

Property Rights among Afar Pastoralists of Northeastern Ethiopia: Forms, Changes and Conflicts

By
Bekele Hundie
Humboldt University of Berlin
e-mail: bekelehu@yahoo.com

Abstract

This study has been conducted in three districts in Afar of Northeastern Ethiopia. The objective is to (1) describe the traditional land use arrangements among pastoralists; (2) explain changes in pastoral customary rights; (2) explain resource-based conflicts among various pastoral groups. The results show that the state is the giant actor behind property right changes especially in areas with better resource endowments. The state-driven changes in customary rights have led to increasing conflicts between pastoralists and the state. It also created disparity among clan members in the level of resource use as it facilitated the exclusion of some clan members. In addition to the state, natural as well as socioeconomic challenges are important in explaining the current changes in land use arrangements. It is also evident that, conflicts nurtured by obscurely defined property rights are extensive among pastoral groups causing humanitarian crisis (especially of the active labor force), loss of assets (primarily livestock), underutilization of pastoral resources by creating “no go” areas, and underutilization of market opportunities.

Key words: pastoralists, conflicts, property rights, subdivision, state, Afar

1. Introduction

Property rights are the most influential in livelihoods of societies. The word “right” is closely attached with everyday human life; the right to use a resource, the right to transfer it, the right to exclude others, and even beyond physical resources, the right to express one’s own views, the right to get respect, etc. While one’s quality of life is directly affected by resource endowments, property rights define how existing resources are utilized, who should utilize what attributes of the resource, and so on. Proponents of property right approach prefer to emphasize the allocation of rights to resources, as they believe that it is the allocation of rights that determines one’s livelihoods (Barzel, 1997; Alchian, 1965; Coase, 1960)

While discussing about property rights at least three issues worth considering. First, property rights vary depending upon socioeconomic, political and natural circumstances. Even within a certain geographical confinement, there may exist multiple forms or layers of property rights the combinations of which are subjected to change over time. On the one hand, the existence of “hybrid” or “mixtures” of property rights can be seen as an advantage because individuals can choose one or another of these frameworks as the basis for their claims (Meinzen-Dick and Pradhan, 2002). By having such an opportunity they can enjoy benefits which otherwise may not be realized. The existence of multiple layers or “bundles” of rights may also enable communities to withstand natural challenges such as drought. Pastoral areas are apt examples. On the other hand, the existence of multiple property rights, can invite conflicts among different actors as overlapping claims may arise. Particularly when certain forms of property

rights are introduced intentionally through coercive measures, the conflicts may be so serious to the extent that they cause losses of assets.

Second, property rights adjust overtime. The adjustments may occur in response to the changing opportunities (arising from markets, technology, and the like) or demographic changes (Demsetz, 1967; Behnke, 1985; Hayami and Ruttan, 1985; Ruttan, 1989). It's also not uncommon to observe changes in property rights as a result of changes in national political system or ideological dynamism. In such cases, property rights are intentionally designed rather than evolving over time. While different factors may trigger property right changes, this dynamic process proceeds not in a smooth way in which every economic actor endorses each and every event of the process. Rather, the process involves, perhaps, a series of conflicts among different actors having different bargaining power (Knight, 1992, Wang, 2001), arising from their heterogeneity in action resources. As a result, the emerging property rights would have different, perhaps contradictory, meanings for different actors. For those "strong" actors the emergence of new property rights may be taken as a window of opportunity to utilize existing resources more optimally whereas for the "weak" actors, it is a challenge hampering success in livelihoods.

Third, property rights are not always secure and well defined. Obscurely defined and insecure rights cause conflicts between different right holders and even non-right holders (Di Gregorio, 2004). The conflicts may not always take "soft" paths in which conflicting parties secure their claims through legal means or traditional conflict resolution mechanisms. Rather, it is not uncommon to see physical confrontations among those who demand some stake over the fruits of a resource system. "Securing" claims through warfare is, however, not a costless phenomenon. In some cases, even those "soft" means are too costly producing repercussion on the livelihoods of those who entirely depend on the contested resource.

Two issues are central to this study: (1) property right changes in pastoral areas and (2) violent conflicts among pastoral groups. More specifically, the paper describes the existing pastoral land rights, the changes in customary land rights and resource-based conflicts among pastoral groups, and explains in what ways these are related to the livelihoods in pastoral areas. The data used are mainly from secondary sources such as documents and publications. However, primary data generated by a survey of 180 pastoral households and group interviews have also been used to supplement discussions.

The remainder of the paper contains five sections. Section II briefly introduces the study areas. Section III discusses forms of property rights in the study areas and contemporary changes. Section IV provides an overall picture of conflicts in the study areas. The last section provides conclusion.

2. The Study Areas

The Afar Region is located in northeastern part of Ethiopia sharing international border with Eritrea and Djibouti. In terms of area coverage the Afar region is the fourth largest with a total area of 100,860 square km and is structured into 5 zones and 29 districts. Three districts (woreda) namely, Awash Fentale, Amibara and Semu Robi, have been covered in this study all of which are found in the southern and southwestern parts of Afar region. Two sites were selected purposively from each districts in such away that the sample reflects some diversities in resource endowments and use patterns, inter-ethnic relationships, state-pastoralist relations,

and the like. Accordingly, four of the study sites, namely Ambash, Kurkura, Doho and Dudub, are found in southern part of the region located in the middle Awash valley. These are riverine areas where irrigated state-owned and private farms are located. Apart from the commercial farms pastoral households engage in crop production in some sites such as Ambash and Doho. These four sites share boundaries with Karrayou (an Oromo clan) in the east and southeast, with Issa (a Somali clan) in the north and northeast and Argoba in the southwest. The other two sites, Harihammo and Daleti, are located across the southwestern escarpments bordering the Amhara region. No extensive commercial farm exists in these sites but pastoral households practice opportunistic farming¹ in some pocket areas where the rainfall pattern allows them to do so. The Amharas (west and southwest) and the Oromos (northwest) are the neighbors of Afar pastoralists in these areas.

3. Property right in the study areas: Forms and Changes

3.1. Forms of property rights

Property rights in Afar are based on the existing pastoral philosophy in which land belongs to community members defined by sanguinity or other social ties. Accordingly, clan is the lowest social unit to which communal property rights over land and other natural resources are defined. In principle, Afarland is equally divided among all clans of Afar whereas indeed the distribution depends upon resource potentials and the dominance of a clan (either in number or political power). Each clan has its own territory, i.e. every member of a clan can tell where the boundary of his 'home land' is. The boundaries are usually marked by some physical objects such as mountains, rivers and bare-land. Actually, the boundaries tell only control rights (exclusion, alienation and management rights) of a clan, while mobility transcends clan territories.

Clan land often comprises strategic resources such as grazing areas including dry season retreats, browsing resources, and water points. In addition, each clan has also communal graveyards, settlement areas (*metaro*) and ritual sites. Each clan has a well-established gerontocracy where the decision power regarding land and other natural resources rests on the village council consisting the clan leader, elders, the *feima*² and local wise-men. The decisions given to the village council include exclusion of non-members, allocation of sites to non-members and determining resource use patters. Based on these customary institutions, every member of the clan, by default, has the right to use the fruits of his clan's land once he has the livestock to utilize the resources.

Four categories of land are clearly observed vis-à-vis the bundles of rights that members enjoy (figure 1). For the sake of convenience, they are termed in this paper as primary communal land (A and B), secondary communal land (C), tertiary communal land (D) and individual land (A). The breadth, duration and assurance of rights decline as one moves from the first category through to the third one. A primary communal land, also locally known as *waamo*, refers to the land over which a clan has use rights as well as exclusion rights. Moreover, *waamo* rights entitle a clan (or a lineage) to alienate resources within a specified territory. Each clan manages its resources collectively based on customary principles. Accordingly, herd management follows rotational grazing. When rainfall is normal for

¹ Here opportunistic farming refers to farming activities only done when rainfall is adequate.

² *Feima* is a body, which is responsible for rule enforcement.

successive seasons, clan members are communicated not to use reserve pasture areas. These areas are accessible to the members after assessing that other areas are exhaustively used. Although each clan member has an inalienable use right over the resources, intra-clan customary laws bind his/her use rights.

Secondary communal land refers to the vast area to which clan members have only access rights encompassing all migration routes during normal as well as drought years. These resource sharing arrangements maintain the priority usage rights for the owners while allowing access by other pastoralists in accordance with strict rules aimed at controlling and managing pastoral resources. On the basis of long-term reciprocity principle, each *Afar* clan is entitled to secondary communal rights over other clan's land. Hence, negotiation may not be strictly required to access the pasture once agreements are established. However, the secondary right holders need to respect the customary laws of the owners to exercise their right. For instance, they are not allowed to cut trees or allow other herders to use. These secondary rights, also known as *isso* rights, allow consistent seasonal migration patterns and resource sharing during normal and drought years.

During a prolonged drought, which is common nowadays, pastoralists in the study areas migrate to distant places controlled by other ethnic groups such as Oromo, Amhara, and Argoba once informal assessment has been made for the existence of adequate pasture and browse. In this case, negotiation is strictly required. If negotiation is successful the new comers will be allowed to use the grazing and browsing resources for some time depending upon the condition of the resources and climatic situations. However, the guest herders may be required to abide by the customary rules of the host group. In this study, such types of rights are termed as tertiary communal rights and are common during prolonged droughts. In most cases, agreements for tertiary rights are made between ethnically distant groups and hence personal networks help to succeed. For example, an individual who has marriage relationship with a member of the host clan may get preferential treatment to use the pasture.

The fourth category of land includes specific sites operated by individuals for production of crops. Apart from communal rights, some households are entitled to private land to produce various types of crops. In this case, the right holders enjoy not only the right to use the resource but also the right to exclude other clan members. The bundles of rights on the individual plots include also alienation rights although the latter is limited (in extent) to the transfer of land through inheritance or as a gift to clan members.

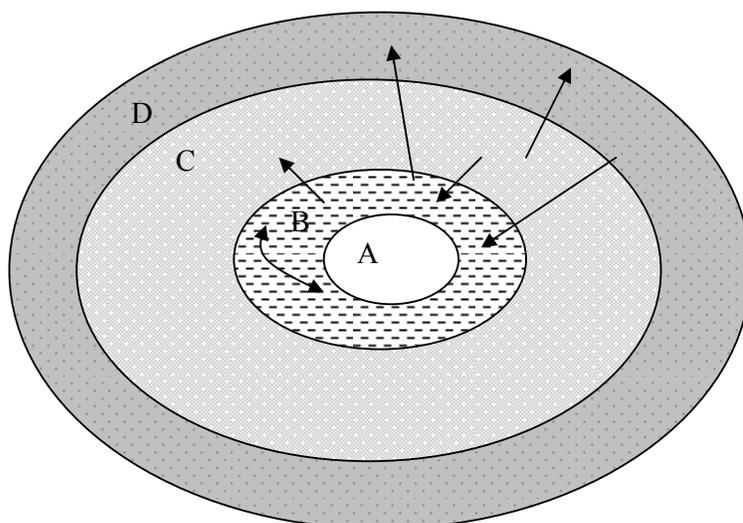


Fig. 1 Schematic Description of Land Use Rights and Pastoral Action Space

The extent of individual holdings varies across locations. In Ambash, the percent of sample pastoralists enjoying private rights is the highest of all target sites. Here more than two-third of the respondents are entitled to at least one hectare of farmland (Table 1). In Doho, Harihammo and Daleti, closer to 50 percent of the sample pastoralists have exclusionary rights over individual plots. The least in terms of the individual holdings (and hence least in sub-division of communal land) are Dudub and Kurkura. The latter two areas are relatively less suitable for crop production; neither rain is sufficient nor irrigable river is available in these sites.

Table 1. Do you have private plot of land?

Location	Number (Yes)	Percent (Yes)
Ambash	21	70.0
Kurkura	2	6.7
Doho	14	46.7
Dudub	1	3.3
Harihammo	14	46.7
Daleti	13	44.8
All sites	65	36.3

Source: survey data

3.2. Triggers and Motivations for Property Right Changes

3.2.1. The role of the state as a 'giant actor'

In this section the role of the state in introducing and enforcing property right changes in the study areas will be discussed. There exists a wide variation among the selected study sites with respect to the level of state intervention. In Ambash, the extent of state intervention has been high while in other sites (although farming exists), the role of the state has been minimal. Hence, the discussion will be made under two sub-topics with the main focus on the state-driven property right changes in Ambash.

3.2.1.1. The role of the state in Ambash

Generally speaking, the intervention of the state in Afar was very limited prior to the 1960s. Farming was also limited to the lower Awash flood-fed plains where the Aussa clan, the royal clan of the Aussa Sultanate, had been practicing a mixed crop-livestock farming for generations (Getachew, 2001). However, after 1960s government interventions in these areas

have increased. The rise in government interventions, in fact, was part of much broader development strategies that most developing countries adopted during the 1950s and the 1960s. Taking into account the global economic order of the time, the Imperial government in Ethiopia designed an industry-focused economic development strategy. Expansion of large-scale commercial farming was taken as a means to supply raw materials to domestic industries as well as to produce surplus food for the would be factory laborers. While pursuing extensive land to locate the envisaged commercial farms, the Afar plains were among the areas that attracted the attention of the designers of the strategy. Some 70,000 ha of the dry-season grazing areas of the Afars were selected in the middle and lower Awash valley and put into large-scale irrigation in late 1960s(*ibid*). Because of its suitability for irrigated agriculture, Ambash was among those areas that received much attention of government officials. The Middle Awash Agricultural Development Enterprise (MAADE) was established in 1968 under auspice of the Awash Valley Authority (AVA), which had been established earlier by decree on January 23, 1962. That is, AVA is an agent of institutional change that took several responsibilities including establishment of state farms through negotiation with the local people, coordination and financing of settlement and other schemes, and monitoring of the proposed changes. After the collapse of the Imperial regime in 1974, MAADE was expanded from 300 ha in 1968 to 13,116 ha in 1985 by clearing more land from dry-season grazing sites (MAADE, unpublished document).

From the point of the theories of institutional change, the emergence of new property rights in Ambash can be thought as a result of strategic conflict between AVA (the state functionary) and the local people over the benefits generated from land. As Knight (1992:126) posits ‘social institutions are a by-product of strategic conflict over substantive social outcomes’. Accordingly, he argues, ‘economic actors produce institutions in the process of seeking distributional advantage in the conflict over substantive benefits’ (p. 126). Getting back to the specific case of Ambash, conflicts arise because both AVA and the local people claim for the same resource (land) while different institutions back these claims. AVA strives to enforce its *de jure* rights based on statutory laws. The ideological basis for this claim is that the state rather than the community is the origin of ownership and title (Bruce, 1989). It is also commonly presumed that the state has stronger enforcement power to secure rights, enhance sustainable resource management, and improve social welfare. On the contrary, the demand of the local people is to retain their customary rights. The claim of the local people emanates from the fact that each clan of Afar has been managing and protecting its own inherited land from outsiders for generations. The legitimacy and logic of this claim has got both theoretical and empirical support from scholars studying common-pool resources and common property regimes (Ostrom, 1990; Ostrom, et al, 2002; Meinzen-Dick and Knox, 1999; Getachew, 2001). Therefore, we have two conflicting demands here: introducing new property right arrangements, favored by AVA, and maintaining the status quo, desired by the local people. On the one hand, the design was to put some part of the land under strict state ownership where the state derives direct benefits through the establishment of three state farms. On the other hand, the aim was to introduce individual ownerships through settler farm schemes. Both of these plans are in contradiction with the previous *de facto* rights, in which the local people had communal rights over the existing resources.

How do contemporary theories of institutional change explain this phenomenon? In the following few paragraphs, we will focus on how the interaction between these two actors, AVA and the local people, resulted in new property right arrangements taking the bargaining theory of institutional change into consideration. The bargaining theory of institutional change

emphasizes the role of bargaining power in institutional transformation (Knight, 1992). Power is defined here as the capacity of an actor to constrain others' strategy.

We have two actors here, AVA and the local people striving for their strategic advantage. Our case represents, a situation in which AVA is more powerful than the local people. AVA's power arises from the fact that it has more financial, human and material resources, which help it to constrain the preferred strategy of the local people. For instance, by using its financial resources, AVA could finance the settlement farms from which the local people derived benefits. Moreover, by using financial and material resources, AVA could divide the local people by attracting some elites. In addition to financial and other resources, AVA had military support from the government to enforce the new orders.

The situation can be discussed with the help of a simple non-cooperative game where each player has a specified payoff for selecting a given strategy. The payoffs are shown in Table 2 in a general form and the terms are defined as follows: (1) X_{sp} = the net benefit of pastoralists (as a group) when status quo is maintained. This is equivalent to the total benefits of the pastoralists if the land is used for livestock production. (2) X_{ss} = the net benefit of AVA (the state) under the status quo. Perhaps, this is equivalent to the total tax revenue from the pastoral land use without direct involvement of the state in commercial farming. (3) X_{cp} = the net benefit of pastoralists if the proposed change is introduced. This include the benefits associated with settlements farms, employment opportunities in the commercial farms, the livestock development project intended to make the existing livestock production more market-oriented, and other incentives (4) X_{cs} = the net benefit of AVA if change would be introduced.

Assuming the principles of rational choice to hold, voluntary change could be possible when the anticipated benefit from the new proposal is satisfactory from the viewpoint of both actors. From the side of the pastoralists, this could be possible if: $X_{cp} - X_{sp} \geq \theta \geq 0$, where θ is the minimum benefit that makes pastoralists to accept the proposed change. In other words, θ refers to the opportunity cost of the pastoralists for adopting the new change. It may also include the notion about fairness and justice as perceived by the pastoralists. Likewise, for AVA it would be rational to proceed with the change if $X_{cs} - X_{ss} \geq \beta \geq 0$, where β is the minimum benefit from the proposed change to be acceptable to AVA given the investment costs and risks associated with the new venture.

In the context of power symmetry, any proposed change occurs when the two actors have similar demands regarding the implementation of the change i.e. when at least the threshold levels (θ and β) are met for both actors. However, when power asymmetry exists or when the bargaining ground is not leveled, change can be introduced as far as the powerful actor is capable of imposing the new change through the offer of a reward, the threat of penalty, or combination of threat and an offer³. Virtually, the mechanism by which AVA's power through threat and offer influences the decision of the pastoralists to accept or reject the proposal is in its effect on the credibility of the commitments in the bargaining interaction. In selecting their strategy, therefore, the local people need to evaluate the credibility of AVA's commitments and capability in enforcing the proposed change. This credibility depends up on AVA's power as perceived by the local people. There is sufficient reason for the local people to believe that AVA would enforce the change. First, they expect that AVA has adequate

³ The latter has been termed as "throtter" by Taylor 1982. Taylor, M. 1982. Community, Anarchy and Liberty. Cambridge: Cambridge University Press.

financial, material and human resources to establish the state farms and settlement farms. Second, given their poverty and numerousness, they may foresee their vulnerability to AVA's "divide-and-rule" strategy. Third, they have ample information that AVA has military support from the government to enforce the order. Given the above conditions and AVA's commitment to enforce the order, the best option for the local people is to accept AVA's order.

Table 2. Bargaining Game between Pastoralists and AVA

		AVA	
		Status quo	Change
Pastoralists	Status quo	(Xsp, Xss)	(Xsp, Xcs)
	Change	(Xcp, Xss)	(Xcp, Xcs)

Source: own presentation

This was what happened in Ambash during the establishment of state farms. The pastoralists were given an offer, which they couldn't refuse. Although they lost part of their land without fair compensation (Getachew, 2001), the local people decided to accept AVA's order. As compensatory measures, various pastoral development schemes were developed, at the beginning of the plantations, which included, among others, development of irrigated pasture and settlement schemes. Huge financial injections were made by AVA to build irrigation infrastructure for the settlement farms in order to convince the local people. The displaced pastoralists were allocated plots of land to cultivate crops while raising livestock. Close supervision and material assistance were given to the settlers in their sedentary farming. Highlanders working in the commercial farms were used as "skilled personnel" to train the pastoralists on how to produce crops (mainly maize and cotton⁴). All costs of the settlement farms were covered by AVA while the settlers contributed nothing except their labor. In addition, MAADE has provided casual employment for clan leaders and other influential people. For the first time in their history, these pastoralists owned private parcels of land in contradiction with their customary institutions. As a result, a hybrid mixture of common property, state property, and private property (or a "recombinant property") has been realized in the area. The non-riverine part of the area remained under the customary rule of the pastoralists where livestock are allowed to roam while the customary rights are no more *de facto* in riverine sites.

An important question may be posed at this point. Will the change, adopted under power asymmetry, be stable? Obviously, one may expect a gradual erosion of the new rules and the re-emergence of former rules. This expectation seems true because strategic actors fail to respect the new rules whenever they realize that they have the power to divert the rules in favor of them.

Taking the case in Ambash, this has been partially realized. During and after the establishments of the state farms there were series of resistance imposed by the local people. The resistance was inevitable because the compensatory attempts couldn't satisfy the pastoralists who lost their most valuable heritage. Moreover, the introduced change also installed a giant barrier to those who had secondary use rights and hence these groups were on continuous motion to reverse the change. The pastoralists expressed their dissatisfaction and opposition to the implementation of the commercial farms schemes mainly by damaging

⁴ The cotton was to be sold to a ginning factory for processing and the maize was to be consumed.

mature crops in the field. A typical instance could be the recurrent damages caused by local people on banana plantation, which forced the state farms to abandon banana production in 1993. The series of grievances coupled with economic transformation forced MAADE eventually to handover a significant part of its land to the local people⁵.

It is worthwhile to note that the relative power of the two actors has changed mainly because of the gradual weakening of AVA. At the beginning, AVA had the power to mobilize resources to constrain the choices of the pastoralists. However, it couldn't maintain the liquidity of its power resources to continuously influence (through the reward, punish or reward-punish system) the strategy of its counterparts. This is partly attributable to the decline of the attention of the government towards state-farms after 1989. Especially after the economic reform, following the downfall of the socialist regime in May 1991, the stake of the government in business ventures has dramatically declined. Most of state-owned enterprises, including state farms, small and medium scale manufacturing industries, and hotels have been gradually privatized. As a result, AVA couldn't get financial and other supports from the government to maintain its power.

After the weakening of direct state intervention one may expect the restoration of former communal rights. Ironically, the pastoralists have maintained individual rights introduced by AVA and continued to produce crops; and no part of the reclaimed land was restored for communal pasture. It is worthwhile to pose a question here. Why do the pastoralists retain an institution imposed coercively even after the weakening of AVA? This is mainly attributable to the heterogeneity of pastoral households in terms of the benefits realized from the changes. It is evident that many poor pastoral households were not beneficiaries from the settlement programs as the elites manipulated the procedures and selected their kin and friends (Getachew, 2001). Moreover, the first settlers, who were heavily supported by the government, were selected based on physical fitness and ability to communicate with the officials. For those privileged pastoralists, the high demand for cotton (as a result of expansion of textile industries in the country since 1970s) coupled with the introduction of irrigation technologies, has increased the opportunity cost of land for pasture production. This implies that the net benefits are above the minimum threshold level (i.e. $X_{cp} - X_{sp} \geq \theta$) for the privileged groups. Hence, it is rational for them to maintain the existing state-sponsored land use arrangement. On the contrary, for the losers there is no economic reason to support the existing property rights. Despite their continuous resistance, the latter group neither reclaimed their former communal pasturage nor are they allocated farmlands. The benefit added to the loser group is that some of them have been allowed to have their shares in the revenue generated from the leased-out land.

⁵ The state farms handed over about 6547 ha, with its entire irrigation infrastructure, to local pastoralists in 1993, which the latter leased to emerging investors (MAADE unpublished document). As realized from group discussions, investors pay 30% of their annual profit to pastoralists in the form of rent. The pastoralists have formed a standing committee (including an accountant) to monitor all transactions of the investors. The committee has been entrusted to defend the rights of their principals and take actions when errors persist. However, the capacity of the committee to do so is questionable because the members have no accounting knowledge and even some do not read and write. Hence, every thing is done based on trust. In addition to financial payments to the pastoralists, the investors have promised to improve local infrastructure including schools, watering trenches and health stations. However, the pastoralists complain that none of the investors has honored his words regarding infrastructure development.

Although every clan member is endowed with the communal land and resources embedded in it, only some, with better action resources and hence better bargaining power, are entitled to generate benefits from part of the communal land. The mistreatment is even worse for women. Women are treated as *de facto* minors in Afar customary laws. They have no ownership right to land as well as other resources, including livestock, but are entitled to the benefit streams via their husbands. While about 36% of the sample households are beneficiaries, in one way or another, female-headed households derive neither pecuniary nor nonpecuniary benefits from the sub-division of communal land⁶. In general, women's position is always precarious because they are forced to lose their entitlements to the benefit streams from communal resources as well as household assets after the death of their partners or during divorce⁷.

3.2.1.2. *The role of the state in other study sites*

Despite its large stake in property right changes in Ambash, direct state intervention doesn't explain property right changes in other five sites of the study. Rather, these areas are characterized by absence of state intervention and marginalization in the realm of economic development. Two of the locations, namely Harihammo and Daleti, are quite far away (about 35 km) from the irrigable river (Awash). Even those sites found in the Middle Awash Valley (Kurkura, Dudub, and Doho) are not convenient for irrigation given the irrigation technology adapted by AVA in Ambash and similar areas. In terms of the payoffs given in Table 2, $X_{cs} - X_{ss} \leq \beta$ and hence it is not economically attractive for AVA to propose and enforce commercial farms in these five sites. While irrigation seems unattractive in these areas, rain-fed agriculture is also precarious to exercise commercial farming.

The absence (or inappropriate state intervention) could be linked with the nature of the political system that generates the decisions. In public choice perspective the central theme is the tradeoff that politicians face between economic incentives that favor the implementation of a policy and political incentives that favor protection of public interests (Bardhan, 2005). In democratic systems, where various public interests are reflected in the political arena, divergence of policy reforms from public interests may endanger political agents to pursue their future political career and economic interests. In such cases political entities have to reconcile the economic advantage of promulgating a policy and its political consequences. Nevertheless, in undemocratic systems, where the public in question are not represented in the political system, the divergence of public interests from policy reforms may be large since political decisions are made mainly on economic grounds or pure ideological motives. This is why the imperial government in Ethiopia passed the decree of the 1962, which affected the livelihoods of pastoralists in Ambash, without their consent. In this case, the establishment of AVA served two main objectives: the economic objective of generating revenue for the state and the ideological objective of transforming pastoralists into sedentary farmers. Indeed, economic objective was overriding (Getachew, 2001) which Ambash and similar areas fulfilled. In the other sites of the study, although launching projects related to farming could

⁶ For instance, women are not considered when the revenue from land lease is annually distributed among clan members since the tradition-based criteria exclude female and children from consideration.

⁷ For example, when a woman's husband dies all jointly owned assets including livestock transfer to her husband's family and the widow loses control rights over 'her' former resources. In deed, she can take the livestock given to her as presents by her husband during their marriage.

fulfill the ideological objectives of the state, economic rents could not be anticipated by political agents due to non-suitability of these sites for wide-scale irrigated farming.

3.2.2. Other driving forces of property right changes

Despite its crucial role, state intervention doesn't explain the entire process in all of the target sites. Rather, individual motivations are quite important in the study areas, which accelerate the sub-division of communal lands. While slight inter-site variation may exist the desire for farming was found to be high in the study areas. Overall, about 80 percent of the respondents required a privately owned plot to start farming.

The impetus for farming, and hence subdivision of the communal land, is provided by livelihood changes and challenges. Firstly, an increasing natural calamities (mainly drought) and socioeconomic changes made pastoralists to demand for a more diversified economic activities- just as a traditional "portfolio management". During group discussions pastoralists indicated that their livestock-based economy is becoming more volatile nowadays; the recurrent droughts and conflicts are mainly to blame. It has been also documented by Getachew (2001) that the dwindling yield in the livestock sector pressured pastoralists to have additional income sources such as farming, trade and wage employment.

The natural challenges and socioeconomic changes might have also triggered changes in food consumption patterns among Afar households. Nowadays, most Afar households depend on purchased foodstuffs (grains) for a great deal of their subsistence, as access to milk (and also meat) has been greatly reduced due to recurrent droughts (and also to some extent livestock raids). Dietary changes are not, however, limited to Afar pastoralists. Markakis (2004) explains that dietary changes from animal protein to a cereal- or grain-based diet is a rapidly growing trend. He notes that:

‘Twenty years ago it was estimated that the Maasai in Tanzania relied on grain for 53 per cent of their food requirement. A recent study of the Maasai in Tanzania’s Simanjiro district estimates that, at present, milk provides only 14 per cent of the daily food requirements.’ (Markakis, 2004:14)

The expansion of truck-stop towns, increased commercialization, and food-aid (which is in the form of grains and supplements), are also among forces those might have contributed to change in consumption patterns and the resulting upward shift of demand for grains (and other commercial goods). The multifaceted challenges to livestock husbandry and a spontaneous shift from dairy-based to grain-based cuisine might have necessitated crop production, in areas where conditions allow doing so, at least to partially fulfill family food requirements.

Secondly, farming has been preferred as a means of stopping the expansion of neighboring ethnic groups. Particularly, this strategy is more important for pastoralists in Harihammo and Daleti where sedentary farmers from Amhara region are expanding towards the Afar territory. Elders in Ambash also explicitly expressed their desires to start farming in Aleideghi plain where Afars and Issas frequently confront each other. Despite their desire to consolidate their former customary rights over their ancestral land, they requested to get support from the government; perhaps, the support includes getting external legitimacy to have exclusionary rights over this contested rangeland and intervention in case coercive intrusion encounters. On

the other hand, the demand for sub-division of collective holdings implies the influence of state policies on the attitude of pastoralists. That is, since the national policies favor sedentary farming, people may apparently advocate the subdivision of communal lands as a strategy of getting state legitimacy and support.

Finally, the growing interest for sub-division of communal land might have some link with evolutionary changes in pastoral mode of life. In highly mobile societies, it is difficult to implement private property regime because this requires the physical presence of the right holder (or associates) to ensure exclusionary and management rights. Three to four decades ago, when the clans in the study areas were highly mobile, private ownership was held on portable assets such as livestock and weapons while more fixed resources such as land remained communal. However, more than any time in the past, Afars are settled now. Although there exist temporary settlement areas at different corners across their migration routes, pastoralists in the study areas have permanent villages (*metaro*) where part of their families reside throughout the year. As these communities become less mobile (or semi-sedentary), therefore, some individuals have started opportunistic farming causing the erosion of CPR over time.

While the above explanations give some insights on why pastoralists currently opt for the sub-division of part of their collective holdings, this interest doesn't imply pastoralists' decision to abandon pastoralism. Ironically, about 60% of the sample pastoralists are satisfied with their occupation despite all challenges and hence intend to continue with transhumance way of life side by side.

4. Violent Conflicts

4.1. Overview of conflicts in the study areas

Pastoral areas are full of conflicts. They have never been places where livelihoods run peacefully and progressively. Access to resources such as grazing land and water sources are the major causes that are historically documented in these areas (Getachew, 2001; Ayalew, 2001, Markakis, 2004). In this section the conflicts that exist between Afar and the surrounding ethnic groups, intra-Afar conflicts and Afar-state conflicts will be discussed in brief.

The major cause of conflict between Afar and Karrayou is shortage of pasture and water. As a result of different government sponsored establishments and recurrent drought, which denuded the existing pastoral resource, Afar clans dare to enter into the territories of their neighboring Karrayou. Sometimes they face resistance from their neighbors especially when the latter foresee increased pasture scarcity. In this case, any effort to utilize the pasture inflicts conflict between the Afar and the destination group. Similarly, conflicts occur when the neighboring ethnic groups intrude either without prior negotiation or when these efforts fail.

In addition to the demand for pasture, the extensive livestock raids cause conflicts between the two ethnic groups. Livestock raiding seems to be a culture for both groups. On the one hand, raiding is a means of restocking after a serious drought or epidemics. On the other hand, it is considered as bravery and hence gives moral support for those who are successful. As

indicated during group discussion, a series of raiding and counter-raiding resulted in injuries as well as deaths of so many youngsters in the past few years.

Though not in a strict sense, the Amharas are also the other enemies of Afar in the western and southwestern sides. The major cause of confrontations between Amhara and Afar is the gradual expansion of Amhara farmers into Afar territories. It was indicated by Afar elders at Daleti and Harihammo that conflicts usually break at places called Horoyti, Beteskan, and Da'oda where the nearby Afar clans claim ownership (Table 3). Frequent clashes are observed during the main cropping season (*meher*), when every piece of land is covered by crop, as the Amharas try to move into Afar grazing sites. Moreover, conflicts are common during drought years when each group wants to economize its grazing resources. The conflict has been exacerbated by the recent retaliatory attacks of the Amharas killing about 27 Afar women returning home from a nearby town.

On the eastern side, Issas are the historical enemies of the Afars. Countless bloody conflicts have been occurring between Afar and Issa since long ago. The conflicts emanate from mixed causes: mainly search of pastoral resources and other reasons. The Issas have long time interests in Alleideghi⁸ plain and hence do not hesitate to inflict attacks on Afar herdsmen at any time. Discussions held with Afar elders revealed that there are also cases when Issas intrude deep into the Awash valley and control the Awash riverbank and other tributary rivers crossing the rangelands.

Apart from their frequent attacks to control the wet season grazing plains in Afar, the Issas are interested in the strip connecting the southern Djibouti with Addis Ababa- Djibouti highway for their illicit trade which they have already controlled. A great deal of manufactured goods such as clothes and footwear, electronics, pharmaceuticals, and food items take this caravan trade route in their way to Addis Ababa. Gedamaytu, a small town in Afar region found towards the north of the Heiladeghi plain, is the centre for dispatch and delivery of the contraband goods. Since long time the Afar, being in this strategic location, have benefited from this traffic by acting as middlemen between the coastal and hinterland traders, and have also themselves involved in trade for generations (Getachew, 2001). However, the benefit of Afars from illicit trade trafficking has attracted enemies like Issa who gradually displaced the Afars from their strategic route.

Every respondent in all cases of group discussion believes that Issa is in their territory. This belief is not limited to ordinary Afars but local officials also have the same thing in mind. Even at more formal levels, the conflict with Issa is thought as something enforced externally to displace the Afars from their homeland. For instance, participants of a conference attested the efforts of Afars to defend themselves, as they believe that outsiders back this inter-ethnic conflict⁹.

Inter-clan conflicts are not common to observe. These types of conflicts are usually inflicted when different clans try to use crop residues from the surrounding state farms. Members of the Weima clan in Dudub area clashes with the Debne clans when they move into the MAADE field to use the cotton stalk over which the latter claim to have exclusion rights.

⁸ Aleideghi plane is the wet-season grazing retreat for many Afar clans in Amibara *woreda*.

⁹ Document of Afar Development Conference, Aysaita, December 15-30, 2004, Compiled By Afar Pastoralist Development Association (APDA)

Moreover, these groups clashes with another group of Debne around Awara Malka State farm near Sabure. However, traditional leaders can easily settle inter-clan conflicts and hence the costs of such conflicts are minimal.

Table 3: Conflicts, Main Reasons and Confrontations sites, as reported by pastoralists

Study site	Conflicting clan/ethnic group	Main reason	Main confrontation sites	Damages caused (in the past 12 months)
Ambash	Issa	Grazing land, livestock raid	Halaidagi, Blen, Buri, Andido	
Kurkura	Oromo (Karayou), Issa	Grazing land, livestock raid	Kumbi, Fentale, Goba	
Doho	Oromo (Karayou)	Grazing land, livestock raid, water points	Bulga, Fataha, Karra, Fentale	
Dudub	Oromo (karayou)	Grazing land, livestock raid, water points	Kumbi, Awash, Buri (near Awash park)	
Harihammo	Oromo, Amhara, Issa, Argoba,	Grazing land, expansion of farmland, water points and livestock raid	Aba Negesso, Halidebi, Gedamaytu, Koroyta	
Daleti	Oromo, Amhara, Issa	Grazing land, water points, expansion of farmlands, livestock raid	Belti, Asadem, Korkora, Wado, Koroyta, Beteskan, and Da'oda	

Source: Group discussion

4.2. Why Conflicts?

As indicated earlier, violent conflicts are endemic to the study areas. While several factors underlie the persistence of violent conflicts, intrusion into one's perceived "territory" without pre-negotiation and agreement is the proximate cause (Fig. 2). Indeed, both demand side (implying the anticipated gain from involving in resource-driven conflicts) and the supply side (implying the anticipated costs of carrying out conflicts) forces can explain the existences and persistence of violent conflicts (Bardhan, 2005). While these forces interact in a dynamic way to determine the equilibrium outcome, the stability of the outcomes depends upon how the supply side factors respond to the ever-changing demand side forces.

On the demand side, resource scarcities are considered to lead to conflicts. Homer-Dixon (2001) argues that environmental scarcities will have profound social consequences contributing to insurrections, ethnic clashes, urban unrest, and other forms of civil violence, especially in the developing world. More specific studies in east Africa also show that resource scarcity is the principal cause for recurrent conflicts among different pastoral groups (Ayalew, 2001; Opschoor, 2001; Getachew, 2001). There are various factors to induce resource scarcity. In our case, two factors worth mentioning- natural factors and demographic

dynamism. The drought hitting the area time and again denuded pastoral resource base. When local resources decline, pastoralists migrate to neighboring areas with their animals for alternative pasture and water. The incidence of violent conflicts becomes high particularly when the surrounding areas are suffering from the same stress. Bush encroachment is another natural factor exacerbating feed scarcity. Based on group discussions and observations made during fieldwork, the expansion of *Prosopis juliflora*, which has replaced palatable grasses and more nutritive browsing varieties become a bottleneck, especially to cattle husbandry.

In addition to natural occurrences, population pressure pays some explanation to resource scarcity. The explanation of scarcity in relation with population pressure dates back to 18th century when Robert Malthus coined his demographic theory (Malthus, 1798). In his theory Malthus forecasted that the mismatch of population pressure and available resources would entail wars, (and other ‘positive checks’), to countercheck the ‘excess’ mouth. Although his conclusion is a bit strong, many scholars agree that high population growth is the major problem in contemporary developing countries causing fierce competition over fixed resources. Coming back to our case, the increasing population particularly among sedentary farmers caused the expansion of farmlands towards pastoral areas exacerbating resource scarcity therein.

Apart from the above factors, the pattern of resource use may change in the process of economic development. The opening of new markets and the invention of technologies may create additional value to a resource system (Demsetz, 1967; Hayami and Ruttan, 1985). These opportunities may invite additional users and also intensify the appropriation of resources. As discussed earlier, the case of Ambash may reflect how changes in perceived values of a resource system invites additional actors to appropriate resources. As a result of state development activities such as commercial farms and wildlife parks as well as sanctuaries, pastoralists in the middle Awash valley lost large portion of their historic pastoral heritage (Ayalew, 2001; Getachew, 2001)¹⁰. Table 4 indicates the size of land expropriated by the state for different purposes in middle Awash valley.

Table 4: Land Expropriated by the state for various purposes in Middle Awash Valley

Project	Size (ha)
Dry season pasture land	
-under MAADE	15,840
-under Aware Malka and Yalo Farms	2,830
- Irrigation Farm Settlements	3,011
- Melka Warar Agricultural Research Center	360
- Billen Irrigated Pasture Project	1,200
Wet-Season Pasture Land	
- Halleideghi Livestock Development Center	600
- Northern Part of the Awash National Park	23,300
Total area of land	47,141

Source: Getachew, 2001, p. 91

¹⁰ About 75% of the alienated pastoral land for wildlife parks and sanctuaries belongs to Afar pastoralists. Likewise, among the total estimated area of 130,000 hectare under commercial farms in pastoral areas, the Afar region contributes to 70,000 hectare (Beruk, 2003)

In the supply side, the configurations and strength of institutions influence violent conflicts. As Douglas North (1990) explains, institutions exist to constrain human behavior. Indeed, institutions favor/facilitate a certain action, say A over another, say B, by increasing the cost of implementing action A relative to B. As the subset of institutions, property rights regulate the behavior and social interactions with respect to objects of value (Challen, 2000). Weak property rights, manifested by absence of well-defined boundaries, weak enforcement mechanism, etc., may facilitate the occurrence of violent conflicts. In the absence of well-defined boundaries the right holders are not known. Hence, it is difficult to assign duties. While property rights without correlated duties are meaningless (Bromley, 1992), it is difficult to assign duties in the absence of well-defined boundaries. Wade (1988) identified a number of “facilitating conditions”, including the presence of well-defined boundaries of the resource system, those every member, as well as nonmember, of users’ group should respect. Similarly, well-defined boundaries constitute Ostrom’s (1994) “design principles” for sustainable management of common pool resources (see also Agrawal, 1999).

The issue of well-defined property rights is, however, not without debate. Several scholars argue that “fuzzy” access rights are superior in highly variable ecologies (Goodhue and McCarthy; 1999; Ngaido, 1999; among others). However, the assumptions underlying these arguments have some flaws. Firstly, the implicit assumption is the existence of idiosyncratic shocks affecting each pastoral territory at a time. Is it plausible to assume that natural shocks (such as drought) are idiosyncratic all the time? What will happen when multiple pastoral territories are affected with natural shocks? During covariate shocks, such as drought, affecting a wider ecosystem, absence of well-defined property rights may lead to conflicts, increasing insecurity and risk of loss of assets or even to humanitarian crisis (Di Gregorio, et al., 2004). Violent conflicts are most likely to happen because drought triggers fierce competition among different groups for pastoral resources thereby imposing natural scarcity. This is because choice of whose interests are to count is a power issue where incompatible interests exist. And power can be exercised by using whatever action resources at hand and its manifestation may take different forms including use of coercive forces. For in stance, a study indicates that absence of clear inter-district boundary has contributed to the conflicts between Afar and Karrayou pastoral groups in Ethiopia, which is exacerbated by recurring droughts (Abule, Snyman and Smit, 2005).

Secondly, the general assumption underlying the arguments is that mutual trust and reciprocity norms facilitate cooperative behavior among various user groups. This seems to underestimate barriers arising from ethnically heterogeneous pastoral groups. In his essay Bardhan (2005) explains how ethnic and sectarian conflicts are pervasive in contemporary world. While most of ethnic conflicts originate from economic interests, ethnocentric attitudes may evoke intense passion and perpetuate violent conflicts. It is not uncommon that suggestions for a compromise to end inter-ethnic conflicts are condemned as defeatism. Especially when ethnicity creeps into the mainstream politics, ethnocentrism may not be regarded as a mild barrier to realize cooperation. It is worthwhile to note that antithetical ethnic interests may arise from historical demands for resources and strategic places perpetuating animosity between ethnic groups. The adversarial relationship between Afar and the Issa Somali is a good example in this case. While resources remain in the center of the problem, the Afar-Issa conflict has been highly politicized, which some authors (e.g. Getachew, 2001) relate with the historical demand for territorial expansion to form ‘The Great Somalia’, the current political system in Ethiopia which emphasize ethnic differentiation, the collapse of the State of Somalia, and the instability in Djibouti. Needless to say, inter-ethnic tensions of this kind create a social environment where pre-commitment to resource-related

agreements and bargaining norms are of minimal value thereby gradually eroding mutual trust. Furthermore, even under peaceful interactions, heterogeneities in socio-cultural space have imposed challenges to consensus building and cooperation among human beings, albeit manageable through suitable institutions (Bardhan and Dayton-Johnson, 2002 and Dyton-Johnson, 2000; Miguel and Gugerty, 2005).

A closely related problem to the lack of well-defined boundary is the weak role of the state in pastoral areas in relation to property rights. The role of the state is limited to constitutional recognition of usufruct rights of pastoralists and temporary mediation of pastoral groups (the latter being a postmortem role). When resources have very low perceived value across different attributes, claims are usually latent. In such cases, violent conflicts would be minimal as a result of low level of competition. Hence, the role of the state, at least in reducing violent conflicts, would be minimal. Nevertheless, the perceived value of a resource system may change overtime as a result of natural as well as socioeconomic dynamism. As competition becomes intense, claims become more apparent and external legitimacy becomes highly important.

Although external factors have been indicated in contemporary literature of common-pool resources (Agrawal, 2001; Baland and Platteau, 1996; Ostrom, 1990¹¹), the role of the state (as external factor) has received little attention. The literature focused on the importance of local factors and locally designed institutions to sustainable management of common-pool resources. However, the magnification of the importance of local institutions has been made not without the cost of de-emphasizing the role of the state. While the importance of local factors is undeniable, the role of the state is immense for well-functioning property right regime (Rangan, 1997) because secured claims entail the protection of the state (Bromley, 1991; 1992). In the absence of well-functioning mechanisms (formal as well as informal) to delineate rights and protect claims, “securing” rights over a resource may entail actual or potential use of forces. The major stumbling block to realizing the potential gains from resource sharing through peaceful negotiation is that those groups having comparative advantage of using forces find it difficult to commit to not using forces. This is the inherent problem, for example, with current relation between Afar and Issa in which those participants (clan leaders and elders) on state-organized mediation fora make “pseudo-commitments” to end violent conflicts.

In general, the role of the state becomes central not only because the state is the final arbiter and enforcer of the rule of law (e.g. respect of property rights or of human rights in the realm conflicts) but is also the actor best able to facilitate enduring alliances across the boundaries of clan, ethnicity or other categories in the socio-economic and political spaces.

¹¹ Ostrom (1990) recommends nested levels of appropriation, provision, enforcement and governance.

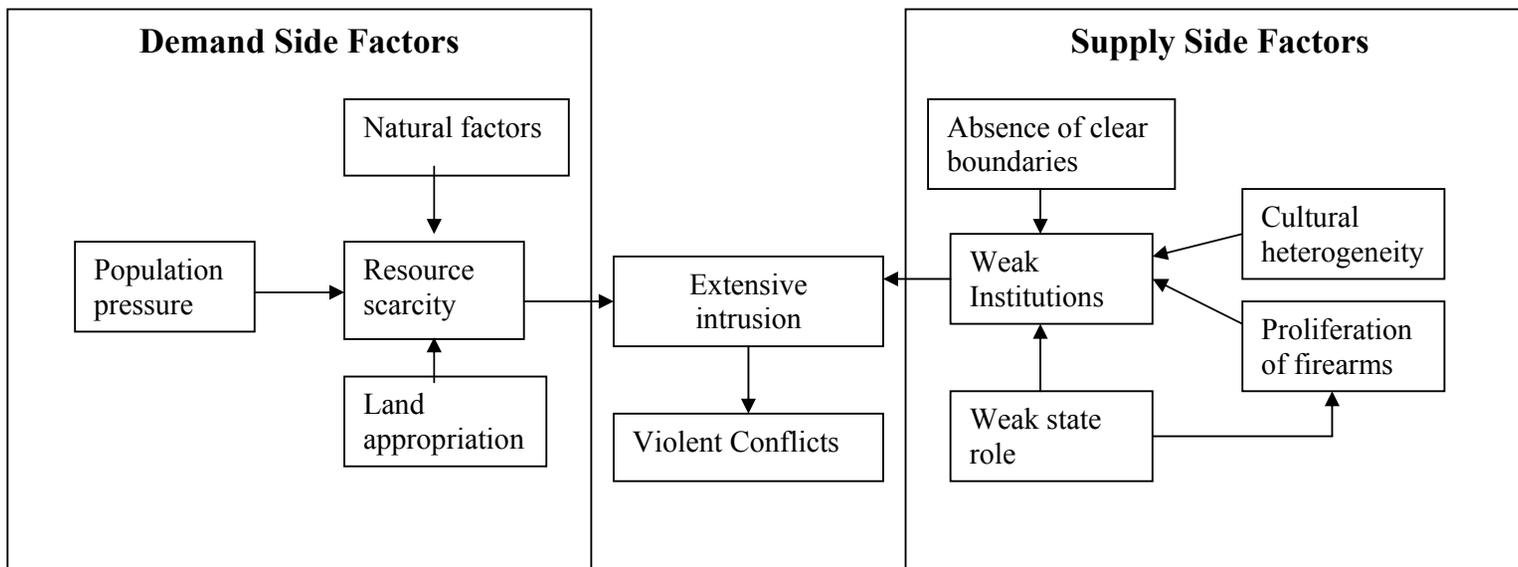


Figure 2. Causes of Violent Conflicts among Pastoral Groups

4.3. *Apparent Effects of Conflicts*

Weak and insecure rights cause conflicts between different right holders and even non-right holders (Di Gregorio, 2004). As discussed earlier, the existence of insecure and weak property rights caused a series of bloodshed among ethnic groups. How do these conflicts arising from property right insecurity worsen livelihoods in the area? According to Sen (1992), it is not livelihood functionings *per se* that matter in explaining poverty but the capabilities to realize the functionings. The capability to realize basic functionings can be debilitated by several factors including conflicts arising from insecure property rights. In the world of conflicts weak sections have less opportunity to get access to basic resources and services and hence face difficulty to break the poverty cycle. This is evident in the study areas where the capabilities of pastoral households are being debilitated by violent conflicts.

Violent conflicts lead to humanitarian crisis and loss of assets. The principal victims of conflicts in the study areas are those who are in the active labor force. In deed, interethnic conflicts have claimed the lives of many youngsters who, otherwise, could have engaged in productive activities. For instance, during 2003/04 at least 13 people died due to recurrent conflicts in the selected sites, based on information from elders. Moreover, conflicts cause asset losses and hence erode the capacity of households to fulfill basic necessities (such as food and clothing). As a result of extensive livestock raids in the study areas concomitant to interethnic conflicts many households have been unable to produce milk, meat or generate cash. The poor have less capacity to cope with the consequences of violent conflicts, as their herds are too small to provide them a buffer against loss. A closer look at the sample households shows that 22.7 per cent of the respondents have required village contributions to fulfill their necessities, at least for some time.

The instability caused due to recurrent conflicts has also affected pastoralists through its impacts on livestock marketing. During group discussion, it was understood that Afar pastoralists in the middle Awash valley couldn't get access to Methehara livestock market because of conflicts with Karayou Oromo. Similarly, those Afar clans found in Harihammo and Daleti couldn't sell their animals at Senbete market (which is the largest market in the area). Since most of the livestock markets are found in the neighboring regions the Afars are always seriously affected by conflicts. Indeed, every conflict with surrounding ethnic groups blocks Afars from using the markets and selling their products. Needless to say, this would have a detrimental effect on the livelihood conditions of these pastoralists who largely depend on livestock. The problem is aggravated during drought years when pastoralists need to sell out their emaciated livestock to reduce loss. Moreover, the security problem in the areas sometimes blocks the humanitarian interventions and development activities by external agents. For instance, Beruk (2004) noted that conflicts between the Afar and Issa impeded humanitarian emergency interventions in 2002/3, which was badly needed to save lives.

Underutilization of pastoral resources is another consequence of violent conflicts. This is evident in the study areas where pastoralists couldn't access grazing resources particularly in border areas. The Alleideghi plain, which covers about 75,000 hectare of prime wet season grazing land, is the point of warfare between the Afar and the Issa ethnic groups (Table 3). As a result, Afar pastoralists in the middle Awash valley, who claim ownership right over it, couldn't utilize the browses and pasture at this site due to unpredictable attacks from Issa¹².

¹²See Yemane(2003) for similar discussion.

Similarly, Ayalew (2001) noted that the Afar and Karrayu couldn't use luxuriant grazing and abundant water resources nearby the Dinkuku pond due to fear of possible confrontations.

Furthermore, conflicts divert assets of pastoralists to 'unproductive' uses. In the study areas, conflicts are supported by modern weapons; it is not surprising if one encounters an armed youth around homesteads, in bushy areas, and even in towns. Owning a modern rifle is the dream of every youngster in Afar. This "rifle culture" emanates from the fact that Afars have been living in uninterrupted conflicts with the neighboring ethnic groups for generations. Investment in conflict technology may have contradictory effects on the capability of pastoral households. On the one hand, owning modern weapons (together with complementary action resources) improves access to better pasturage and hence increases the capability of a group to achieve basic functionings. In other words, weapons are action resources that improve the capability of pastoral groups to access pastoral resources. On the other hand, conflict technologies compete for pastoralists' meager resources and hence may reduce investment in productive technologies. While the net effect may depend upon the opportunity cost of the conflict technology and its effectiveness from the owners' perspective, the proliferation of firearms would have detrimental effects on the livelihood of the whole pastoral milieu.

V. Conclusion

Traditional pastoral land rights evolved to fit to the ecological conditions of drylands where mobility and resource sharing are highly important. Accordingly, there exist bundles of rights in which different pastoral groups are accommodated while communal ownership rests on one group. Although the traditional communal ownership still prevails, the individualization of land rights is getting more importance nowadays. The state is an important agent that directly or indirectly enforced the individualization process in the study areas. The following points can be drawn from the experience of state intervention. Firstly, the intervention of the state was based on the principle that land belongs to the state and pastoralists have no right to block the former from using land in a specified way. Hence, the state development activities were without the prior consultation and agreements of the local people. As a result, pastoralists, who were denied their customary rights, resisted state development interventions started in the 1960s. However, pastoralists were not homogeneous in terms of attitudes towards state interventions i.e. with the introduction of the commercial farms new social classes might have emerged in the areas (the elite group), whose interests do not necessarily coincide with other pastoralists although they share common pastoral values. While common pool resources, in principle, belong to all predefined users, only a few pastoralists enjoyed benefits from state-driven changes while the poor lost their former benefits. Secondly, state development schemes were selective and limited to those areas suitable for commercial farming while areas with low resource endowments were deprived of state support. Thirdly, state development interventions might have exacerbated conflicts among various pastoral groups thereby (1) worsening scarcity of pastoral resources and (2) excluding pastoral groups who had secondary and tertiary rights.

Despite its crucial role, state intervention doesn't explain the entire changes in customary communal land rights. There are also indications that the individualization process is driven by the motives of the pastoralists themselves. Indeed, the impetus for subdivision of the communal land is provided by livelihood changes and challenges. The deterioration of

livestock productivity due to recurrent drought, more settled way of life, and demand for state legitimacy for land ownership are among the major factors that contribute to the desire for crop cultivation.

Violent conflicts are endemic to the study areas. The conflicts arise from both demand side and supply side problems. From the demand side, resource scarcity is the major factor that leads to recurrent conflicts among pastoral groups. The gradual deterioration of pastoral resource base could be explained by recurrent droughts, expansion of agricultural lands as a result of population pressure, bush encroachment, and expropriation of pastoral lands by the state. However, resource scarcity may not lead to violent conflicts in the presence of well performing institutions. Hence, the intensification of violent conflicts can be attributable to weak institutional performance in preventing as well as managing conflicts (the supply side constraint). Here both formal and informal institutions are a matter of concern. The existence of strong informal institutions can reduce potential violent conflicts through effective sanctioning mechanisms and flexible way of handling controversial claims. On the contrary, weak informal institutions imply absence of credible commitments among pastoral groups regarding resource use. This is the inherent problem, for example, with current relation between Afar and Issa in which those participants (clan leaders and elders) on state-organized mediation fora make “pseudo-commitments” to end violent conflicts. On the other hand, formal institutions that allow legitimate state intervention are essential because violent conflicts can be exacerbated by factors beyond the scope of informal institutions. For instance, the loose control mechanism of illicit trafficking of firearms has contributed to the perpetuation of armed conflicts in the study areas.

References

- Abule, E, H.A. Snyman and G.N. Smit. 2005. Comparisons of Pastoralists Perceptions about Rangeland Resource Utilization in the Middle Awash Valley of Ethiopia. *Journal of Environmental Management*, vol. 75, pp 21-35.
- Agrawal, Arun. 2001. Common Property Institutions and Sustainable Governance of Resources. *World Development*, 29(10), pp. 1649-1672.
- Agrawal, Arun and Elinor Ostrom. 1999. Collective Action, Property Rights, and Devolution of Forest and Protected Area Management. In Meinzen-Dick, R., Knox, A, and Di Gregorie, M. (eds.) *Collective Action, Property Rights, and Devolution of Natural Resource Management. Exchange of Knowledge and Implications for Policy. Proceedings of the International Conference held from 21-25 June in Puerto Azul, The Philippines.*
- Alchian, Armen A. 1987. “Property Rights.” In the *New Palgrave: A Dictionary of Economics*. New York
- Alchian, A. and H. Demsetz. 1973. Property Right Paradigm. *The Journal of Economic History*. Vol. 33 (March), pp 16-27
- Ali, Said. 1997. Resource Use Conflict in the Middle Awash Valley of Ethiopia: the Crisis of Afar Pastoralism. In R. Hogg (ed.) *Pastoralists, Ethnicity and State in Ethiopia*, HAAN Publishing, London.
- Gebre, Ayalew. 2001. Conflict Management, Resolution and Institutions among the Karrayu and their Neighbors. In: M.A. Mohammed Salih, Ton Dietz, and Abdel Ghaffar

- Mohamed Ahmed (eds.) African Pastoralism: Conflicts, Institutions and Government. Organization of Social Science Research in Eastern Africa (OSSREA).
- Baland, J-M. and J-P Platteau. 1996. Halting the Degradation of Natural Resources: Is there a Role for Rural Communities? Clarendon Press, Oxford.
- Barbier, Bruno and Peter Hazell. 1999. Implications of Population Growth and Declining Access to Transhumance Grazing Areas for the Sustainability of Agropastoral Systems in the Semi-arid Areas of Niger. In Nancy McCarthy, Brent Swallow, Michael Kirk, and Peter Hazell (eds.). Property Rights, Risk and Livestock Development in Africa. International Livestock Research Institute and International Food Policy Research Institute.
- Bardhan, Pranab. 2005. Scarcity, Conflicts, and Cooperation: Essays in the Political and Institutional Economics of Development. The MIT Press, Cambridge, Massachusetts.
- Barzel, Yoram. 1997. Economic Analysis of Property Rights (2nd ed.). Cambridge University Press
- Behnke, Roy H. 1985. Open-Range Management and Property Rights in Pastoral Africa: A Case of Spontaneous Range Enclosure in South Darfur, Sudan. Pastoral Development Network Paper No. 20f. London; Overseas Development Institute.
- Behnke, R. H and Ian Scoones. 1983. Rethinking Range Ecology: implications for range management in Africa. In: R.H Behnke, I. Scoones and C. Kervan (eds.) Range Ecology at Disequilibrium- New Models of Natural Variability and Pastoral Adaptation in African Savannas, London, Overseas Development Institute for Environment and Development; Commonwealth Secretariat.
- Beruk Yemane. 2004. Drought and Famine in the Pastoral Areas of Ethiopia. Proceedings of the third National Conference on Pastoral Development in Ethiopia, December 23-24, 2003 Addis Ababa
- Beruk, Yemane. 2003. Food Security Situation in the Pastoral Areas of Ethiopia, *Mimeo*.
- Boserup, E. 1965. *The Conditions of Agricultural Growth*, London: The Economics of Agrarian Change under Population Pressure. London: George, Allen & Unwin.
- Bromley, D.W. 2001. Property regimes and institutional change. Paper presented at a conference on Property Rights and Institutional Change, Fredericia, Denmark, September 19-11, 2001.
- _____. 1993. Environment and Economy: Property Rights and Public Policy, Blackwell, Oxford, 247pp.
- _____. 1992. The Commons, Property, and Common-Property Regimes. In: Bromley, D. W. (ed.), Making the Commons Work: Theory, Practice, and Policy. Institute for Contemporary Studies, California 339pp
- _____. 1991. Environment and Economy: Property Rights and Public Policy. Blackwell Publishers.
- Bruce, J. 1988. The Variety of Reform: A Review of Recent Experience with Land Reform and the Reform of Land Tenure, with Particular Reference to African Experience. Land Tenure Center Paper, University of Wisconsin, Madison.
- Challen, Ray. 2000. Institutions, Transaction Costs and Environmental Policy: New Horizons in Environmental Economics. Edward Elgar, Chaltenham, UK
- Chambers, Robert. 1983. Rural Development: Putting the Last First. Longman, London.
- Chambers, Robert. 1993. Challenging the Professions: Frontiers for Rural Development. Intermediate Technology Publications.
- Dayton-Johnson, Jeff. 2000. Determinants of Collective Action on the Local Commons: A model with evidence from Mexico. Journal of Development Economics 62: 181-208
- Demsetz, Harold. 1967. Towards A Theory of Property Rights. American Economic Review, vol. 57(2) pp. 347-59

- Di Gregorio, Monica, Konrad Hagedorn, Michael Kirk, Benedikt Korf, Nancy McCarthy, Ruth Meinzen, Brent Swallow. 2004. Property Rights, Collective Action and Poverty: The Role of Institutions for Poverty Reduction, (conceptual paper).
- Ensminger, Jean and Andrew Ruttan. 1991. The Political Economy of Changing Property Rights: Dismantling a Pastoral Commons. *American Ethnologist*, Vol. 18 (4).
- Feder, Gershon and David Feeny. 1991. Land Tenure and Property Rights: Theory and Implications for Development Policy. *The World Bank Economic Review* Vol 5. issue 1, pp135-153
- Federal Democratic Republic of Ethiopia (FDRE). 2002. Ethiopia: Sustainable Development and Poverty Reduction Program. FDRE, Ministry of Finance and Economic Development, July 2002, Addis Ababa, Ethiopia.
- Getachew, Nigussie Kassa. 2001. Among the Pastoral Afar in Ethiopia: Tradition, Continuity and Socioeconomic Change. *International Books in Association with OSSREA*.
- Getachew, Kassa. 2001. Resource Conflicts Among the Afar of North-East Ethiopia. In Mohamed Salih, Dietz and Mohamed Ahmed (eds.) *African Pastoralism: Conflicts, Institutions and Government*. Pluto Press, London
- Goodhue, Rachael E. and Nancy McCarthy. 1999. Fuzzy Access: Modeling Grazing Rights in Sub-Saharan Africa. In Nancy McCarthy, Brent Swallow, Michael Kirk, and Peter Hazell. *Property Rights, Risk and Livestock Development in Africa*. International Livestock Research Institute and International Food Policy Research Institute.
- Grell, Hermann and Michael Kirk. 1999. The Role of Donors in Influencing Property Rights over Pastoral Resource in Sub-Saharan Africa. In Nancy McCarthy, Brent Swallow, Michael Kirk, and Peter Hazell (eds.). *Property Rights, Risk and Livestock Development in Africa*. International Livestock Research Institute and International Food Policy Research Institute.
- Hanna, S., C. Folke, and K. Maler. 1996. Property rights and the natural environment. In S. Hanna, C. Folke, & K. Maller (Eds.), *Rights to Nature: ecological, economic, cultural, and political principles of institutions for the environment*. (pp. 1 – 10). Island press: Washington D.C.
- Hardin, G. 1968. The Tragedy of the Commons. *Science* 162:1243-1248
- Hayami, Y., Ruttan, V.W., 1985. *Agricultural Development: An International Perspective*, 2nd ed. Johns Hopkins, Baltimore
- Helland, Johan. n.d. Land Alienation in Borena: Some land tenure issues in a pastoral context in Ethiopia. <http://www.ossrea.net/eassrr/jun99/helland.htm>
- Homer-Dixon, T. 2001. *Environment, Scarcity and Violence*. Princeton University Press, pp 272
- Joireman, Sandra Fullerton. 2000. *Property Rights and Political Development in Ethiopia & Eritrea (1941-74)*. Ohio University Press, Athens.
- Knight, Jack. 1992. *Institutions and Social Conflict: Political Economy of Institutions and Decisions*. Cambridge University Press.
- Lastaria-Cornhiel, Susana. 1997. Impact of Privatization on Gender and Property Rights in Africa. *World Development*, vol. 25, No. 8, pp. 1317-1333.
- Libecap, G. 1989. Distributional Issues on Contracting for Property Rights, *Journal of Institutional and Theoretical Economics*, 145(1), 6-24.
- MADULU, Ndalaha F. 2005. Impacts of Population Pressure and Poverty Alleviation Strategies on Common Property Resource Availability in Rural Tanzania. *AJEAM-RAGEE* Volume 10 p26-49
- McChesney, Fred S. 2003. Government as Definer of Property Rights: Tragedy Exiting the Commons? In Terry L Anderson and Fred S. McChesney (eds.) *Property Rights: Cooperation, Conflicts, and Law*. Princeton University Press.

- McClellan, Charles W. 1988. *State Transformation and National Integration : Gedeo and the Ethiopian Empire, 1895-1935*. East Lansing, Michigan ; Michigan State University Press.
- Meinzen-Dick, Ruth S. and Rajendra Pradhan. 2002. *Legal Pluralism and Dynamic Property Rights*. CAPRI working paper No. 22
- Meinzen-Dick, Ruth and Anna Knox. 1999. *Collective Action, Property Rights, and Devolution of Natural Resource Management: A Conceptual Framework*. In Meinzen-Dick, R., Knox, A, and Di Gregorie, M. (eds.) *Collective Action, Property Rights, and Devolution of Natural Resource Management. Exchange of Knowledge and Implications for Policy*. Proceedings of the International Conference held from 21-25 June in Puerto Azul, The Philippines.
- Mohammed, Abdulahi. 2004. *Pastoral Developments Strategies and Policies in Ethiopia: A Critical Analysis and Evaluation*. Proceedings of the Third National Conference on Pastoral Development in Ethiopia, December 23-24, 2003 Addis Ababa
- Moorehead, R. 1994. *Policy Options for Pastoral Resource Tenure in Non-equilibrium Environments*. In *Pastoral Development in Africa*, ed. M. Niamir-Fuller. Proceedings of the First Technical Consultation of Donor and International Development Agencies, December 1993, Paris. New York: United nations Sudano-Sahelian Office.
- Miguela, Edward and Mary Kay Gugerty. 2005. *Ethnic diversity, social sanctions, and public goods in Kenya*. *Journal of Public Economics*, vol. 89, pp. 2325–2368
- Mwangi, Esther. 2005. *The transformation of property rights in Kenya’s Maasai land: triggers and motivations*. CAPRI working papers No. 35
- Malthus, T.R. 1798. *An essay on the principles of population, as it affects future improvement of society*. London.
- Ngaido, Tidane. 1999. *Can Pastoral Institutions Perform Without Access Options?* In Nancy McCarthy, Brent Swallow, Michael Kirk, and Peter Hazell. *Property Rights, Risk and Livestock Development in Africa*. International Livestock Research Institute and International Food Policy Research Institute.
- Niamir-Fuller, Maryam. 1999. *Managing Mobility in African Rangelands*. In Nancy McCarthy, Brent Swallow, Michael Kirk, and Peter Hazell (eds.). *Property Rights, Risk and Livestock Development in Africa*. International Livestock Research Institute and International Food Policy Research Institute.
- Nugent, Jeffray B. and Nicolas Sanchez. 1998. *Common Property Rights as an Endogenous Response to Risk*. *American Journal of Agricultural Economics*. Vol. 80 (August 1998) pp. 651-657
- Opschoor, J.B. 2001. *Towards Security, Stability and Sustainable Oriented Strategies of Development in Eastern Africa*. . In: M.A. Mohammed Salih, Ton Dietz, and Abdel Ghaffar Mohamed Ahmed (eds.) *African Pastoralism: Conflicts, Institutions and Government*. Organization of Social Science Research in Eastern Africa (OSSREA).
- Ostrom, Elinor. 1994. *Neither Market Nor State: Governance of Common-Pool Resources in the Twenty-first Century*. IFPRI Lecture Series.
- _____. 1990. *Governing the Commons: The evolution of institutions for collective action*, Cambridge University Press, Cambridge, UK
- Ostrom, E., T. Dietz, N. Dolsak, Paul C. Stern, Susan Stonich, and Elke U. Weber (eds.) 2002. *The Drama of the Commons*. National Academy Press, Washington D.C.
- Platteau, J-P. 1996. *The Evolutionary Theory of Land Rights as Applied to Sub-Saharan Africa: A Critical Assessment*. *Development and Change* 27, pp 29-86
- Rangan, H. 1997. *Property Rights vs. Control: The state and forest management in the Indian Himalaya*. *Development and Change*, 28, pp 71-94

- Ribot, Jesse C. and Nancy Lee Peluso. 2003. The Theory of Access. *Rural Sociology*, vol. 68 (2), pp 153-181
- Rosyadi, S., R. Birner, and M. Zeller. 2005. Creating political capital to promote devolution in the forestry sector—a case study of the forest communities in Banyumas district, Central Java, Indonesia. *Forest Policy and Economics* 7 (2005) 213– 226
- Runge, Ford C. 1992. Common Property and Collective Action in Economic Development. In: *Making the Commons Work: Theory Practice and Policy* (Bromley, D. ed.) Institute for Contemporary Studies, San Francisco, California
- Ruttan, Vernon W. 1989. Institutional Innovation and Agricultural Development. *World Development*, Vol. 17, No. 9, pp. 1375-1387
- Schlager, E. and E. Ostrom. 1992. Property Rights Regimes and natural Resource: A Conceptual Analysis. *Land Economics* 68(3) pp 249-262.
- Sen, Amartya. 1992. *Inequality Reexamined*. Russell Sage Foundation, New York.
- Skaperdas, Stergios. 1992. Cooperation, Conflict, and Power in the Absence of Property Rights. *The American Economic Review*, Vol. 82 (4), pp 720-739
- Swallow, B. M., and A. B. Kamara. 1999. The dynamics of land use and property rights in semi-arid East Africa. In Nancy McCarthy, Brent Swallow, Michael Kirk, and Peter Hazell (eds.). *Property Rights, Risk and Livestock Development in Africa*. International Livestock Research Institute and International Food Policy Research Institute.
- Wade, R. 1988. *Village Republics: Economic Conditions for Collective Action in South India*. San Francisco, CA: ICS Press.
- _____. 1987. The Management of Common Property Resources: Collective Actions as an Alternative to Privatization or State Regulation. *Cambridge Journal of Economics* (11), pp 95-106
- Wang, Ning. 2001. The Coevolution of Institutions, Organizations, and Ideology: The Longlake Experience of Property Rights Transformation. *Politics and Society*. Vol. 29, No. 3 pp 415-445.
- Watcher, D. 1996. *Land Tenure and Sustainable management of Agricultural Soils*. Berne: Center for Development and Environment, University of Bern.
- Wiber, Melanie G. 1992. Levels of property rights and levels of law: a case study from the northern Philippines. *Man* (N.S.) 26: 469-92.
- Wiebe, Keith D. and Ruth Meinzen-Dick. 1998. Property Rights as Policy tools for sustainable development. *Land Use Policy*, Vol. 15 No. 3, pp. 203-215.