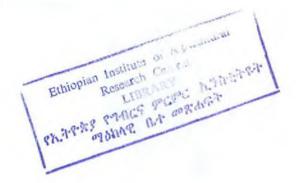


ASSESSMENT OF THE CUSTOMARY LAND ADMINISTRATION AND NATURAL RESOURCE MANAGEMENT IN THE PASTORAL AREAS OF THE OROMIA REGIONAL STATE



OCTOBER 2016

ASSESSMENT OF CUSTOMARY LAND ADMINISTRATION AND NATURAL RESOURCE MANAGEMENT IN PASTORAL AREAS OF OROMIA REGIONAL STATE



OCTOBER 2016

DISCLAIMER

The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government

© 2016 The United States Agency for International Development

Printed in Addis Ababa

All Rights Reserved.



Authors: Fekadu Beyene, Boku Tache, Gadissa Tesfaye, Jabessa Teshome, and Medihanit Adamu

Prepared by Tetra Tech for the United States Agency for International Development, USAID Contract No. AID-OAA-I-12-00032/AID 663TO-I3-00005, under the Strengthening Tenure and Resource Rights (STARR) Indefinite Quantity Contract (IQC).

Implemented by:

Tetra Tech 159 Bank Street, Suite 300 Burlington, Vermont 05401 Tel: (802) 658-389

Land Administration to Nurture Development (LAND) Project P.O. Box 2510 Code 1250 info@etland.org
Addis Ababa, Ethiopia

Land Administration to Nurture Development Project

Assessment of Customary Land Administration and Natural Resource Management in Pastoral Areas of Oromia Regional State

Ву

Fekadu Beyene (PhD)

Boku Tache (PhD)

Gadissa Tesfaye (LLM.)

Jabessa Teshome (MA.)

Medihanit Adamu (MA)

Contents

List	of Tables	V
List	of Figures	v
List	of Boxes	v
Exe	cutive Summary	vii
Ack	nowledgement	x
١.	Introduction	١
Ι.	.I.Background	I
١.	.2 Purpose and Scope	4
2.	Literature Review	5
2.	.I Customary institutions in resource governance	5
2.	.2 Pastoral land tenure and the state land law	7
2.	.3 Conceptual Framework	10
3.	Methodology	15
3.	.I Description of the study sites	15
3.	.2 Data sources and collection methods	18
3.	.3 Data analysis	19
4.	Research Questions	21
5.	Results	2 2
5.	.I Customary land use and governance systems in pastoral areas of Oromia	22
	5.1.1 Customary land use and governance among the Fantalle pastoralists	22
	5.1.1.1 Customary land uses	2 2
	5.1.1.2 Governance of customary land uses	23
	5.1.2 Customary land use and governance among pastoralists in Mieso	24
	5.1.2.1 Customary land uses	24
	5.1.2.2 Governance of customary land uses	24
5.	.2 Customary property rights and land use systems	26
	5.2.1 Property rights and land use among Fantalle pastoralists	26
	5.2.1.1 Characterizing property rights	26
	5.2.1.2 Security of property rights	30
	5.2.2 Property rights and land use among pastoralists in Hawwi Gudina	34
	5.2.2.1 Characterizing property rights	34
	5.2.2.2 Security of property rights	35

	5.2.3 Property rights and land use among pastoralists in Mieso	. 36
	5.2.3.1 Characterizing property rights	. 36
	5.2.3.2 Security of property rights	. 39
	5.2.4 Property rights and land use among pastoralists in Bale area	. 40
	5.2.4.1 Characterizing property rights	. 40
	5.2.4.2 Security of property rights	.41
	5.3 Gender issues in natural resource management	. 44
	5.3.1 Gender roles and relations	. 44
	5.3.2 Women's participation in customary decision-making processes	. 45
	5.3.3 Rights of women to access and use natural resources	. 47
	5.3.4 Women and pastoral transformation	. 48
	5.4 Characterizing customary NRM institutions in the Region	. 49
	5.4.1 Customary NRM institutions among the Karrayyu	. 49
	5.4.2 Customary NRM institutions among the Ittu	. 50
	5.4.3 Customary NRM institutions among the Bale pastoralists	. 53
	5.4.4 Structure of customary authorities and institutions of Fantalle, Mieso and Bale pastoralists	. 55
	5.4.5 Customary NRM institutions among the Boranal Guji pastoralists	. 55
6.	Natural resources, customary institutions and the state: explaining the relationships	. 61
	6.1 The relationships between the state and customary institutions of Karrayyu pastoralist	s 6 I
	6.2 The relationships between the state and customary institutions of Mieso pastoralists	. 67
	6.3 The relationships between the state and customary institutions of Bale pastoralists	. 70
	6.4 The relationships between the state and customary institutions of Borana pastoralists.	. 72
7.	Assessing and comparing the strength of customary institutions	73
8.	Factors affecting the functioning of customary land administration	. 74
9.	Conclusions	. 78
10). Recommendations	. 81
Re	eferences	. 84

List of Tables

Table 1: Customary resource tenure among the Karrayyu	27
Table 2. Examples of customary rules and sanctions against violations	58
Table 3: Strengths and weaknesses of customary authorities	59
Table 4: Governance, property rights and customary institutions in the studied woredas	60
Table 5: Land use/ cover changes in Fantalle woreda (1965 -2014)	63
Table 6: Land use/cover change in Mieso (1965 – 2014) (ha)	6 9
List of Figures Figure 1: Framework for analysis	13
Figure 2: Map of the study areas	
Figure 3: Change in the rangeland condition over 5 decades	
Figure 4: Changes in the rangeland ecosystems over the last 5 decades	38
Figure 5: Changes in the land use systems	42
Figure 5: Changes in the land use systems	

List of Boxes

Box I: Customary leaders' view over the state - society relationships	25
Box 2: Case study of the family of Nage Salli	33

Figure 8: The process of linking customary system into the formal structure.......77

Executive Summary

Pastoralism has been under pressure due to a number of factors including climate change, population pressure and socioeconomic dynamism. These factors have affected the relationships among different pastoral groups and the functioning of the customary institutions in managing natural resources. Interference of the state structures into pastoral areas, land alienation for large scale investment and delineation of protected area from communal grazing areas have negatively affected the relationships between pastoralists and the state. Hence, the protection of pastoral land rights and tenure security have become critical issues raised among those advocating rights based approach to securing livelihoods. Given these changes occurring over decades and putting pastoralists in disadvantageous position, one might be interested to learn whether or not customary systems are still central in land administration and natural resource management in the pastoral areas and the state has to revise its land administration policy to safeguard pastoral land rights. This study thus tries to answer the following questions:

- a) How does the existing legal and political system affect the customary land administrations?
- b) What is the impact of socioeconomic (population, markets, conflicts) and environmental factors (ecological change, rainfall variability) on the long existing pastoral common property tenure?
- c) What options are available (or needs to be created) to increase tenure security towards jointly used pastoral communal resources?
- d) What type(s) of institutional arrangement best integrate the state land law and the customary system of land administration?
- e) How does investment in agricultural extension services and related infrastructure affect customary land management institutions?

To answer these questions, we conducted a study in five selected woredas of Oromia region (Mieso, Hawwi Gudina, Fantalle, Rayitu and Sawena). Data were collected from pastoral communities in the zones and woredas selected. The fieldwork for this study was carried out for two months (August and October 2014). The study used an in-depth key informant interview, focus-group discussions and observations as data collection methods. In addition, GIS tools were used to capture the changes in land use and land cover over the five decades period to learn how far the rangeland has been shrinking and the extent of expansion in farming. This technique enabled us to examine the change in vegetation conditions and overall resource conditions in the rangelands. The data collection covered a number of issues while using each method. These include the strengths and weaknesses of customary institutions, perceived threats to pastoral communal land, the influence of the state policy in altering pastoral relations over resources use, the changing role of women due to land use change and the role of the

youth in hindering perpetuation of the customary systems. In addition, the desirable changes to protect pastoral communal land rights and strategies to revitalize the role of customary authorities in land administration and natural resource management were useful issues focused in our discussion with the pastoral groups. As the data collected were entirely qualitative, we used narratives as tools of analysis where we compared views of different groups involved in discussions and key informant interviews.

We applied the institutional analysis and development framework to guide the analysis. The framework has three components: the initial condition, the action arena and the outcomes where each component is further decomposed into a set of interrelated factors. The initial condition affects the action arena where actors undertake activities related to natural resource management. These activities lead to an outcome which is evaluated by the actors (pastoral groups). While employing this framework, we covered a wider range of issues including social organization of pastoral resources and operations of customary institutions; roles and responsibilities of customary institutional leaders; customary rules and regulations in natural resource governance; community perception about customary NRM institutions in terms of their statuses, effectiveness, internal dynamism, accountability and inclusiveness; customary pastoral land use systems and rangeland management practices; changes in land use and resource management systems; relationship between customary institutions and the local state structure over land administration and natural resource management and community perception about development and expansion of rain fed and irrigated agriculture.

Insights from interviews and discussions have revealed that customary institutions used to play a vital role in land administration and natural resource management. We identified specific tasks performed by different customary authorities at different levels emphasizing how rules are defined and enforced and who does what in the customary governance system in administering access to grazing and water resources. Comparisons were made across the pastoral groups covered in this study. It was found that customary authorities are stronger in Borana than in other pastoral areas (Fantalle, Mieso and Bale) at least in terms of preserving the roles they used to play no matter how ineffective they are in governing common property resources due to their altruistic behavior. Our assessment indicates that increasing trends in land use change and the setting up of fixed boundary in the formal administration have put pressure on customary authorities and eventually on their institutions making them ineffective.

As a result, the relationship between kebele leaders and customary authorities has often become non-cooperative where the former overrides the decision of the latter. For instance, in situations where customary leaders favor the dismantling of enclosures, kebele leaders formalize and certify the enclosed land. The youth and educated members of the pastoral communities who expect (or secured) official positions in the local administrative systems started to undermine the advice of elders who exercise customary rules. Despite the weakening of customary systems due to these reasons, the pastoral community trust their customary leaders, remarkably the elected clan leaders (damina) and customary governance. The source of trust

lies on the continuous consultation that elders hold with those responsible for enforcing rules developed through collective agreements by the assembly. In this case, *kora biyya* (consultation meeting) arranged by the elders' council to plan access to distant resources and mobility between grazing zones is crucial.

The acquisition of land for large-scale investment by private companies and national parks in pastoral areas has caused significant loss of grazing areas. As this was carried out without consultation with pastoral groups and/or at least without any compensation, such interventions by the regional government and previous regimes (especially in Fantalle) have accumulated grievance on the part of the local people. Results from interviews show that pastoralists consider repossession of the communal land allocated for such purposes as a precondition for the state to certify communal land and recognize the customary systems in land administration.

Nevertheless, the socioeconomic changes such as the surging of pastoral population, an increase in resource value due to opening up of markets for rangeland resources and the associated competition for resources have diverted the attention of pastoral households. They emphasize control of resources than negotiated access to these resources through the customary authorities. This is what has been coined as "the drama of the commons" in the institutional economics literature. To overcome such uncertainty and impacts of other factors increasing insecurity of pastoral land rights, a framework for linking and functionally integrating the formal and customary institutions is needed.

Benefits from livestock production can be increased through securing communal land rights. The findings suggest that an initiative land certification must first recognize the social structure of the pastoral society such as kinship, clanship and other divisions upon which the customary leaders have been exercising customary institutions to govern and manage natural resources. Along this line, attention should also be paid to the territorial unit to be certified, the community decision making process within each unit and the mechanism through which the state negotiates with the pastoralists whenever communal land is sought for public investment. To effectively exploit the roles of customary authorities and better manage ecological risk, the territorial unit for certification should not be less than a grazing zone (dheeda) to permit flexibility. The regional government can rely on the advice of customary authorities and craft procedural law that provides a general framework on how land rights are secured and leave the substantive elements to the pastoral groups themselves. As an example, general guidelines on how to carry out certification is a procedural issue while resolving intermittent disputes over rights and access to resources is a substantive aspect which could be taken up by the customary authorities. Our findings suggest that the prevalence of increased tenure insecurity and continuous loss of rights to communal land and rangeland resources in pastoral areas strongly dictate the need for the legal recognition of customary institutions.

Acknowledgement

This study has been financed by the United States Agency for International Development (USAID) through the project agreement between Land Administration to Nurture Development (LAND) and Haramaya University. The authors would like to thank all staff of Tetra Tech, implementer of LAND Project, for their logistical and technical support provided to the team in conducting the assessment. We are also grateful to Ato Yadessa Dinsa who facilitated arrangements with government officials in the field. We also thank woreda administration of each zone which facilitated the fieldwork, pastoral communities who participated in the discussions and the experts for sharing us their views. The invaluable contribution of Mr Zelalem Gebeyehu in sketching the study area maps and collecting GIS data is highly appreciated. The comments provided by Dr. Solomon Bekure, LAND Chief of Party, and all his team members were very valuable in the revision of the document. The reflections made at the stakeholders' validation workshop held on September 2, 2015 have helped us in refining the report.

1. Introduction

1.1. Background

Pastoralism remains the most viable form of production and land use in Ethiopia's fragile dry lands (Workneh, 2011). However, due to increasing threats from legal, economic, social and environmental factors, the adaptation strategies and governance arrangements in the pastoralist systems have been seriously challenged. Moreover, increases in human population, decreasing rangelands due to the privatization/parceling of land for other uses, insecure land tenure and recurrent episodes of drought added to the decline of livelihoods in the system. Some conflicts within and between pastoralist communities, such as raiding and cattle rustling have a long history and have to some extent become an aspect of common pastoralist event (Solomon, 2012; Taye, 2012). The relentlessness in the livelihood of Ethiopian pastoralists has very recently come as an area of concern and development agenda of the government of Ethiopia. Development policies targeting the pastoral communities need to recognize the indispensable role of customary institutions and support the indigenous governance system to bring about sustainable development.

A great deal of scholarly work on the grazing commons since the early 1980s has developed an understanding that indigenous communities have developed effective rules through which they govern uses and manage natural resource use and management.. However, when these rules are ineffective, common property regime can negatively influence resource use and conservation (Lane 1998: McCabe 1990: Watson 2003). A fundamental question to consider in this regard is, what are the major factors rendering ineffective customary NRM rules? A number of scholars indicate that governance challenges are becoming evident in response to rising scientific uncertainty, demographic shift and increased complexity of resource systems that have in turn affected the design of institutions for rangeland resource management. A shift in thinking on the role of pastoral communities in halting rangeland degradation leads to creation of a new strategy, through which pastoral communities can contribute to the management of rangeland resources provided that their customary institutions are recognized and gain legitimacy. But implementation of development projects reveals the need not to overlook the effects of range management interventions on the community-based rangeland management (CBRM) and governance of grazing commons (Beyene, 2011). Rangeland management challenges occur when everyone tries to maximize private benefits by generating negative externality to all others. This is based on argument of Stevenson (1991) where commoners with weak institutions in regulating access are characterized by open access situations. Hence, analysis should focus on conditions that undermine the possibility to manage the rangeland, including institutions and their role in influencing behavior. The extent to which they do is partly explained by the sociocultural values in which customary institutions are embedded.

While some are pessimistic about the role played by customary institutions in supporting adaptive patterns under condition of greater resource variability, others appreciate their effectiveness in managing very complex resource use arrangements. The closeness of the customary rule makers to such resources, the easiness to monitor its conditions and their capacity to enforce those rules effectively revitalizes the role of customary governance (Helland, 1997; Moorehead, 1991; Watson, 2003). Meanwhile, the possibility to reanimate customary systems to perform these tasks within the context of wider economic and political structures is believed to be doubtful (Lane and Moorehead, 1995). Changes in land use, livestock production strategies and political and administrative interventions aiming at nationalization of pastoral land. as explained earlier, are important reasons for the emergence of such doubts. As Lane (1998) explains, nationalization of pastoral land is breaking down customary land tenure arrangements. The work of Stiles (1992) and McCabe (1990) recognize the significant role played by customary tenure arrangements in overcoming resource degradation and maintaining common property resilience (Perrier, 1995). Moreover, a review of cases by Swallow and Bromley (1995) confirms the capacity of customary systems to manage and govern resources (e.g. through contractual and rotational grazing) while state role remains decisive in protecting group rights and building internal capacity of resource users.

The range of observations stated above substantiates the point that customary institutional arrangements feed into a more decentralized and adaptive approach to resource use regulation and environmental risk management. By highlighting successes and challenges, the existing literature provides an impetus to study the role customary institutions play in managing and governing access to benefit streams from different kinds of common property resources (Beck and Nesmith 2000). In the theoretical literature as well, there is a pressing need for the study of indigenous institutions as they are often missed in a broader comparative institutional analysis while their role remains significant in influencing behavior (Shivakumar 2003).

Studies on Ethiopian pastoralist areas show that pastoral lands are being put under increasing pressure due to the ever-growing numbers of people and limited feed resource for the livestock as well as allocation of land to non-pastoral uses. Customary authorities and the rules and regulations that were used to manage and conserve the rangeland resources have remained either unrecognized or under recognized over the years, contributing to deterioration of the rangeland conditions. The pressure will worsen unless checked and could lead to severe degradation of the rangelands and undermine the livelihoods of pastoralists. Though vividly stipulated in the 1995 Constitution of the Federal Democratic Republic of Ethiopia, Article 40 Sub-article 5, that Ethiopian pastoralists have the right to free land for grazing and cultivation as well as the right not to be displaced from their own lands, such rights are not yet legally protected within the broader institutional framework.

The rural land administration and use laws that the Oromia National Regional State has enacted helped secure farmers' land use rights by providing land-holding certificates. Farmers are given the right to manage their landholdings. Subject to the provisions of the law, they can rent, gift or bequeath their landholdings. Pastoralists are constrained to enjoy such land use rights because there is lack of specific legislation that secures their collective rights (Abdulahi, 2007). The influence of customary institutions that have been managing the natural resources of the rangelands have been weakened through time.

Both pastoralists and government officials have a concern with the degradation of the rangelands and the loss of its productivity need to be arrested by protecting the land use rights that the constitution vests on pastoralists, and by developing and implementing appropriate land use and management plans. A related study conducted in the Ethiopian rangelands points to the need for government experts and pastoralists to work together in pursuing this goal. The studies also show that pastoralists have, over centuries, acquired a profound knowledge of their environment. They developed an acute art of managing grazing land and watering points, and have established institutions that are indispensable to the development and proper management of these resources (Watson, 2003; Desta and Coppock, 2004; Abdulahi, 2007).

The Land Administration to Nurture Development (LAND) is a project undertaken by the Federal Ministry of Agriculture in six administrative regions of Ethiopia, one of which is Oromia National Regional State. The project has four different components, one of which deals with securing of tenure rights of pastoralists to communal land through demarcation and certification of communal land. One strategy to implement this can be demarcating and certifying specific grazing zones and recognizing their primary use rights to specific groups of pastoralists and recognizing or establishing pastoral community organizations that would manage the land and its natural resources in accordance with the mutually agreed by-laws. Building local capacity in natural resource management, however, requires adequate understanding of the socioeconomic and existing informal governance structures in managing land resources and the relationship between nature and the society.

Development of pastoral communities profile with respect to natural resource management and governance assists this process to be effective. Apart from generating information on land use planning and land rights for the purpose of land formalization efforts in pastoral rangelands, LAND, being entrusted to advise on the designing of the pastoralist areas land law endorsement, engaged Haramaya University Institute of Pastoral and Agro-Pastoral Studies(HU-IPAS) to generate research based information in this regard. Hence, there is a need to have a sound understanding of the organizational structure and rules and regulations that are used customarily to administer and manage natural resources, including pasture and water, to inform drafting of this regulation. The results of this study will inform the development of a regulation designed to formalize communally held land and natural resource use rights in

Oromia Region beginning first with four distinct pastoral systems (Karrayyu, Bale, Ittu and the Borana/Guji) that have been shaped by ethnic, geographic and ecological factors.

1.2 Purpose and Scope

The purpose of the study is to compile information on the customary organizational structure and the rules and regulations employed by the four Oromia pastoral systems in managing the natural resources on their rangelands, including the roles and responsibilities of the customary authorities in exercising the rules and regulations of resource use and management and the sanctions applied on violators. It also aims at assessing their current status and effectiveness in exercising their institutions. The information contained in this report can be used as evidence and input for crafting pastoral land law that accommodates the role of customary institutions, the rights of vulnerable groups. Besides addressing the land rights of vulnerable groups (women, pastoralists, migrants, etc.), attention was paid to understanding the nature of the processes of exclusion, particularly those based on economic, class, status and age factors. Differences might exist across different pastoral groups where one could be more vulnerable than others due to greater influence on the functioning of their customary institutions. Therefore, to capture the inherent complexity of the pastoral natural resource management that includes customary land administration and the functioning of these institutions, the study will employ the institutional analysis and development framework as elaborated in the next section.

2. Literature Review

2.1 Customary institutions in resource governance

Successful pastoral production in Africa at large and Ethiopia in particular was premised in the past on security of common property resource rights and access to a large territory and associated key natural resources governed by robust customary institutions. However, the situation has been gradually changing. For instance, inappropriate policies and the crippling 'development' interventions and lack of legal recognition for the common property resource tenure has put greater influence. As has been widely reported, external pressures on pastoral resource base (land alienation, displacement, bush encroachment and frequent drought) have negatively affected pastoralists and their livelihood systems (Bonfiglioli, 1992; Ayalew, 2001; Ali, 1996; Ayele, 1994; Getachew, 2001; Lane, 1994; Lesorogol, 2008, Tesfaye, 2003; Tache and Oba, 2009). Insecurity is further looming in the present context of globalization and penetration of private international capital in the once remote and inaccessible corners of the rangelands.

It is noteworthy that today's pastoralist predicament is rooted in early academic writings that laid a solid foundation for misunderstanding of pastoralism and pastoralists' relation to their environments. These include the cattle complex paradigm (Heriskovits, 1926), the pastoralist dooms assumption (Huxley, 1948), the tragedy of the commons argument (Hardin, 1968) and the too many people, too few livestock debate (Sandford, 2006). Despite internal variations in an individual emphasis, these works embodied in common an anti-pastoralist sentiment and conveyed, implicitly or otherwise, a horrible message that pastoralists and their production system were futureless and thus be replaced by 'more viable' production and land use systems. Despite the long time span since most of these arguments were first articulated – and even since they were academically scrutinized and rejected - they still continue influencing policies towards implementation of tenure reforms and resource privatization (Lane, 1998).

Improving the legal framework of Ethiopia for recognition and better protection of the common property resources-based production systems – to which the LAND Project aims to contribute - requires, among other things, a systematic probe into the social aspects of the key resources and the organization and modes of operations of the customary institutions managing them. But what is an institution? With this brief summary of literature review, we only aim to allude to the fact that the meanings of institutions are diverse both between and within disciplines. For our immediate purpose, however, a mention of a few examples would suffice. Scott (1995) sees institutions as consisting of cognitive, normative and regulative structures. For Bromley (1989), institutions are rules and conventions of society that facilitate coordination among people regarding their behavior while North (1990) defines them as the rules of the game in a society. Despite the semantic divergence, three basic elements are important to grasp customary governance and routine operations in any common property-based societies: resources, rules

and regulations and the personnel (Bassi, 2005). An effective institutional performance is affected by strength of the rules, conditions and equitable access to resources, leaders' accountability to the society and institutional autonomy among others. External environments have a role in shaping the internal dynamism of the customary resource governance. They also affect security of the common property resource (CPR) tenure arrangements and consequent enhancement (or decline) of the CPR-based livelihoods in the semi-arid environments where resource conditions vary in space and time. In a situation where authorities from the formal structure (e.g. kebele) interfere into the customary structure instead of creating synergy through a supportive complementarity, the latter becomes ineffective and resource conditions deteriorate (Tache and Irwin, 2003). Along this, some studies mention that customary institutions are getting weak because of various reasons such as 'outsiders' intervention; expropriation of land by government; new social groupings (with new migrants); and less respect given for 'tradition' (Yacob 2000).

Respect for traditional systems and customary institutions has reduced since there are individuals who are keen for personal gain and tend to ignore traditional rules of access to resources. This has threatened not only the customary authorities but also affected women and their rights, which in the past had been protected by customary authorities (Flintan 2010). Therefore, studies conclude that these socio-economic and environmental challenges/changes have differential impact on poor households, women and young people (Muir 2007). Women's multiple roles have created conditions whereby they influence and are influenced by their environment (Ridgewell et al., 2007; PFE 2008; Flintan et al., 2011).

Who owns the key natural resources in Oromia pastoral areas? How do the customary NRM institutions operate among the study communities? In Oromia pastoral production systems and customary property rights arrangements, identity of the land and the major natural resources therein (e.g. pasture, water and in some cases mineral licks) follow certain social (perhaps territorial) organizations, and their meaning often transcends the economic realm. So do the implications of property rights security of the key resources or lack of it. Among the Borana, for instance, personified cosmic meanings are assigned to water, pasture, the traditional crater salt lakes and the ritual sites. They are considered as having a will and a power, and this notion is instrumental in deterrence and settlement of a property rights dispute (Tache, 2000) and some aspects of the natural resources constitute an important metaphor for orderly social life (Bassi and Tache, 2011). The cultural dimension of a society-environment relationship is as important to consider as the economic dimension. Socially, the key resources are crucial in cementing societal cohesion when the established entitlement provisions are observed and management responsibilities are discharged, or in causing an internal strife when they are violated.

Although a number of efforts were made to strengthen the customary natural resource management system, including the revitalization of rules to access and use natural resources, customary institutions have the tendency of reinforcing gender hierarchies (Flintan, 2006, 2010). Hence, studies emphasize on the importance of fully understanding customary institutions and their impact on all resource users (including the less empowered segment of a community). Therefore, unless gender issues are taken into account, transferring power to the local level authorities could exclude women and their 'informal' or usufruct rights of access, whilst strengthening access by powerful community members. Therefore, a critical question for the reestablishment of the customary system of natural resource management is that who will be utilizing the rangelands and in whose interests will the natural resource management units be acting? (Ridgewell et al., 2007; Muir 2007; Flintan et al., 2011).

Some studies recommend finding alternatives for women's inclusion to prevent invisibility of their resource rights within customary tenure systems. They suggest developing effective mechanisms and skills of customary authorities that enable consultation between women and customary authorities rather than focusing on women's membership in customary decision-making bodies. They argue that pushing women into the domains of men may not necessarily be the right solution (Muir 2007; Flintan et al., 2011). In such a case, using women's forum (both informal and formal ones) is important for understanding the gender aspect of NRM and issues of inclusion and exclusion in the larger customary resource governance. Muir (2007) suggests that forming and using associations is crucial for women to exercise agency which could provide an easier and potentially more effective entry point to strengthening women's engagement with customary institutions as well as the government.

2.2 Pastoral land tenure and the state land law

The formal/state land tenure system, as embedded in the 1995 FDRE Constitution and subsequent federal and regional rural land laws, is based on state ownership of land and citizens have only use rights on their holdings. The general policy statements enshrined in the constitution have been elaborated and specified through the detailed rules and regulations stipulated under the federal and regional rural land laws. The federal and regional rural land laws and detailed rules and regulations therein were framed focusing predominantly on governing individual landholding system, i.e. sedentary individual-based landholding and use system, including crop production and other investments (Helland, 2006; Abdulahi, 2007; Flintan, 2011).

In other words, the provisions of the federal and regional rural land use and administration laws relevant to the land tenure and governance in pastoral communities are very general and limited to statements of underlying principles, such as that pastoralists and semi-pastoralists are entitled to land use rights and protection against evictions. The details of land use rights, tenure arrangements and rangeland management in pastoral production systems are left essentially

unaddressed under the rural land use and administration laws of the state. Hence, some research and assessments reported that the existing land laws of the state fall short of practical implementation and positive impacts in pastoral communities, as these laws essentially ignore the local contexts, customary tenure arrangements, and resource use and governance practices of the pastoral communities(PFE, IIRR and DF, 2010; Mohammud and Berhanu, 2007).

On the other hand, irrespective of the inadequate or lack of recognition under the state-backed land tenure system and the rural land laws, pastoral communities in the country have been managing and using land and related rangeland resources for centuries based on communal land tenure and governance system. The pastoralists have managed to sustain this system through complex and well-structured web of customary institutions, rules, regulations and principles that underlie the use and management of pastoral land and related rangeland resources. Thus, all pastoral communities, including those in Ethiopia, have developed and were using indigenous rules, regulations and principles as well as customary authorities/institutions that define, redefine and enforce the rules and regulations in ensuring effective use and management of rangeland resources (Barrow, et.al., 2007).

A number of studies have documented the territorial organization and customary administrative structure as well as the essential contents, features and modes of operation of customary institutions, rules and regulations relevant to land tenure and rangeland resource use and management systems in the major pastoral areas of the Oromia region (Kamara et al., 2004; Watson, 2003; Helland, 1997; Beyene, 2009). As the Borana plateau is the major pastoral system in the Oromia region, most of the available literature discuss the condition of rangelands and the customary institutions, rules and regulations underlying the rangeland use and management system of the Borana pastoralists. Thus, various research articles, books and assessment reports have described and well-documented the integrated customary administrative system- the Gadaa system- that enabled the Borana pastoralists to use and manage rangeland resources efficiently and equitably. This system has been praised by many researchers and experts for sustaining the Borana pastoral system for centuries by providing the underlying principles of customary land tenure arrangement, functional structure of customary authorities that define and redefine rules and regulations, and the routine institutional and regulatory mechanisms for enforcement of and ensuring compliance with the rules and regulations (Kamara, 1999; Watson, 2001; Tache and Irwin, 2003; Homann, 2004; Kamara, Swallow and Kirk, 2004; PFE, IIRR and DF, 2010; Doyo, 2011; Markus, 2013).

A number of studies examined customary principles, rules and regulations underlying the pastoral land tenure and rangeland resource governance system of other pastoral communities but without providing detailed and comprehensive information on the performance of the pastoral system. For instance, Abate et al. (2010) assessed and described the traditional rangeland use and management practices, the role of customary leaders and some aspects of

the customary institutions operating in selected areas of the Bale pastoral system. They also provide a comparative description of the communal land tenure arrangement. Similarly, Beyene and Gudina (2009) provide an important highlight of the essential aspects of communal land and rangeland resource use and governance system of the Karayu pastoral communities and the corresponding customary institutions, authorities, rules and regulations functioning in this pastoral system.

In short, it is clear that the basis for the use and management of rangeland resources in pastoralist societies has always been communal landholding and resource use and governance system. The guiding principles, rules and regulations are formulated in customary institutions and enforced by traditional authorities constituted to ensure compliance with the laws and proper use and management of the rangeland resources (Abdulahi, 2007; Rahmato, 2007; Flintan, 2011). However, the role and authority of traditional institutions and the customary rules and regulations of rangeland use and management in pastoral communities remain essentially unrecognized under the formal/state land use and administration policy and legislations. Many studies conducted in this regard indicated that this lack of recognition and integration into the state law is one of the multiple factors that aggravate tenure insecurity and loss of land rights and access to rangeland resources in most of the Ethiopian pastoral systems (Kamara, 1999; Helland, 1999; Kamara, Swallow and Kirk, 2004; Ogbaharya, 2007; Abdulahi and Adenew, 2007; PFE, IIRR and DF, 2010; Wassie, 2014). This is worsened by subsidiary legislations that fail to provide mechanisms to protect and enforce land rights and interests of pastoral communities. Important to mention in this regard are the expropriation law and land use and administration regulations (Ambaye, 2013; Mulleta et al., 2013).

In summary, the policy direction and legislative process underlying the Ethiopian land tenure system have continuously failed to integrate and accommodate the communal land tenure and governance system of the pastoral communities. The predominant focus of land policy formulation and legislation in the country has always been individual-based land use (farming/crop production) system, essentially disregarding the details of communal land tenure, property rights arrangements and the underlying customary institutions among the pastoral communities. This has led to continuous deterioration of the role and authority of customary institutions that sustained communal land use and rangeland resource governance system for years among the pastoral communities. As a result, the pastoral communities continue living under insecure land tenure system characterized by lack of legal protection and increasing loss of land use rights and access to rangeland resources as investment initiatives and land use systems other than pastoralism advance into the pastoral systems (Elias, 2008; Flintan, 2011). Therefore, further investigation and focused assessment is absolutely crucial in order to have complete understanding of the customary land tenure and rangeland resource use and governance systems of pastoral communities and to forward evidence-based recommendations

on the strategies and legislative mechanisms that would strengthen land use rights and provide more secured access to rangeland resources for the pastoralists in the region.

2.3 Conceptual Framework

The analytical framework used here puts together the different lines of thought from the previous sections. Choice of a framework for a particular study is not an arbitrary decision. In this particular case, the sustainable livelihoods and institutional analysis and development frameworks can be used. However, as the study emphasizes the role of customary institutions in natural resource management, the question "why do customary institutions do operate in a certain way than in another way?" becomes crucial for the analysis. The central concern becomes understanding institutional choice in natural resource governance among pastoral societies. A subsequent question would be what determines the decision of pastoralists in the designing and operation of their institutions.

A third concern for the researchers would be how do these institutions have been functioning through time, whether or not they have changed, what roles state and non-state actors had played in the process of change and how environmental factors have affected such changes. Crucial is an institutional design that safeguards pastoralists' rights to one of the livelihood resources (the natural capital) and encourages them invest in the management of natural resources. However, the sustainable livelihoods framework considers a different set of factors as outcomes: a reduction in levels of poverty, vulnerability or an increase in income and access to livelihoods assets as a result of changes in institutions. Comparing the features of both frameworks in enhancing our understanding of the link between institutions and natural resources management, an institutional analysis and development framework is more suitable.

The Institutional Analysis and Development (IAD) framework consists of three major components that are further divided into sub-components. These include: I) initial condition, 2) action arenas and 3) outcomes. The initial conditions comprise biophysical and asset conditions, community attributes (characteristics), the political and legal systems as well as the informal rules or norms. Based on the review and context of this study each of the components is described as follows:

a) The biophysical conditions — represent the biophysical environment in which (agro-) pastoralists live: the attributes and conditions of natural resources, the resources they manage, climate-related factors (including drought and rainfall) and a wide range of ecological systems with valuable resources with economic and symbolic values. Other category includes the physical infrastructure (roads, communication, human and animal health facilities) that directly or indirectly affects production strategies. Changes and dynamism in the pastoral natural ecology determines the functioning of their customary systems and resource tenure structure. Currently, various changes are occurring in pastoral areas and societies at an unprecedented pace. For example, forest and rangeland management have come under increasing pressure

among the Borana and Karrayu from competing land use systems and sedentarisation as conflict, drought and a growing population have pushed pastoralists to a greater reliance on crop production. Uncertainty in land tenure, ecological change, and a shrinking area of grazing land due to regional border changes are other issues in these areas (Ayalew 2004; Ridgewell et al., 2007; Flintan et al., 2011).

- b) The asset conditions include the tangible and intangible assets that (agro-) pastoralists possess, mobilize, use and exchange with others. The tangible assets are those that they put into action directly (e.g. human labor, financial, livestock, land, water points) and intangible assets may include access to information, herd management skills, and social networks (social capital). Networks are distinguished on the basis of clanship, close consanguineal and any other relationships. For instance, gender relations are changing as women are taking up new income generation activities including trading in livestock and livestock products (Flintan et al., 2011). Commercial investments have resulted in dramatic changes in the availability of rangeland resources which heavily affect mobility patterns, which in turn affect gender relations at the household level. Degradation of pasture has also affected women's livestock-related activities by increasing the amount of time they spend in collecting water and fodder for animals. For instance, privatization of communal resources has made it difficult for Karrayu women to access and gather wild plants for fire wood, food, fiber, medicine etc. It has also increased the likelihood of resource and land related conflicts which in turn affects women differently (Ayalew 2004; Ridgewell et al., 2007; Elias and Feyera 2010).
- c) Community attributes are features useful in differentiating actors across a wider spatial scale and internal socioeconomic features. In the context to be studied, natural resource endowments, demographic factors, evolved norms and values, production systems, ethnicity, exposure to resource conflict, economic inequality and access to different kinds of markets and services are some of the attributes along which distinction among (agro-) pastoral communities can be made. One of the important attributes is distinction on the bases of gender and access to resources along gender. Gender has been shown to be a key determinant of rights to and benefits from natural resources in pastoral areas. In pastoral community, all members of a given community including women have the right to access and use natural resources (Watson 2005; Flintan et al., 2011). Nevertheless, shaped by ideological, religious ethnic, economic, and social determinants, gender differences affect access to and distribution of resources (PFE 2008, 2011). Since customary system is based on heavily gendered division of labor, men and women have different roles, responsibilities, and decision making processes (Muir 2007; PFE 2008). Men tend to take up a more 'public' role where decisions about access to and management of natural resources are made by them with little consultation of women (Ridgewell et al., 2007; Yakob Arsano 2000). Women, on the other hand, do not have a public role in customary decision-making bodies, and on the whole do not expect to be actively involved in rangeland management decisions (Watson 2005; Muir 2007). Therefore, since the gendered customary

institutions, which facilitate women's exclusion are responsible for decisions about natural resources, various studies question the extent to which the interests and needs of women and the youth are heard and taken into account in the process of decision making(Muir 2007; Ridgewell et al., 2007; PFE 2008; Flintan et al., 2011).

d) The political and legal systems – are those political and institutional factors that affect these communities in the way they invest in and benefit from those assets and respond to changes in the physical conditions. For instance, decentralization of the political system and constitutional rules (political and economic institutions) can influence customary institutions at local level. This can influence property rights and the system of resource use. Decentralization of power and authority might have two consequences. One is the emergence of "conflicts of interest within groups" over resources (Seabright 1996: 80). The other can be accumulation of political capital by some social units (local elites) within the system because of their better connection to the political system than others (Joireman 1997; Pausewang et al. 2002). This may cause channeling of some benefits to specific group and marginalization of others. This could gradually harm relationships between different local social units (Bardhan 2002; Lund 2006).

Alternatively, decentralization in the context of federalism provides a mechanism by which voters elect their agents assigning them with a duty to protect their property rights to valuable resources. They can act collectively to put pressure on their agents whenever the latter fail to commit themselves to the interest of their constituents (Inman and Rubinfeld 1997). As decentralization involves transfer of responsibilities from central to local governments, it will be easier for resource users to organize collective action that will put pressure upon their local agents (Rondinelli, McCullough and Johnson 1989; Agrawal and Ostrom 2001). It can be argued that a shift in political system towards decentralization could create suitable environment for marginalized societies to defend their rights to resources they need. In decentralized political systems in many African countries, this has been mainly observed where customary authorities closely work with local governments (WRI 2004: 31). The framework considers the effects of all components in the initial condition on the action arena. Thus, in this study the empirical analysis focuses on assessing how those factors (variables) in the initial condition shape events in the action arena where heterogeneous actors 'interact, exchange goods and services, dominate one another and fight' and make choices (Ostrom 1999: 42).

From this, the regularities in actions and choices can be influenced by exogenous factors. For example, the debate on property rights provides alternative explanations. On the one hand, state land tenure policy as contextual variable shapes property rights towards exclusive type. To the contrary, the physical conditions characterized by unpredictability favors flexible property rights system to manage risk for which maintaining common property is critical. Other components of the contextual variables such as demographic shifts, access to markets and other services constrain the continuity of flexible resource use system while favoring a more exclusive

property rights. Therefore, the aggregate effect of the initial condition on property rights is difficult to predict because the interaction of many variables may lead to development of different incentives among economic actors. Many scholars of the commons give limited focus on the role of markets and demographic pressure in determining common property institutions. But new demand originating from emergence of the markets creates an incentive to harvest certain products. The gains from such action produce a temptation to put claims to privatize the commons (Agrawal 2001).

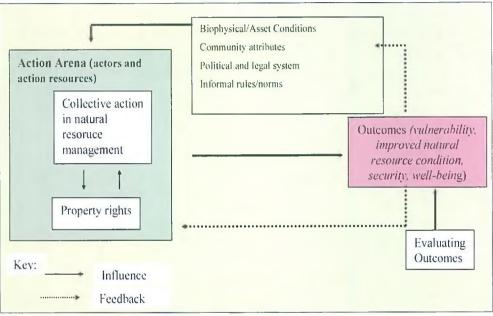


Figure 1: Framework for Analysis

Source: Based on Ostrom, Gardner and Walker (1994), modified.

In this framework, where collective action in pastoral (natural) resource management succeeds in establishing flexible property rights system to reduce uncertainty, it becomes instrumental in securing access rights to the resources through negotiation and bargaining (Mehta et al. 1999). The bargaining positions and capacities are shaped by community attributes and asset possession while the legal and political environments can enhance (or undermine) the process. If the bargaining process fails to lead to development of institutions that will otherwise accommodate different demands, the action arena involves various forms of conflicts but with new institutions yet to emerge (Knight 1992). To evaluate how new institutions emerge and create sufficient action space among heterogeneous actors, references must be made to those contextual variables (McCay 2002).

This makes the action arena complex and dynamic with persistent shifts in patterns of interactions. The action arena will produce a variety of outcomes whose values are contingent upon the assets mobilized, the norms or rules in place and the influence of other factors in the initial conditions. Elements of these outcomes subject to analysis are vulnerability, property rights security, improved natural resource conditions (better pasture management, improved access to water points) and peaceful relationships among different resource user-groups (social wellbeing).

Eventually, an important advantage from using this framework as analytical lens is that it enables analysts to examine how different actors evaluate the outcomes. This generates sufficient information on possibly varied interests of actors that induce the reinforcement or change of events in the action arena. Therefore, one can analyze feedbacks from outcomes to the initial conditions and the action arena (Ostrom 1999; 2005).

3. Methodology

3.1 Description of the study sites1

This section provides a narration on the pastoral and agro-pastoral production systems in the study area. The study was conducted in three administrative zones of the Oromia Regional State including western Hararghe, East Shewa and Bale. Five woredas were deliberately selected. Mieso and Hawwi Gudina woredas were selected from West Hararghe Zone. Two more woredas, Fantalle from Eastern Shewa Zone and Rayitu from Bale Zone were targeted for the primary data collection. There are 9 pastoralist woreda in Bale Zone, namely Dallo Manna, Madda Walabu, Aranna Bulluq, Sawwena, Laga Hidha, Rayitu, Dawwe Sarar, Dawwe Qachan and Gurra Dhamole. Our fieldwork was conducted in Rayitu and Sawwena under a very difficult weather condition as it was peak of the rainy season, and our plan to include a third woreda was constrained by bad road condition. However, due to inconvenient road infrastructure during the data collection, we could not access to other woredas such as Gura Dhamole, and Laga Hidha which were in the planned list for data collection. We believe that this limitation would not affect the findings and the possible implications to be drawn in the pastoralist areas of Oromia.

Pastoralists in the Oromia region inhabit vast area of land with different types of terrain and land use types. They raise cattle, camel and small ruminants. As farming is practiced in different pastoral areas it is difficult to classify a single woreda either as pastoral or agro-pastoral. The two production systems co-exist. However, the extent of coverage of pastoral and agro-pastoral systems in each woreda differs. For instance, Mieso is dominated by the agro-pastoral system while Fantalle is predominated by pastoralism. Secondly, these woredas differ in terms of engagement in irrigated farming. Agro-pastoralists in Fantalle have been involved in irrigated agriculture since 2010. A potential for largescale investment in irrigated farming exists for the Rayitu woreda using perennial rivers such as Shebele and Weyid. Others do not exercise irrigated farming.

Pastoralists diversify their livelihood into crop farming, petty trading and other off-farm activities and very often they integrate these activities as they mainly rely on livestock as income and food source. Access to markets to generate income from sales of different products differs from one

 $^{^1}$ Data for the study area description was taken from: The Oromia Bureau of Finance and Economic Development. Regional Statistics; Basic Facts and Figures of Oromia Region. Accessed at:

http://www.oromiabofed.org/index.php?option=com_content&view=category&layout=blog&id=45&Itemid=62 and Pastoral Development Office of the respective woredas.

to the other communities across the woredas. While those in the eastern part of the region do have relatively easy access to market outlets domestically as well as internationally (the Ethio-Djibouti railways), others in the southern part of the region hardly find access to markets. The types of crops grown vary. In Mieso, sesame and haricot beans are important cash crops while onion and shallot are useful in Fantalle. Teff, corn and sorghum are important local crops in Rayitu woreda in Bale Zone.

In all studied woredas, there has been competition between farming and land use for communal grazing land. Historically, this was embedded in the change of government in the early 1970s which has caused transformation of rights to land where land became a state property and expansion of farming into lowland areas. A more common phenomenon in the pastoral production environment is an increasing trend in the use of private enclosure that in turn affected relationships among communal land users. While enclosure in pastoral areas is serving as feed bank for dry season reserve, it has been serving as a means to prevent environmental degradation in highland areas. Pastoral societies in the region have also started practicing commercialization in which fattening was practiced in eastern woredas such as Mieso by feeding livestock on cactus and crop-residue with a parallel investment in land management (terracing, soil bunds).

Another typical characteristics of the pastoral system in Oromia is the complex social system. In each woreda studied, there are mixed clans and settlement from other neighboring regional states influencing the structure of relationships. The socioeconomic relations have evolved through time with population growth and environmental change. Resettlement from other regions have complicated the nature of resource use relationships. An increase in population and a relative increase in resource scarcity have increased the likelihood of resource-based disputes and posed a challenge to the functioning of customary institutions. An example is the conflict between Issa and Itu that tends to be interpreted differently by different groups (Beyene, 2009). Moreover, where mixed clans exist, property rights are often contested as residual claimants tend to claim priority over others. On a wider scale, property rights are rather diffused all over the rangeland and the seasonal land use integrates dry plains and wet highlands. The rangeland is collectively used by the pastoral communities whereas property right to water wells is ultimately vested in clans; non-clan members secure access through webs of social relations such as affinity, neighborhood and negotiation. Variability in rainfall and physical conditions is also a typical characteristic of the pastoral areas of Oromia. There are wetlands in the pastoral areas which are swampy and baren lands with no vegetation, grasslands and mountainous areas. Such physical variation provides options for the different species of livestock to find feeds.

Drought-induced risk and food insecurity are defining characteristics of the pastoral system. This condition could even be worse if development strategies aim at permanent pastoral settlement and restricted access to wide range of grazing resources. The wrong melody that

have undermined the capacity of customary pastoral system while favoring dominance of the formal system over management of natural resources might have limited the possibilities to respond to drought-induced risk. The evidence for this comes from Mieso and Rayitu woredas which were often food insecure. Pastoral areas in Oromia are ecologically diverse, socio-culturally dynamic and politically sensitive that often make them more unstable and risky than highland areas. Assessing customary land administration and rangeland resource management is needed to learn how far customary systems manage the complex resource use relationships in the ever changing situation.

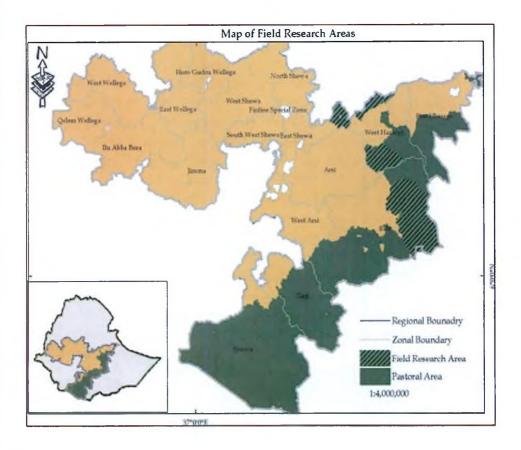


Figure 2: Map of the study areas

3.2 Data sources and collection methods

Data were collected from pastoral communities in the 37 kebeles of the woredas described above. The study used an in-depth key informant interview, focus-group discussions and observations as data collection methods. Through the in-depth interview, the data collection team focused on exploring the experiences over how customary land tenure and governance systems have been organized and functioned; the rules, values, norms and principles of the customary institutions in managing and utilizing of natural resources (grazing areas, water points, forest, and the like) and the challenges they faced in their experiences. It helped generate descriptive accounts about past and recent experiences of managing grazing zones and systems and capture diverse views about the merits and demerits of the customary land tenure and governance systems. An in-depth interview was also instrumental to learn the specific resource management strategy of selected customary authorities within their socio-cultural setting that existed for long.

The second method was the focus group discussion, which was selected to complement and verify data collected through the in-depth interview especially on selected topics. The research team has engaged a group of pastoral households in selected villages to provide further and detailed explanations and interpretations about the organizational and functional principles of customary institutions in pastoral land tenure and governance systems. In total, 22 focus group discussions consisting of 350 participants were conducted. These are composed of the traditional leadership, councils, assemblies, groups, and individuals who manage the resources and enforce the rules and regulations by which they manage communal resources, including rules of negotiating access and control of resources. The data was generated from the different pastoral groups (chiefs, sub-chiefs, natural resource managers, elders, dropouts from the pastoral system, women and youth), local government organs (those running pastoral development offices, responsible for land administration and natural resource management) and development organizations working in these areas. Overall, 15 experts working at woreda and zonal level were interviewed. While carrying out the interview, the team has focused on the challenges and opportunities of customary institutions in land tenure and governance systems. The checklist containing a set of guiding questions was used to facilitate discussions and interviews. As all research team members know the local language, the focus-group discussion enabled the team to grasp the context easily.

To a certain extent, observation was also used as a method to assess selected grazing zones and localities to learn how groups manage and access resources. The whole set of issues addressed in the interviews and discussions covered the physical, socio-cultural, political and environmental conditions affecting land tenure system, institutions and governance of communal property rights to key pastoral resources. The use of secondary data from relevant literature has assisted in reflecting the experiences of pastoral groups.

In addition, biophysical data were gathered to assess the nature of land use change over the last 3 to 4 decades in the studied woredas. Eventually, maps were produced using primary and secondary data with the help of advanced and up-to-date mapping technologies available. The main Software/Tools used throughout the data collection and analysis to the final production of the land use/cover map include: Arc GIS 10.2, ERDAS 14.5, ENVI 5.1 and GARMIN Differential GPS. The main sources of data and images used in multi-temporal land use/cover analysis are: a map from the Awash River basin survey (FAO, 1965); the Landsat 5 TM imagery (path-row 168-54 and 167-54, taken by TM sensor in January 1986); and the Landsat 8 OLI_TIRS imagery (path-row 168-54 and 167-54, taken by OLI_TIRS sensor in January 2014). The Landsat TM imagery is acquired from online archive of the United States Geological Survey (USGS), while aerial photograph, topographic maps (1:50000) and ETHIOGIS were acquired from Ethiopian Mapping Agency (EMA). Additional data/images from online archives of Google Earth were also used in the process.

3.3 Data analysis

The study has exclusively employed qualitative research approach where the diverse views of the different category of respondents were transcribed, processed and compared. There are steps followed. First, the field transcripts produced by each team member has been reviewed and categorized into thematic areas. Responses obtained from each question raised during the focus group discussions and interviews were scrutinized for their substance. The second step was the sorting of responses and placing them under the theme to which they belong. The themes were revised and checked for relevance and consistency. The third step involved comparison of case study sites under each theme to capture institutional diversity and variety of practices with respect to the functioning of the customary institutions. In the light of the framework employed, the analysis emphasized the attributes of the resources and communities and the role of exogenous and endogenous factors affecting natural resource governance.

To analyze the biophysical data, representative points of various land cover classes were marked using GARMIN GPS during the field visit and used in "groundtruthing" the data/images of the various land cover types. Then, the images of various land use/cover classes were identified and delineated on ENVI 5.1 following the standard procedures of image analysis. The images were then classified into seven land use/cover classes following the Land Cover Classification System of FAO. Accordingly, the land use/cover classes identified are cultivated land, woodland, shrub land, grassland, riverine vegetation, bare land (rock outcrop) and water body.

For the purpose of this study, four of the land use/cover classes (woodland, shrub land, grassland and riverine vegetation²) were merged together and classified as "Rangeland" area in order to show the size of rangeland area that can support livestock production. Then, the final map was produced by overlaying the rangeland area with four types of land use/cover (cultivated land, enclosures/protected areas³, bare land and water body) in order to show the spatial and temporal change in the size of the rangeland area. Accordingly, the final map shows pastoral areas in the Oromia Region, sample woredas, and rangeland area overlaid with the aforementioned land use/cover types.

² In this context, woodland is land covered by scattered trees mixed with grasses, bushes and pockets of open area; shrub land is land covered mainly by bushes and shrubs, with pockets of scattered small trees mixed with grasses; grassland is areas of permanent and seasonal grass cover; and bare land includes bare soil with little or no vegetation cover and riverine is areas covered by scattered trees and shrubs that grow along streams and river courses.

³ Protected areas include areas enclosed as parks, wildlife reserves, and controlled hunting areas.

4. Research Questions

The study answered the following research questions:

- a) How does the existing legal and political system affect the customary land administrations?
- b) What is the impact of socioeconomic (population, markets, conflicts) and environmental factors (ecological change, rainfall variability) on the long existing pastoral common property tenure?
- c) What options are available (or needs to be created) to increase tenure security towards jointly used pastoral communal resources?
- d) What type(s) of institutional arrangement best integrate the state land law and the customary system of land administration?
- e) How does investment in agricultural extension services and related infrastructure affect customary land management institutions?

5. Results

This chapter provides results from each pastoral group studied based on primary data. We also used the secondary sources to explore how the customary leaders in Borana apply different institutions to administer natural resources. The chapter has been structured on the bases of themes including customary land use systems and governance, how customary property rights are defined and enforced, gender issues and the characteristics of customary institutions in each pastoral group. This structure was preferred due to a much more similarities across pastoral groups than their differences in the nature of rules, norms and enforcement of customary institutions in natural resource management.

5.1 Customary land use and governance systems in pastoral areas of Oromia

This section provides evidence on pastoralists' perception on the use of land and land resources and the governance structures, including how decisions are made and rules are enforced. Comparison of woredas is made to uncover the specific conditions unique to specific areas. The land use systems comprises how land resources are allocated and the social and economic effects of such an allocation and the dynamism observed over time in relation to changes in the policy environment and ecological systems.

5.1.1 Customary land use and governance among the Fantalle pastoralists

5.1.1.1 Customary land uses

Customary land use systems have played a critical role in managing the pastoral system through their long lived norms called heeraa (norms) and rules (seeraa). They set standards of behavior in social relationships and common resources management. In the Karrayyu system, the structure of the customary institutions governing the entire Karrayyu rangeland is based on clan system through clan leaders called the Damina (the land is locally believed to belong to the Karrayyu). From the customary authorities' perspective, the Karayyu land is one. This system of governance worked effectively when a large part of the communally used land was covered by forests and rangelands and human settlements were widely dispersed and where mobility was inherently practiced. However, under the increasing population (due to high fertility rate and settlement, investment projects), mobility was hindered and settlements were condensed adding challenges to the pastoral families. A shrinkage in water resources also puts pressure on the customary practice in arranging access to watering points despite the fact pastoralists used to leave a pathway for wildlife to have access to water, indicating the harmonious relationship between pastoralists and wildlife and their respect for nature.

A recent phenomenon is that rangeland rationing into farmland and settlement area has been initiated by the community elders including the clan leaders. For instance, a household head will enclose residence areas and establish farm land through demarcation with the first approval of the clan leader and elders and subsequent permission of the *kebele* administrator for registration and licensing. The people see such agricultural activities as unfruitful because of drought and inadequate rainfall, high input costs, labor intensity and low harvest and argue that pastoralism is the most viable form of production under the existing ecological setting. On the other hand, there are no land division practices initiated by the government organs from the communal land except those related to government initiated projects.

With respect to the land use, Fantalle pastoralists consider crop-farming as inferior activity among these pastoral communities where some operate on a small plot of land since the last six to seven years. Insights from the discussion reveals that repeated crop failure due to draught has caused loss of confidence in agriculture unless access to irrigated farming is created. Pastoralists invest on agricultural inputs and labor by selling their livestock while the benefits from crops do not cover investment costs. They believe that farming increases poverty and they tend to be poorer as this practice goes on. It means that the crop to livestock price ratio per unit of land used is less than one in which productivity gains is much higher for livestock than crops. Nevertheless, such claims made based on pastoral experience (narratives) need to be supported with adequate data requiring further study.

5.1.1.2 Governance of customary land uses

The system of customary governance of communally used resources is often influenced by the culturally pursued the *Gadaa* system. An important practice in this case is a decision-making in practicing mobility. The decisions for migration are made communally with the council of elders. A group of dependable persons (3-5) are sent out to assess the status of rangeland resources and water supply at distant places- a tradition known as *Abuurraa*. They assess the vegetation situation, range coverage and water conditions and inform the team of elders. Following the assessment report, a decision is made when and how long the herd would move. Such information sharing in resource access and spreading of grazing pressure to overcome rangeland degradation is a typical feature of the customary systems. However, the practice of mobility as rangeland management strategy has been reduced and is almost non-existent due to internal factors attributed to expansion of farming private plots and external factors (climate change, state policy in establishing Awash National Park and Matahara Sugar Factory). The gradual but systematic introduction of farming practice not only encouraged pastoralists to fence small plots and enclose the communal rangelands for private use but also induced internal conflicts over access to the grazing lands.

There are certain challenges to customary governance. Though the customary institutions seem to function in terms of influencing the behavior of pastoral herders with respect to land use, the policy environment has largely undermined the continuity of such a system. This is contrary to the constitution that protects pastoralists (as it states that they have the right to grazing land). In such insecure tenure system, institutional ambiguity to pastoral lands often forced the public to consider it as 'unused' or 'wastelands'—which created a space for their grazing areas to be allocated to large-scale investment to support national development. This ambiguity permitted settlers and agriculturalists to move into pastoral areas. The fact that pastoralists use parts of the rangeland and its resources only at certain times of the year plays a major role in tenure insecurity, making these areas an easy target for conversion to agriculture and other land uses. Pastoralists also do not usually pay tax for occupying the rangelands, making it easier for the state to ignore their communal land use and offer the land for the growing of crops—which is seen as more 'legitimate', and for which tax is paid.

5.1.2 Customary land use and governance among pastoralists in Mieso

5.1.2.1 Customary land uses

The land use systems of Mieso is more or less similar to Fantalle. Among the lttu, the key natural resources such as water and grazing lands are used communally. The forest resoruces are subject to overexploitation as charcoal is produced on large scale. One of the challenges to customary land uses is the destruction of acacia trees that provide shading services for humans and livestock. Though this has not been a norm, market forces push some pastoralists not to respect public interests. The society discourages resource users not to cut trees on communal land to serve private interests. The browsing species feeding on such trees' leaves generate continuous benefits while cutting the trees generates short-term benefits that exposes the herding community to a general livestock feed scarcity.

Water resources such as water wells and ponds are used communally through the facilitation made by customary authorities. Forest resources (trees such as acacia and Odaa commonly known as sycamore tree) are protected under the customary laws while there is a loose control system. A widespread destructive use of forest resource to make charcoal reflects a limitation (weakness) to the customary institutions in regulating resource use. Customary tenure systems do support adaptation to the changing resource conditions where pastoralists in Mieso underlined that this has to be preserved.

5.1.2.2 Governance of customary land uses

The Gadaa system has remained culturally typical institution of self-governance and customary institutions in governing natural resources. It operates in governing communal seasonal grazing,

management of water and grazing land, natural resources, conflict resolution and risk sharing. For instance, the damiina gosaa (clan leaders) play a critical role in governing the day to day communal life of the society, natural resources and their relationship with their neighboring regions. Supported by their assistants, the abbaa dheeda (governor of communal grazing), and abbaa salafaa (leader of military operation), the damina and the clan elders play a key role in social, political and economic governance of the pastoral society in the woreda. They play a liaison role between the local community and regional and federal government by providing issues of common interest to the attention of the government.

In this case, the elders are rule makers and supervisors of the community, whereas abba dheedas are the implementers of these rules. The power of abbaa dheedas will terminate at the end of the wet season and other abbaa dheedas will be assigned for other grazing seasons. There are also abbaa gandaas (village leaders) who coordinate daily use and management of grazing land and water sources in collaboration with abbaa dheedas. The position of abba gandaas remains relatively permanent without changing each season contrary to abba dheedas.

Box 1: Customary leaders' view over the state - society relationships

"...the elders come together from various villages over a common agenda. For instance settlers have their rangeland zones (Dirree gaalluu, Hameettii Matadeymaa, etc) and elders from each come together and communicate over a meeting (koraa) and decide over the mobility and peace of the community. The village damina will enforce such decisions. Sometimes, they also communicate to the government bodies on issues of conflict, drought, water scarcity, etc... There were times when the government tried to disperse the damina gosa claiming that they function against the law. I was arrested many times since those who violet customary rules and fail to comply with the decisions of customary authorities resort to formal justice system and accuse us. As a damina gosaa (clan leader), I work with other clan leaders and elders to decide on homicide cases, and then facilitate reconciliation between the families and payment of compensation (Guma) through contribution (cattle) by capable members of the clan of the perpetrator. In some cases, those whose cattle are taken as contributions accuse the clan leaders and elders of unlawfully taking (robbing) their cattle and loge complaint in the formal system against us. These are people who don't comply with customary rules and practices and disobey the decisions of clan leaders and elders. They claim to have awareness of and close contact with the formal system and resort to it. There are many cases where I had to appear in formal/state court and defend myself and our customary institutions and decisions. The government doesn't seem to appoint wise people who have better knowledge of the practices of the community and simply appoint those who can serve the purpose of the government itself. However, as the government is too distant from in the daily routine relationships of the community, it is always better to work with the community authorities on local affairs of the community..." source: Daminaa Gosa in Fayo Kebele. September 18, 2014.

5.2 Customary property rights and land use systems

5.2.1 Property rights and land use among Fantalle pastoralists

5.2.1.1 Characterizing property rights

The central element in understanding property rights is examining the relationships among resources users with respect to the use of resources in question. An essential characteristic of property rights in the pastoralists' context was the sharing of resources to absorb ecologically-induced shocks. Relationships over access to water and pasture with other ethnic groups had existed and there were consensus over sharing of resources. Though it has interrupted for some times, the relationship with the Afar has been reinitiated and there is a regular sharing of grazing resource on reciprocal basis subsequent to the agreement reached via the facilitation of the customary authorities rather than through the state administration. Outsiders (those searching for pastures) are in this case expected to fulfill hosts communities' customary rules including not cutting cultural prohibited trees and other economically useful trees. As pastoralists use land communally and practice long-distance travel following their camel herd, they are good at auditing their environment (though not quantifying it), care for it and are emotionally attached to it – a situation that supports nature conservation.

The Karrayyu refer to their territory as biyya Karrayyuu,"the Karrayyu country/land," which previously was large and rich in major resources (pasture, water and mineral licks) and supported healthy pastoral production. They traditionally classified their land into 5 grazing zones or sub-territories known as dheeda. It is important to discuss the previous dheeda-based land use system and later changes along with the major forces driving them. The Karrayyu "country as a whole" unit traditionally belonged to the Karrayyu people, and the societal law does not recognize exclusive ownership of any land unit or resource element by any group or an individual. In their view, the land is owned, managed and defended collectively from external threats. Table I below summarizes the nature of property rights, resource users and the eligibility criteria to access different resources.

Table 1: Customary resource tenure among the Karrayyu

Resource type	Customary right holder(s)	Customary users	Eligibility criteria	Management responsibility	
Pasture All Karrayyu; access subject to meeting management requirements and observance of societal rules		Any person/ group that abides by the customary rules	Birth right and adherence to the Karrayyu core values and law	Elders in each grazing zone, deciding on grazing reserve, mobility and place of settlement	
Water wells When functional, it belongs the owner of the well, the person who dag it first;		Whoever takes part in management (cleaning, fencing, maintaining the watering trough, draining out of the water in the trough when watering the herds is complete)	Adherence to the law	Owner of the well	
Forest	Community	Community	Use based on environmental ethics of the society	elders deeply embedded in environmental ethics	
Mineral lick	Community	Community	Whoever wishes to use it	Abundant; no strict management rules	

Source: Based on key informant interviews

Access and use of such resources are governed customarily which has been guided by a set of general principles outlined below:

- Collective ownership; shared use rights and management and defense where management primarily involves protection of overuse and prevention of degradation
- Regulated access to key resources through sanctioning of free-riding by customary leaders applying customary rules
- Managing scarcity through various strategies (such as preservation of pastures, access routes, prohibited spontaneous settlement, system of regulated mobility and negotiated access)
- · Accommodating outsiders on reciprocity
- Consensus-based decision making

The customary land administration and NRM in Karrayyu tradition was not built on rigid structural requirements but is rather flexible and often undergo public scrutiny in each grazing zone (dheeda). An individual (abba dheeda) serving in enforcing the customary agreements is expected to hold important leadership qualities. These include:

- 1) Sense of responsibility (someone known for responsibly managing his family and thus considerable for public duty);
- 2) Fairness in judgment;
- 3) Patience:
- 4) Trustworthiness (someone who has a proven track record for properly managing property entrusted to him by his clan as a caretaker);
- 5) Undiscriminating (someone who does not discriminate on age, gender, wealth status, locality and clan affiliation);
- 6) Determination:
- 7) Competence (in leadership, reconciliation and peacemaking).

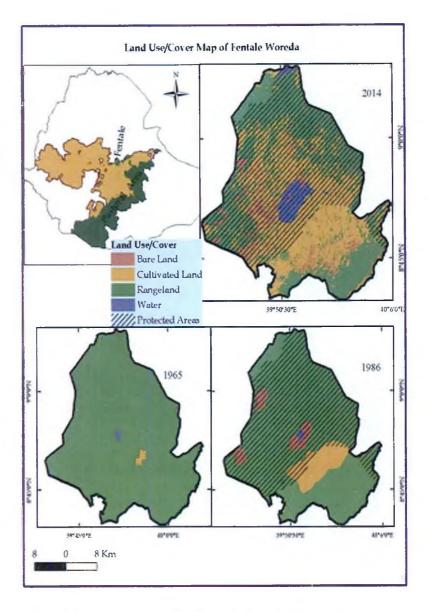


Figure 3: Change in the rangeland condition over 5 decades

However, such system of governance has been affected by changes in ecological conditions and land use change. The establishment of the park and wild-life reserve, state support in favor of farming (the policy environment) and the expansion of bare land (change in ecology as a biophysical factor) have jointly affected the rangeland and contributed to its decline. Figure 3 provides the changes in the ecosystems and rangeland conditions over the last 5 decades where cultivated land has been expanding and rangeland degradation has been intensified. Land

conversion to farming and abundance of such lands has increased the rate of degradation. Together with such changes, the structure of customary property rights has changed.

5.2.1.2 Security of property rights

There are a number of endogenous and exogenous factors that have affected the security of property rights. It is thus essential to learn whether or not the changes in pastoral areas have increased or reduced security of rights to resources from the pastoralists' perspective. The evidence from the interviews indicates that population increase, ecological change and the intrusion of highlanders have jointly affected the structure of property rights in the customary systems and resulted in tensions among potentially cooperating pastoral groups. Given the increasing population, change in pastoral natural ecology and development of markets for natural resources in the pastoral areas, herders underlined that the status quo cannot continue due to population increase and climate change. In that sense, population increase and direct dependence on the natural resources are threats to sustainable use of these resources. Pastoralists complain that development activities including park establishment do not recognize pastoral families and children to be employed in the park at least as a guard. The current plan to expand Metahara town and the park covering mount Fantalle, though it has not yet been endorsed at the woreda level, has already generated a massive resistance on the part of herders as it covers the most productive grazing land for the Karrayyu pastoralists. Such expansion plan with a great potential impact on the functioning of the customary institutions has created distrust of the state's influence.

Pastoralists recognize that such action by the state is counted as "denying their long existing indigenous land rights that were respected by previous governments". The provision of land for investment without adequate recognition and protection of the interests and concerns of pastoralists intensified the pastoralists' mistrust of the government's approach. For instance, our informants stated that trespassing by a pastoralist's animal (be it sheep, goat or cattle) to the farm boundary costs him 400 ETB, which shows clear lack of recognition and integration of pastoralists' interests and views into such investments ventures. Field observation with the pastoral groups confirmed this case. Pathways were constructed only for drainage purposes. Expansion of the highlanders from Arisi and Merti areas into the Karrayyu grazing area from the southern direction added pressure on grazing land.

Safeguarding group rights of pastoralists, in their view, should start from averting such expansion by the state supported land alienation in the name of public and private investment. At present, tension, frustration and loss of hope together with the determination to resist state action are important elements of the herders' reflections. There are different sources of insecurity to communal land and key rangeland resources (loss of rights or access to wet/dry

season grazing areas, water sources, forest and other rangeland resources). Some of these include:

- Poor attention given in protecting communal rights the failure on the part of the government to formulate policy and issue a law that protects communal land tenure system and land rights of pastoralists. Pastoralists firmly believe that they are not able to defend their land rights against the externals unless communal land tenure system is recognized by the formal system. There are large tracts of communal land lost to neighboring communities and government initiatives as pastoralists were not in a position to claim and defend their indigenous land rights.
- Provision of land certificate for private holdings Land certification for private holdings in pastoral areas also reinforces what has been state above as it conveys the message that one can claim and defend his/her land rights only in relation to one's 'certified' plot, not the larger communal land. In this regard, our informants indicated that land certification⁴ is one of the main sources of tenure insecurity where someone given a small plot of land and certified for that will be systematically excluded/restricted from claiming to have right on the rest of communal land as one can be told that his/her land rights is limited to the plot for which he/she is certified. This has produced insecurity as one cannot be sure whether or not the government allocates communally-used land for government initiatives and investments after allocating and certifying privately used land for each household thereby restricting pastoral land rights only to privately cultivated land.
- Establishment of irrigation scheme The recent irrigation scheme is also another source of tenure insecurity since it is attracting very large number of landless population into the area. Those people, who come to the area looking for plots following the irrigation scheme and do not have interest in and respect for pastoral way of life. Their only interest is to get plots of land from the communal land. They get plots and sell them (though 'sillegally) and look for more plots an approach resulting in continuous grabbing of customary communal land against the interest of pastoralists. Moreover, division and "privatization" of communal land following the introduction and expansion of irrigated agriculture and traditional farming has generated internal conflict and insecurity. In the recent years, communal land is being intensively divided and allocated to individuals who were, then, certified for the plot. Once a part of communal land is allocated to an individual, nobody can access that land whether the individual holder is using it for farming or as a private enclosure to conserve pasture.

⁴ The allocation and certification of small plots of land for pastoral households that allows the government to have absolute control over the remaining communal grazing land and to put it to uses the government plans.

⁵ Illegal sale of land is increasing with the expansion of private holdings on communal land. In the past, there was nobody interested in or willing to sell or purchase land as everybody knows that pastoral land is owned and used as communal resource. In the recent years, however, woreda and kebele officials and individuals are illegally selling parts of communal land.

Nobody can access such individual holdings even if they remained fallow land. Conflict between such private 'holders' and the larger pastoral community has become rampant in the recent years.

- Fear over possible loss of uncertified communal land The suspicion and fear are widespread among the communities is deep where key informants commonly express their concerns that an individual entitlement to and a certification of a 0.75 ha might be used by the government to justify future allocation of any 'untitled' land for other use types that compete with pastoral land use. They further fear losing their territory in lieu of the small plots given to them. They believe that this is a systematic pressure exerted on them to make them 'leave behind what the government calls "the archaic practice of following cattle's tail' and be converted to and embrace a so called 'more progressive farmers category'.
- A rising internal conflict in the certification process key Informants stated that land distribution had caused unprecedented conflicts among the community (and even between a father and his son) over the new plots border adjustments, and elders fear imminent violence and an internal strife in the community. According to the informants from Gidara kebele, plot measurement and the whole process of land distribution lacked transparency. In practice, certification has failed to protect and secure the rights of the newly entitled individuals let alone reduce future conflicts in the community. There is a mixed feeling over the role of irrigated agriculture. On the one hand, it has successfully tackled food availability problem over the last 6 years. On the other hand, pastoralists are uncertain about prospects of their territorial rights.
- Emphasis placed in converting pastoralism into agro-pastoralism the focus of the government policy is on crop-based farming system that hardly fits into the pastoral ecosystem and giving marginal attention to the livestock sector. While there seems to be development policy and strategy to address and promote pastoral production system, key informants emphasized that training and extension services target crop-based livelihood. Infrastructural support for livestock production is wither weak or non-existent.
- Livelihood security dilemma (crop versus livestock) focus group discussions held at Haro Kersa Kebele indicates that the issue is not about making choices between crops or livestock in the pastoral setting, rather giving priority to livestock and if needed exercise farming if at all pastoral families are advised to engage in farming. Under drought conditions livestock are sold to enable pastoral households cope with disaster risk. State-led safety-net programs declared graduation of the pastoral participants who were temporarily engaged in farming but lately discovered those who took up farming being food insecure. To the contrary, pure pastoral households who depended on livestock did not receive food aid. Though without

statistical analysis, this leads to the tentative conclusion that conversion of pastoralism into agro-pastoralism or farmers increases the chance of being food insecure in the pastoral system of production. Of course, a related study substantiates the undesirable effect of land use change on food security (Beyene, 2014).

• The proposal to establish additional park - pastoralists are unhappy about government's plan to expand the existing national park covering the Mount Fantalle extending to the border with Afar and Amhara. This is feared to displace the whole pastoral community living in different kebeles (Banti, Galcha, Ilala, Qobbo, Dhaka Heddu, Dhebiti and Haro Karsa kebeles). The community consultation on this proposal was conducted exclusively in the seven kebeles without involving the pastoral communities living in other kebeles who are also potential users. This culd contribute to shrinkage of communal land rights and tenure system⁶. Even the consultation in the seven kebeles was held separately for each kebele in a way that undermine the communication and discussion among the seven kebeles. All the same, the community refused to sign and approve the proposal for establishment/expansion of park.

Box 2: Case study of the family of Nage Salli

Nage Salli, 58, is a member of the Galan clan of Karrayyu. He was born in 1948 at Balci locality around Mt. Fantalle but currently resides in Gidara *kebele*. His parents reared cattle, camels and small ruminants and the young Nage grew up under close care of his mother and paternal uncle as his father died while he was a little child. Like any other Karrayyu child, Nage grew up as a herd's boy. He had to marry in his early adolescence as it was traditionally required of the first born sons and assumed responsibility to manage the family of 7 (self, a spouse, 2 brothers, 1 sister, mother, paternal grandma) and their herds. As the manager of the family and their stock, Nage grazed the herds at various sites in and out of Fantalle Woreda, at times practicing camel transhumance to seasonal pastures as far as environs of Shashamanne. Nage's memory is very clear about the wealth history of his family. The family possessed 15 dairy cows, 7 dairy camels and 50 dairy goats and ewes upon his marriage 40 years ago. He claims (and his friends nodded during our interview session) to have managed the family stock with diligence, and the herds size grew quite significantly; the number of dairy cows and camels reached 40 and 30 respectively while the small ruminants multiplied dramatically, owing to regular rainfall (received 3 times a year) and the resultant good pasture, and easy access to seasonal grazing in neighboring areas.

During the time of our interview on September 4. 2014, his family (of 11 members now) keeps 6 heads of cattle and 3 chicken – no camels or small ruminants! The family stock depleted over time due to distribution for young siblings and own children upon marriage; necessary sales; massive livestock death from rinderpest, liver diseases, CBPP, CCPP and *furri* (a respiratory disease that attacks camels).

⁶ From the perspective of the Karrayyu pastoral community, the allocation of communal land by the state for other purposes is recognized as "expropriation" where in their view the state in itself fails to recognize the opportunity cost of expropriation to pastoral livelihood.

Frequent drought episodes; displacement and subsequent land alienation by Matahara Sugar Factory and Awash National Park; conflict with Afar and Argoba; land inundation by continual advancement of Lake Basaqa are the major factors he identifies as responsible for herd recovery failure.

The family resorted to its first ever rain fed maize cultivation in 1992 as a desperate response, and the harvest depended on rainfall conditions. Meanwhile, the Oromia Regional Government introduced irrigated farming scheme in the area in 2010. Nage became one among the 1033 household heads and unmarried young beneficiaries who received title to irrigated plots. Since the last 6 years Nage has been growing maize, onions and tomatoes rotationally on a 0.789 ha-sized plot registered to his name and his wife's, Halko Fantalle. Since then the family has been harvesting products twice a year. He evaluates performances of his crops as follows, "Maize harvest was good with proper management; onion harvest was good too but product marketing is either lacking or the product was sold at a throw-away-price lest it perishes; tomato harvest was bad, and marketing was nearly lacking entirely."

Responding to our hypothetical question of preference between irrigated agriculture and pastoralism, Nage stated that he would have obviously gone for the latter had it not been for the lack of adequate labor to practice mobile pastoralism. His ideal preference considered high monetary value that animals are attracting currently and the less intensive labor demand in pastoralism as opposed to the everengaging and arduous agricultural job on the fields. He wishes to buy a pair of oxen, and build a good house in his *kebele* if his economic condition allows him.

5.2.2 Property rights and land use among pastoralists in Hawwi Gudina

5.2.2.1 Characterizing property rights

Focus group discussions held at Hawwi Gudina (formerly governed under the Daro Labu woreda) indicated that the question of land ownership has been defined and recognized locally as the land customarily belongs to the "Oromtichaa" and the sons of the Oromticha own it communally. Such a view was controversial between those who settled in the area from elsewhere and the clans who inhabited the area for decades. In this case, the Itu and Arsi used to reside in the area governed by the customary laws. For instance, Arsi clan used to live in the area and have exercised customary law. However, such laws have become weak due to the settlement of Somali pastoralists in the area who disregard the local customary laws. Nevertheless, the expansion of settlement since 1987 has caused the Somali people to move into the area and the wet season grazing areas were occupied for settlement. The land which was used during the dry season is currently used permanently. The participants of the focus group mentioned that they were able to withstand the Somalis when they act against the customary norms of the Oromo.

5.2.2.2 Security of property rights

Increasing government intervention in supporting Somali's resettlement over the last two decades has diminished the chance to work with customary rules. One of the participants of the focus group discussion at *Hawwi Gudina* indicated that the Oromia Regional Government has to recognize the undesirable behavior of the Somali who have breached the customary law of the Oromo. Such silence has affected the natural resources (loss of forest and wildlife resources) and the relationships between groups at local level. As a result, the dispute between the Somali and the Oromo pastoralists has created hostility. And the customary laws governing pasture and water management were broken by the Somali settlers occupying the wet season grazing lands. Discussions between elders from both ethnic groups over the need to respect the customary laws have failed as the Somali often violate the agreed upon rules. This clearly shows how settlement affects performance of customary institutions when the settlers differ in their background.

A further inquiry on the need for certification of land as a solution to this problem was made and pastoralists mentioned that providing a certificate of ownership in a similar manner experienced among the highland farmer could result in chaos as they own the rangelands and natural resources communally. Such a certification process of communally used pastoral resources not only disturbs the pastoral production, but also leads to internal resource conflict. However, the participants agreed on the need to have a separate wet season and dry season grazing areas where each kebele will have its own communal grazing areas along which delineation could be made.

This means that ensuring property rights security for the pastoral commons arises by creating laws that support:

- Recognition of the pastoralist production system as a viable and sustainable economic
 activity and halt the practice of intervening into the system with a non-viable economic
 activity such as farming that hardly fits into the pastoral ecology;
- Delineating a clear boundary of rights between the pastoral areas land and the agriculturalist
 zones to protect the conflict between agriculturalists expansion into the pastoral rangelands,
 and leaving internally arranged and negotiated access options to operate within the
 customary systems;
- Encouraging communal land certification where pastoralists attain security to the common resources such as rangeland, water and forest where the legally defined users would ultimately be held responsible to manage; to the contrary, discouraging certification of individualized parcels which will reduce security and lead to a deterioration of the pastoralist livelihood systems.

5.2.3 Property rights and land use among pastoralists in Mieso

5.2.3.1 Characterizing property rights

In this woreda, customary and statutory laws co-exist often becoming a source of contestation over rights to resources on the land and the land itself. Discussions and interviews show that a tenure system in customary systems is recognized as a "birth right" which was crafted from the heeraa of the Gadaa system; the elders refer to a "covenant" of the ancestors that governs how natural resources can be used. All resources in the territory are, ultimately, the property of the ancestors, which subscribes use rights to present and future generations. Under the customary system, the land comprising the territory of the pastoralist areas is inalienable and must remain the property of the ancestors. The transfer of use rights to land is common and involves a minimum of protocol. In the customary system, anyone who did not know that the primary right holder was using land would ask for it, and the primary holder would never deny permission for others to use the land that was not needed. Thus, equity concerns are addressed effectively. Another peculiar feature of the customary system in this woreda is that double representation is not allowed. A person who is enforcing customary system would not be allowed to serve as a state representative at local level or does not serve in the kebele administration - which serves as a means to avoid role confusion. Increasingly, the kebele administrators participate in the decision of mobility with the local elders for dry and wet season grazing. There is joint decision making.

A peculiar feature of land use exists in Mieso which is not common in other woredas. Property rights to crop land differs between seasons where private parcels are used for crop farming privately during the seasons of production and post-harvest crop fields are turned to communal lands during which crop residues are grazed communally in which case the field becomes a common property. The culture of sharing resources is not confined to opening of crop fields for communal grazing but also extends to sharing foods, drinks and livestock products in a village. The elders underlined this by indicating the embedded nature of mutual helps and support systems informally established in the society. The lttu in Mieso were able to exercise exclusive use of communal lands for grazing several decades back but currently sharing it with other clans such the Ala and Nole who have migrated from the western Hararghe to the lttu inhabited territory and who are agro-pastoralists, in which the cultivated land has increased dramatically (Figure 4).

In the past, only the lttu had the right to develop water well because they were the first inhabitants in the area. However, this has changed currently and every capable pastoralist is entitled to construct and own water well. On the other hand, the nominal/apparent ownership of water wells developed by efforts of individuals, as well as, the access, use and management of the water well is similar to that of Karrayyuu pastoralists. That is, though water wells are

apparently owned by individuals, every pastoralist has the right to access and use the wells. The 'owner' of water well cannot deny any pastoralist the right to access and use the water, while the pastoralists also have the duty to comply with customary rules and principles for use and management of water resources. The apparent 'owner' controls use of the water well where he has the authority to bring cases to elders and customary authorities against the person who misuses the water or those who refuse to contribute to the maintenance and management of the water well. Similarly, those who are denied access to the water well by the 'owners' can bring complaint against him. Looking into this from a rational choice theory perspective, it can be judged as unfair system in terms of encouraging private investment since the owner does not have a privilege. While assessing it from the moral economy perspective, it is an altruistic behavior inbuilt in the customary systems.

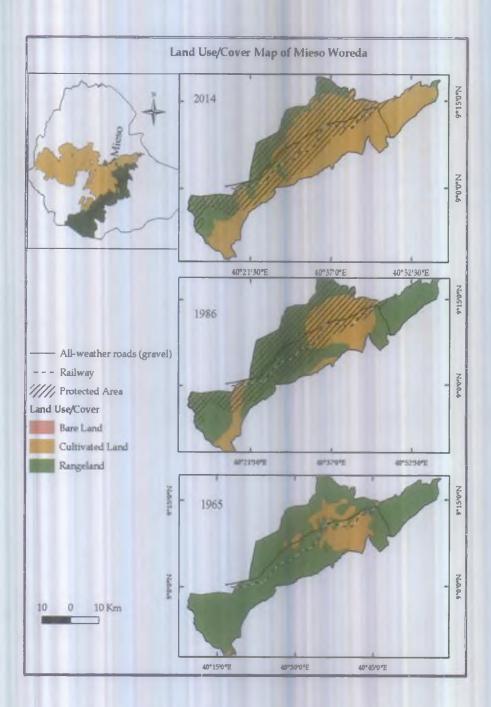


Figure 4: Changes in the rangeland ecosystems over the last 5 decades

5.2.3.2 Security of property rights

In Mieso, the grazing areas are divided into grazing zones on the bases of seasons. Each grazing zone is used up by identifiable groups of three to four kebeles. Abba dheedas were used to make such an arrangement primarily for the purpose of efficient use and management of the rangeland and it did not in any way imply exclusion of pastoral communities in other kebeles or grazing zones. There were customary rules and arrangements that enable pastoralists to access and use any of the grazing zones mainly based on reciprocal relationships. At present, such division of grazing areas on seasonal basis is unthinkable as a large grazing has been lost to settlement by other ethnic groups. The key informants indicated that only Gumbi, Callo and Ulaa Arbaa are left as grazing zones out of the six grazing zones. Mobility to wet seasons grazing areas is coordinated by elders in terms of when to move and how to move.

The Abba Dheedas play a key role in enforcing elders' decisions and coordinating procedures of mobility. They will receive penalties if herding patterns are distorted and fail to control those who stay behind while moving. In a similar way, pastoralists have livestock watering rules called the "Rota system" permitting everyone to have access to water, ensuring fairness and efficiency. Though grazing and water resources are somehow regulated in the customary system, there is no clear regulation concerning the use of forest resources. Forest resources are characterized by an open-access except for acacia which serve as shades for the livestock and secure protection from the elders.

The Ittu have changed their strategy to overcome pressure on the communal grazing land. One is the reestablishment of the relationship with Afar covering aspects of intermarriage with them. Such relations created access options to the grazing resources on the Afar territory. The second is internal strategy where the Ittu have a customary practice known as "Irbuu" which involves oath-taking by the pastoralists to abide by the rules and then behave as expected. This is an established belief system where deviation is assumed to cause a curse to the deviant. He will suffer from social outcast and losses of wealth.

Despite the presence of internal rules and customary procedures in resource use and management, the customary governance among the Ittu is highly affected by a distorted relationship between the Ittu and the Somali. The three sources of insecurity are:

protracted conflict over boundary as well as grazing areas - The lttu perceive that they were
confined administratively fixing themselves into the formal governance structure while the
Somalis (especially the Issa clan) move back and forth and undertook offensive act against
them by raiding their livestock⁷. A temporary support from the federal army to protect them
helped in regaining the land lost to the Somali's control but the possession has never lasted

⁷ For details, please refer to Beyene (2009).

longer, causing persistent tenure and human insecurity. For instance, grazing areas like Errer, Hursoo, Bikkee and Afdhab that were used as Ittu grazing areas are being used by Somali pastoralists.

- A proposal to establish a park The proposal to establish a park at Huuso without pastoral consultation and compensation increases the pressure on communal land. Elders underlined that such marginalization and negligence to protect the pastoral land rights has increased livelihood insecurity in the system. Consequently, pastoral customary and production systems are at a crossroad. Such perception sends a signal to the formal system on the need to provide property rights security. A further inquiry indicates the issue that becomes much more complex as intrusions and conflicts are correlated with other factors including the surging of human population and increased rangeland degradation and pastoralists' tendency to continue their traditional system of production. Such perception was developed as a result of disappearance of pre-existing options in accessing larger grazing areas.
- Instability around grazing zones the grazing zones (dheedas) have become point of dispute between potential users. For instance, Afdhab grazing zone having_two seasonal grazing clusters known as ona bonaa (dry season) and ona gannaa (wet season) were used on seasonal basis. In the dry season, pastoralists grazed their stocks around perennial hand-dug lttu ancestral wells. Upon the on-set of the rainy season, flood pools streaming down from the Afdhab highland and an overflow from the springs enabled them to move to the lush pasture shared with the neighboring Afar pastoralists in the north. Since the early 1990s, the entire grazing zone has been inaccessible for the lttu and occupied by the Somali-speaking communities. The Mullu grazing zone which was used to serve as main wet season grazing area is currently inaccessible due to Somali settlement expansion. Only Arba and Gumbi grazing zones serve as dry and wet season grazing zones respectively. This evidence shows the gradual shrinkage of the communal grazing areas and property rights insecurity to previously accessible resources. It also means that customary leaders are weak in creating access options to various grazing resources in a flexible manner.

5.2.4 Property rights and land use among pastoralists in Bale area

5.2.4.1 Characterizing property rights

Property rights to rangeland resources among the bale pastoralists has been communal. The rules and regulations for land administration and access, use and management of rangeland resources are more or less similar to other pastoral groups described earlier. The pastoral communities in Rayitu area have a clear territorial organization of the rangeland. There are well-established grazing zones referred to as "Dheeda" in Rayitu including Galbi, Fincho, Heqeq,

Dharro, Diniq, and Darwina grazing zones. In order to ensure efficient use and management of the grazing land and related resources, each Dheeda is further divided into dry and wet season grazing areas with a list of specific and small grazing/settlement areas. While the right to use, control and manage each grazing area/zone is primarily for the settlers in the grazing zone/area, there is an arrangement and established principles, rules and practices that allow mobility, access and sharing of grazing land and resources between grazing zones. These are similar to Fantalle and Mieso.

In addition, there is a practice of reserving private pasture, known as Hogaa where individuals enclose part of the communal land, sometimes under pretext of farmland and in most cases as private pasture enclosures. This growing practice of private pasture in the form of enclosures may indicate a shift in property rights arrangement with respect to communal land. The rights, control and management arrangement regarding water sources (river, wells, ponds and others) is similar to other pastoral areas (Karrayu/Fantalle and Ittu/Misso). However, there is large number of private and communal water ponds in Rayitu area. The ownership and control over private ponds is more or less exclusively given to the individual who develops it, though each pastoralist in the area is still entitled to the right to access and use water from private ponds. The common ethnic identity (being an Oromo) as well as the values, norms and principles that govern the pastoral way of life oblige the private pond owner to allow the use right for other pastoralists. The owner is entitled to collect monthly nominal fees (about 10 ETB per household) from the users. Contrary to the experience among the Ittu, the asset generates income for the owner.

5.2.4.2 Security of property rights

Despite these useful features of the customary institutions, there are certain aspects that increase tenure insecurity and instability. Another source of fear and tenure insecurity is individual land certification for private holdings. Key informants indicated that in light of the rapid growth of private enclosures in the area, certification of private holdings can contribute to dismantling of the communal land tenure system.

This would not be beneficial for the wider community as private enclosures are established only by those who are capable and secure support from the formal system. The changes in land use displayed in Figure 5 indicates the extent of an increase in private use of land for cultivation between 1986 and 2014. Pastoralists are not comfortable with such an increase and suggest that land certification to ensure security be implemented at Dheeda level where these certified communal lands can be effectively administered by elders and renowned customary authorities who have community acceptance and legitimacy.

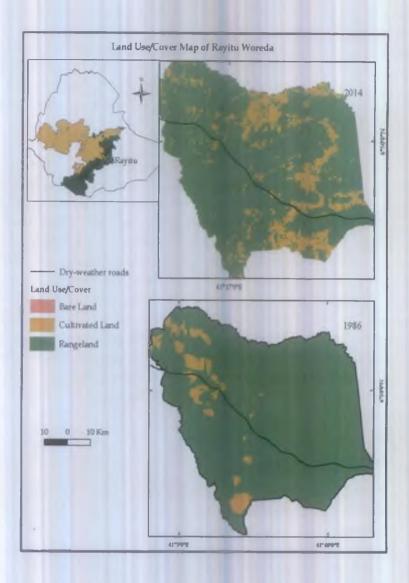


Figure 5: Changes in the land use systems

There are different sources of property rights insecurity among Bale Pastoralists can be grouped as:

• Lack of recognition of customary land use and institutions - The government approach, policy and decisions are also perceived as additional sources of tenure insecurity since they rarely recognize customary institutions, rule and regulations for use and management of resources. For instance, no part of communal land can be reserved for dry season grazing since the formal

system provides that everybody, including the Somalis, has the right to move and settle anywhere. The customary institutional arrangements have been weakened and rarely operate these days.

- Communal land lost to investment Expropriation of the communal land for investment and infrastructure development is another source of land rights insecurity. Regarding expropriation, the Ginir-Gode road and rural access road construction projects have taken away large area of grazing lands, including even private enclosures. More than 500ha of land has been taken away or cleared in each kebele during the construction of Ginir-Gode road alone. Neither the community nor individuals were compensated in any way for their land rights, even in cases where road construction camps were established on private enclosures near settlement areas. Key informants emphasized that even if compensation for individuals is not possible, some kind of compensation would have been arranged at least at village or community level for the grazing land they lost. The establishment of such infrastructure may harm pastoral welfare. There are investment initiatives that affect security of communal land rights in this area. For instance, recently pastoralists were asked to make about 10,000 ha of land available for an individual investor. There is also irrigation scheme under development on Wabe River, which may be for large scale investments. In both cases, there were no concerns for the pastoral communal land rights that would be lost if these investment plans are implemented. Such perception of the pastoralists indicate that there were no adequate efforts made in changing deeply held unfavorable attitudes; the establishment of such infrastructure benefits pastoralists themselves through creating employment opportunities and access to better markets, which on a widerscale improves economic integration.
- Absence of regulation of private enclosure The expansion of private enclosure where the size being enclosed remained unregulated (both by the customary and formal system) and hence unlimited has put a threat to communal land rights to persist. There are two major consequences of these processes of communal land loss. One is the disappearance of options to manage environmental risk associated with the availability of grazing resources. The second is unfair distribution of the rangeland resources. Problem of fairness arises as one pastoralist takes the larger share of the communal land by practicing enclosure at the expense of others.
- Emergence of private enclosure in response to different factors There are two factors responsible for the emergence and expansion of enclosure: the Somali expansion and poverty. Pastoralists in Bale complain that there are threats to communal land and even to private plots farmed due to conflict with the Somali (Ogaden) where vast areas of communal land is being lost. With respect to land use and property rights, there is a new development in the Woreda whereby individual pastoralists enclose part of the communal rangelands for 'private' use. It was later inferred that the tactic is aimed at attempting to curb further land loss to Somali expansion in a desperate situation when the guest community behaves as a free rider and the host, on the

other hand, feels incapacitated to protect its rights. Informants argue that the whole of Heqeqi, Machalla and Dharro grazing zones have been lost to various branches of the Ogaden Somali along with a large parts of the rangeland in other grazing zones as well. The informants indicated that the emergence of de facto 'private' enclosures was also ascribed to poverty. They further stated that the pastoralist households impoverished by droughts later resorted to selling tall thatching grass (350 Birr per camel back) when repeated attempts to till the land dismally failed. The lucrative business triggered more land enclosures at both pasture-potential areas and in barren lands. The absence of regulation mentioned earlier has now been 'institutionalized' as a 7-member land committee constituted on directives from the Woreda (comprising the kebele chairman, a religious leader, the head of development agents, the head of kebele security and 3 other community representatives) was allocating land for private holding as 'farmland'.

5.3 Gender issues in natural resource management

Different dimensions of gender has been assessed including their participation in customary decision-making, their rights to resources and how the transformation taking place in the pastoral system has been affecting women. It is also important to highlight the gendered role of men and women in livestock production and management.

5.3.1 Gender Roles and Relations

The use of labor is highly gender specific and women have traditionally played important roles in pastoral resource management. Gender division of labor is sharply marked in pastoralist societies. Accordingly, men are often largely responsible for herding larger stock such as cattle and camels, whereas women engage in handicrafts, food production and processing, small-stock herding (goats, sheep) and the milking of livestock at camps. The role of women in livestock feeding is more vivid in agro-pastoral than in pastoral societies where the cut and carry system is increasingly adopted among the former group than the latter group. The conversion of grazing land into cropland at the expense of livestock production does not only bring tenure change but also contributes to change in gender roles with respect to livestock feeding.

Among the pastoral groups whose mobility is confined to the nearby areas, the practice of feeding cattle around settlements where women collect fodder from trees and supply cropresidue to their animals has become very common. With respect to governing access to pasture in pastoral societies, the involvement of women is very low and their interests and priorities are not recognized as decisions are made by men influenced by patriarchal concerns in relation to the patrilineal lineage and ownership and control of livestock. This has continued because of the sustained reliance on the traditional modes of decision making and control, which vests such power in men, regardless of their knowledge or capacity in terms of livestock management.

Moreover, water supply, care and watering of small livestock (as opposed to large), milking and feeding dairy animals are considered as the tasks of women even among mobile pastoral groups (Ridgewell et al., 2007).

The above roles women play are affected by problems of restrictions on mobility and excessive livestock raiding (though not common between clans) that each pastoral group uses as a threat to limit one another's mobility. This condition has forced many households to take up rain-fed farming where their number is larger than those engaged in irrigated farming. In terms of women's involvement in decision making at different levels within the community, the key informants raised lack of education (illiteracy) as a barrier. This simply indicates the missing role of education in empowering women and their participation in decision-making processes that affects their livelihoods.

Women held the same view as men in that pastoralists are marginalized and systematically alienated from their grazing areas and do have no choice than surrendering their pastoral livelihoods for a number of reasons mentioned earlier. Along this path of deprivation of rights to land, the Gadaa system that served the purposes of customary natural resource management is challenged as the formal system gradually tends to replace it. The leeway enjoyed at times of the Gadaa systems in managing different interests and maintaining order and stability has been relinquished as the formal system of governance of the people and natural resources replaces such a system. The moral values and ethical standards established were disappearing in the process, which has been intensified as other Oromo clans settling in the Karrayyu territory, such as the Ittu, failed to exercise the Gadaa system. The informants suggested the formalization of the Gadaa system as customary law can be effective as far as traditionally used grazing land taken away for different purposes are regained. Thus, essential for the decision-makers is to reexamine the preconditions that herders set towards the formalization of customary land rights where this view remains consistent among the various participants in the focus group discussions.

5.3.2 Women's participation in customary decision-making processes

Exclusion of women from decisions regarding land administration and natural resources management undermines their contribution to sustainable development. Pastoral women's interaction with natural resources can be expressed in terms of harvesting raw materials for house construction (as they make huts) and for fuel, to feed livestock around the homestead and treat sick children and livestock. Their daily activities bring them into everyday interaction with natural resources. Therefore, as food suppliers, house builders, water and firewood collectors, and herders, women often possess extensive knowledge of the location and importance of a number of indigenous trees and plants with nutritional and medicinal values (FAO 2005). Pastoral customary authorities which make decisions regarding the use, access and

management of rangelands are dominated by experienced male elders. For instance, in *Borana*, one of the basic criteria for one to serve as an elder is being male (Muir 2007). Customary authorities exclude women from clan hierarchies, and recognize descent only through the male line (PFE 2008).

Interviews reveal that those relatively having exposure in working with NGOs, young and educated women and girls indicate that customary system is dominated by men who do not take account of women's needs and priorities in their decision-making processes. On the contrary, most of the women involved in the focus group discussions have trust and respect for the customary system. They strongly believe that they are taking part in the decision-making process through their husbands, fathers, brothers, sons and all their male kin where physical absence was not considered as an indication of exclusion and non-representation. They recognize that even the clan heads first discuss an issue with their wives before taking an action. At its face value, this might imply that men will not decide something that harms their wives and children. But one needs to be very careful in making such a conclusion as women's level of awareness affects their understanding and responses to their exclusion.

However, women play a critical role in conflict management over resources such as grazing land. They play a role by serving as messengers since men respect women and none of the conflicting parties takes a revenge on women. This is the case among the Borana, the Karrayyu and Ittu. Among the Borana pastoralists, housewives may step forward and appeal for reconciliation, operating as mediators between the fighters, through their gender-based solidarity group called Siiqqee (PFE 2008). While inclusion of the women in the decision-making process on natural resource management is believed to be essential, the mechanism how to include them needs to be identified.

Given the context in which cultural norms operate, participation of women in meetings held with men does not provide them the freedom to speak out as women respect men and in some pastoral groups such as the lttu and Karrayyu women tend to be timid and hence their voice remain unheard. Consequently, a separate structure has to be formed to create a forum for women where they exchange their views, identify their interests and consolidate their demands. Ultimately, creating horizontal relationships between men and women help develop strategies to harmonize diverse and perhaps conflicting interests of men and women. Some authors suggest that failure to find other options for women's inclusion is likely to result in the continuing invisibility of women's resource rights within customary tenure systems. Improving women's access requires empowering' them through strengthening their abilities to take part in public decision making processes, be it through awareness raising and/or access to new knowledge and skills. Women's representation at different levels in the customary systems can improve their participation provided that increasing men's awareness on the role of women's participation obtains equal emphasis (Muir 2007, Flintan, 2008).

5.3.3 Rights of women to access and use natural resources

As far as property rights to pastoral resources (grazing and water) are communal in the traditional system of pastoralism, there is little distinction or rarely identifiable differences between men and women in terms of access to such resources. Being a member of a clan or defined group of users is a requirement to use communal resources irrespective of gender. This does not include access to benefit streams from communal resources at a household level where distribution of such streams differ along gender. For instance, a husband takes the first chance to drink milk, followed by children (perhaps, male child) and then female children. The wife will eat at the end. Such male-dominated intra-household unfair distribution of benefit streams from the communal resources have been customarily established. Contest over rights to plots of land can also occur where a household allocates privately used parcels of land to different crops which can be either male-preferred or female-preferred.

As drought conditions reduce feed availability and intensify rangeland degradation, property rights to resources becomes crucial for women as attributed to their roles. For instance, associated problems with a reduction in rainfall such as a decline in livestock and milk production affects women's livestock-related activities by increasing the amount of time they spend in collecting water and fodder for the animals. Besides, decrease in livestock production threatens household food security creating extra workload on women who would be forced to take up additional livelihood activities to feed the family. Including women in customary decisions enables them to enlighten men to recognize their extra efforts in livestock management and accordingly realign property rights structure to meet the specific strategic needs of women in ensuring household survival in times of resource scarcity.

Property right to resources that affects pastoral women in the studied woredas is also linked to the inheritance to family assets which is defined customarily along the patrilineal line where elder girl cannot inherit so long as there is a younger brother. By the same token, where a husband dies women are allowed to marry anyone from a clan in which case the land privately held (farm/enclosure) will be retained. Nevertheless, marriage outside of a clan or to other clan member than that of the husband causes a loss of access to land simply because a woman leaves the community to which she has belonged.

Another important factor that affects women's property rights to land is associated with the socioeconomic and environmental changes taking place in the pastoral settings. In most woredas studied, population increase, violent conflict and rangeland degradation have jointly induced the practice of enclosure. In such a process, female-headed households often hold smaller plots than male-headed households mainly due to labor and/or financial constraints in clearing and

fencing land. This could have an adverse impact on these women if certificates of holdings are issued to such plots.

5.3.4 Women and pastoral transformation

In all woredas where there is land conversion and pastoral transformation ⁸has been underway, women were more sensitive than men. This was connected with the fear of additional workload on women and their closeness with the dairy cattle and the dependence of their children on milk.

One of the respondents from Rayyitu woreda in Bale zone stated that:

"We are often told by government experts that pastoralism is not viable because of the changing weather and resource scarcity. And, our children are being taught to give up on pastoralism and start farming. But, we have practically seen drought affecting farming just as it affects our livestock. Livestock are more resilient to changing weather. But, if there is no rain for a year, we cannot think of farming. Division of our communal land into small plots has caused more problem than being a solution. This strange culture of private ownership is destroying our fundamental values of solidarity and mutual support. Boundary conflict has become a new threat. We all know that there will not be enough land to farm on. Moreover, our land is not suitable for farming since it is a dry land. It is more suitable for livestock production. I do not understand those who tell us, including our children, that farming is the best alternative. I am worried about the future of the next generation".

Pastoral transformation has brought costs to women where conflicts over boundaries have become common. Although women play a role in resolving and/or mediating conflicts, those women who lost their husbands in the violent conflict became widowed. This phenomenon has increased women's vulnerability. The change in resource conditions has increased a challenge to women. For instance, growing resource scarcity due to climate change by causing conflicts over the available resources have created more tension among women than men since women travel long ways to search for fuelwood, wild fruits and medicinal plants to treat sick animals.

Lastly, the transformation of pastoralism towards crop farming has increased a workload on women. The earnings from such farming activity is very low compared to the labor inputs used in the production processes. By earning an income independent of their husbands, women now make more decisions within the household. A major change compared to the past is that a large sum of money would be earned occasionally from the sale of an animal; at present there is a small but continuous flow of money from petty trading or other businesses. This indicates that if benefits from farming can be increased through putting in place adequate marketing infrastructure and organize women, the shift towards agro-pastoralism might benefit women than men, but the fact is that in areas where increased volume of sales of vegetable crops are

⁸ Transformation in this context means that involvement of pastoralists in crop farming and changing of food sources such as consumption of processed food.

observed men tend to take over. In that sense women's benefit from natural resources becomes more indirect making them hold a subordinate position within a household.

5.4 Characterizing customary NRM institutions in the Region

5.4.1 Customary NRM institutions among the Karrayyu

There is a governance structure that supports the functioning of the customary institutions. For example, among the Karrayyu the Damina gosa leads the clan and manages conflict and facilitates the process of paying compensation for life lost due to internal conflict by collecting contributions from clan members (a process called gumaa baasaa). At the second level, we find Qondalla and Jajjabee who leads the territorial protection from intruders. They are recognized as soldiers of the community under Damina Gosa. As pastoralists are aware of the nationalized tenure system where land is the property of the state, and the general public has only the usufruct rights, the extent to which they exercise customary law is declining. On top of that the range enclosure to establish parks, expansion of irrigation infrastructure and large-scale investment from the private sector and the systematic expansion of the Somali settlement have increased uncertainty and constrained the functioning of customary institutions. This is a somewhat similar view with that of Fantalle pastoralists. Focus group discussions at Tututi Kebele in Fantalle reveals that customary authorities are weak in developing rules that govern the establishment of private enclosures from the communal land which can be used for farming. This has raised the suspicion over how and whether these authorities are able to control large tracts of communal land. Before making any judgment regarding the role of these authorities, it is essential to learn how they function.

Among the Karrayyuu, for instance, discussions reveal that pastoralists have enjoyed their own seasonal grazing calendar where they had full access to season-suited grazing homes. There are three grazing homes: wet season home (June, July, and August), transition season home (September, October, November) and dry season home (December, January, February, March, April, May) were maintained within each grazing area. The time length for the herders to stay at wet season depends on rain water. When ponds and natural water pools dry up, people relocate their village to transition season home in order to utilize the lush pasture around the banks of the major rivers. The community elders expressed transition season as the best of all the seasonal homes, and used a phrase "home of abundance" because pasture was mature and plentiful as the land had been resting throughout the rainy season; the livestock physical conditions and performance were excellent; butter storage were full in preparation for the nutritional shortfalls in the imminent dry season; and milk supply adequately available. When the grazing resource around the river banks depleted, it would then necessitate mobility to dry season home to water the stock still at the same rivers but this time from a distant position.

The rangeland was generally kept in a good condition as grazing pressure was diffused across the seasonal homes, and inter-seasonal transition was generally easy.

Decisions regarding seasonal grazing, when and where to move the stock within a given grazing zone or between the grazing zones - and even dispatching emissaries to negotiate access to resources outside the Karrayyu territory - were made consensually at an open community forum. A mixed-clan group of trustworthy elders - collectively known as abbootii dheeda (literally, fathers of a grazing zone) - acted within the general rules and regulation framework of the society to coordinate land use in their respective dheeda. Whereas an individual pastoralist has a freedom to graze his stock and to relocate his family (having followed a customary procedure of leaving or joining a locality on inhabitants' informed consent) to any part of the Karrayyu land in principle, free riding is legally sanctioned. Those who may deviate from the standard norm (e.g. exclusive grazing at a community reserve or an act of encampment at the community's pasture) are held accountable. A deliberate breach of the law and a refusal to notice elders' advice will lead to a forcible return to an appropriate location by the youth on orders of the grazing zone fathers. There are five grazing zones for Karrayyu where each zone has its own grazing homes (dry, wet and transition seasons). These include Hawas (formally called Awash), Matahara, Arrolle, Fantalle and Marti. Nevertheless, each grazing zone has been under pressure due to a number of investment activities carried out by the state and private firms. For this reason, the opportunity for the customary authorities to organize seasonal grazing arrangement has reduced.

5.4.2 Customary NRM institutions among the Ittu

In the context of the Ittu, social sanctions govern the behavior of pastoralists with respect to respecting seasonally grazing and mobility plans and the sharing of water resources among members coming from different areas. The use of elders to approach formal authorities in attracting development of water points for the pastoral communities is a recent strategy for the customary authorities to have access to state resources though in the case of Mieso herders did not get a positive response. The customary system in Mieso exercises the Gadaa system though it is thought to be weak. For instance, for each clan (Ittu, Ala, Nole) there is one Abba Bokkuu (considered as a clan president) who is responsible for enforcing the norms of the Gadaa system. At sub-clan levels there are Daminaas who make a continuous assessment of the resources available for grazing. There are some villages identified as places where Gadaa practices prevail where elders gather, pray for the well-being of the community; and set rules for use and management of grazing lands. Such an exercise is traditionally believed to be essential in ensuring peace and stability and building faith among the community members.

^o The term elder is a generic concept applied to express a person entrusted with public duties, not necessarily attributed to age alone but leadership qualities where the young can serve as elders.

Comparing the *Gadaa* system with the formal system, discussions reveal that the former takes longer to make decisions but more effective in constraining behavior than the latter. As a result, wrongdoers escape the punishment quickly, leaving their residential areas. But this has little to do with the natural resource management.

There is a somewhat similar trend in the functioning of the customary institutions in the management of natural resources and land administration in the case of *Bale*. There are well-established principles, rules and practices that influence the use and management of wet and dry season grazing areas and rangeland resources. One of the practices in this regard is the grassroots level discussions at household and village levels during transitioning between seasons whereby the elders and customary leaders meet, discuss and decide on whether, where and when to move from one grazing area to another. Then, the elders identify and send an honest and committed person to nearby grazing areas identified as potential grazing area for the next season. This practice is known as "Aburu", i.e. scouting or exploration. This is conducted in order to assess the condition of rain and overall situation in the area identified as potential area to move to. Such discussions in assessing and identifying grazing areas for the next season are based on the condition of water and pasture and the overall level of productivity of the grazing areas compared to the one currently under use. Another important factor that drives such discussions and assessment of other grazing areas is the need to allow the grazing area being used to revive during the next season.

The practice of 'Aburu' (scouting or exploration) and associated principles and rules play important role in the sharing (as well as effective use and management) of rangeland resources. That is: 1) it is important to ascertain that the area proposed to move to is wet enough and has adequate carrying capacity; 2) it provides an opportunity to alert/inform the people, if any, who have already settled in the area; 3) it also helps to make planned movement and reduce the impact of movement on households, women and children, and the livestock category that would move.

Once the decision to move to the grazing area for the next season is made, then the elders will inform the community. Based on information received from the Daminaas, the abba dheedas, as grazing area managers, will coordinate the movement and make sure that no household which is expected to move leaves behind. The abba dheedas are also rule enforcers. In this regard, the decision making process and mechanisms for ensuring compliance are similar to the practice in other pastoral areas. An important point about seasonal mobility as a rangeland use and management system is that there are stronger rules and arrangements for dry season grazing areas. Communal lands in dry season grazing areas are vacated during wet season in order to allow for its revival, In most cases, wet season areas have relatively permanent settlements as there are permanent point resources, particularly water sources (wells and ponds), private farm plots and enclosures. Hence, one observes a more clear and individualized property rights.

Therefore, those who move into dry season grazing areas, whether from same grazing zone or from neighboring grazing zones, are required to first consult with and get approval from the elders and customary leaders. Negotiation with the elders and resource use managers is central to arrange access to pasture and water points and to have a healthy interaction with the host community.

Particularly, for pastoralists who come from distant grazing areas/zones, such as those who come from other woredas, the consultation and consent of the host community is required during both wet and dry season movement. The elders of host community who are approached by the new comers will investigate into the reasons for coming, the number of households and size of herds; they suggest where the new comers should stay and explain to them the resources use and management arrangements, the principles and ethical values that need to be respected. If a new comer pastoralist settles in an area without consulting and securing consent/approval from the elders of the host community or if he acts against the advice and arrangement made for him, the elders will identify elders from his clan who will request the person to appear before the elders. The elders from both sides (host and new comers) will discuss the matter, decide and take appropriate measures.

In this woreda, elders shoulder rangeland management responsibility in each grazing zone with functions and modes of operation essentially resembling that of Karrayyu. Election criteria, NRM roles and obligations are all similar. The difference between the two woredas is that the supra Gadaa institution had been weaker in Mieso in its institutional visibility. Though the central values are still held high among the community, these values guide routines of daily life among the communities had little to do with the management of natural resources. There are efforts being made to revitalize the institution at the historical Oda Bultum memorial. Our assessment indicates that pastoral communities emphasize the importance of the Gadaa system over the religious values in shaping their lives, achieving economic purposes by supporting impoverished family/clan members and widows and facilitating resource sharing arrangements.

Nevertheless, the resettlement programs bringing in more farmers from the Chiro and Masala woredas into Mieso have caused the breakdown of the customary land use system as settlers do not respect the customary rules. An increase in population and diversity in exposure to land use have made the customary institutions ineffective because the former factor increased competition over land. As a result of system breakdown in land use, pastoralists are now bound to perennial grazing which is a recipe for rangeland degradation, herd decline, disappearance of bee colonies and grazers depending more on shrubs and bushes. Moreover, loss of dry season grazing area to large scale private investment without any compensation has made customary institutions ineffective.

5.4.3 Customary NRM institutions among the Bale pastoralists

Pastoralists in Rayitu woreda had a general assembly at Hara Waqo Shambo to make bylaws within the larger framework of the supra assembly of Oda Roba which was the highest policy organ for the Siko-Mando (Arsi) section of the Oromo society. Both assemblies are now dysfunctional in spite of the fact that the society still makes decisions with reference to the customary laws made at those sites in the past. Important administrative decisions were made at gaaddisa dhaddacha (shades of acacia) were all the top leaders of constituent clans (known as ribicha) must attend. Such a governance tradition points to the fact that with matters related to land certification, a council of all ribicha must be formed from all Rayitu sub-clans and communal land use certificate should be issued in the name of their council as a legitimate representative. The elders here claim that the ribicha concept is applicable to all other pastoralist groups in the Zone. A ribicha is elected on the basis of sub-clan seniority, and makes not just an elected head but also a 'father' of his sub clan (abbaa gosaa) and is thus considered as legitimate. Among the customary roles of the ribicha are organizing consultative dialogue and decision-making about grazing management; facilitating decisions regarding community strategies at difficult times such as during drought episodes; advising the custodian of the law (abbaa murtii); and serving as societal think tank in general. If the ancient and dysfunctional Oda Roba assembly is reinstituted, it may give an impetus to institutional revitalization to improve resource governance.

5.4.4 Structure of customary authorities and institutions of Fantalle, Mieso and Bale pastoralists

The customary institutions and the governance structure in which they are defined and enforced are more or less the same for the three pastoral groups. The pastoral customary authorities and institutions in these areas are organized into much simplified structure with limited role in regulating the use and management of natural resources. For instance, the highest evel of customary leadership, the Abba Gadaa and his officials, is still operating in some of the areas (e.g. Fantalle and Mieso) with very limited or no role in natural resource governance, while simply the name is maintained in Bale area. Similarly, two other customary organs, i.e. clan leaders (bokku) and sub-clan leaders (damina) play nominal role in natural resources use and management. That is, they collaborate, in very limited cases, with the counselor-elders (jarsa biyya) to decide on serious violations of the customary rules and regulations, such as fighting or injuring individuals at animal watering or herding places. The main role of the Abba Gadaa, Bokku and Damina, where they exist and function, is handling and deciding on socio-economic issues not directly related to natural resource use and governance. The main issues addressed by these organs are payment of compensation in cases of homicide between members of different clans, contributions to support families affected by drought or other problems, leading cultural rites of varying importance.

More relevant to natural resource use and management, there are counselor elders (jarsa biyya) who make and revise the rules and regulations for seasonal grazing and the use and management of water sources. They also decide on violations of the rules and impose sanctions as necessary. The elders convene meetings (kora biyya) whenever it is felt necessary to lay and revise rules or to decide on cases of violations submitted to them. They are the ones who assign seasonal grazing area managers (abba dheeda). The rules and regulations laid by the elders are implemented by the grazing area managers. That is, they ensure that the daily grazing and watering patterns laid by the elders are observed; that the users collaborate with each other as deemed necessary. The managers are responsible also to take measures against the violators if the case is minor violation. They bring the case to the attention of the elders and ensure appearance of the violator before the elders if the case is serious or if he refuses to comply with the measures taken by the abba dheeda (Figure 6). It is important to note that the assignment of abba dheeda is temporary, i.e. for one season in some areas (e.g. Mieso) or more permanent in other areas (e.g. in Fantalle and Bale areas). In coordinating and leading seasonal pasture and water use and management routines and enforcing the rules and regulations, abba dheedas collaborate with lower level organs, such as village leader (abba gandaa) and group of young persons (saglii/saddeta) recruited for the enforcement of the rules and the sanctions. In each clan, Abba Qotto/Shanacha is appointed to manage access to water wells. Lastly, it is important to note that the power relation between these organs/authorities does not follow strict hierarchical relationship, except that the highest level of authority for the use and governance of rangeland resources remains the counselor-elders, i.e. jarsa biyya who are acting in group in regular council/meeting (kora biyya). The relationship among customary authorities has been displayed in Figure 6 where the arrow shows direction of command flow and the broken arrow indicates the feedback system and the closeness of the boxes indicates the extent to which the authorities consult one another in decision making.

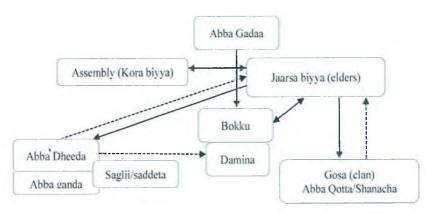


Figure 6: The governance structure of customary authorities 10

5.4.5 Customary NRM institutions among the Boranal Guji pastoralists

Customary leaders among the Borana/Guji pastoralists have their own customary institutions playing the role of governance and decision-making which they call the adaa seeraa (customary law). The frameworks for social administrative structure and people's relation to their natural resources do emerge from such customary law. For instance, the customary law sets that all Borana men collectively own Borana land, and that through their clan Borana people have access to natural resources. The addaa seera sets out codes of conduct for natural resource management, social relations, food and dress (Muir. 2007). The Gadaa is the Borona age grade or generation system in which one age set is said to rule before handing over to the next younger age set. The head, the Abba Gadaa, is supported with three selected leaders with different social and cultural responsibilities. The Abba Gadaa is appointed by Gummi Gayyo (the generally assembly) where the role of the assembly is to discuss, review and update customary law as necessary. The Gadaa system has shown vivid successes in the governance of the Borana community in terms of updating and re-establishing the customary laws on natural resource management (Edosa et al. 2005).

At the middle level of governance, decisions are made with respect to grazing resources use and mobility. For instance, jaarsa dheeda are responsible for decisions about mobility; addressing social disputes and have an important role in conflict resolution. Disputes and conflicts not resolved at jaarsa dheeda level are referred to the Abba Gadaa. The actors at this level are in charge of enforcing customary law passing decisions across many geographical areas regulating mobility patterns and the shifting of boundaries based on grazing zones (Muir, 2007; Tache, 2008). Thus, the governance councils provide instructions to those authorities concerning

¹⁰ It is important to note different customary authorities may have different names among different pastoral groups. We considered the most commonly used ones.

internal social relations through the lineage system and to geographic system in the use of different resources such as pasture and water. Elders forming clan councils and local councils are required to apply the norms and principles of customary law. In the Borana/Guji context, a dheeda is a customary territorial natural resource management unit, which is sufficiently extensive to allow dry and wet season livestock mobility. The jaarsa dheeda had a pivotal role in ensuring the organized mobility of herds although their role has weakened due to establishment and expansion of enclosures. However, reopening of mobility routes has been observed through the efforts of the jaarsa dheeda in cooperation with NGOs and the regional government around Liben and Arero.

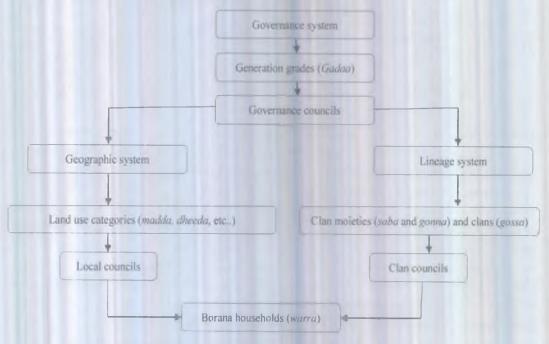


Figure 7: Borana/Guji pastoralists' socio-cultural structure

Source: Sabine (2004)

The third level is the lower level of governance. Actors at this level are responsible for arranging public services for the community such as smaller territories (maddaa), villages (olla), arda (consisting of two or more ollas) and family units. The Borana society is patrilineal and consists of 18 clans (Tache, 2008). The clans are organized into two intermarrying moieties called Sabo and Gona comprising 3 and 15 clans respectively. The society is also organized into ages and generational classes where a power shift occurs every eight years called the Gadaa period (Legesse, 1973). The Borana and Guji pastoralists gave nomenclatures to smaller units or strata within the community in order to easily manage communal resources. The maddaa is a smaller customary territorial natural resource management unit, comprising several villages

(olla). It is nearly equivalent to kebeles in the formal structure. At this level, disputes and conflicts over resources are resolved by jaarsa maddaa who also carryout negotiations on behalf of their community and influence decisions of kebele cabinets in allocating crop land and identifying settlement areas. Jaarsa madda comprises of a maximum of 17 elders. The Borana and Gujii share a common customary institutions in natural resource management (Muir, 2007; Debsu, 2009). The basic criteria to be selected as jaarsa at all levels include good livestock management skills, knowledge and skills in customary natural resource management, integrity and the ability to treat everyone in the community equally and their knowledge and skills in social affairs such as in managing conflict (Legesse, 1973).

Institutions in the common property rangeland management operate at three levels. The first evel is the *madda* which is centered on permanent water sources, usually traditional deep wells which are vital where all economic and social life revolves around these wells. It is further divided into sub-grazing zones called *arda* which consists of a few encampments that have jurisdiction over some form of grazing area, cultivated land and to a lesser extent, water resources. The second level of common property, the *warra* areas, are grazing areas for lactating cows and weak animals. They are only open to members of group of the *arda* community, but can sometimes be used by members of a different *arda* under reciprocal arrangements. The third level is the communal calve enclosures, consist of thorn-fenced fodder banks that are reserved for grazing by calves as wells as sick and weak animals during periods of forage scarcity where the use of enclosures is restricted only to members of the custodian encampment or *arda* community, who contribute to collective investment, including labor for fencing, bush clearing and cleaning of the surrounding water resources (Watson, 2003).

Among the Borana, the rights to different water sources depends on the reliability of the source and the investment in terms of labor and other resources for the establishment of the water points (Tache and Irwin, 2003). In practice, all Borana have the right to water, and the customary law makes it explicit that the right to water is the right to life; it is also forbidden to deny someone water or to ask him to pay for it (Tache, 2000). In governing access to water wells, there is Abba Herrega who is the water manager responsible for the day to day management of a well. Operational rules of access give first priority to Abba Konfi, then Abba herrega and then seniority (age) among clan members. The rules are enforced by Abba Herrega who is appointed by Abba Konfi (the initiator of the well). Selection of Abba Herrega is primarily based on prevention of conflict, transparency in entertaining requests from potential users and his trustworthiness among the users, irrespective of clan and ethnic relations with the Abba Konfi. In terms of access and use of natural resources, all Borana have the right to use the land for grazing. This principle extends to non-Borana people. There are also more specific regulations concerning access to and use of land and water that emerge from other institutions operating at a very local level (Watson, 2003). From this, access to water points is not as such based on a strict calculation of cost-benefit analysis. This process opens up a space for freeriding as definition of access rights are influenced by moral values and social norms. In any case, the customary law and mechanisms of sanctioning against violations of norms have been identified based on the literature (Table 2).

Table 2. Examples of customary rules and sanctions against violations

Customary Rules/Norms		Sanctions against violations	
	Clan ownership of water well	•	Frequent misuse leading to either limited access or total exclusion; no one allowed to water prior to abba konfi (well excavator).
•	Abbaa Reeraa (range management coordinator) decides mobility	•	Penalty (up to 5 cattle) by Abba Reeraa follows violations.
	No exclusive right to the rangeland	•	Private enclosures from communal land dismantled
•	Seasonal grazing practiced		Deviants obliged by elders through the youth
•	Access right to water on clan, kinship, neighborhood bases		If Abba Herrega shirks, he will be removed and replaced

Source: Based on Watson (2003) and Tache (2015)

The role of customary institutions in managing forests is embedded in the pastoral cultural values such as exercising rituals. There are certain trees such as acacia and sycamore which are protected because they provide shade for their stock. Especially sycamore (odaa) serves as a hall where traditional authorities make decisions and it is recognized as a holy tree among the Borana. However, as livelihoods deteriorate and reliance only on livestock as food source declines, destruction of important trees for charcoal production has brought a challenge to their protection. Augmented by rapid population growth and expansion of farmlands, the forest cover has decreased to less than 2.7 percent (Tikisa, 2009). In response to this, organizations like SOS Sahel Ethiopia, FARM Africa and GTZ have mobilized communities and their traditional leaders and created the Borana Collaborative Forest Management Project (BCFMP) which has succeeded in improving the forests by increasing seedling regeneration from the soil seed bank. It is thus believed that such project can create an option for improved governance of common property resources and help in realigning customary institutions in managing forest resources. Based on the descriptions made above, there are some inherent strengths and weaknesses of customary authorities in exercising their institutions (Table 3).

Table 3: Strengths and weaknesses of customary authorities

St	rengths	Weaknesses
•	Effective in providing a comprehensive management systems to control uses of pasture, water and forest	 Increase in conflict among the leadership members over decisions; lack of specificity and strictness in enforcing violations of norms No proper recording of events and resources available for uses
•	Operate based on local ecological knowledge which enabled them convince resource users	Do not accommodate the interests of the youth and women.
٠	Customary authorities democratically elected given the limitation in excluding certain members of the community (e.g. women)	Rigidity and not responding to certain dynamism caused by certain factors (e.g. land use change and population pressure)

It is important to compare the study areas in terms of governance challenges, features of property rights and the role of customary authorities in working with their institutions (Table 4). For instance, while private enclosure is condemned in Borana/Guji, it is almost becoming formalized among Bale pastoralists where kebele leaders give approval of private enclosure. The underlying reason is that customary authorities in Borana/Guji are stronger and hence more influential than those in Bale. Settlement of one ethnic group on the communal land of the other has contributed to violation of pre-existing norms of resource use which in turn challenged the functioning of customary institutions. Examples are Hawwi Guddina and Rayitu woredas where the settlers do not respect the norms - that can be a cause for resource-based conflict. Abba dheedas are responsible for the seasonal grazing arrangements in the use of communal grazing land in almost all woredas indicating that customary systems operate at dheeda level. This implies that any intervention that aims at empowering customary authorities need to focus at this level. However, the formation of mixed ethnic groups through displacement and resettlement has challenged the smooth functioning of the customary authorities. The state has a role to play for the socioeconomic and political reasons dictating displacement and resettlement not to disrupt the functioning of the customary systems. Section 6.1 describes the relationship between the state and customary institutions by taking into account the influence of a number of factors.

Table 4: Governance, property rights and customary institutions in the studied woredas

Districts /areas	Customary governance and challenges	Property rights	Customary institutions and authorities	
Fantalle	Influenced by population, land disputes, wildlife park and sugar factory; pursue gada system (abba dheeda)	Karrayyu land as common property (rights by birth); private use of land on irrigated plots and some rain-fed farming; rule enforcer selected based on criteria; eight sources of communal land insecurity identified;	Damina gosa managing conflict while Qondalla and Jajjabe protect territory; seasonal change in the use of grazing zones endorsed by elders and enforced by abba dheeda; the youth dictate those breaching the rules	
Mieso	Abba dheedas govern communal land; clan leaders facilitate relationships; communal land conversion through enclosure; charcoal making becoming a threat to woodlots and forest resources;	Excessive expansion of farming; conflict with Issa clan of Somali; loss of grazing areas (dheedas); reduced access options to different grazing resources; crop-fields serving as common property resources in the dry season	Use of social sanctions to enforce customary rules; weaker gada system than in Fantalle; use of scouts for potential resource identification (Aburu); similar roles of Abba dheedas in Mieso; negotiated reciprocal access with other clans far from Mieso (host-guest relation); resettlement from Chiro and Masala woredas challenging customary institutions	
Rayitu (Bale zone)	Enclosure market expanding becoming a threat to communal land security; threats from Ogaden-Somali settlement in the area; a declining role of customary authorities as kebele leaders took up their roles.	Smaller grazing areas around settlement than dheedas; certification of private enclosure; investment on roads and the envisaged large-scale irrigated farming threatening grazing commons;	General assembly making bylaws under Oda Roba supra assembly; resource use decisions made through consultative dialogue among clans' representatives forming a council; leaders of different clans (ribicha) decide on resource governance;	
Hawwi Guddina Land communally used belonging to "Oromticha"; mixed groups (Arsi, Itu and Somali) causing disagreement over pre- existing customary law;		Insecurity of rights due to breaching of customary rules; loss of forest and increased hostility; increased resettlement of the Somali;	There are no customary institutions common to all pastoral groups; institutions before the Somali settlement do not govern resource use any more; ethnic differences creating differences in customary norms and interests; interest groups behind expansion of the settlement.	
Borana/Guji Characterized by three levels of governance (gada, jaarsa dheeda and madda) each having its own roles; elders having		Rights to grazing area by birth whereas the use of water wells is based on investment in their establishment; in most	Moral values govern resource use rights rather than economic rationality; respect for sycamore tree (Odaa) serving as a traditional hall; relatively strong functioning	

roles at different levels in consulting or advising; common property management operating at three levels (madda, warra and calf enclosure)

cases access rights for water wells are not strict but priority exists depending on certain criteria; non-borana groups are allowed to use grazing resources governed by reciprocity principles.

of customary authorities and preservation of cultural values than other pastoral groups; the youth respect elders' decision unlike other pastoral areas; customary authorities giving priority to address women's concerns at their assembly;

- 6. Natural resources, customary institutions and the state: explaining the relationships
 - 6.1 The relationships between the state and customary institutions of Karrayyu pastoralists

The extension of the state influence into pastoral areas has somehow altered the customary systems of resource use and management. Due to the extension of the state structure into the pastoral areas, the beating and slaughtering of animals as a punishment of wrong doers in natural resource use such as cutting of big trees have gradually disappeared. However, the discussants underlined that the pre-existing elders' customary practice was preferred to the current state actors' punishment and monitoring in terms of managing natural resources. The elders indicated that there is a conflicting relationship between the state and customary systems where kebele level decision-makers do not acknowledge indigenous knowledge and customary norms. In association with livelihood changes being introduced such as taking farming activities, pastoralists are not comfortable and said that 'the media and the state label as if we were engaged in farming' but the benefit from it has been so low. Farming was considered as a source of internal conflict.

As external pressure has affected their customary systems, pastoralists in Fantalle need support from the state to protect their rights to natural resources. In addressing the type of the support needed, the most challenging one was the settlement of other ethnic groups on the land previously serving as grazing land for the Karrayyu pastoral herders. The underlying cause as understood locally was that land communally used for grazing was recognized as free land available for settlement of the Amhara who are engaged in farming. There are two important reasons here: population explosion and relative land scarcity has pushed the Amhara settlers into the Arole area and secondly the lack of state recognition of pastoral livelihood and land use systems aggravated the problem.

Expansion of agricultural activities into the Arolle area and increased settlement activities from the Amhara Regional State has increased pressure on the land where the settlers were

perceived to have strong support from the formal system as the formal system gives priority to farming and no policy or law restricts the use of rangeland for farming. The large tracts of land resting to permit recovery and revival of different grass species is often recognized as unused land and hence to be used for farming by settlers. The expansion of farming has resulted in conflict which has reduced accessibility to the rangeland resources including areas used for rituals at Karra bordering Bosset woreda. The violence involved loss of lives among the Karrayu community. There are no legal provisions preventing expansion of agriculture into pastoral grazing areas while the formal system encourages farming on rangelands. For example, elders at Qobbo Kebele mentioned that they are left with dry and unproductive land while the most productive part of their land has been taken away for farming and access to main water points was lost. The ultimate appeal to the state among the participants in the group discussion is to get the settlers removed from the area, only then will peace prevail.

Moreover, in 2000 E.C., the Kassam-Bulga sugar plantation was launched causing loss of access to Hallam and Aartuu grazing areas. The camping sites were constructed on the Karrayyu grazing area. Eventually, a considerable number of the Afar pastoralists were resettled on communal land of Karrayyu as they were displaced by the plantation. This has resulted in loss of more than half of the dry season grazing area for the whole Karrayyu and lttu groups. There was no compensation in any form. Although they have initially agreed and promised to provide employment opportunity for pastoralists, those employed from Haro Qarsa and Dhebitii kebeles were fired within two months.

In addition to these, there were also land lost to the Afar earlier. Thus, legal protection of the pastoral rights to land through land certification should be implemented after those large tracts of grazing areas lost to occupation by others are regained. Along this, they said that historical assessment of the Karrayyu land should be carried out carefully in order to move to legalization and protection. However, this statement has an implication for the Karrayyu land lost to the park and the Metahara sugar industry. There is a blame as specified' the state is not listening to the Karrayyu'. Finally, they state that land for private use rights such as for farming should be completely abandoned. The establishment of the Aluminum Sulphate factory owned by an Indian investor has raised a lot of grievance on the part of the herders as none of the elders were consulted, and neither negotiation nor compensation was made for the grazing land lost.

Moreover, the expansion of irrigated agriculture has induced certain level of discomfort and at the same time excitement among pastoral herders with respect to property rights to land. The state effort in transforming pastoral life involves engaging them in irrigation development. As a result, the area under cultivation has increased from 0.6% to 42.1% while the rangeland coverage has reduced from 99.1% to 44.8% over the last 49 years (Table 4). Observation of the *Tututi* kebele indicates that the establishment of the canals has a design problem where underground canal extending up to 120 meters was difficult to clean when filled with mud and

small stones. So far the underground canal was cleaned once. The surface canal is constantly cleaned once every week by the users where such contribution is enforced through charging 50 ETB punishment for the defaulters. A striking advice for the herders was the fact that they were told to sell their cattle to buy fertilizer and improved seeds of the vegetables they grow. The outcome was the benefits from sales of vegetables were very low as they sell at lower price which does not even cover production costs.

Table 5: Land Use/ Cover Changes in Fantalle woreda (1965 -2014)

	Land Use/Cover*	1965 Area		1986 Area		2014 Area	
		ha	%	ha	%	ha	%
I	Cultivated Land	863	0.6	13929	9.1	64577	42.1
2	Rangeland	151980	99.1	132796	86.6	68655	44.8
3	Bare Land	379	0.2	6256	4.1	5346	3.5
4	Water Body (Lake)	119	0.1	360	0.2	14763	9.6
	Total	153341		153341		153341	100

^{*}In Fantalle, 107,976 ha of land is governed as protected area.

Such a loss was associated with poor access to markets, and brokers' intervention at selling points. The pervasive nature of such risks and little knowhow of the irrigated farming seem to discourage households from making additional investment in irrigated farming. In essence, while herding involves risks in connection with shrinkage of the grazing commons, the demand for irrigated farming is equally affected by the aforementioned threats and market uncertainties. The scheme was established by the Oromia Water Works Design and Construction Enterprise. Finally, pastoralists expressed their doubts in that the state may use this as a strategy where it, in the future, could allocate such land to others or provide it to large-scale investors whenever pastoral households are thought to be inefficient in using the irrigated land.

The state has played a great role in terms of altering property rights structure in the customary pastoral systems. Discussion with the land administration experts, who were responsible for the preparation and provision of land use certificate to those who use land for farming, in Fantalle provides a useful evidence on this. Of the 18 kebeles, 6 practice irrigated farming where the scheme was established through the regional state intervention. Land allocation and certification was carried out in 2004 E.C. This action has induced internal disputes over farm and distribution of water. To prevent such disputes the authorities have organized users into teams consisting of 5 users, where the team leader is responsible to take up the task of governance over uses and exercise sanctions over the use of water in cases of deviations from rules of use and contribution of labor towards canal maintenance as needed. For those households who were allocated land before the certification, redistribution was carried out to fit into the new rules of land allocation for the irrigated farming which dictates every user not to hold more

than 0.5 ha of land. The provision of the certificate and land allocation depends on the order of registrations that appointed village committee carried out earlier at the preparation phase.

While asking on the transparency in the provision of the certificate, the experts stated that great care was taken as much as possible but there is sometimes resistance on the part of users who were allocated land before certification over the sub-division of the land for the new entrants at the later stage. Some are even getting annoyed when their land was sub-divided to others who came from other kebeles. One of the herders said that "we were tolerant and accommodated new entrants without any violence but the issue was so disappointing and intolerable". The overall fear of tenure insecurity is that once herders are certified with a small plots of land, the remaining communal land would be allocated to large scale investments or given to other settlers. In this regard elders stated that "Immature young people, who do not understand the integrity and sustainability of pastoral way of life as embedded in communal land tenure system, are the key players in the intensive division, allocation and certification of our communal land for individuals against the will and interests of the larger pastoral community".

In explaining the divisions within the societal groups with respect to adhering to the customary systems, elders also stated that clan leaders and elders were arrested. They were brought to court for exercising customary rules and regulations and imposing sanctions on individuals such as beating and other corporal punishments such as slaughtering animals of the rule violator. In this case, they condemn the youth and women who tend to have abandoned the customary system as they are becoming more and more aware of their 'rights' and resort to the formal system. The youth are becoming officials and agents of the formal system and ignore the longlived rules and decisions of customary authorities. This has resulted in the erosion of indigenous knowledge and experience. As a result, to exercise formal rules decision makers in the kebeles consult the youth instead of elders who are rather better placed to defend for the rights of the pastoralists. What does the youth say or how do they perceive the relevance of the customary system? The discussions also reveal that none of those organized actors established to protect the rights of pastoralists such as PCDP, OPADC and Pastoral Standing Committee in the parliament have met and discussed the prevailing challenges that pastoralists face, no matter how they live on the budget allocated or donation obtained in the name of pastoralists. Historically elders were able to adjudicate disputes and unintended state interventions negatively affecting their livelihood systems (Burkutte and Merti areas as well as the Arolle, Kassam and Bulga areas) during the imperial regime while this has become impossible at present.

What about the governance of grazing land and the role of the woreda land administration? The woreda experts do not have influence over the governance of the grazing land. The land administration activities at woreda level are focusing on the land used privately through irrigation. The general fact is that no one is prohibited from using communal grazing land for cultivation. There is a role for the woreda land administration office in facilitating reconciliation

between the Karrayyu and the Afar. Even in such a case, customary leaders are highly involved in the process and in the making of agreements, developing rules and enforcing them. In this particular case, exercising grazing land management with the use of customary decision-makers is still recognized by the state where local administration endorses the usefulness of such a system.

Land allocation for the expansion of infrastructure, such as the railway, has caused a lot of grievance among Fantalle pastoralists although the state tried to pay compensation for the land ost to the provision of the public good. Provision of public goods such as this involves pastoral land alienation. How such a process affected pastoralists and what kinds of precautionary measures were introduced were the questions raised during the discussion. The construction of the railway line crosses 4 kebeles. Explanation over its benefits to the nation and the pastoralists themselves were discussed in meetings with the community. In this meetings, authorities made it clear to the public that they cannot resist to the state plan to construct it. At the beginning, the woreda administration discussed with the chairmen of the 4 kebeles. Then the chairmen were instructed to estimate the amount of land expropriated for the investment and calculate a 10 years benefit from the land. This has involved first estimating the yield and then converting that into revenue using average market price. Each household deprived of its land has received a compensation worthy of the 10 years revenue estimated. The kebele leaders discussed with elders and Aba Gadaas to do the exercise and each land holder was told to do the estimation of values alone.

The public did not welcome the idea for a number of reasons. First, the construction did not take account of local livelihoods where the line blocks livestock mobility. Second, the communal land lost due to the construction was not accounted for in the compensation process because the communal land was recognized as a state land and pastoralists do not occupy it. Third, the compensation paid to the privately operated land and enclosed land did not consider the values estimated by the holders. It was done randomly and abruptly lacking transparency where none of the villagers can tell how it was calculated and for what kinds of crops the yield was estimated. The reaction of the woreda administration was that they know how much can be obtained from each plot of land because they already have a data, a higher price was considered to calculate the benefits lost. Accordingly the highest payment was 133, 000 ETB and the lowest was like 12000 ETB. Following this, there were complaints over the amount as everyone was uncertain how it was done. What makes it so disappointing was not the amount as such but the secrecy over the process. An interview with the committee members who participated in the process made it clear that part of the secrecy lies in the fact that those who were paid a compensation did not hold land certificate. Households without holding land privately have also obtained the payment. Payments were made to calm down complaints from the public so that they would gain public confidence and cooperation in the process of the railway construction.

The community also demands compensation for the trees on communal land destroyed during the construction process because such trees were believed to have long-term environmental and economic benefits as fodder and shades. Another grievance was that compensation was not based on the basis of livestock holding but only landholding while livestock is the most important food source for the pastoral households. And even for the land, land quality assessment was not considered. We asked about the decision of the households in using the money paid as a compensation. All households purchased livestock and extended the stock size further though the grazing area has been shrinking, indicating that there is no potential in transforming pastoral households in terms of taking up other economic opportunities than staying in pastoralism. It is surprising to see continued investment in livestock while grazing land is diminishing in quality and quantity. Further question over why they failed to invest in other livelihood activities (such as trade and small businesses) in nearby town indicates that there is no knowhow and courage to do this due to lack of education and confidence over the likelihood of success. What else could have the government done to make pastoralists comfortable in the payment of the compensation? The response involved that all benefits lost from the communal grazing areas should have been compensated by considering the economic gains from such resources in each kebele. The way to estimate this, unlike the case of the farmland, is believed to be complicated. And it is hard to estimate precisely even if the state recognizes benefits lost from communal land and the company is willing to pay.

More importantly, this particular case of expropriation and compensation provides a clear evidence where pastoralists are trying to adjust themselves to the provisions of formal/state laws, particularly expropriation law. That is, the pastoralists had arbitrarily divided their communal land among themselves and change it into superficial 'private holdings' to fit into the expropriation law of the state as the later recognizes compensation only for private holdings and improvements thereon.

Focus group discussions and key informants interviews held with various groups of the Karrayyu community members (elders, women and the youth), the state (be it regional or federal) and the customary institutions through which they are governing their livelihood have had a competing rather than a complementary role for years. The state emphasizes investment in the fertile land of the Karrayyu grazing lands. At times government approaches the customary authorities and gets linked to the community through customary elders on policies to be implemented. An example could be managing conflicts within a particular community and with neighboring regions. External forces such as the loss of dry season and wet season grazing lands due to mega projects (such as the Sugar Cane Plantation of Matahara Sugar Factory, Awash National Park, Private investors, and Ethio-Djibouti Railway project) were the main challenges facing the pastoral mode of production.

The railway construction process has caused damping of excavated soils covering the larger area. As a result, they are losing a large tract of grazing lands for their livestock. Though the state is providing a public good that could also benefit the pastoral families, the lack of compatibility with their land use and livelihood has caused the development of such perception. For instance, the absence of bridge prevents movement of livestock and provision of health services to pastoral households. The long lived customary practice of mobility is not only discouraged but also gradually phasing out. The Sugar Plantation and the Awash National Park are gradually expanding from time to time to the fertile grazing lands of the Karrayyu. As a result, pastoralists are in critical fear of total loss of their grazing land and the collapse of their long lived pastoral production system. There has never been any kind of compensation for the lost communal land rights during land taking in the past (e.g. sugar factory and sugarcane plantation, Merti Agro-industry, Awash Park, etc). Let alone paying compensation or providing rehabilitation schemes, pastoral households were subjected to violation of rights (beating, mprisonment, loss of livestock and assets, destruction of their houses) during expropriation. This indicates that the constitutionally 'guaranteed' land rights of the pastoralists continue to exist just on paper rather than exercising legal protection of communal land rights.

6.2 The relationships between the state and customary institutions of Mieso pastoralists

The interviews indicate that there is a conflicting relationship between state and customary institutions with respect to resource governance. As the state certifies land to issue use rights to private parcels, the customary system appreciates communal use of land and exercising the customary law. However, the communal land is recognized as unused land among the state functionaries. Due to the presence of different interpretations attributed to the ownership of grazing land and the state's effort to introduce certification, insecurity of communal land has created grievance among pastoralists. This condition makes the future extremely uncertain which might have a spillover effect in discouraging communal land management using the long-existing customary law. There is a gap in the communal land certification. However, interviews with the experts working at the woreda level indicates that resettlement of the pastoralists and improving supply of public services such as health, education and the establishment of ranches and enclosure to delineate their boundary from that of the agro-pastoralists were recommended practices. In this woreda, contestation over communal land has complicated inter-ethnic relations, resulting in boundary conflict with the Somali region. This has caused rent dissipation from previously accessed grazing areas.

As a result, the persistent and recurrent conflicts with the neighboring groups becomes a source of property rights insecurity. Conversely, insecurity of rights to grazing resources aggravate the conflict since the rights to resources are not protected by law. The conflict

among the Somali, Oromo and Afar pastoralists in the eastern Ethiopia is a typical example. As the Somali pushed the Oromo and the Afar and settled in between, the resource access and property rights to those resources became complicated. In this push process, the Mieso Ittu lost seven grazing areas (El-balla, Mettoo, Afdhab, Didibbiftuu and Majiit, Rurruukii and Ajoo Buttao). In addition to these, discussions with pastoralists at Baloo, Gumbi and Obeensa kebeles show that peaceful co-existence with the Somali became impossible as settlement has expanded and caused loss of different grazing patches (Burqaa Bordodaa, Algee, Goonii and Hardim/Bordoddee).

Consequently, heavy grazing on communal lands in settlement areas disturbs the customary resource management. In some places of the woreda, the mobility pattern shifted to the direction of the Afar Regional State. Despite these challenges the customary law is still applied and constrains behavior of the deviants who do not respect resource use rules, ranging from physical punishment to imposing fines. The physical punishment in the customary law is chosen as a rule enforcement strategy even for minor mistakes where it often becomes disproportional. Elders believe that though this is the case, its effect in terms of constraining undesirable behavior is superior to imposing fines. In that sense, physical punishment is highly appreciated among the customary rule enforcers.

Mismatch between the state and customary institutions arises on the way resource-based conflicts are managed. Group interviews indicated that there are strong involvement of the local government administrators even in the management of mobility and natural resource use of the pastoralist communities. Since the last two decades there is strong inclination of the local administrators to apply statutory laws to govern the large communities. For instance, resolving conflict in the community which might even cause loss of life could be resolved by the damina gosa through reconciliation and payment of compensation to be contributed from the clan members. This, however, is not recognized by the statutory laws and in some cases might entail the elders and clan leaders a criminal responsibility in formal courts. There were instances where the local administrator imprisoned the damina gosa for his involvement in the reconciliation of two conflicting parties.

Nevertheless, there is a trend towards preserving the customary law as it has long-lived public acceptance. This sometimes serves as an option for the state to resolve conflict between local state and customary authority. Eventually, the informants have underlined that better management of natural resources (water, range, forest) can be realized if customary laws (heeraa) are complemented by the statutory laws (seeraa). Customary procedures, rules, and regulations that were used to manage and conserve the rangeland resources have been eroded over the years, contributing to deterioration of the rangeland conditions. Expansion of agriculture from 16% to 74.3% and a reduction in rangeland cover from 80% to 25.1% over five decades might have contributed to erosion of customary institutions (Table 5).

Table 6: Land use/cover change in Mieso (1965 – 2014) (ha)

		1965		1986		2014	
	Land Use/Cover*	ha	%	ha	%	ha	%
1	Cultivated Land	23358	16	46584	32	108316	74.3
2	Rangeland	122356	84	99130	68	36584	25.1
3	Bare Land	0	0	0	0	814	0.6
	Total	145714	100	145714	100	145714	100

*In Mieso, 88,845 ha of land is protected area.

In terms of relationships with the state, the pastoralists in Mieso indicated that Karush Company owned by an Indian where more than 10,000 ha of communal land was allocated for latrofa (Bio-fuel plant) farming without any compensation to the community has created tension. And those people who resisted such an action were beaten, arrested and jailed. Consequently, there is a fear that similar actions of the government in giving land to large scale investors may deprive pastoralists of more grazing land. In overcoming this problem, elders have repeatedly appealed to the state to stop this action though unsuccessful as the decision-making with respect to land use and administration excludes the participation of the customary authorities. The elders state that women and youth, who have been assigned as formal administrators, are coopted by the state and hence receive instruction from the state in influencing the customary system. Those woreda administrators who tried to accept the decision of elders on several occasions were replaced by others. The concern of the elders is not properly addressed as state officials at different levels do not have any idea of communal land size and water points lost and how much is left for communal use. Insights from the discussions reveal that there is widespread anguish against the state for failing to protect customary rights to rangeland resources.

A different opinion was held by informants from *Hammetti and Haramaro* kebeles of the woreda stating that elders' decisions are respected by the formal woreda officials in some cases. An appeal to the formal decision-makers over the decision of the elders has often led to endorsement of elders' decisions where this applies to herd mobility. The reason lies on the wider acceptance of elders' decisions among the community members where everyone feels that any decision they make goes with the interest of the community. This does not show absence of complaints on customary decisions. For instance, pastoralists found the customary leaders such as clan head (*damina*) becoming corrupt where they made unfair decisions by imposing penalties on false grounds and received in kind benefits (such as cattle and goat from the favored claimant). There are also cases where ex-formal administrators serve as customary leaders or elders after retirement from their official positions and they are accused of corrupt practices. Nevertheless, discussions indicate that the knowledge of customary authorities in natural resource management can be utilized effectively if the state undertakes the tasks of identifying and certifying communal land where customary authorities exercise their rules. State-customary relations can be reinforced when one party complements the other and

building on each other's strength than one contradicts the action of the other. As land use and livelihood systems in pastoral areas are consistently challenged due to demographic, political and environmental factors, cooperation between the state and the customary system is not any more a choice but an unavoidable step to be taken.

6.3 The relationships between the state and customary institutions of Bale pastoralists

There are certain conflicting interaction between the state and customary institutions in Rayyitu woreda of Bale Zone. There are Abba Dheedas and customary authorities (such as the Bokku, Qara and Saddeta) who undertake communal land administration and oversee resource use and management arrangements in both wet and dry season areas. The Abba Dheedas coordinate and manage resource use arrangements and interactions (e.g. daily grazing patterns, water allocation and Rota) in consultation with the elders. They implement the rules that regulate the use and management of grazing land, water sources and trees/forest.

Important of all, those rules and arrangements for wet and dry season grazing areas are becoming very weak and not functional in most cases. There are various factors which contributed to this deterioration, including among other things: (1) loss of almost all wet season grazing areas to neighboring pastoral community (Somalis): (2) increase in population that led to permanent settlement even in wet season grazing areas; (3) incompatibility with the right-based approach of the government; and (4) lack of accommodation by the state policy. All of these constituted strong restriction on mobility and weakened customary arrangements for the administration, use and management of resources.

In this woreda, discussions reveal that the decline in the customary institutions and systems for management of rangeland resources is heavily influenced by the change in the traditional communal enclosures and expansion of private enclosures. That is, communal enclosures, in the traditional form, are disappearing and being replaced by 'watershed management areas' established through the formal system. The purpose for establishment, use and management of 'watershed management areas' is regulated by the formal system, though such areas are in some cases referred to as 'communal enclosures'.

More importantly, there is rapid expansion of private enclosures for pasture reserves (locally known as "hoga") and practiced across all kebeles in the woreda. The informants stated that most of the communal land has been divided, enclosed and changed into private enclosures for pasture reserves, particularly intensified in Adala, Qarre Xulee, Arda Nagaa and Arda Kalo kebeles of the woreda. The same is true for several kebeles in Sawena woreda and most of the elders interviewed in this woreda expressed their fear that this trend may soon result in

widespread internal conflict between communal land users and holders of private enclosures. Private enclosures in Bale pastoral area seems to be distinct from similar practice in other pastoral areas. While private enclosures in other areas are undertaken in most cases to establish farmland, parts of communal land in Bale are freely enclosed by individuals as private pasture reserves without intention to create farmland.

According to some of the informants, enclosing part of communal land as private pasture reserve has been started as a strategy to block the expansion of neighboring pastoral groups (the Somalis/Ogaden), while others hold the opinion that it served as a response to an increase in population and the weakening of customary institutions and authorities. Whatever the reason may be, rapid expansion of private enclosures may indicate a shift in property rights arrangement and a decline in the role of customary authorities in the administration, use and management of communal lands. The customary organs have minimal or no role in the establishment, use and management of private enclosures.

Despite these, they have a role in resolving disputes that arise between individuals with regard to private enclosures. Second, customary authorities facilitate the establishment, sharing, use and management of various types of water sources (wells and ponds) no matter how they are developed by individuals. For instance, they decide on the size and type of herds that can access each water point, fixing water use. The overall observation regarding the state-pastoral relations in the context of Bale is that the state policies and practical interventions are focusing and even biased in favor of crop-farming than livestock production. Discussions with elders indicate that training programs arranged and supply of industrial inputs favor crop-farming where pastoralists were trained on how to grow crops than rearing livestock and were provided with fertilizers. This has an implication for the preservation of communal land rights in enhancing the role of customary authorities by empowering them since the fact that they are weak does not necessarily mean that they are incapable.

In the end, looking at the dynamism in the pastoral land administration, property rights and the role of customary leaders in providing tenure security, the questions of how best pastoralists' land rights be secured and how customary natural resource management be successful remain central. Theoretically, one strategy to ensure security and prevent natural resource degradation is providing a meaningful and workable certificate. From the pastoralists' perspective, securing pastoralists' resource rights through land certification involves contrasting views and a profound fear from the pastoralist side. Government tends to see pastoral land use system as an impediment to national development ambitions, and thus design tenure reforms towards exclusive right holding which is often time regarded as a necessary step towards more land productivity and better security of property rights. For the pastoralists, however, territorial security generates livelihood security for the current and future generations. As the term

¹¹ Conducted in Bara Dimtu. Bokkol, Fincho, Arda Naga, Arda Kalo and Dhaddacha Farda kebeles

'security' carries different meanings (specificity, excludability, risk reduction, transferability and protection of rights), securing pastoralists' land rights through land certification forces one to inquire units for certification (household, village, larger clan or community in a given grazing zone), the name on the certificate, modalities for certification, clarifying the potential gains to the pastoralists and how to achieve fairness and respond to disparity in resource conditions across space.

6.4 The relationships between the state and customary institutions of Borana pastoralists

The social organization and traditional systems of resource management in Borana have survived for centuries independent of the formal administration. The customary and the statutory institutions have at times competing and in other contexts cooperating functional relationships. However, no pragmatic collaboration is being realized between the statutory and the customary institutions (Edosa et al 2005). Bassi (2010) states that the Boran political, judicial and governance system has never received any formal recognition from modern Ethiopia. It is still important in regulating interpersonal relations in the rural context and access to pastoral resources, but it is as a whole losing relevance due to the overall state-imposed allocation of land resources to others who are not from Borana. The presence of outsiders (non-members) has increased pressure on the water resources by claiming a substantial share of the existing water rights and often neglecting the local rules and agreements (Homann et al., 2004). For instance, outsiders used to obtain permission to use grazing resources from elders' council. But at the moment they do request permission from kebele administration where kebele officials operate against the advice of elders who practice flexible use of grazing resources where boundaries of access do not necessarily coincide with physical boundary (Tache and Irwin, 2003). In managing rangelands, while elders advise bush fires to control bush encroachment and to enhance grass growth, the state local authorities prevent bush fires and favor private land use for cultivation purposes (Swallow and Kamara, 2005). In another context, the state makes use of the elders' advice in resolving local level conflicts over resources. There are also complementary roles between the two mainly when elders are elected as members of kebele cabinet. For this reason, the roles played by the state and customary institutions are not essentially contradictory. Strengthening the link between elders who tend to exercise customary law and the youth working as officials at kebele level helps in improving institutional convergence.

7. Assessing and comparing the strength of customary institutions

This assessment report has shown that customary institutions and authorities for the use and management of natural resources have been under persistent pressure and threat for several decades. The major sources of threat to the existence and effective functioning of the pastoral customary institutions include: decentralization of the formal administrative power and structure and its consolidation at local level, particularly through establishment of kebeles; expansion of farming and settlements into communal rangelands and alienation of land to various initiatives; loss of control and exercise of customary power over rangeland resources, particularly due to expansion of neighboring pastoral communities; the right-based approach of the formal system as a result of which important segments of the pastoral community, particularly women and youth, were turned against or started to challenge the legitimacy and authority of customary institutions, etc.

Thus, the complex networks of customary institutions and authorities by which the pastoralists governed access to pasture and water resources have been seriously affected and no more effectively functioning as they use to be. For instance, a related study on Borana indicates that the different customary authorities responsible for larger scale communal land use and management, coordination of seasonal movements, and regulation of access to and use of resources (jarsa reera, jarsa ardaa, jarsa madda and jarsa dheeda) almost lost their function due to distortion of their administrative flexibility as formal administrative organs and agents consolidate their power at local level (Homann, 2004). The multiple cross-linkages of the institutions for land use and management to the institutions for social security (jal'aba and abba qa'ee) are severely weakened and the fundamental mediation of the traditional governance body (hayyu) has become rudimentary. The pan-Borana assembly, Gumi Gaayo, did not possess the authority to prevent the misappropriation of grazing land by pastoralists and non-pastoralists. As a result, it is not fully operational.

Our assessment reveals that only those institutions concerned with the administration of water have sustained their full importance over the last thirty years. For instance, the deep wells are still fully operative under the control by *abba herrega*. However, one would still observe that the essential principles of water use and management have been modified and, thus, temporary directives determine the utilization of different water sources.

More importantly, the assessment shows that while the aforementioned factors are prevalent in all pastoral groups covered by the assessment, their level of prevalence and impact on the functioning of customary institutions and authorities vary from one pastoral community to another across the Oromia Region. Consequently, one would observe varying level of decline or change in the functional structure of the institutions and authorities and their role in regulating the use and management of natural resources. For instance, the pastoral groups in

Borana/Guji area are known for sustaining relatively stronger and more visible customary administrative system, i.e. the Gadaa system, with its in-built structures and institutions relevant for regulating the use and management of natural resources as described above.

In contrast to the Borana/Guji area, however, the pastoral group in Fantalle area struggles to maintain the Gadaa system with more simplified structures for and limited role in the use and administration of communal land and rangeland resources. That is, clan or sub-clan leaders (damina), elders and councils (jarsa biyya) for making and implementation of rules and regulations for seasonal grazing, mobility, pasture reserving and use, negotiation and agreement with the neighboring pastoral groups still exist. Nevertheless, their role is substantially limited much more than their counterparts in Borana/Guji area. In Mieso and Bale areas, the jarsa biyya and abba dheeda, and the damina in Mieso, are the only organs with relatively better visibility and functioning, while the overarching Gadaa system has been essentially abandoned, except for the Abba Gadaa (in Mieso) who is officially appointed by the formal administration. The situation in Hawwi Gudina is even worse that our respondents face great difficulty to identify and describe any functional customary institution or authority for natural resource use and management.

Therefore, it is important to consider mechanisms to revitalize or in some cases reconstitute the customary institutions and authorities relevant for the use and administration of rangeland resources. Organizing intensive community discussions and developing community bylaws may be important to consider in this regard. Revitalizing and strengthening the customary institutions and authorities needs to be taken as the first step and precondition for recognizing and protecting pastoral land rights. This is true as the customary institutions and authorities underlie the protection and exercise of communal land rights.

8. Factors affecting the functioning of customary land administration

In light of the framework used for assessing the functioning of the customary land administration, the cases described earlier on the different pastoral groups enabled us to identify a number of factors. Based on the evidence from the fieldwork, factors that affected the effectiveness of the customary land administration are analyzed at depth. Evidence from the field indicates that there has been a trend of private use of land in many pastoral systems. However, this trend created uncertainty as it creates a room for certification of privately used land and encourages land conversion. An example comes from Karrayyu where market forces for vegetables in irrigated areas encouraged pastoral households to give more focus on investment in irrigation and engagement in contract farming. This is consistent with the IAD framework in which providing legal certificate for irrigated plots triggers land conversion. However, while examining this trend in light of the resource needs and pastoral community livelihoods, the results show that this process challenged collective management of commonly used land for

grazing. It will contribute to land fragmentation in physical terms that can destroy the network of mutual resource sharing and survival among clan members. It demonstrates how attributes of the community in terms of the need to retain collective tenure is affected by the existing legal system that only protects private plots. The movement of enclosure in all pastoral systems even tends to reinforce the same phenomenon to proceed.

These points indicate that the individual land titling in the pastoral system using the increasing trend of private land use in the system as an entry option generates undesirable effects in the functioning of the customary institutions in grazing resources management and their role in spreading ecological risks to livestock production. In some pastoral systems such as the Karrayyu and Borana, where there are mixed clans the customary institutions used to favor the dominant clans (those who have inhabited earlier) than others holding a subordinate positions in their rights to resources. For example, there are Ittu on Karrayyu land and Gabra on Borana land. In such a case the Ittu and Gabra have to be abide by the customary institutions of Karrayyu and Borana respectively. The presence of disparity in terms of rights to resources (for example, water wells) could push each clan to hold different perceptions of customary institutions. While one is interested in maintaining those institutions, the other favors the disappearance of these institutions. Therefore, in exploring ways to link customary institutions to the state institutions, there is a need to pay attention to such internal affairs that may constrain the smooth functioning of institutions.

The results of the study clearly indicates how attributes of resources such as seasonality and predictability affects collective action in their management. Across the pastoral groups studied there are some similarities in this aspect. An example is the management and use of water wells. The pastoralists in West Hararghe share similar patterns and rules of use with other pastoralist groups such as the Karrayyu and Borana. The communal rangeland is recognized as the property of the society and accessed by individual pastoralists in accordance with the accepted rules whereas water wells are owned both by individuals (shallow wells) and clans (deeper ones). While access to a traditional deeper well is structured and orderly, it does not require the users to belong to a well-owning clan. This means that any person from any clan may take own initiative and invest labor in cleaning up the existing well (belonging to another clan). Such a person will reserve an inalienable first-order-rota right. The evidence from the study areas indicate that a complex web of relationships with respect to resource sharing across clans has been declining as formal governance structure extends into pastoral areas.

For example, border delineation for kebeles and woredas where similar clans are sometimes splitting up into two woredas has caused tensions and instability especially in Borana and Guji. The same is true for Mieso between Oromo and Somali. Under this circumstance, the pre-existing negotiations that customary authorities have managed in arranging resource access are getting weaker. This was because emphasis has been placed in controlling territory than

arranging flexible access options to grazing and water resources. Eventually, this condition has obstructed pathways and blocked access to seasonal resources and ritual grounds and has become a threat to the functioning of customary institutions.

The biophysical factors such as variation in vegetation conditions, disease prevalence, and rainfall variability in space and time dictate the applicability and relevance of customary institutions not only in administration of land and natural resources but also in sustaining pastoral livelihoods. It is for this reason that pastoral groups were found to be resistant to any type of intervention that reduces the availability of communal land in order to respond to ecologically-induced challenges. In reference to our framework, we argue that while the political and legal system puts pressure on communal land use, the resource attributes (biophysical factors) tend to have a positive effect on collective action to administer natural resources. Therefore, we cannot attribute the failure of customary institutions in managing nature resources only to their inherent feature but also to external pressure.

Consequently, given the ecological variability, natural resource use and management can be implemented through linking the customary systems of governance and the formal structure in the pastoral systems. This linkage helps in facilitating resource sharing arrangements and practice seasonal grazing systems that was perceived to be effective in the past. The state structure helps in identifying local constraints caused by the state policy and respond quickly to those constraints through continued consultation with elders. Our assessment clearly indicated the roles played by elders (jaarsa biyya) in advising abba dheeda. Elders play a key role in connecting the zonal and woreda administration with traditional clan council that can be formed within the customary governance system. For instance, the pastoral clans from different pastoral groups can rely on a council, which is responsible to facilitate horizontal relationships among the clans (Figure 8).

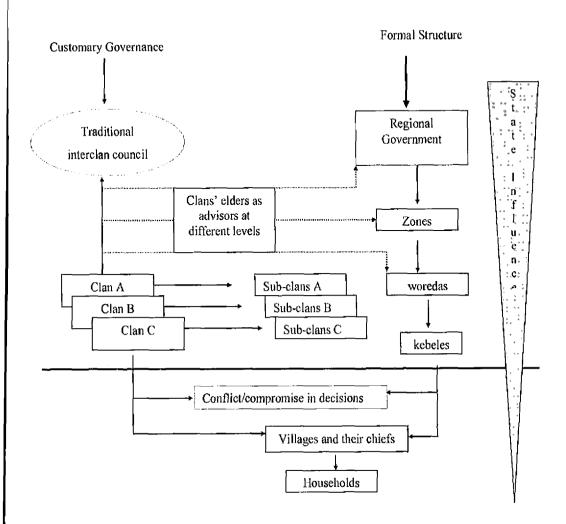


Figure 8: The Process of Linking Customary System into the Formal Structure

Based on field evidence, an important distinguishing feature of customary systems is the absence of geographical limit in securing cooperation between pastoral groups in managing grazing resources and arranging access options. The Borana case demonstrates how access to well and grazing pasture is arranged for non-members of the Borana community under special conditions. It is an institutional arrangement vital in spreading and/or absorbing ecological risk. It is an inherent strength of customary institutions. In light of our framework, such collective arrangement reduces vulnerability while improving pastoral household well-being. However, an increase in population has constrained this practice not to continue. In the case of Borana, population density has increased from 7.3 p/km² to 46 p/km² between mid-1980s to late 1990s (Kamara, 2005). As population increases, the need to control potentially economical (but patchy

resources) rangelands and water points has been given priority and the expansion of private use of land increases.

Evidence from the pastoral groups covered in this study shows that market development for rangeland enclosures has intensified this. The tendency towards formalization and certification of land enclosed which could later be converted into farmland has increased insecurity for the communal land use for grazing. The challenge to customary authorities is to respond to these endogenous forces of land use change and to exercise customary institutions in governing natural resources. The crafting of new institutions that support sustainable and stable use of natural resources needs to consider how to balance the influence of legal and political system, population growth and biophysical factors since they produce contrary effects in maintaining common property resources.

9. Conclusions

The assessment was conducted with the view to have informative insight into customary land administration and natural resource use and management systems in pastoral areas of the Oromia Region. The assessment covered wide range of issues including: investigation into the customary institutions and authorities for use and management of communal land and range resources (focusing on their organizational structures, roles and responsibilities, operational status, strengths and weaknesses, and relationships with the formal systems); exploring the customary property rights to communal land and natural resources, traditional units/arrangements for their use and management and the applicable rules, regulations and sanctions; the rights of women and youth to pastoral resources and their role in the operation of the customary institutions and authorities; security of rights to communal land and range resources; and perceptions and priorities of the pastoralists in securing their communal land rights. Accordingly, the following conclusions were drawn in order to inform the legislative and administrative processes and mechanisms that aim at strengthening customary land administration and NRM systems and improving the security of pastoralists' rights to communal land and range resources.

The assessment of the roles of customary institutions and authorities has revealed that there is disparity in the existing organizational structure and operational status of the institutions across the pastoral groups studied implying that the response of the state in providing support for the customary authorities in terms of empowering to enable them play their potential role can vary. The findings also show that customary leaders do not have adequate information on the quantity of resources available for use in different grazing zones, as they have essentially lost control over the use and management of communal land and range resources. Their operational rules in controlling the behavior of pastoralists in the use of grazing areas and water resources

are not guided by information and have been relegated to playing nominal role, at best. In some areas, the formal land administration tends to subsume the customary system (by accommodating elders in decision-making), while in other areas the formal and customary systems assume/play conflicting roles. From this, we conclude that exploring an approach in interweaving the roles of formal and customary system is the primary step for the regional government to ensure security of land rights for the pastoralists. This would prevent the competitive role and upholds their complementary role in administering and managing resources. The social recognition of the customary authorities and the local legitimacy of their roles in enforcing natural resource management institutions are the benefits for the regional government in filling its gaps in managing natural resources effectively. Conversely, the state and customary authorities could work together in areas where gaps are identified among the customary system in natural resource management such as forest resources and woodlots where property rights are not defined and characterized by open access uses for short-term economic gains.

The definition and enforcement of rights to resources by customary authorities have become very general through time. Although there are operational rules, the authorities are not in a position to regularly audit whether or not they are effectively enforced to prove efficiency in resource use and management. Moreover, these authorities tend to aim at persistence of customary institutions irrespective of socio-economic changes realized in the pastoral context and in that they are judged to be less flexible in accommodating the changes. From the outset, these two could be labeled as prevalent weaknesses or gaps and could be among the basic reasons for the state to support land use changes and extend investment activities in pastoral areas. In addition, as the formal governance structure extends into the pastoral system the longlived customary territorial organization of the resources and traditional administrative units have been overlaid by the formal administrative structures. In the end, our assessment reveals that these perceptions and practical incompatibilities have led to a non-cooperative relationship between the formal and customary systems which has manifested itself through rejecting or challenging development plans and actions of the formal system and disputes over boundaries and resource control within and between groups. This implies, inter alia, the need to make distinction between resource use boundary and fixed administrative boundary. The overlap of these boundaries increases the risk of conflict and undermines the chance for internal cooperative relationship between pastoral groups. The proposed framework displayed in Figure 8 on how to create and sustain the cooperative relationship between the state and customary authorities provides a general guideline while the specifics could be left to the implementing body. This serves as an entry point in the recognition of customary governance while providing options for both to play a complementary role in securing pastoral land rights.

The findings also show that women's contribution to land administration and natural resource management in the customary systems remain almost invisible due to socio-cultural barriers. At

the same time, their access to benefit streams from communally and privately used land is indirect where men tend to predominate. In addition, the role and contribution of women and youth in the pastoral production system appears to be undergoing essential change as they tend to increasingly reject the customary institutions and resort to the formal system for the protection of their rights and interests. Therefore, the local administration should be encouraged to organize pastoral women and design institutions that enable them to negotiate for their rights with men. This requires making men aware that the use of women's knowledge and skill is essential for effective use and management of natural resources in pastoral areas.

The results of the study also indicate some important changes which the customary institutions for natural resource management in the pastoral system were not able to address. For instance, changes in land use associated with the introduction of crop-farming and expansion of private enclosures have created such a gap in the customary institutions by changing the nature of relationships within and between groups. These changes have further created a strategy for the highland famers and large-scale investors to penetrate the pastoral system. This process has significantly contributed to ecological perturbations, as the expansion of crop-farming and investment initiatives into the pastoral areas hardly integrated the necessary consultation with and negotiation between different livelihood groups and appropriate land use planning. Hence, when looked at from the perspective of improving land productivity in pastoral areas, searching for ways through which farming infiltrates into the pastoral system could accelerate irreversible environmental degradation. The overall assessment indicates the mismatch between ecological conditions in the pastoral areas and the direction of change in land use owing to population pressure, development policy setting and the policy approach to communal land use and pastoral production system. The views from the different pastoral groups collectively pinpoint to the need to secure pastoral livelihood effectively through securing communal land holding systems and providing adequate and relevant legal protection to it. Therefore, one way of securing communal land is enhancing the role of customary authorities (e.g. grazing councils and seasonal grazing managers and coordinators) in addressing changes in land use and facilitating access to communal grazing resources.

On the other hand, the state functionaries submit themselves to the best use of resources in the pastoral areas to meet national development objectives. Our findings indicate that large-scale investment activities such as the establishment of parks and commercial farms have become incompatible with the traditional pastoral land use while those investments are valued differently at national level than they are perceived at local level. This has created unfavorable attitude among pastoralists due to an increase in their opportunity cost, affecting their livelihoods. Consistent with the IAD framework, such an outcome (as evaluated by the pastoralists) does not favor the status quo to sustain since it has increased their vulnerability. Instead, it has contributed to the need for change in the political and legal system where

pastoralists insist on demanding changes in the approach to securing communal land rights and improving security of the pastoral land rights.

From the perspective of the pastoralists, there is deterioration of trust on the formal system in terms of reversing the threat to the pastoral commons, while on the other hand, they seek state support to safeguard them from the increasing alienation of communal land and loss of access to and control over natural resources. Certification of communal land could be one way of securing pastoral land rights. However, any form of certification that results in the communal land disintegration and incidence of land related conflicts has been perceived to be detrimental to the sustainability of pastoral system itself. Central to the process of ensuring communal land security is the need to recognize constitutional provision for the state to allocate public land to undertake critical investment such as railways and roads.

The study indicates that private use of land has been supported by state intervention through providing holding certificate. Such an approach may lead to a failure if it does not accommodate a mechanism of securing pastoralists' collective land rights and sustainable land use and address the interests of the majority of the pastoralists. Reinforcing individual holding rights as being exercised through irrigated land allocation and private enclosures could worsen the land fragmentation affecting on the one hand the social fabric and on the other hand the functioning of the ecosystem. It also affects pastoral adaptation through blocking pathways to seasonal resources and mutually beneficial resource sharing arrangements.

10. Recommendations

The findings of the study suggest that pastoral land administration and the use and management of rangeland resources would be effective and sustainable only if the underlying customary systems are accorded with adequate recognition and protection by the formal system. Recognition and protection of the customary systems is a precondition for the customary systems to play their potential role in regulating the use and management of natural resources in pastoral areas. In reference to the analytical framework used, the political and legal system needs to adjust itself to mobilize collective action among the pastoral community in managing natural resources by considering the unique nature of the pastoral environment (the biophysical conditions). Along these, the following recommendations can be helpful as part of the effort towards recognizing and strengthening communal land rights and the underlying customary systems of the pastoralists:

Important of all, there is a need to take legislative measure to issue a regulation that provides for the recognition and protection of the rights to land and natural resources in the context of pastoralists and the customary systems underlying communal land administration and NRM in

pastoral areas. For such a regulation to play crucial role in this regard, it should provide, among other things, for: contextual definition of communal land rights of the pastoralists with the details on access and use rights and how the rights are exercised and protected; description and recognition of the customary institutions and authorities/organs that would operate in collaboration with the formal state functionaries; clear definition of the administrative powers, roles and responsibilities of customary authorities vis-a-vis that of the formal system in pastoral land administration and natural resource use and governance.

The legislative measure proposed above needs to be reinforced and supported by important administrative measures that would include, among other things: defining administrative units and boundaries differently for customary and formal systems with due attention to the difference-in-purpose of such boundaries and units for operation of the two systems; resolving boundary and land disputes at regional and local levels through dialogues and negotiations between and within communities and through participatory administrative decisions based on historical factors and available evidences. These would facilitate and level the ground for certification and further measures to recognize and protect communal land rights of the pastoralists.

Moreover, there is a need to consider taking measures and implementing activities that would empower customary authorities and improve their performance in regulating the use and management of communal land and range resources. This would require, for instance, reconstituting and/or revitalizing and empowering the customary institutions and authorities (such as grazing zone council consisting of elected elders, seasonal grazing area managers and rule enforcers) relevant to communal land administration and NRM. This should be based on the contexts and current realities of each pastoral group as there are differences across the pastoral groups. It is also important to consider providing tailored trainings for the customary authorities on the land policy and laws of the state; and for the formal state functionaries on the customary systems and their mode of operation. These measures would not only strengthen the customary land administration and NRM systems, but also support the aforementioned legislative and administrative measures to bring sustainable and positive changes in improving the security of pastoral land rights.

In the second Growth and Transformation Plan (GTP II), the regional government should put greater effort in recognizing and protecting pastoralists' right to land and natural resources. This process would also require undertaking or supporting intensive land use planning that would enable to identify the potentials for various land use systems, i.e. livestock production, cropfarming, resource use/development (forest, mining, mineral leaks, etc), investment, infrastructure development, etc in the fragile ecosystems of the pastoral areas. It is also imperative to reinforce the land use planning by adopting guidelines and procedures for allocation of parts of communal land to any of the aforementioned land use systems, particularly

making a clear distinction between grazing land and crop-potential areas and their visualization through large-scale participatory resource maps. The guidelines and procedures should make sure that such allocation of communal land is made through participation of the pastoralists themselves. Such a strategy builds public confidence and helps the state to secure cooperation, not to mention its role in protecting the rights and benefits of the pastoralists. The customary authorities should be empowered to take the primary responsibility for allocating parts of communal lands for other land use systems mentioned above.

Last, but not the least, if land certification process is to be implemented in pastoral areas, emphasis should be given to communal land certification than privately held plots and enclosures as pastoralists perceive that communal land is at risk of being fragmented, expropriated and alienated through privatization. When carried out such certification should target pastoralist community in accordance with the existing grazing arrangements (grazing zones or corridors which are locally called dheeda). The underlying reason for recommending dheeda level is to enable pastoralists manage diversity in feed needs, respond to localized rainfall variability affecting livestock productivity and to be able to escape from sporadic livestock diseases. The communal land certification process, as a strategy to ensure common property tenure, should start by providing a general framework for action, where the specific local needs that emerge in response to certain socioeconomic factors that can affect land allocation for private use, and defining the territorial units for certification are addressed by the customary managing councils responsible for communal land governance. The use of GIS as a tool in land use mapping may help increase precision in the certification process by taking into account ecological factors. Above all, care should be taken in issuing certificates at the disputed lands such as at or around regional state borders and in the areas where land rights and control are contested between or within pastoral groups. Thus, in order to prevent further conflicts communal land certification process should avoid certification in disputed areas until such disputes are resolved through community dialogues and negotiation and administrative decisions.

References

- Abate, T., Ebro, A. and Nigatu, L. (2010). Traditional rangeland resource utilization practices and pastoralists' perceptions on land degradation in south-east Ethiopia. *Tropical Grasslands* 44: 202–212.
- Abdulahi, Mohammud (2007). The Legal Status of the Communal Land Holding System in Ethiopia: The Case of Pastoral Communities. International Journal on Minority and Group Rights 14 (8): 5-125.
- Abdulahi, M. and Adenew, B. (2007). Research and Advocacy on Land Use Right and Tenure System in Pastoral Areas of Ethiopia. Pastoralist Concern Association of Ethiopia, Addis Ababa.
- Agrawal, A. (2001). Common Property Institutions and Sustainable Governance of Resources. World Development 29 (10), 1649 72.
- Agrawal, A. and Ostom, E. (2001). Collective Action. Property Rights, and Decentralization in Resource Use in India and Nepal. *Politics and Society* 29 (4), 485 514.
- Ali, S. (1996), 'Survival Strategies in the Ethiopian Drylands: The case of the Afar Pastoralists of the Awash valley', in A.G.M. Ahmed and H.A. Ati (eds.), Managing Scarcity: Human Adaptation in East African Drylands. Addis Ababa: OSSREA.
- Ambaye, Daniel W. (2013). Land Rights and Expropriation in Ethiopia. Royal Institute of Technology (KTH), Stockholm, Sweden. Doctoral Thesis in Land Law.
- Ayalew Gebre (2004) "When Pastoral Commons are privatized: Resource Deprivation and Changes in Land Tenure Systems among the Karrayu in the Upper Awash Valley Region of Ethiopia". Paper Submitted to the 10th Biennial Conference of the Association for the Study of Common Property (IASCP), Oaxaca, Mexico, August 9-13, 2004.
- Ayalew, G. (2001). Pastoralism under Pressure: Land alienation and pastoral transformations among the Karrayu of Eastern Ethiopia, 1941 to the present, Maastricht: Shaker Publishing.
- Ayele, G-M. (1994). 'The alienation of land rights among the Afar in Ethiopia'. Nomadic peoples, 34/35:137-146.
- Bardhan, P. (2002). Decentralization of Governance and Development. Journal of Economic Perspectives 14 (4), 185 205.
- Barrow, E., Davies, J., Berhe, S., Matiru, V., Mohamed, N., Olenasha, W., Rugadya, M. {Su, Eth, Som}(2007). Pastoral Institutions for managing natural resources and landscapes. IUCN Eastern Africa Regional Office. Policy Brief No. 3 (of 5). Nairobi, 4 p
- Bassi, M. and Tache. B. (2011), "The community conserved landscape of the Borana Oromo, Ethiopia: Opportunities and problems", Management of Environmental Quality, 22 (2): 174 186

- Bassi, M. (2005), Decisions in the Shade: Political and Juridical Processes among the Oromo-Borana.

 Trenton and Asmara: The Red Sea Press.
- Bassi, M. (2010). The Politics of Space in Borana Oromo, Ethiopia: Demographics, Elections, Identity and Customary Institutions. Journal of Eastern African Studies, 4 (2), 221-246.
- Beyene, F. 2009. Property rights conflict, customary institutions and the state: The Case of Agro-Pastoralists in Mieso Woreda, eastern Ethiopia. *The Journal of Modern African Studies* 47(2), 213-239.
- Beyene, Fekadu (2011). Discontinuity in the Pastoral Commons and its Effect on Food Security in Eastern Ethiopia. Paper presented at the International Conference on "Land Policies in east Africa: technological innovations, administration and patrimonial stakes" held at Makerere University, Kampala, Uganda, 2 4 November, 2011.
- Beyene, F. (2014). Determinants of food security under changing land-use systems among pastoral and agro-pastoral households in eastern Ethiopia. *Environment, Development and Sustainability* DOI 10.1007/s10668-014-9596-8.
- Beyene, S. and Gudina, D. (2009). Reviving a Traditional Pasture Management System in Fentale, East Central Ethiopia. *Journal of Ecological Anthropology* 13 (1): 57-72
- Bonfiglioli, A-M. (1992), Pastoralists at a Crossroads: Survival and Development Issues
- Bromley, D. W. (1989), Economic Interests and Institutions: The Conceptual Foundations of Public Policy, Oxford: Basil Blackwell.
- Debsu, D., N. (2009). Gender and culture in Southern Ethiopia: an ethnographic analysis of Guji-Oromo women's Customary Rights. African study monographs, 30(1): 15-36.
- Desta, S. and Coppock, DL. (2004). Pastoral under pressure: tracking system change in southern Ethiopia. *Human Ecology* 32 (4): 464 486.
- Doyo, J. (2011). 'Indigenous Practices of Rangeland Management: Constraints and Prospects in Borana Pastoralists of Southern Ethiopia, Oromia Regional State'. Addis Ababa University, Ethiopia, MA Thesis.
- Edosa, D.C., Babel, M.S., Gupta, A. D. and Awulachew, S.B. (2005). Indigenous systems of conflict resolution in Oromia, Ethiopia International workshop on 'African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa', 26-28 January 2005, Johannesburg, South Africa
- Elias, Eyasu (2008). Pastoralists in Southern Ethiopia: Dispossession. Access to Resources and Dialogue with Policy Makers. Drylands Coordination Group. Report No. 53.
- Elias, Eyasu and Feyera Abdi (2010) Putting Pastoralists on the Policy agenda: Land Alienation in Southern Ethiopia. Gatekeeper Series, IIED.

- Flintan, F. (2005) "Conservation Conundrum: The Bale Mountains National Park and Surrounding Areas". A Paper Prepared for the Bale Mountains National Park Symposium, February 2005, Addis Ababa.
- Flintan, F. (2006) "Combating Marginalization of Pastoralist Women: SOS Sahel's Experience in Ethiopia"

 Gender & Development 14: 223-33.
- Flintan, F. (2010) "Sitting at the Table: How Can Pastoral Women Most Benefit from Land Tenure Reforms in Ethiopia?" Journal of East Africa Studies, Vol. 4, No. 1, March 2010: 153-178.
- Flintan, Fiona (2011). The Political Economy of Land Reform in Pastoral Areas: Lessons from Africa, Implications for Ethiopia. Paper presented at the International Conference on the Future of Pastoralism, 21-23 March 2011.
- Flintan, F.Cullen, Beth and Shauna Latosky. (2011) Pastoral women's thoughts on 'change': voices from Ethiopia.
- Getachew, K.(2001), Among the pastoral Afar in Ethiopia: Tradition, continuity and socio-Economic change, Utrecht: International Books.
- Hardin, G. (1968). The Tragedy of the Commons. Science 162:1243-1248.
- Helland, J., 1997. Development Interventions and Pastoral Dynamics in Southern Ethiopia. In:Hogg, R. (Ed.), Pastoralists, Ethnicity and the State in Ethiopia. HAAN Publishing, London. Chapter 3.
- Helland, J. (1999).Land Alienation in Borana: Some Land Tenure Issues in A Pastoral Context in Ethiopia.

 EASSRR 15(2)
- Helland, J. (2006). Land Tenure in the Pastoral Areas of Ethiopia. Paper presented at the International Research Workshop on Property Rights, Collective Action and Poverty Reduction in Pastoral Areas of Afar and Somali National Regional State, Ethiopia, 30-31 October, 2006.
- Herskovits, M. J. (1926). 'The Cattle Complex in East Africa'. American Anthropologist, 28:230-272, 361-380, 494-528, 633-664.
- Homann, S. (2004). 'Indigenous knowledge of Borana pastoralists in natural resource management: a case study from southern Ethiopia'. Justus Liebig University Giessen, Germany, Doctoral Dissertation.
- Huxley, E. (1948). The Sorcerer's Apprentice. London: Chatto and Windus.
- Inman, R.P. and Rubinfeld, D.L. (1997). Rethinking Federalism. *Journal of Economic Perspectives* 11 (4), 43 63.
- Joireman, S.F. (1997). Opposition Politics and Ethnicity in Ethiopia: We Will All Go Down Together. The Journal of Modern African Studies 35 (3), 387–407.
- Kamara, Abdul B. (1999). The Status of Common Property Resource Tenure in Semiarid Eastern Africa: Evidences from the Borana Rangelands of Southern Ethiopia.

- Kamara, A.B. (2005). The Dynamics of Land Use and Property Rights in Semi-Arid East Africa: Ethiopia Case Study. Socio-economics and Policy Research Working Paper 53. ILRI
- Kamara, Abdul B., Swallow, B. and Kirk, M.(2004). Policies, Interventions and Institutional Change in Pastoral Resource Management in Borana, Southern Ethiopia. *Development Policy Review* 22(4): 381-403.
- Lane, C. (1994), 'Pastures Lost: alienation of Barabaig land in the context of land policy and legislation in Tanzania'. *Nomodic Peoples*, 34/35:8194.
- Lane, C. (1998), 'Introduction', in C. Lane (ed.), Custodians of the Commons: Pastoral Land Tenure in East and West Africa. London: Earthscan Publishers Ltd.
- Lane, C. and Moorehead, R. (1995). New Directions in Rangeland Resource Tenure and Policy. In: Scoones, I. (ed.). Living with Uncertainty: New Directions in Pastoral Development in Africa. London: Intermediate Technology Publications, 116–133.
- Legesse, A. (1973). Gadaa: Three Approaches to the Study of African Society. New York: The Free Press.
- Lesorogol, C. (2008), 'Land privatization and pastoralist well-being in Kenya'. *Development and Change*, 39 (2):309-331.
- Lund, C. (2006). Twilight Institutions: Public Authority and Local Politics in Africa. Development and Change 37 (4), 685 705.
- Markus, H. (2013). 'Rangeland management in the Borana pastoral system: A historical review of land management and development in the Borana zone, Ethiopia'. Wageningen University, the Netherlands, MSc Thesis.
- McCabe, J.T. (1990). Turkana Pastoralism: A Case against the Tragedy of the Commons. Human
- McCay, J. B. (2002). Emerging Institutions for the Commons: Contexts, Situations and Events. In: Ostrom, E.; Dietz, T.; Dolsak, N.; Stern, P.C.; Stonich, S. and Weber, E.U. (eds.). The Drama of the Commons. Committee on the Human Dimension of Global Change. Washington D.C: National Academy Press, 361 – 402.
- Mehta, L.; Leach, M.; Newell, P.; Scoones, I.; Sivaramakrishnan, K. and Way, S.-A. (1999). Exploring Understandings of Institutions and Uncertainty: New Directions in Natural Resource Management. IDS Discussion Paper 372. Brighton: Institute of Development Studies.
- Moorehead, R. (1991): Structural Chaos: Community and State Management of Common Property in Mali.

 Doctoral thesis. University of Sussex, Institute of Development Studies.

- Muir Ann (2007) Customary Pastoral Institutions Study. SOS Sahel and Save the Children US Pastoral Livelihoods Initiative.
- Mulleta, Fantu F., Merlet, P. and Bastiaensen, J. (2013). Questioning the 'regulatory approach' to large-scale agricultural land transfers in Ethiopia: A legal pluralistic perspective. Paper prepared for the 2013 Law and Development Conference "Legal and Development Implications of International Land Acquisitions", Kyoto, Japan, 30-31 May 2013.
- North, D.C. (1990), Institutions, Institutional Change and Economic Performance. Cambridge: Cambridge University Press.
- Ogbaharya, Daniel G. (2009). The impact of institutional degradation on pastoral livelihoods in the Horn of Africa: the case of the Borana of Ethiopia. *Journal of Third World Studies. The Free Library* (March, 22). http://www.thefreelibrary.com/The impact of institutional degradation on pastoral livelihoods in...-a0279892544 (accessed June 3, 2014)
- Ostrom, E. (1999). Institutional Rational Choice: An Assessment of the Institutional Analysis and Development Framework. In: Sabatier, P.A. (ed.). Theories of the Policy Process. Boulder and Hill: Westview Press, 35 71.
- Ostrom, E. (2005). Doing Institutional Analysis: Digging Deeper Than Markets and Hierarchies. In:

 Menard, C. and Shirley, M. M. (eds.). Handbook of New Institutional Economics. Springer, 819 –

 848.
- Ostrom, E.; Gardner, R. and Walker, J. (1994). Rules, Games and Common-Pool Resources. Ann Arbor: The University of Michigan Press.
- Pausewang, S.; Tronvoll, K. and Aalen, L. (eds.) (2002). Ethiopia Since the 'Derg': A Decade of Democratic Pretension and Performance. London: Zed Books.
- PFE, IIRR and DF (2010). Pastoralism and Land: Land tenure, administration and use in pastoral areas of Ethiopia.
- Perrier, G. (1995). New Directions in Range Management Planning in Africa. In: Scoones, I. (ed.). Living with Uncertainty: New Directions in Pastoral Development in Africa. London: Intermediate Technology Publications, 47 57.
- Rahmato, Dessalegne. (2007), Customs in Conflict: Land Tenure Issues among Pastoralists in Ethiopia. Forum for Social Studies, Addis Ababa.
- Ridgewell, A., Getachew, Mamo and F. Flintan (2007) Gender and Pastoralism Volume 1: Rangeland and Resource Management in Ethiopia.
- Rondinelli, D.; McCullough, J. and Johnson, R. (1989). Analyzing Decentralization Policies in Developing Countries: A Political-Economic Framework. Development and Change 20, 57 87.

- Sabine, H. (2004). Indigenous knowledge of Borana pastoralists in natural resource management: a case study from southern Ethiopia. Institute for Animal Breeding and Genetics of the Justus Liebig University Giessen, Doctoral Dissertation.
- Sandford, S. (2006), Too Many People, Too Few Livestock: The Crisis Affecting Pastoralists in the Greater Horn of Africa, accessed on January, 2 December 2012.
- Scott, W.R.(1995), Institutions and Organizations. Newbury Park: Sage
- Solomon Abebe, (2012). Land administration and use policy: with special emphasis on pastoral tenure regime. Proceedings on pastoral development in Ethiopia, Adama Ethiopia
- Stevenson, G.G. (1991), Common Property Economics. Cambridge: Cambridge University Press.
- Stiles, D. (1992). The Gabbra: Traditional Social Factors in Aspects of Land Use Management. Nomadic Peoples 30, 41 52.
- Seabright, P. (1996). Accountability and Decentralization in Government: An Incomplete Contracts

 Model. European Economic Review 40, 61 89.
- Shivakumar, S.J. (2003). The Place of Indigenous Institutions in Constitutional Order. Constitutional Political Economy 14, 3 21.
- Swallow, B.M. and Bromley, D.W. (1995). Institutions, Governanace and Incentives in Common Property Regimes for African Rangelands. *Environmental and Resource Economics* 6, 99 118.
- Swallow and. Kamara (2005). The Dynamics of Land Use and Property Rights in Semi-Arid East Africa.

 Collective Action and Property Rights for Sustainable Rangeland Management. CAPRi Research Brief.
- Tache, B and Oba, G. (2009), "Policy-driven Inter-ethnic Conflicts in Southern Ethiopia", Review of African Political Economy 38 (121): 409-426, 2009.
- Tache, B. & Irwin, B. (2003) Traditional Institutions, Multiple Stakeholders and Modern Perspectives in Common Property: Accompanying Change within BoranaPastoral Systems. Securing the Commons No. 4. London: IIED & SOS Sahel.
- Tache, B.(2000), 'Individualising the Commons: Changing resource tenure among the Boorana Oromo of southern Ethiopia', MA Thesis submitted to the School of Graduate Studies, Addis Ababa University.
- Taye Alemayehu (2012). Water-centered land use-guided development approach for sustainable pastoral area development in Oromia Regional State. Proceedings on pastoral development in Ethiopia, Adama Ethiopia.
- Tesfaye, L.(2003), 'Development (development through forced displacement), induced impoverishment:

 The case of Karrayu Oromo of Upper Awash Valley, Oromia, Ethiopia', Paper presented at the International Conference on Researching Internal Displacement: state of the Art. Norway, Trondheim.

- Tikisa. M.(2009). Forestland Management in Borana. Pastoralism and Land Land Tenure, Administration and Use in Pastoral Areas of Ethiopia Workshop Proceedings. March 2009. Addis Ababa.
- Wassie, Yibeltal T. (2014). Impacts of Change in Customary Rangeland Governance Institutions on Pastoral Livelihoods of the Borana Plateau, Southern Ethiopia. Targeted Investment for Research Impact (TIRI), East Africa TIRI Research Brief, TRB-05-2014, 4p
- Watson, E. (2001) "Inter Institutional Alliances and Conflicts in Natural Resource. Management:

 Preliminary Research Findings from Borana. Oromia Region, Ethiopia". Working Paper No 4.

 Marena Research Project.
- Watson, E.(2003). Examining the Potential of Indigenous Institutions for Development: A Perspective from Borana, Ethiopia. Development and Change 34 (2):287 309.
- Watson, E.(2005)"Gender-Sensitive Natural Resource Management (NRM)Research-for-Development".

 DFID NRSP Programme Development Report PD123. Cambridge: Department of Geography,
 University of Cambridge.www.geog.cam.ac.uk
- Workneh Nigatu (2011). Economic interactions of pastoral lowlands and high land systems and implications for sustainable livelihoods: A case study in North Eastern Ethiopia. FSS Research report No. 7. Addis Ababa.
- WRI (World Resources Institute) (2004). Waiting for Democracy: The Politics of Choice in Natural Resource Decentralization. Washington, D.C.
- Yacob Arsano (2000) "Pastoralism in Ethiopia: The Issues of Viability", pp. 29-34. In Proceedings of the National Conference on Pastoral Development in Ethiopia, February 2nd 2000. Addis Ababa: Pastoralist Forum Ethiopia.

USAID/Ethiopia

Entoto Street

P.O.Box 1014

Addis Ababa, Ethiopia

Tel:+251-111 306 002

Fax:+251-111 242 438

http://www.usaid.gov/ethiopia