between pastoral groups. Additionally, the role of local or indigenous systems, especially those handling issues on certification of land rights and management of land as a resource at the community level, are not fully recognized. Respondents revealed that the consultative process with civil society organizations (CSOs) and other key groups within the community to enhance interactive policy processes and effective feedback is minimal and only happens during budgetary consultation processes. Furthermore, respondents indicated that they are not consulted nor sensitized on agenda submitted for public debate and, therefore, their level of participation in inclusive decision-making is limited. This indicates that most of these policies lack adequate baseline data on the needs of the borderland communities who utilize or share the natural resources.

3.1.3. Regional policy frameworks

The national policy discourse in Kenya and Ethiopia have largely prioritized sedentary agriculture in national development plans, and shown less regard for pastoralist livelihoods and arrangements for NRM both within and across borders²⁸. With the increasing attention on regional integration on cross-border management of resources in the continent, a wide array of initiatives on regional coordination of shared cross-border natural resources have been established.

For example, the Intergovernmental Authority for Development's (IGAD's) Drought Disaster Resilience and Sustainability Initiative (IDDRSI) 2010/11, fosters regional collaboration on NRM, market access and trade, livelihoods support, and conflict prevention²⁹. Additionally, the African Union's Border Program (AUBP) promotes cross-border cooperation, and has legal frameworks that elaborate how projects can foster cross-border cooperation between communities, state services, and CSOs and NGOs. Furthermore, the Policy Framework for Pastoralism in Africa³⁰ provides guidelines on how to strengthen indigenous resource management systems and improve 'sustainable and equitable pastoral resource governance', including through appropriate land tenure registration.

Despite the opportunity to domesticate the existing regional policies to the local context, there are no coordination efforts between the two countries. The lack of a policy framework on how to integrate the regional policies to the national and county-specific intervention framework is a major setback in actualizing the envisaged positive policy environment. Additionally, low policy literacy on cross-border

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²⁶ Wily, A. L. (2018). The community land Act in Kenya: Opportunities and challenges for communities. *Land*, 7(1), 1-25.12. https://doi.org/10.3390/land7010012

²⁷African Union, African Development Bank., & Economic Commission for Africa (2011). *Land policy in Africa: A framework to strengthen land rights, enhance productivity and secure livelihoods*. https://www.un.org/en/land-natural-resources-conflict/pdfs/35-EN-%20Land%20Policy%20Report_ENG%20181010pdf.pdf.

²⁸ Food and Agriculture Organization. (2019). *The future of livestock in Ethiopia: Opportunities and challenges in the face of uncertainty*. https://www.fao.org/3/ca4807en.pdf.

²⁹ Intergovernmental Authority for Development. (2022). About IDDRSI. IGAD. https://resilience.igad.int/about-iddrsi/

³⁰ African Union. (2010). *Policy framework for pastoralism in Africa: Securing, protecting and improving the lives, livelihoods and rights of pastoralist communities*. https://au.int/sites/default/files/documents/30240-doc-policy framework for pastoralism.pdf

NRM has limited effective policy engagement among cross-border communities and the administrations³¹. This has implications on natural resource access and use in the cluster. Of particular interest are the various changes to land use and access that are occurring in the cluster, the focus of the next section.

3.2. Changes in the cluster and implications on natural resource governance

3.2.1. Developmental context in the cluster and Natural Resources Management

Over the past decade, the frontier that encompasses the Moyale cluster has undergone a fairly rapid change that has bearing on natural resource access and governance. Of particular interest here is the general change of attitude by governments on either side of the cluster on the potentials of the frontier, and the need for international cooperation to make economic gains from a region that has been previously neglected as unproductive and a burden to the nation³². This realization shifted development focus to mega investments that link the frontier to the respective centers, and also the two countries.

Projects such as the Lamu Port-South Sudan-Ethiopia-Transport (LAPSSET) that includes roads, rails, airports, and resort cities was conceived by the Kenyan government in Vision 2030 (2012)³³. Already, sections of the project are being realized with various changes in perception to land and the natural resources in the region³⁴. The change in perception of land and its potentials has heightened the acquisition and conversion of land from the original pastoral production to other presumably more economically viable options, such as large scale green energy projects and irrigation farming, among others.

Further, with increased concerns over the changing climate, investment in green energy, particularly wind and solar, has gained momentum in these drylands. Following the previous mindset that these lands are 'empty' and 'underutilized', the allocation of land for the investments is taking place with no consideration of impacts on natural resource access and the livelihoods systems of the local communities³⁵.

A case in point is the acquisition of 150,000 acres by the Lake Turkana Wind Power - the largest wind power project in Africa - without consultation or compensation of the communities, which led to contestation in court³⁶. In Ethiopia, forceful acquisition of land for construction of hydro-electric dams and leasing of land to foreign companies for commercial agriculture have led to evictions of pastoral and agro-pastoral populations in the Omo River basin. With discussions on curbing run-away climate change, such as the resolutions in the United Nations Climate Change Conference or Conference of Parties (COP) 27 in Egypt, targeting accelerated development of green energy projects, more of such

³¹ Tilstone, V., Ericksen, P., Neely, C., Davies, J., & Downie, K. (2017). *Knowledge management and research for resilience in the drylands of the Horn of Africa*. International Livestock Research Institute. https://repo.mel.cgiar.org/handle/20.500.11766/5192

³² Republic of Kenya. (2012). Sessional Paper No. 8 of 2012 on national policy for the sustainable development of northern Kenya and other arid lands: Releasing our full potential. https://reliefweb.int/report/kenya/sessional-paper-no-12-national-policy-sustainable-development-northern-kenya-and-other

³³ Republic of Kenya. (2012). *Sessional paper No. 10 of 2012 on Kenya Vision 2030*. https://vision2030.go.ke/publication/sessional-paper-no-of-2012-on-kenya-vision-2030/

³⁴ Cormack Z. (2016). The promotion of pastoralist heritage and alternative 'visions' for the future of Northern Kenya. *Journal of Eastern African Studies*, *10*(3), 548-567. DOI: 10.1080/17531055.2016.1266195

³⁵ Waters-Bayer., A & Wario, H. T. (2022). Pastoralism and large-scale renewable energy and green hydrogen projects: Potential and threats. Heinrich Boll Foundation and Bread for the World. https://www.boell.de/en/2022/05/18/pastoralism-and-large-scale-renewable-energy-and-green-hydrogen-project.

³⁶ Achiba, G. A. (2019). Navigating contested winds: Development visions and anti-politics of wind energy in northern Kenya. *Land*, 8(1), 1-29. https://doi.org/10.3390/land8010007

investments are in the horizon with further detrimental impacts on natural resource access if the same pathways of development are followed.

Other changes affecting natural resource availability and access is the increasing frequency of climatic hazards such as droughts. For instance, the prolonged drought at the time of this study resulted from the failure of five consecutive rainfall seasons, and is a situation that has recurred over the last 40 years. Furthermore, demographic pressures pile additional stress on land, which is already being ravaged by droughts. While these happenings call for further collaboration and enhanced resource sharing to reduce vulnerability, the situation is complicated by conflict that is fueled by the proliferation of arms, governance and security vacuums, politically instigated ethnic territorial expansion, and ethnicized politics, among others. These result in acrimony and ethnic animosity within the respective states and often spills across the border.

The redress of the issues expressed above calls for a strong governance system that evolves with the changing contexts. However, governance systems in the cluster have been observed to equally erode with time, thus lacking abilities to effectively function within the current dynamics.

3.2.2 Changes within NRM institutional frameworks

With these changing winds, the management of cross-border natural resources, therefore, requires governance systems to be flexible in order to adapt to new development challenges. The governance systems should also be stable enough to maintain their ability to regulate natural resource use. Adaptive governance involves bringing together different actors to draw on their various knowledge systems and experiences to address NRM challenges, and develop policies to support and incorporate strategic insertions on cross-border NRM³⁷. As previously mentioned, natural resource governance is highly complex and dynamic, involving multiple stakeholders and a variety of interconnecting institutions, laws, policies, and governance processes that impact on different aspects of natural resource use and management, and human livelihoods³⁸.

The pastoral communities living in the cluster have long relied on strong indigenous mechanisms to manage and govern their natural resources, resolve conflicts, and guide social organization. The lack of formal recognition and legal authority of these indigenous mechanisms in the governance of natural resources leaves them vulnerable to interference, or setting apart customary rights by the government. Furthermore, it erodes their legitimate traditional authority when states institute other NRM institutions that do not support the administrative roles of the traditional systems on natural resource governance. This calls for reform of the current legislations and policies, with a revised approach that incorporates the indigenous governance systems within the broader framework of governance changes at the local, national, and regional levels in NRM.

In order to enhance the integration of the indigenous institutions in mainstream governance systems, other issues of governance such as gender and supporting inter-ethnic relationships need to be addressed. The indigenous institutions are male dominated, with little or no input on resource governance from youth and women. They also have a complex relationship with other neighboring

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³⁷ Lind, J., Wheeler, R., Caravani, M., Kuol, L.B., & Nightingale, DN. (2020). Newly evolving pastoral and post-pastoral rangelands of Eastern Africa. *Pastoralism*, *10* (24), 1-24. https://doi.org/10.1186/s13570-020-00179-w

³⁸ International Union for Conservation of Nature. (2011). *An assessment of natural resource governance in Garba Tula, northern Kenya*. IUCN. https://dlci-hoa.org/assets/upload/key-resilience-and-climate-change/20200804124808307.pdf.I

communities on resource governance. To enhance their legitimacy within formal institutions, written agreements on resource access and NRM planning have to be established with an accountability³⁹.

The state of regional governance mechanisms for broader regional cooperation over access to resources between the two states in Moyale cluster is weak. This shows there is potential to utilize government institutions to coordinate NRM governance from a cross-border approach. The study shows the existence of regional policies that have made provisions for cross-border NRM, and that would address the barriers between formal and indigenous institutions. Establishment of policy frameworks that can be adopted in the national and local policies will see to the reform of discriminatory policies that have neglected the peripheral and pastoral regions across borders. To manage this process, the CBCR Activity should strengthen institutional policy literacy on cross-border NRM and policy processes in both countries at the regional, national, and local levels.

The heightened interest in land acquisitions for other non-pastoral uses, and the changes in the institutions that manage resource governance in the region are expected to have implications on human and livestock mobility within and across state borders. The next sections interrogate the status of human and livestock mobility in the cluster.

3.2.3 Human and livestock mobility amidst changes in cross-border resource availability and sharing arrangements

Human and livestock movement in the cluster is crucial for the livelihoods of the communities. Mobility is necessitated by differences in resource endowments on either side of the border. Movements related to natural resource access is influenced by variability of the grazing resources. While the lowlands on the Kenyan side of the boarder are preferred for wet season grazing due to the good quality of the resources, the Ethiopian side is critical during the dry season as a fall back because of its endowments with permanent traditional wells that last into the dry season⁴⁰.

The differences in the economies of the two countries also provide opportunities for cross-border trade in the cluster. The communities on the Kenyan side of the cluster access foodstuffs that are relatively cheaper, while those from the Ethiopian side source for finished consumer goods produced in Kenya.

Furthermore, human mobility is also influenced by cultural practices that entail visits to specific sites across the state borders. Both the Gabra and the Borana on the Kenyan side of the cluster have ritual connections to the southern Ethiopian side, which involves periodic visitations⁴¹. Also, the communities living across the cluster border share family ties, thus cross-border movements are important in keeping the social ties. However, the changing contexts of governance and other sociopolitical changes affects these movements.

Pastoralism remains the dominant livelihood in the drylands of the Moyale cluster. Mobility to access grazing and water resources is an adaptive strategy that has enabled the resiliency of this production system over centuries. Mobility is important as a way of accessing various resources, thus it addresses poverty, food insecurity, and other socioeconomic vulnerabilities that the borderland communities face. This mobility involves the movement of herds with herders only or with families. The extent of

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³⁹ Ibid.

⁴⁰ Wesley, R.B (1985). *Gabbra nomadic Pastoralism in nineteenth and the twentieth century Northern Kenya: strategies for survival in a marginal environment* [Unpublished PhD Dissertation]. Northwestern University.

⁴¹ Tablino, supra note 13.

movement differs as it can even be across international borders. This was elaborated by a study participant in Hararsam, Moyale, Ethiopia, with the observation thus:

"We are nomadic pastoralists, so we move from one place to another, we do not settle in the same areas. The two lands - Ethiopia and Kenya - are mainly inhabited by Borana, Gabra, and Garre. These communities know each other, so when the communities from Kenya come to Ethiopia, they find their community, and follow the rules that are here. The elders and chiefs assist them to settle here and show them the grazing lands." 42

Several studies suggest that the ecological importance of mobility is often misunderstood by development practitioners and policy makers⁴³. Restrictions of movement that are often advocated by government agencies have a direct impact, forcing pastoralists to overgraze, further degrading the land and water resources. Pastoral mobility should not be confined to state boundaries as it is dependent on transient resources due to vulnerability and environmental threats. The administrative borders created by states do not mean much for the pastoralist communities residing in the cluster. According to the study respondents, there is no border between Kenya and Ethiopia and also no borders between communities. As one of the FGD participants in Hararsam cited, the border is for the government, "we don't ask for permission to graze livestock on the other side."⁴⁴

This thinking is reminiscent of the status quo before the advent of borders by the colonial state, and when movement was determined by the seasonal availability of resources. The Ethiopian side of the border was mainly used for dry season grazing because of its deep traditional wells that have water throughout the year. Also being at a relatively higher altitude, the Ethiopian side has more perennial grasses that allow for availability of grazing in the dry season. On the other hand, the Kenyan side of the cluster is the lowlands that are preferred for wet season grazing due to their quick flash of nutritive vegetation when it rains.

Changes in mobility were experienced with the advent of colonial administration, where each side of government held on to its population for taxation and security concerns that occasionally curtailed movements and, sometimes, resulted in forceful repatriation⁴⁵. With the gaining of independence on the Kenyan side, such restrictions eased but the differences in the administrative rules of the separate national states made the movements somewhat uncertain. However, the communities continued with this practice whenever the situation allowed. This is explained in the map in Figure 2 below, which shows dry season movements (red arrows) and the wet season movement into the Kenyan side (dotted arrows).

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⁴² Male FGD participant in Hararsam, Moyale Ethiopia, 2 September 2022.

⁴³ Fueller, N. (Ed.). (1999). Managing mobility in African rangelands. Intermediate Technology Publications.

⁴⁴ Men FGD participant in Hararsam, Moyale Ethiopia. 02/09/2022

⁴⁵ Kenva National Archives: KNA/PC/NFD 1/6/1 Moyale district annual report 1920-1921 BY W. Slade Hawkins

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Figure 2: Main patterns of Seasonal dry and wet livestock Movement in Moyale Cluster (adopted from explanations from participants)

Apart from livestock grazing movements, trade in livestock, livestock products, consumer goods, and extractives like sand, is very active among the Gabra and Borana communities of the Moyale cluster. The study findings revealed women as the majority of small-scale traders. There is a high demand for consumable goods (potatoes, tomatoes, khat/miraa) from Ethiopia which are much cheaper than in Kenya. However, most of the cross-border trade is regarded as illegal commercialization of cross-border activities by the government because taxes are not levied. For their part, traders from the borderland communities prefer the informal channels of trading because it lowers their transactional costs. According to respondents, a key obstacle was the poor road infrastructure which hinders their access to market opportunities and search for complementary sources of livelihood.

Pastoralists share information from their social networks and traditional systems of governance to decide on their routes based on presence and quality of grazing, watering places, harvest residue in cropping areas, livestock health and diseases, access to markets, and trading terms, among other factors. According to a community leader at Dukana in Marsabit, Kenya, "Decisions to migrate with livestock are based on the mission of a team of emissaries, commonly known as aburu that provide key information on migration routes, quality of water and available pasture."⁴⁶

This is not in line with the regional agreements that state that migratory routes are supposed to be set by state or joint institutions. The lack of recognition of indigenous practices of pastoralists brings a dissonance between regional and national policy discourses on cross-border NRM. As a result, equitable and peaceful sharing of natural resources are affected as elaborated in the next section.

3.3. Main gaps in equitable and peaceful resource sharing and NRM

It is recognized that pastoralists have the ability to assess and manage risks from climatic hazards, poverty, conflicts, and diseases, which increases their resilience. The pastoral systems have institutions and strategies where they can harness their indigenous knowledge on the distribution of resources, particularly highly nutritious pastures, as primary information is used in managing and sharing

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 $^{^{46}}$ Interview with male key informant, Dukana, Marsabit County, Kenya, 23 August 2022

resources⁴⁷. It is through these institutions that indigenous resource use mechanisms respond to the particular needs of mobile pastoralist livelihood systems to enable peaceful natural resource access.

Currently, as elaborated in the sections above, these functions are also supplemented by other formal and hybrid institutions that are linked to the country's policy frameworks. The institutions support communities to navigate resource sharing by i) building links among bordering communities, ii) establishing rules and access over natural resources, iii) managing rangeland conservation and, iv) enhancing peace initiatives in relation to NRM across and within borders.

However, the capacity of the institutions to enable equitable and peaceful resource sharing are affected by various factors. These include the power relations between i) pastoralists and the state, ii) different pastoralist communities and, iii) internally within the communities involved⁴⁸, as summarized in Table 4 below.

The indigenous institutions do not have sufficient capacities to address current climate change impacts, such as prolonged droughts, that have been exacerbated by conflict and land degradation. The lack of legal recognition of the indigenous institutions and their ownership rights to manage their natural resources aligned to their culture and identity also limits their capacity to enhance equitable and peaceful sharing of natural resources.

There is also a history of spatially blind policy settings that exclude indigenous knowledge in shaping policies. This has also resulted in key NRM governance challenges. Some of these challenges are i) lack of coherence in the delivery of services and programs at the local level, ii) insufficient co-ordination across and between levels of government and sectors to realize policy complementarities, iii) limited opportunities for indigenous institutions and communities to shape policy planning and resource allocation decisions, and iv) lack of institutional capacity including the quality and depth of cross-border natural resource governance and sustainability.

Table 4: Summary of main institutional constraints in resource sharing and NRM

Indigenous Institutions Formal / Hybrid Institutions The Ethiopia–Kenya Joint Border Weakening and increase in disregard of indigenous institutions by states through creation Administration Commission plays no role in of competing institutions like committees, which providing policy guidance to district and local have legitimacy but no strong ground presence government officials (its work is classified). Shrinking areas of jurisdiction as communal Local and community organizations used to grazing areas are fenced off for other land uses. enforce unpopular government conservation Low capacity on contemporary climate change measures (such as community forestry, hillside strategies to adapt to the emerging closure, and labor demanding conservation environmental challenges. measures) resulting in non-compliance and Increased insecurity and threats that cannot be further degradation of the landscape. regulated by elders, for example, proliferation of The civil society have no coherent guidelines firearms. applicable to local conditions to strengthen

⁴⁷ Reid H., & Faulkner L. (2021). 'Assessing how participatory/community-based natural resource management initiatives contribute to climate change adaptation in Ethiopia.' In Walter L. F. (Ed). *Handbook of Climate Change Adaptation*. Berlin (pp.1-68) Springer. https://doi.org/10.1007/978-3-642-40455-9_68-1.

⁴⁸ Pavanello & Levine, supra n 4.

- Lack of strong grassroots/ community organization to support indigenous arrangements in facilitating NRM activities.
- Limited incorporation of indigenous practices in land, water, and forest policies.
- General lack of legal recognition of pastoralism and common property rights in resource access and sharing.
- Governments fail to recognize pastoralists' customary institutions and resource claims eroding mobility and institutions that support it.

- NRM interventions in development programsthey rely on trial and error.
- Limited overarching framework to provide a legal or policy basis for cross-border exchanges along the Ethiopia

 – Kenya border.
- The relevant government institutions mandated to support the development of these communitybased associations are relatively new institutions with limited manpower and capacity on the ground to initiate change.
- Most of the formal/hybrid committees are usually town-based and their representation does reflect the individuals who actually are the most affected, mainly the pastoralists.

A few of the indigenous institutions have been able to leverage on training opportunities provided by local state and non-state actors and development programs to enhance community resilience on NRM and climate change. However, this is constrained by the dependence on external resources of social actors, who lack a shared understanding or appreciation of the existing indigenous governing structures on NRM.

In order to enhance good governance and partnership between the formal, hybrid, and indigenous institutions, the local government and NGOs needs to better work with indigenous groups to identify priorities to inform the design and delivery of programs and services. This will enhance the capacity strengthening approach, whereby inter- and intra-generational knowledge transfer of indigenous NRM governance systems is facilitated and reinforced by integrating training and policy engagements. This will clarify roles and responsibilities between the existing formal and informal NRM institutions and between levels of government. It will also strengthen coordinating agencies, build the brokering capacities of local actors/institutions, and establish regional frameworks that will establish supportive and enabling cross-border NRM for peaceful sharing of resources.

In addition to the institutional issues above, the Moyale cluster area has been prone to intermittent conflict, which particularly heightened with the collapse of governing regimes in Somalia and Ethiopia in the early 90s. Marsabit County was gripped by one of the worst conflicts over the last five years that completely hindered resource sharing between the Gabra and Borana communities living along the border. As a senior chief reported,

"In this area for the last five years there is no movement across the border because of conflicts. We do reach the border to use the resources, but we don't cross the border line and go to the other side. The community on the other side also don't cross the border and come to our side." 49

However, as of the time of this study, ongoing peace meetings were being held to resolve the conflict issues in Forole and Hidilola cross-border areas. The meetings were being facilitated by representatives of the cross-border committees and local authorities from Ethiopia and Kenya.

Other areas of conflict that roll over to cross-border areas include inter-community conflicts between the Dassanach and the Gabra community in Kenya and Ethiopia along Dukana and Forole areas. As

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⁴⁹ Interview with a community leader in Forole, Marsabit County, Kenya. 24 August 2022.

one participant in a FGD in Forole cited, "When Dassanach come to the Gabra territory there is always conflict, and when the Gabra also go to their territory, there is conflict." According to respondents, the recent source of conflict arose from the grazing plans established by the NGOs working in the area, which only involved a few stakeholders from each community without consulting elders and the pastoralists that utilize these resources.

3.4. Gender and social inclusion dynamics, opportunities and constraints in crossborder resource sharing and Natural Resources Management

There are gendered patterns in the cross-border communities' livelihood strategies, mobility and asset ownership, and NRM on both sides of the Moyale cluster. The customary institutions that govern resource sharing have been mainly male dominated institutions due to social cultural orientations among the communities.

However, with the advent of hybrid institutions, there is emphasis to include women, youth, and people living with disability (PWDs) in the NRM committees, thus providing improved opportunities for inclusive resource access. In both countries, enforcement of the gender policy has redressed some existing gender imbalances. This was appreciated by several participants in the FGDs in Dillo and Dukana villages during the study. As one of the participants in Dillo, Ethiopia observed,

"There are rules that are there and [...] in the traditional ways women are not allowed to be in these committees and [...] they are not allowed to be leaders [...] I think that the people should obey the law because now women are allowed to be in these committees, so if someone doesn't obey these laws, they are taken to the government." ⁵¹

Another respondent in Dukana added that currently, "there is no committee that the women are not part of." ⁵²

This has positively increased their access and utilization of the resources where they contribute in the management of the resources. Women, in particular, are recognized by their male counterparts as good custodians of monetary resources. However, many of the natural resource related committees such as water committees are still very male dominated, and little attention has been paid to the power dynamics, participation, accountability or independence of their mutually competing interests and spheres of influence due to persistence of traditional and cultural norms.

For example, women are often selected to be treasurers in the committees, but they have no say on how the resources will be utilized. On this note, one participant in an FGD in Dillo reiterated, "The women are part of the officials yes, but they are not leaders, for example they are treasurers in the committees, because they are trusted to take care of money." Some study respondents went further to add that women's opinions were not taken into consideration, and neither are they consulted in decision-making processes.

Overall, there has been very little shift on the perceptions of women's abilities to manage NRM systems. This poses a huge barrier to women's participation or leadership of NRM efforts. The study findings

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⁵⁰ Male FGD participant in Forole, Marsabit County, Kenya. 24 August 2022

⁵¹ Female FGD participant in Dillo, Ethiopia. 1 September 2022

⁵² Female FGD participant in Dukana, Marsabit County, Kenya. 21 August 2022.

⁵³ Ibid

also revealed that women have a high dependence on natural resources and are, therefore, more vulnerable to changes in the availability and quality of these resources.

Climate change impacts affect women differently than men. As per the respondents, women are left to fend for their families for long periods of time while men are away tending to the livestock. This causes a shift in gender roles and the majority of the women are forced to engage in informal trade that has very little profit margins to support their families or grow to medium-size businesses⁵⁴. Additionally, cultural norms and time-intensive household chores often impede women's abilities to participate in community consultations and decision-making processes on NRM initiatives. As a result, women's needs, priorities, and knowledge are often ignored or overlooked, impacting their capacity on NRM, and undermining the effectiveness of sustainable management solutions⁵⁵.

The study respondents reiterated that insecurity has far more adverse impacts than natural disasters, particularly on women, as it leaves a large proportion of women to take over as the heads of families when they lose their husbands, brothers, and fathers in conflicts both within and across borders. Additionally, women and the youth are often marginalized due to the cultural, political, ethnic, or economic dictates. These disadvantage them with regards to ownership of and access to land, effective participation in the labor force, and control over resources.

Furthermore, young men are disadvantaged by the norms of masculinities, such as when risk-taking behavior puts them in the path of conflict, or when the notion of the 'family breadwinner' as a marker of masculinity is undermined by unemployment or economic crises. As one participant in an FGD at Sololo in Marsabit, Kenya, mentioned, "There is the lack of livelihood opportunities and ownership of assets has resulted in youth engaging in delinquent behaviors ... abuse of drugs and alcohol." 56

An element of social exclusion, mentioned on both sides of the cluster, is the education system which marginalizes the pastoral communities. This is because the national school curriculum's quality and content does not consider pastoralism as a key livelihood sector. A participant in a FGD at Forole in Kenya, cited, "We are illiterate...even the elders are not learned...only a few are literate. Sometimes it is us who spoil the machine because we don't know how to use it." 57

Additionally, the study findings revealed that regional and rural versus urban disparities have overshadowed the socio-economic development of cross-border communities. According to the respondents, this has limited their access to public services such as health, education, and other livelihood opportunities. Several coordinated efforts need to be put in place to enhance the skills and opportunities for self-reliance. For example, there is a need to enhance skills training and in-kind and asset support to generate income in a variety of value chains, such as fodder and feed production, trade in small stock, beekeeping, and horticulture, among others in the cross-border community programs.

The lack of collective roles and responsibilities and unequal power relations across the gender categories in NRM governance affects access to information, which has also reinforced the exclusion of marginalized people. Therein lies the opportunity to improve the understanding of the gender issue

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⁵⁴ World Bank Group. (2020). From isolation to integration: The borderlands of the Horn of Africa. International Bank for Reconstruction and Development/The World Bank. https://openknowledge.worldbank.org/handle/10986/33513

⁵⁵ International Union for Conservation of Nature. (2020). *Gender and the environment: What are the barriers to gender equality in sustainable ecosystem management?* https://www.iucn.org/news/gender/202001/gender-and-environment-what-are-barriers-gender-equality-sustainable-ecosystem-management

⁵⁶ Female FGD participant in Sololo, Marsabit County, Kenya, 28 August 2022.

⁵⁷ Female FGD participant in Forole, Marsabit County, Kenya. 24 August 2022.

related to NRM and climate change by the various stakeholders in the Moyale cluster. This can also be achieved by facilitating community awareness activities for men and women, the youth, and customary leaders in the cross-border communities along the Moyale cluster on i) gender and climate change; ii) NRM governance tools; iii) supporting women and youth in organizational and literacy skills; and iv) capacity building for women and youth organizations on reforestation and agroforestry techniques, sustainable agriculture, apiculture, brushfire management, etc. These interventions should strive to promote women's and youth's economic empowerment through the development of alternative livelihood activities.

4. CONCLUSION AND RECOMMENDATIONS

The Ethiopia-Kenya border region that constitutes the Moyale Cluster has long existed on the periphery of the state system, with limited integration into the state structure. This has resulted in weak governance and the lack of effective institutional mechanisms to effectively address cross-border natural resource management (NRM). The communities in the cluster remain majorly dependent on natural resources, particularly pasture and water, to produce livestock for their livelihood. The sharing and peaceful use of these resources requires institutional guidance as well as inter-communal collaboration to enable access.

Mobility within and across the borders persists as a main livestock production strategy, but it faces constraints. Institutional guidance has weakened with the waning authority of customary institutions. The reduced authority of customary institutions is a result of the increasing significance of formal institutions, such as relevant government departments, laws, regulations, and policies, which are inadequately oriented to support equitable utilization of natural resources. There is also persistent general lack of understanding among policy makers and administrative officials of pastoralism and pastoralists, and of their production requirements, which manifests in lack of proper presentation of their needs in national, regional, and international policy frameworks. Although there has been improvement in the recent past, the national strategies in Kenya and Ethiopia still remain biased against the role of indigenous institutions in NRM, and include a strong agrarian bias in development policies in the region.

While institutions have evolved, especially with some legal and policy support, the hybrid institutions have not been able to gain similar legitimacy as the customary institutions. The hybrid system is also fragmented in its approach because the focus of a given institution is often on specific resources rather than on the holistic management of resources. In order to enhance good governance and partnership between the various institutions, there is a need to recognize the role of customary institutions such as the *gada* and the *yaa*, in order to integrate their roles in the policy and legal advances in natural resource governance. It is prudent that the capacity of these institutions is enhanced and involved in setting priorities to inform the design and delivery of natural resource programs and services to improve equitable access.

The enactment of laws such as the Community Land Act 2016 in Kenya provides a viable avenue for such a collaborative approach to natural resource governance. Further, the role of women and the youth in natural resource governance, when strengthened, is expected to go a long way in not only improving the governance but also the equitable access to the natural resources.

Conflicts remain a major impediment in the cluster, and their resolution through alternative justice systems that are currently gaining currency in the national approaches provides opportunities for intercommunity dialogue and peaceful access to natural resources in the cluster. The devolved governance architecture and resource allocation mechanisms provide a variety of opportunities to strengthen the governance of natural resources in the Moyale cluster.

4.1. Recommendations

The findings of this study offer opportunities for the CBCR Activity to base its interventions in a strategic manner, focusing on areas that can be catalytic and make significant impact in cross-border NRM in the Moyale cluster. In addressing the underlying issues, the following broad recommendations need to be considered:

- Improving the capacity of both the indigenous and hybrid/formal institutions on the management of approaches and policies as essential components in cross-border NRM. There is a need to advocate for and support necessary policy reforms on inclusion and recognition of indigenous institutions in legal structures, and to integrate them within the countries' legal and policy frameworks. It is proposed that the CBCR Activity, in collaboration with local partners, facilitates participatory policy engagement forums in the cluster. Lessons can be drawn from other similar planning experiences in other countries and hopefully contribute lessons learnt for the development of the county framework on NRM.
- Support the review and establishment of policies that will provide new guidelines to broaden the scope of NRM cross-border cooperation and coordination between the two states. This can facilitate the development of a harmonized regional pastoral policy and strategy in the Moyale cluster, in collaboration with government officials, local community members, and civil society organizations that will strengthen the existing governance institutions. To capitalize on the devolved natural resource governance, we recommend the CBCR Activity empowers grassroots institutions, civil society, and local government agencies to take greater responsibility in cross-border natural resource governance, and on the broader national governance changes, or else risk being rapidly overtaken by events and becoming irrelevant.

It is important for the CBCR Activity to identify strategic local partners that already have experience in cross-border operations for provision of support in catalyzing cross-border natural resource governance-related outputs such as:

- Facilitating policy literacy workshops to establish and guide implementation of the NRM legislative and policy framework at the local administration and community levels.
- o Support local policy dialogues to raise awareness on the local/national/regional policies and legislation to effectively engage with the local government on NRM issues.
- Support regional and institutional mechanisms to protect the seasonal access and use rights of pastoralists, and to reconcile different stakeholder interests.
- O Support strategic alliances and network forums to harmonize multisectoral policy agenda in NRM. Though the centralized system of service provision on NRM is not ideal, there is a potential to utilize the government's natural resource technical officers as sources of technical knowledge with regard to various aspects of natural resource-based livelihoods.
- Support knowledge co-production between formal and informal governance systems and
 integration of indigenous knowledge, skills, institutions, and social mechanisms in planning
 and management of NRM interventions. This will have a multiplier effect on other government
 interventions, such as through facilitation of technology adoption and/or absorption, reinforcing
 the multisectoral coordination mechanisms between institutions, and enhancing integration of
 pastoral systems in the policy frameworks, especially with regards to land use plans.
- The CBCR Activity has the opportunity to address the gender imbalances in governance systems and structures by providing targeted capacity building for women and vulnerable groups to facilitate meaningful participation and influence in decision-making related to NRM and infrastructure development at the cross-border areas. The CBCR Activity can also establish a coordinating structure for gender integration activities through the creation of the Gender and NRM Working Group in the Moyale cluster. Such a working group will promote equitable representation and influence in institutions responsible for governance of natural resources, and

can be created, organized, and operated within the Ministry of the Environment and Sustainable Development in both Kenya and Ethiopia.

• To address the negative impacts of conflict on natural resource access and management, the CBCR Activity needs to take advantage of the current interests of the respective states in promoting alternative dispute resolution mechanisms. In Kenya, for instance, the guidelines for alternative justice systems have been developed, and they provide for recognition of decisions made by customary institutions in conflict resolution to be respected in the courts of law as long as the decision does not go contrary to the provisions of the Kenya laws and constitution. This will potentially capacitate the customary institutions to prevent and solve conflicts over access to and sharing of natural resources in the cluster. Strengthening the capacities of the various natural resource-related institutions in alternative justice system provisions will place them at a better position to utilize it to solve conflicts amicably.

5. APPENDICES

(Notes on survey findings, recommendation and follow ups, tools, checklists, and instruments used for data gathering and analysis, etc.)

Appendix 1: Policy Mapping matrix, Ethiopia and Kenya

Ethiopia Policy Mapping Matrix

Policy name (official)	Jurisdictio n	Responsible institution(s)	Objective	Policy description	Sectoral coverage	Gaps	Implementation status
Climate- Resilient Green Economy Strategy Ethiopia, 2011	Federal	Ministry of Environment Forests and Climate Change (MoEFCC)	Build a middle- income climate resilient green economy by 2025through zero net carbon growth	 Addresses both climate change adaptation and mitigation that include economic growth/viability, reduction of vulnerability to climate change/increase in climate resilience and reduction of greenhouse gas emissions Provides a flexible, coordinated and predictable funding to support the achievement of national priorities set out under the CRGE. Blends a diverse sources of climate financing and leveraging public funds to attract private funds. Provides a unified engagement point where government, development partners, civil society and other stakeholders can engage and make decisions about climate change issues 	Economy-wide	 Lacks trade-offs to use innovative ways to analyze options and prioritize solutions The M&E plan does not consider economic, social and environmental factors. Directive documents need to be revised to consider current developments, cross-border issues and associated new technologies. 	Partially implemented

Rural Land Administration and Land Use Proclamation (No. 456/2005)	Federal	Ministry of Land		•	Provides a legal framework on the administration and use of rural land -covers all tenure, ownership, and laws on the use of land	Agriculture	Does not have any provisions for pastoralism and cross border NRM Negatively affects pastoralists access to the credit market and non-farm employment.	Partially implemented
Environmental Policy of Ethiopia 1997	Federal	Ministry of Environment and Forests (MoEF)	Improve and enhance the health and quality of life of all Ethiopians and to promote sustainable social and economic development	•	Provides the legal framework on climate change Recognizes the country's environmental, long-term economic and energy interests. Provides for multilevel coordination among the responsible management bodies (e.g., federal to local) to ensure sectoral and cross-sectoral planning and implementation.	Economy- wide	Needs strategic research plans or policy enforcement mechanisms	Partially implemented
The Ethiopia Water Resources Management Policy (WRMP) 1999	Federal	Ministry of Water Resources (MoWR)	Utilizing water resources efficiently and equitably, so as to contribute to the country's socioeconomic development on a sustainable basis.	•	Provides for integrated and comprehensive management of water resources Establishment of an integrated framework for joint utilization and equitable cooperation and agreements on transboundary waters Foster meaningful and mutually fair regional cooperation and agreements on the joint and efficient use of transboundary waters The establishment of water users associations in a voluntary manner is also envisaged	Water	Crossover jurisdiction between different institutions creating problems in enforcement and implementation Does not consider the need for improved land management in relation to water resources development. Leaves out rainwater management which has a great bearing in the sustenance of both surface water and groundwater It does not explicitly refer to pastoral areas.	Partially implemented

Appendix 2: Kenya Policy Mapping Matrix

Policy name (official)	Jurisdiction	Responsible institution(s)	Objective	Policy description	Sectoral coverage	Gaps	Implementation status
The Marsabit County Disaster Risk Management Act, 2019 and Policy	County	Ministry of Environment and Natural Resources	To establish a policy framework for efficient and effective DRM in the County.	 Establishes an efficient structure for the management of disasters and emergencies Provides for the establishment of a Disaster Risk Management Committee and Fund 	Sector wide	 Not all institutional frameworks are in place e.g. DRR fund and its response structures Inadequate allocation of resources to support implementation plan 	Partially implemented
Marsabit County Climate Fund Bill 2020	County	Ministry of Environment and Natural Resources	To create a fund in the County financing of climate change programs in the County	 Initiating and coordinating of climate change adaptation and mitigation activities at the community level in the County, Facilitating incorporation of Climate Finance in the County planning and budgetary framework, Seeking financial resources for the climate fund Coordinating support from National Government climate change policy and legislative framework 	Sector wide	Climate fund yet to be set-up	Not implemented
Policy name (official)	Jurisdiction	Responsible institution(s)	Objective	Policy description	Sectoral coverage	Gaps	Implementation status
Marsabit County Water Services Bill - 2018	County	Ministry of Water, Environment and Natural Resources	To provide for effective, efficient and peaceful governance of water use and water services in the County	 Provision on effective, efficient and peaceful governance of water use and water services in the County Establishing and administrative framework for water services provision in the County 	Water and sanitation	No provision for recognition of existing indigenous systems of water governance and livestock water needs at the community level	Partially implemented

The National Policy for the Sustainable Development of Northern Kenya and Other Arid Lands (2012)	National	Ministry of state for development of northern Kenya and other arid lands	To strengthen the integration of Northern Kenya and other arid lands with the rest of the country and mobilize the resources necessary to ensure equity and release the region's potential.	Provisions on how to protect and promote the mobility and institutional arrangements which are so essential to productive pastoralism	Arid Lands	Applicability of the policy to the local context is not sustainable and it doesn't integrate with the existing county policies	Partially implemented
National policy for disaster management in Kenya, 2009	National	Ministry of State for Special Programmes in the Office of the President.	To establish a policy/legal and institutional framework for management of disasters, including promotion of a culture of disaster awareness and for building the capacity for disaster risk reduction, at all levels	Establishes an institutional framework for DRR Management and Highlights ways of mobilizing resources, managing them and accounting for them	Sector	 Poorly coordinated disaster response activities Inadequate resources and capacity to implement Inadequate integration and coordination between County and national government 	Partially implemented
Policy name (official)	Jurisdiction	Responsible institution(s)	Objective	Policy description	Sectoral coverage	Gaps	Implementation status
National Livestock Policy, 2019	National	Ministry of Agriculture, Livestock, Fisheries and Co-operatives	To utilize livestock resources for food and nutrition security and improved livelihoods while safeguarding the environment	Provides structures for implementation of the policy and individual counties is required to develop policies, legislations, strategies and plans to guide implementation	Livestock	No framework on how to integrate the main policy to the County specific intervention framework.	Partially implemented

The Kenya Community Land Act, No 27, 2016	National	Ministry of lands and Physical Planning	To provide for the recognition, protection, and registration of community land rights; management and administration of community land; to provide for the role of county governments in relation to unregistered community land and for connected purposes.	•	Provides the recognition, protection, and registration of community land rights; management and administration of community land; the role of county governments in relation to unregistered community land and for connected purposes.	Lands	•	Practical guidelines for which a community may secure its land is limited. There is lack of actual and sustained commitment to concrete interventions due to overlapping claims by the national and local government authorities	
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