Understanding the Dynamics of Land Transaction Practices in Agro-Pastoral Neighbourhoods of the Karrayu: The Cases of Abadir and Merti

By

Ayalew Gebre (Ph.D)

Paper Submitted to the Eleventh Biennial Conference of the International Association for the Study of Common Property (IASCP), Bali, Indonesia, June 19 – 23, 2004

Abstract

Studies indicate that land has been transferred in Ethiopia from one household to another by different arrangements, in addition to inheritances. The foremost arrangements include different variants of share-contracts, loans, leases, mortgages, sales, pledges and gifts. Of course, these land transactions have been carried out within policy environments both under the military regime and the current government that impose restrictions and prohibitions on such local land deals. Being a transhumant pastoral society, where grazing lands are communally accessed and controlled, land transactions of the kind practiced elsewhere in agrarian communities has had no practical meaning and relevance to the Karrayu until the recent past. However, as a result largely of external pressures, the community is currently undergoing an unprecedented process of transformation in the patterns of its traditional land use and ownership, settlements, and associated institutions. Thus, in the wake of the gradual shift to agro-pastoralism and the evolution of horticultural communities, new sets of values have come about in relation to the meanings attached to land and its various uses as well as the social organization of production. These developments have resulted in the introduction of different kinds of land access institutions into the community that had not existed before.

While this information sheds light on the socio-economic transformation and evolving land access institutions in Karrayu community, a number of important issues still remain to be addressed by way of better understanding and appreciating the dynamics of the process. A comparative analysis of different land access strategies may produce evidences that should be informative and enlightening, thus filling out the exiting gaps of knowledge. Such an investigative approach will enable understand more deeply the strategies, opportunities, and dilemmas that different actors are presented with in their choice of one land transaction mechanism over another. The varying social contexts in which the arrangements are formed, negotiated, executed and renewed also need to be contrastively analysed for greater appreciation of the workings of the arrangements and their implications for those involved. Other issues that deserve further investigation have to do with the social networks used in accessing and channelling information regarding land transactions. Likewise, an in-depth analysis of the aspects and stages of the process such as: contract formulation, negotiation, execution, and renewal - steps necessary to validate or legitimise land transaction agreements - is believed to contribute further insights on the issue. Not least, these 'unofficial' land transaction practices require close consideration vis-à-vis the national land policy and pertinent regional bylaws. As already stated, the arrangements operate despite legal restrictions and prohibitions, which is proof of the characteristics of inventiveness, resilience, and negotiability inherent in the process of local land dealings. This study therefore tries to address the dynamics of land transaction practices in the Karrayu agro-pastoral neighbourhoods from these broader perspectives and intends to furnish research output of wider and more relevant policy implications.

1 Background

The Karrayu are a transhumant pastoral community who inhabit the Metehara Plain and the surroundings of Mount Fentale, in the Upper Awash River Basin¹. The area is located in the eastern half of East Shewa Zone, Oromia Region. In the current national administrative structure, Karrayuland comes entirely within Fentale District which area borders with the Afar Region. The language of the Karrayu is *Oromiffa*, the dialect that they speak bearing distinct linguistic characteristics of East Cushitic tongues. Size of population is 55,853, as reported by the latest national census taken in 1994. The figure

_

¹ The classification of the Awash River Basin as Upper, Middle, and Lower Valleys was made by the former Awash Valley Authority (AVA) in order to oversee the agro-industrial projects that operated in the area.

includes both local Karrayu inhabitants and Ittu² migrants who have come to live here over the last forty years.

Karrayu way of life has predominantly been nomadic pastoralism, which is heavily dependent on environmental resources whose availability is determined by temporal and spatial variables. Since the beginning of the second half of the 20th century in particular, the Karrayu, like other pastoral communities in the Awash Valley Region, have increasingly been affected by commercial farm expansion and wildlife conservation schemes. The process of expropriating the rangelands for the aforementioned purposes have therefore thrown the customary land use rights of the community into unabated crisis. A study conducted in 1993 (Jacobs and Schloeder) puts the total size of the dry and wet season grazing land traditionally belonging to the Karrayu at 150,113 hectares. According to this source, 90,100 hectares have already been lost to the development ventures. To cope with the ensuing grim consequences of dramatic reductions in lifesustaining resources available for human and livestock populations, the Karrayu had little choice but adopt changes in their traditional land use systems.

Thus, an increasing number of community members seem to have seen fit to experiment and become acquainted with a different livelihood strategy to which they have not only been alien before, but which has also brought about fundamental changes in their patterns of settlements and land use. So, although they may not have fully or permanently abandoned pastoral pursuits, they have taken up farming particularly in the better-watered neighbourhoods along the banks of the Awash River. Inevitably, those who have begun farming as a coping mechanism have also been sedentarising. Such farmers, however, view agriculture only as an alternative survival strategy in response to unfavourable conditions making migratory pastoralism an extreme challenge. Nevertheless, a resort to crop cultivation with all its implications for traditional settlement and land use patterns, has become an imperative mode of adaptation in view of the impoverishment of pastoral

_

² The Ittu are agro-pastoral community who inhabit the areas southeast of Karrayu settlements mainly in West Harrargehe Zone, Oromia Region. Most Ittu inhabitants inside Karrayu territory migrated there over the last forty years, particularly since the mid 1970s. The main reasons behind their recent migration are inter-tribal conflicts with the Issa Somali as well as the two major droughts of 1973/74 and 1984/85.

households and a range of other exigencies that they are experiencing. Hence, Karrayu pastoralists inhabiting neighbourhoods with better access to irrigation waters such as Abadir, Merti, and Gelcha have transformed themselves into sedentary farming herdsmen from transhumant pastoralists that they were before. Therefore, shifting from traditional norms and customs, inhabitants in these neighbourhoods now practice cultivation and cattle herding on plots of land that they have enclosed for themselves for private use rather than on communally held rangelands as was typically the case in years past. Karrayu people who in this way have become permanent settlers have also embarked on the cultivation, not only of grains for household consumption, but mostly of horticultural crops meant for local and regional markets. Concomitantly, new sets of relationships and attitudes have emerged in the course of peoples' interactions within the community and outside in regards to the possession and use of land. As a consequence, practices that never had links with pastoral adaptation such as different forms of land deals, transactions, and transfers have become increasingly common, with far-reaching land use and tenure policy implications. This study is conducted with an aim to broadening the current understanding of the dynamics of the varied forms of land transaction practices carried out in the neighbourhoods engaged in crop production. Two sub-communities (Abadir and Merti³), most appropriate for the issue, have been selected to carry out the research which is geared toward the generation and portrayal of fresh evidences and dimensions in relation to changing land use and access strategies. In the past, a number of studies have addressed the issues in the context of agricultural communities in the highlands. It is proposed that this research carries both scholarly and policy relevance in view of the fact that it situates the problem in the context of a community under transformation from predominantly pastoral to agro-pastoral form of livelihood.

2 Recent trends in Sedentarisation

This section examines the trend by the pastoralists to sedentarise following the curtailment of their mobility. The limits imposed on grazing meant that the pastoralists

³ In the Karrayu land use pattern, pastoral territory is divided into two areas, namely *onnètesso* (neighbourhood) and *beke deda* (migration area). *Onnètesso* are more or less permanent settlements where household members generally stay together during most part of the year. Abadir and Merti are two such major neighbourhoods where most of the villagers practice small-scale irrigated cultivation using the waters of the Awash River in order to augment their pastoral mode of subsistence.

had to take up fixed settlements where the availability of water permitted the practice of irrigated agriculture. In turn, the tendency to sedentarise had serious implications and consequences as far as traditional land-use and tenure arrangements are concerned. The threat of further alienation made it necessary to occupy land in private enclosures. The competition with other migrant groups over scarce resources also increased the need to set up private land enclosures both for grazing and cultivation. Thus, the predominantly communal land-tenure system of the Karrayu is gradually undermined as marks of individual ownership of land evolve and manifest themselves in certain neighbourhoods.

Characteristically, pastoralists keep multi-species and multi-purpose stock, and the Karrayu are no exception in this. The principal purposes of maintaining diverse stock from the standpoint of the pastoralists are: a constant supply of milk and milk products and meat for household consumption, to fulfil social exchange obligations, and selling animals so as to generate cash. Owing to the physical geography of the region they inhabit, their subsistence base is heavily dependent on a patterned mobility and exploitation of natural resources, marked by spatial and seasonal variations. The traditional migratory pastoral mode of existence however has come under increasing pressure over the last half century particularly from the ever expanding and 'disempowering development' interventions in the region.

Owing to these pressures and exigencies, and most importantly as an adaptation and response to them, a widespread and ongoing practice that is evolving in the area, particularly around the fields of commercial state farms and the banks of the Awash River where irrigated farming is feasible is the tendency to settle in one place. It is interesting to note that it is the pastoralists who are the major players in this drama of sedentarisation. It appears that the old story that nomadic pastoralists reject the settled way of life is no longer true. In line with Salzman's (1980:4) 'adaptation and response' model, sedentarisation here is taking place as a process in which individuals more often than not voluntarily shift their emphasis from one available option or productive activity to another in response to pressures as well as opportunities. This is not, however, to say that there is no internal diversity within the system. Rather, there is a high degree of

overlap in nomadic/sedentary life and there are households which are markedly more nomadic than others.

In response to changing circumstances and resulting pressures, the Karrayu in certain neighbourhoods have tended to sedentarise and take up farming. This they do in the face of the constraints that preclude their traditional practice of nomadic pastoralism. All evidence indicates that this form of settlement has become more prevalent in the wake of the alienation of their land by large-scale commercial farms and game reserves, and was further intensified by the influx of large number of migrants, especially the Ittu, into the Karrayu territory. Thus, the involvement in cultivation and increasing dependence on market and wage employment have led to sedentarisation and hence reduced mobility of herds and household members.

The fundamental changes have to do with the growth of agriculture and the associated changes in land tenure mainly in better-watered areas and at certain locations along the banks of the Awash River which are suitable for irrigated agriculture. Impoverishment of an increasing number of pastoralists, population pressure, repeated drought and the development conditions unfavourable to nomadic pastoralism make such an adaptation imperative. According to the accounts of Karrayu elders in these neighbourhoods, farming on permanent settlements began in earnest some 20-25 years ago and many of the earlier farmers were poorer families whose stock was insufficient to maintain an exclusively pastoral existence. In recent years, though, even quite wealthy livestock owners have, at least in some areas, started to practise farming although the motive and manner of their engagement may vary.

Accordingly, sedentary pastoral communities appear to be growing in number in the neighbourhoods very close to the Awash River, and the inhabitants are largely poor people who dropped out of the pastoral sector and migrated to these wetter areas. Increased cultivation is therefore attributable to a declining ratio of livestock to people as the latter is exacerbated by human population growth and the former by drought. Cultivated plots, less than 0.5 hectares on average, are largely planted with vegetables

and fruit mainly for the market as well as maize for household consumption. As pastoral households fell below the subsistence threshold they gradually became sedentary in order to engage in some form of agriculture.

With the growth of agro-pastoralists in the last couple of decades, and particularly with the expansion of cash crop production (tomatoes, onions, peppers, etc.,), much of the remaining land in the well-watered regions has been converted from pastures into farm plots. As a result, many pastoralists were forced to assume sedentary or semi-sedentary residence in order to make or strengthen their claims over either wet or dry season grazing areas. With new crops, techniques, and market demands, the cultivating pastoralists have enlarged the amount of land under their productive control, to the detriment of course of especially those pastoralists who have no permanent or semi-permanent residence.

As part of the overall process of social and economic change, the Karrayu who inhabit particularly the areas with better agricultural land such as Abadir and Merti, have transformed themselves from largely transhumant to sedentary pastoralists. Not only have the Karrayu in these neighbourhoods come to reside in permanent settlements, but they have also embarked on horticultural pursuits. The implication of the shift is that changes have also taken place in the traditional mode of pastoralism and the pattern of land use. Hence, the inhabitants of neighbourhoods in Abadir and Merti, and Gelcha areas now exploit privately enclosed land for agriculture and controlled grazing, rather than the customary communally held ranges. With the process of land privatising underway, the well-watered and agriculturally rich sections of these neighbourhoods have almost entirely been enclosed and held by individual herdsmen. The private enclosures, which include both farmland and dry season grazing reserves, have led to the practice of land transfers from father to son, lease under different sharecropping arrangements, exchanges, mortgages, and even land sale, though in rudimentary forms. As a result, it is no longer unusual for an individual household to privately hold several of these enclosures.

3 Combining pastoralism with cultivation

Important trends commonly observed in the pastoral mode of subsistence are its dynamism and adaptability to threatening socio-economic circumstances (Dietz, 1991). Quite often, pastoralists tend to engage in cultivation as an adaptive response among other activities, when internal and external factors make livestock husbandry difficult and this mode of livelihood is in crisis Dietz (1987); Fratkin (1991; 1992); Toulmin (1995); Muderis (1998).

Livestock still constitutes the foundation of the Karrayu livelihood and their cultural values are overwhelmingly centred on cattle. Significant losses, especially of dry season grazing habitat and recurring severe droughts over the past decades, however, have tended to threaten the continuance of pastoralism as a predominant mode of subsistence and cultural way of life. Moreover, the herders have come to realise that dependence on the market, whether for sale of animals or purchase of grain, is very risky. Thus, the Karrayu are now beginning to ask fundamental questions about their future in connection with their continued dependence on livestock alone. Of course, there is still the trend among the Karrayu of holding onto the traditional way of life in the hope that good rains will come, further incursions into their land will cease and their pastoral economy will revive. Many, on the other hand, have come to accept that the traditional mode of subsistence is hardly to be relied upon. For them, supplementary forms of livelihood must be found in order to ensure their physical survival as a group, even at the cost of their identity as pastoralists. That explains the resort on the part of a number of Karrayu pastoralists to small-scale irrigated and in some cases rain-fed or dry land cultivation as strategies of adaptation to the new circumstances.

The Karrayu have been practising irrigated and rain-fed cultivation for the last twenty to twenty five years. The most important reason behind their resort to crop cultivation is the increasing amount of pressure on land which put their pastoral mode of subsistence in crisis. The alienation of a great part of their pastoral land for use by commercial farms and a national Park as well as the flooding of their grazing land by the ever-expanding Lake Beseka has contributed to their embarking upon cultivation as a coping mechanism.

The desire to circumvent the market by producing at least part of the household grain requirements has also been a major factor behind the resort to some form of cultivation. No less important, the settling inside the Karrayu territory particularly of the Ittu who migrated from West Harrerge has played a part in the overcrowding and overstocking of the already shrinking resource base. Thus, the resultant competition and confrontation over grazing resources, which have themselves become considerably less than they were, have caused the Karrayu to turn to cultivation of maize, nowadays the most important item in their diet. Moreover, fear and concern that their remaining land would still be expropriated, if uncultivated, has been another factor, as they put it, in the change of their economic adaptation and diversification into farming.

The Karrayu practise their cultivation, what some refer to as opportunistic farming, in two ways. The first is irrigated cultivation carried out in the areas (*nano*) of Gelcha, Merti, and Abadir. This is the expanding form of cultivation entirely dependent on the Awash River and surplus flow of irrigation water from the Metehara Sugar Estate and Nura Era Farm. The second is dry land /rain-fed crop production, which is dependent on run-off water that drains from the mountains or high grounds and is spread out to the nearby fields through crude water spreading techniques. Without the run-off water thus obtained, the climate of the area characterised by low rainfall and high temperature would make rain-fed crop production impossible. Such type of 'take-a-chance' (Dahl, 1981:204) farming which is dependent on rainfall and the resulting flood involves a great deal of risk. For one thing, seeds are sown in anticipation of rain (dry planting) or as soon as the rain starts. Then, the floods are diverted so as to water the fields. However, it often happens that the volume and duration of the rains is inadequate. In other cases, the rains may fall so heavily that floods result and inundate the fields, sweeping away or destroying the crops.

The Fentale Mountain is the major source of flood water for the neighbourhoods of Jarra Nunu, Koboo, Sogido, Daga Iddu, Benti, Dinbiba, and Muko Bedena. Other neighbourhoods, namely, Lege Benti, Ajje, and parts of Jarra Nunu receive rain water from Tino Fentale (Little Fentale). Inhabitants of the localities around Kereri and the

Sabober Plain cultivate along the gullies running down the Kereri highlands. The Korqe (Bireantee) highlands provide run-offs for the cultivating pastoralists at Nekussa, Mariga, and Amuma. Others practising rain-fed cultivation in the area of Abadir at the particular localities called Beljoga, Kube, Gidara, and Bedenota benefit from rain water from the hills of Bireantee and Metti. Karrayu areas where rain-fed cultivation is widely practised are the neighbourhoods located in the Abadir area and the villages found at the foothills of Mount Fentale.

This process of adaptation is simply the outcome of a general transformation of the Karrayu society and economy. And one way to understand this is to look at local inhabitants of a particular village or group of villages who have responded to these changes. Accordingly, the two forms of cultivation practised by the Karrayu as adaptive responses will be illustrated with carefully selected and synthesised examples of key forms of the agricultural activities as well as the land transaction institutional arrangements and their respective variations.

4 Aspects of Agro-Pastoralism and Land Transaction Institutions in Karrayu Neighbourhoods; Taking a Closer Look at the Practice and Institutions

As noted earlier, irrigated cultivation has been an expanding form of crop production in recent years in the parts of Karrayu territory which lend themselves for the practice. The areas where the activity has become common are those located along the Awash River banks, namely, Abadir, Merti, and Gelcha. The particular neighbourhoods in each of these areas where irrigated cultivation takes place include Bedenota, Turro, Muka Sara, Kudie, Dire Sedan, Golbo, Gara Dima, Sara, Dire Rede, and Wolqitie. The necessary water supply is obtained for these fields from the surplus flow released by the Metehara Sugar Estate and Nura Era Plantation. Other fields in certain of the neighbourhoods are watered by irrigation directly from the Awash River. As one traverses the areas one sees extensive horticultural fields. On these plots, Karrayu cultivators produce, either on their own or on the basis of different sharecropping institutions, diverse vegetables and fruits meant mostly for sale, and partially maize for household consumption.

Prior to the establishment of the commercial farms, those Karrayu currently engaged in cultivation used the areas now under the control of the estates as their semi-permanent settlements. In the course of time, they were displaced by the expanding agricultural schemes, being compelled eventually to settle down on the margins of the rangelands. The other Karrayu practising crop production in the area came here from far-away Karrayu neighbourhoods. Thrown out of the pastoral sector by impoverishment and significant reduction in their livestock wealth, they decided to take up cultivation as an alternative economic niche, for which purpose they embarked on occupying land in private enclosures. Similarly, the Ittu migrated to this region in significant numbers beginning in the early 1970s from their traditional habitats in West Harrerge. It was they who introduced cultivation and farming techniques in the region by enclosing tracts of land as private holdings. The Karrayu describe how they came to engage in cultivation as follows: (a) their vulnerability and exposure to drought and famine as a result of the loss of pasture for animals due to the expansion of commercial farms in their area, (b) the sharp decline in the size of livestock wealth especially in that of the camel population – important for its milk. They attribute the rapidly dwindling number of camels to raids by the Arsi Oromo and Argoba with whom they have had conflicts due to their being pushed into neighbouring territories by the expanding state farms, (c) the denial of their watering points when the Metehara Sugar Estate took over the Abadir Farm. It was against this background that the Karrayu in these neighbourhoods gradually began practising smallscale cultivation as a mechanism of coping with the crises of their pastoral mode of subsistence.

Those Karrayu who first started cultivation occupied as much as one or two hectares of land depending upon the resources and abilities they had to manage farming activities. As more and more of the pastoral commons were converted to individual plots of land, the demand for cultivable land increased. Thus, others who wanted to take up cultivation had to be confined to less than one hectare. The Karrayu in these areas use a small portion of their farm enclosure for the cultivation of maize. They lease the remaining large portion of their enclosures to workers in the state farms and others from the nearby towns who

want to hire land for cultivation on sharecropping arrangements with the Karrayu 'land occupants'. The sharecropping institutions take four different forms and, as the terms of contract indicate the agreements entered into, reflect the traditional land tenure practices common in the central highlands. The wordings and references used in connection with the arrangements strongly suggest that they were applied by highlanders who moved to the area as plantation workers or for other purposes.⁴

1. 'Yäkul'⁵: This is an institution whereby profits are equally shared between someone who rents out land for mutual benefit and an individual desiring to commit himself to a sharecropping arrangement. The Karrayu with a plot of land rents it to someone with money and oxen. The person who rents the land from the Karrayu works on the plot by making available all the necessary inputs in addition to oxen and labour. When horticultural crops, especially tomatoes, onions, and watermelons are harvested, the expenses that the 'investor' has made are first calculated before the two parties equally share the profits. However, the Karrayu say that they nowadays do not prefer this arrangement. According to them, sharecroppers generally claim to have incurred more expenses on farm inputs than they actually have. They thus maximise their share of the profit and reduce that of the person renting out the land.

To prevent such risks, the Karrayu favour other variations of the arrangement. In a first version of 'Yäkul' sharecropping, the Karrayu land occupant hires a farm worker rather than rent out his plot to someone with money. While the farm owner covers all the expenses needed for the inputs, the cultivator performs all the farm activities. Upon harvest, the Karrayu first calculates and then deducts all the expenses he has made from the sales. Having done this, he equally splits the profits between himself and the cultivator, thus ensuring that he has collected his due share according to the arrangement. The problem, though, is that not all land occupants are in a position to hire labourers and cover the costs of production. Hence, those without sufficient farm capital opt for a

⁴ The information on the different sharecropping institutions was obtained during an encounter with two crop producers who migrated down from the highlands. They embarked on the practice after obtaining land on lease from Karrayu occupants in one of the well-watered Karrayu localities called Dire Sedan.

Yäkul – As used in the context of the traditional land tenure system in northcentral highlands, the term refers to a sharecropping agreement in return for one-half of the produce.

different variation of 'Yäkul' partnership. In this case, the two partners (the plot owner and the sharecropper) share the costs needed equally and work together on the field. In the end, they divide the proceeds between them, each of them obtaining an equal share from the sale of the farm output.

2. 'Arat Ànd' (Érbo⁶): Under this arrangement there are three parties and the profit from the sale of the produce is divided into four parts. Two parts of the profit go to the Karrayu who rents out 'his' land. One part is taken by the individual with cash and oxen and who hires a labourer as a third party to the arrangement. The labourer, in turn, carries out the cultivation with other workers under him. This third party receives the fourth part of the profit which represents only one quarter of the returns from the sale. Before the profit is thus apportioned, the 'investor' calculates and deducts the costs of inputs, labour, and oxen.

Sometimes, there are situations where a piece of land occupied by a Karrayu proves to be less desirable for irrigated cultivation because of being marginal and less productive. In such instances, the 'Érbo' arrangement takes on another variation. Three parties are also involved in this agreement: the plot owner, the cultivator, and the cash holder. When the produce has been sold, the 'investor' calculates and retains for himself the cash he has spent for inputs and additional labour. As for the profits, each of the parties is entitled to an equal share.

3. 'Sost Ànd' (Siso⁷): The Karrayu 'land occupant' leases his plot of land for a year or two or even three. The sharecropper who takes over the plot on lease pays for it from Birr 600 up to Birr 1,000. The payment varies according to the size of the plot, its fertility, and the suitability of the location for the flow of water from the irrigation canals. The contractor pays for the inputs, provides the oxen, and hires labour for the cultivation. A third partner to the agreement, who, besides ploughing the land, is helped by additional hired labour for tending and watering the field, carries out the actual work of cultivating

⁶ Érbo – As used in the same context, this is a sharecropping agreement in return for one-fourth of the produce.

⁷ Siso — A sharecropping agreement in return for one-third of the produce.

the land. When the produce has been gathered and sold, all the expenses that have gone into the farm work are first calculated and returned to the contractor. He then collects half of the earnings in his position as the temporary occupant of the plot on lease. The remaining half is again equally divided and one part is given to the 'investor' for contributing the cash. The last quarter of the profit goes to the third partner who contributed his labour and serves as a chief workman on the plot.

4. A sharecropping institution that has close resemblance with the transfer of land on lease is land mortgage. This is an arrangement under which a Karrayu who holds a plot of land manages to borrow an amount of cash from a moneylender. An agreement is made to the effect that if the borrower is unable to pay back his debts within a period of time, he will transfer his plot of land to the lender to use for a certain number of production seasons. Hence, land mortgaging is a practice whereby land is conditionally transferred from its holder to a moneylender who, in many cases, is an outsider engaged in different forms of sharecropping. Under the terms of this arrangement, the defaulter will have his plot of land taken away by the lender who uses it in the manner of his choosing until his cash is paid back. Thus, the loan is interest-free, affording the lender access to a piece of cultivable land, and the borrower a limited time to get the cash for debt settlement. If, though, the borrower remains unable to clear the debt during the period allowed, the lender will not wait indefinitely but rather will retain the mortgaged land permanently. Rich Karrayu livestock owners also enter into land mortgaging arrangements with their fellow cultivating pastoralists. Thus, by buying land mortgages in the form of cash loans, many wealthy Karrayu herdsmen are getting richer as they expanded their land holdings and fields under cultivation.

In other cases, certain villages are inhabited largely by migrant cultivators who outnumber the indigenous Karrayu population. In a situation where local inhabitants are dominated by outsiders, cultivable land comes mostly under the 'ownership' of the migrants who enclose tracts of land for irrigated cultivation. One such village is Gara Dima located in the Abadir area, and largely inhabited by the Ittu migrants. The Ittu were forced to migrate into Karrayu territory by the droughts of 1973/74 and 1984/85. The

inter-ethnic conflict with Issa Somali also caused a massive influx of the Ittu into this region.

The livelihood of the Ittu in this locality is based on cultivation which uses water of the Nura Era irrigation farms. Ittu cultivators individually enclose one up to two hectares of land depending on the time of their arrival and produce different kinds of crops. Originally, the Ittu produced only maize for their consumption. But recently they have begun producing vegetables and fruits like tomatoes, onions, watermelons, peppers, guavas, and also *khat*⁸ mainly for sale. Especially tomatoes and onions are becoming important sources of cash and are usually sold to merchants from Addis Ababa, Jijjiga, Djibouti, and Assab who collect the produce by small trucks right at the plots. Ittu cultivators carry out their farming by entering into different forms of contractual arrangements with members of the Karrayu who are the original inhabitants of the area.

However, as a result of the change in the demographic composition and the occupation of land by the dominant group of migrants, the status of the Karrayu has become one of sharecroppers while that of the Ittu is plot-holders. Of the fundamental factors of agricultural production (land, labour, and capital), the Karrayu, therefore, possess either labour or capital in the form of farm oxen. Accordingly, the sharecropping arrangements between the Karrayu and Ittu greatly differ from those previously discussed in the nature of the relationships and form of payments. Hence, it will be proper to briefly discuss these arrangements.⁹

In the first arrangement, the Ittu cultivator hires an ox or two from the Karrayu pastoralist and takes care of all his cultivation and the oxen. The cultivator gives four quintals of maize per ox as a payment of rent at the end of harvesting season. As there are two maize harvesting seasons in a year in this area, an ox owner may collect up to sixteen quintals of

.

⁸ *Khat*, Cathula edulis, is a narcotic plant chewed as a stimulant. It is widely grown in the highlands mainly of West Harrerge and sold to the consumers inhabiting the nearby towns in the region as well as big cities like Nazareth and Addis Ababa.

This material comes from a group discussion held with two household heads, an Ittu and a Karrayu, who forged mutual relationships as a result of share-rearing arrangements. As a matter of chance, the discussion took place on the spot where the cultivator paid the rent to the herdsman for the use of his farm oxen.

maize by the end of the year provided he has hired out two oxen. In connection with this arrangement, the Karrayu pastoralists give their oxen to the Ittu cultivators in order to train and make them fit for ploughing. It takes up to two years to train and prepare the oxen for this. During this period, the usual agreement is for the cultivator to use and take care of the animal free of rent. Once the ox is trained, the payment of rent at the rate of four quintals of maize per ox will be effective.

The second type of contract is similar to a form of hired labour or what may be called share-rearing in which the cultivator puts cattle, mostly milk cows, under the care of the Karrayu pastoralist. The Karrayu takes care of the cows with his herd grazing them in distant *beke deda*. In return for this, the Ittu cultivator pays the pastoralist an agreed-upon amount of maize.

The third form of relationship is more of a social cooperation than a contractual arrangement. In this relationship, an Ittu cultivator may develop a bond friendship with a Karrayu pastoralist who can support him by tending his livestock in times of need. The Ittu normally reciprocates by supplying certain quintals of grain when his Karrayu bond friend has a need or asks for it. Such social intimacy, also strengthened by inter-marriage, enables the Karrayu pastoralists to become acquainted with cultivation through direct observation of farm activities and personal involvement as they help the Ittu in their chores. In addition, those Karrayu who practise irrigated or rain-fed cultivation request their Ittu affines to come over for assistance in the operation of farm implements and the selection of suitable farmland. Yet, the Ittu do not demand payment for their services since the basis of such cooperation is none other than their affinal ties.

In spite of operating their plots as of independent production units, cultivating pastoral households maintain social networks and cooperation with households fully engaged in pastoral pursuits. Households maintain this complex web through blood ties which include both consanguinity and affinity. How these elements of social networks and cooperation are used by cultivating pastoral households particularly as a mechanism of obtaining access to labour is discussed below.

4.1 Access to labour; Inter-household cooperation

Karrayu pastoralists who embarked on crop cultivation find it difficult to practise herding as much as when they were fully engaged in the practice. The area where the pastoralists are practising irrigation cultivation is not suitable to simultaneously manage full-scale pastoral activities due to the presence of agricultural enterprises and privately held irrigated fields in the surroundings. The space available may at best allow for taking care of only a limited number of milk cows and small ruminants. The herdsmen who came down and settled in the vicinities of the Awash River to take up irrigated cultivation therefore had to seek ways to keep up with their pastoral way of life through existing social networks between households. Thus, taking advantage of their ties with relatives and affines fully engaged in pastoral activities in distant areas, they manage to pursue herding practices through labour borrowing and resource sharing arrangements. Pastoral households usually cooperate with cultivating herdsmen in taking care of their camp herds, enabling them to engage almost entirely in crop cultivation. Of course, livestock are entrusted especially to the brothers of one's mother (essumo) regarded as the closest kinsmen and also in-laws (soda). This is because the Karrayu highly value livestock and treat them as precious property which should not be entrusted to distant relatives and nonkinsmen. Even then, whenever possible, the cultivating herdsmen make visits at intervals to migration areas to see how their herd is faring under the care of the cooperating household. The cultivating pastoralists reciprocate by providing their entrustees with a quantity of maize at harvest time, besides the supply of various consumer items like salt, coffee husks, peppers, which they take with them during their periodic visits to cattle camps. The following case 10 demonstrates the elements of such mutual cooperation based on social networks between households.

Case 2: Boru Roba

Boru Roba is a household head who inhabits the Dire Sedan neighbourhood. He moved to this place from his earlier settlement in the Fentale area at the Yaya neighbourhood and started irrigated cultivation three years ago. On the two *qertie* of his land he grows maize for household consumption and, under a sharecropping arrangement, undertakes cultivation of tomatoes and onions for sale. Meanwhile, he strengthens and exploits his social networks with the households of his relatives at

¹⁰ Based on the author's field notes.

Yaya, where he previously used to live. He thus sees to it that his 22 livestock are taken care of by placing them in the hands of his mother's brother, who practises pastoralism as his only means of livelihood. Boru Roba for his part regularly supplies his uncle with quantities of maize (50 to 100 kgs) depending on the size of his harvest. Besides, he brings a supply of consumer goods for him whenever he pays him a visit.

From the above case, it is evident that there is a flow of both labour and food between the farm village and the pastoral hinterland and in return for the labour service they render to pastoral farm households, families in exclusively pastoral areas will expect some maize from their kin. This two-way flow of resources underlines the inter-penetration of the two economic sectors and the importance of developing agriculture not in isolation but as part of a mixed economy.

There are also some rich pastoralists who engage in cultivation to a limited extent and for a different purpose. These herdsmen cope with the shortage of labour that they face in undertaking the cultivation of their plots by employing different mechanisms like hired and communal or cooperative labour. Thus, they spare themselves the time and manpower needed to take care of their pastoral activities. For example, they usually get the tasks of clearing, weeding, and ploughing done by calling work parties known as jiggie where food, coffee, and khat are offered by the host household whose plot is worked on. In this way, they mobilise cooperative labour beyond the household with little involvement, if any, of their own household manpower which is closely involved in the care of their livestock. Besides, they can afford, because of their wealth, to have the farming work carried out by hiring temporary labour. They usually get such labour, including the draught animals, from the Minjar Amhara who are traditionally experienced crop growers and who own their own fields in and around Metehara Town. This form of hired labour works under the arrangement that the labourer will be paid Birr 400 for ploughing and preparing a hectare of land so that it is in a cultivable state. The labourer is under obligation to work with his own farm animals and implements and to provide fodder for the oxen himself. The next stage of the farm work such as canal clearing, weeding, watering, hoeing, etc., are carried out by other labourers who are paid on contractual or daily basis. Under contractual arrangements, Birr 30 to 40 is paid out for working two *qertie* of land. On a daily basis, a labourer receives six to seven Birr a day for handling a similar type of farm work. Not only do rich herders free themselves and their household manpower for their pastoral practices in this way, but they also reinvest the profits from the sale of farm produces like tomatoes, onions, water melons, peppers, etc., in maximising the size of their herd. This production strategy enables them to keep getting richer and richer by multiplying the number of livestock in their possession which is the basis not only of their wealth but also of their social standing and pastoral identity.

The poorer and less wealthy herd owners, however, find it necessary to undertake farming activities themselves side by side with livestock herding, as they often cannot afford hired labour. Such herders usually do not possess steers and bulls that they need for farming, and when they do, they sell them to earn enough money to buy food grain. Therefore, they hire farm oxen from the Minjar Amhara and other urban-based farmers at a rate of Birr 15 per day for a pair of oxen. In this arrangement, the ox owner provides fodder for the oxen while the cultivating pastoralist is responsible for all the farm work. Most cultivating pastoral households, especially those with less problems of household manpower, prefer the latter arrangement to the earlier one which is based on a contractual deal of Birr 400 paid to the hired farmer. The reason is that the pastoralist who employs household labour to work his own fields can manage his own tasks as properly as he wishes once he has hired the farm oxen. Others who use hired labour, though, might be at a disadvantage in this regard since the one they have employed may not perform the job in the manner that he should, failing to take care of the fields as he would if they belonged to himself. Mobilising cooperative labour is also not easy for the poorer pastoralists as the provision of food, coffee, tobacco, and khat to the volunteers incurs expenses beyond their means. In addition, the tasks that work parties carry out, unless carefully organised, might not be productive enough. Worse yet, should problems occur or the mobiliser is not satisfied with the work done, it is not likely that he will call back the volunteers to do the job a second time. Hence, situations exist where hired labour is favoured over cooperative labour as it affords the cultivating pastoralist relative freedom to have the labourer do the job again in case of dissatisfaction.

Certain members of the Karrayu in this locality also engage in wage labour as a supplementary source of income by finding jobs in the commercial farms of the area as guards and plantation workers. The Karrayu who thus involve themselves in pastoralism, cultivation, and wage labour overcome labour bottlenecks by drawing upon a variety of mechanisms, the most important of which are reciprocal labour and different forms of hired labour.

4.2 Jiggie; An institution of cooperative labour

Household heads who may number five or six call work parties (*jiggie*) in which case they bring together all their farm oxen and implements to work a whole day or two on the fields of one partner. During this time, it will be the responsibility of the host partner to provide food, coffee, and *khat* for the participants in the work party. The host wife for her part calls her own work party, bringing together other women who help in the preparation and provision of food and other supplies for the occasion. Partners thus reciprocate by carrying out one another's farm work until all members get their tasks done. The cooperative labour may include such farm activities as hoeing, weeding, and planting. Accordingly, such households take advantage of cooperative labour arrangements to carry out agricultural activities and alleviate the manpower constraints resulting from their engagement in agro-pastoralism.

4.3 The Arso-Arash institution

This *Arso-Arash* institution or arrangement, literally translated as the 'cultivating-cultivator', is a form of hired labour. Under this arrangement, a labour-rich household exchanges two days of human labour for one day's of a pair of oxen. It enables especially a householder who has a pair of farm oxen to have someone without any to cultivate his plots for two days in return for using the oxen to plough his own for a day. The process continues until the individual without his own oxen has ploughed and furrowed his own field as well as that of his partner. Especially benefiting from such an arrangement are households without their own farm oxen.

4.4 Hired labour

Hired labour is the second mechanism these households employ to overcome the shortages of household manpower that they encounter. Activities that they undertake through hired labour are mainly tomato picking, canal clearing, and watering crops. Before work begins each day, the hired labourer receives one Birr for breakfast. This is in addition to the half-day wage of Birr 7 paid out by the household after each day's work is finished. While the hired labourer performs his task, the household head or some household member takes part by following up progress, checking on the workers and getting involved in some way himself.

In view of the foregoing, the example¹¹ of Fentale Hawas points to how the labour bottleneck resulting from engagement in agro-pastoralism and wage labour is overcome.

Case 3: Fentale Hawas

Fentale Hawas resides in one of the neighbourhoods in the area of Abadir called Turo. As well as being a herder, he is permanently employed as a guard at the Metehara Sugar Estate with a monthly salary of Birr 300. Furthermore, he cultivates 0.5 hectare of irrigated land around his neighbourhood and produces up to 8 quintals of maize per year to supplement his household consumption. He possesses 14 milk cows and 14 camels, and some other animals, which ranks him among the pastoralists considered rich. Fentale Hawas has only one son but numerous dependants. The fact that he engages in three activities — pastoralism, irrigated cultivation, and wage labour — places weighty labour demands on his limited household manpower. To successfully cope with the pressing labour requirements of his multiple engagements, he puts his dependants and wife in charge of different activities.

As a full-time Estate employee, Fentale has to spend much of his time each working day at or around the Estate. This leaves him with a very little time to attend to his other household engagements. Therefore, Fentale assigns to his wife the tasks associated with livestock herding. Thus, the wife plays the role of stock manager and decision maker. The more vigorous of his dependants will be entrusted with the responsibilities of tending and driving the camel herd to distant camps. The cultivation of crops meant for household consumption is largely handled through jiggie. As for the other produce intended for the market, daily labourers are hired to do the work of land and canal clearing, planting, weeding, and hoeing. In the meantime, Fentale Hawas uses whatever spare time he has and the time off he gets to supervise all the pastoral and agricultural activities by shuttling to remote camel camps by car and back to irrigation area and villages.

Fentale Hawas was asked why he would not concentrate on just one of the three activities for maximum benefits. In reply, he said that he has now become accustomed to wage labour and prefers not to give it up as it enables him to get a certain amount of regular income. As for pastoralism, he remarked that he was born into it and grew up as a herdsman. He feels his life is so closely attached to pastoralism that he cannot

-

¹¹ Based on the author's field notes.

imagine living without it. In fact, he prefers it to both wage employment and cultivation. He still thinks of his livestock as cash deposited in a bank which can be withdrawn to fill any possible need. He says that it is his livestock, which he can sell as an emergency source of income in the event of sudden illness, or the payment of bride wealth (*geberra*). He added, however, that livestock herding in the region has now become increasingly uncertain due to the recurring droughts and the everdwindling grazing resources. He also explained that he resorted to crop cultivation for fear that if he did not do so, the entire communal grazing land would gradually be enclosed and occupied by other Karrayu pastoralists as well as outsiders such as Ittu migrants.

5. The emergence of agro-pastoralism and the dynamics of land transaction practices; concluding remarks

Since the introduction of commercial farms and conservation development programmes, the Karrayu have been losing rights to many essential resources. This new situation also enabled territorial expansion of several agricultural peoples into Karrayu land. As a result, many Karrayu pastoralists were forced to assume sedentary or semi-sedentary residence in order to make or strengthen their claims over either wet or dry season grazing areas. In the process, agriculture is becoming a new way of life among the Karrayu. Pastoralists are trying to adapt to new opportunities, contrary to the prevailing official thinking that they resist change. The Karrayu, particularly in the most populous neighbourhoods such as Abadir and Merti, have been transformed from largely transhumant pastoralists exploiting a communally owned range and have become settled pastoralists exploiting privately owned enclosures both for agricultural and grazing purposes.

Over the last fifty years, considerable changes have been taking place in Karrayu traditional ownership of grazing land. As a result, vast portion of the land left from what has been appropriated by expanding development schemes is enclosed and privatised by individual households. While much of the process has taken place in the wet regions that offer irrigation opportunities, it is now spilling over into neighbourhoods far removed from the Awash River basin. At present, communal land is available only on the margins, which, in the final analysis, will mean that there are going to be no more pastoral commons left at the end of the appropriation process.

In any consideration of pastoral transformation and reproduction, the emergence and development of agriculture constitutes a significant part of the process. Notably, the case of the Karrayu has been no different. Sine the 1980s, the practice of agriculture continued to expand, leading to a growing dependence of the Karrayu upon farm produce both as items of consumption and source of additional cash. Hence, the adaptive responses the Karrayu to changing circumstances and the gradual decline in their pastoral mode of sustenance can better be appreciated through a scrutiny of the introduction and expansion of different forms of agriculture.

In earlier times, the Karrayu had a reputation for their indisposition to engage in nonpastoral activities including cultivation. However, changes are taking place at present to the extent that agriculture is gradually taking roots particularly in Karrayu neighbourhoods closest to the Awash River banks. Agricultural activities are, therefore, under expansion from the south-west of the Abadir area to the north of the commercial farms. Further north in the neighbourhoods at the foothill of Mount Fentale and in the area surrounding Metehara Town, rain-fed crop production is also being practised by an increasing number of Karrayu and other migrant cultivators. On medium-size plots in these areas, the cultivators grow maize for immediate consumption as well as fruit and various vegetables for sale. However, many of these mostly poor pastoral households who have taken up agriculture could not sustain their farms because of their inability to generate and bear the costs involved. In addition, the rich herd owners in some areas have started practising agriculture as well. This group of pastoralists, unlike the poor ones, devote much of the time and household manpower in their pastoral pursuits and carry out agriculture on part-time basis. These processes gradually led to the rise of a whole lot of changes in their land ownership and use associated values.

The expansion of the cultivation regime, irrigated farming in particular, has important implication for Karrayu pastoralism, apart from possible changes in ideology. As discussed in the main body of the paper, the last two decades have seen continuing

changes in what was traditionally communal Karrayu land tenure. In the wake of such changes and the introduction of small-scale agriculture have come new developments, i.e. land rent and different sharecropping arrangements. At the centre of such transformations is land and land-related factors. This refers mainly to a denial of access to what once was premium Karrayu grazing land and the subsequent evolution of different forms of land use. The fact that, in association with these elements of change, varied forms of land-based contractual arrangements have established itself implies a number of things as the following discussion depicts.

Under compelling or changing circumstances, the land tenure system manifests a high degree of flexibility giving way to the introduction and adoption of what could be described as 'alien' contractual land-use institutions. And in the course of time, these institutions continue to develop by assuming varied features which might be local in their origin or borrowed from other agricultural areas. As a result, land leases, rentals, inheritances, and sales have become common arrangements under which the Karrayu carry out farm activities on a joint basis with other partners. In the process, an informal land market has emerged in which land is temporarily or permanently transferred between households within the pastoral group or outside it through sales or mortgages. Of course, the practice is still in its incipient stage, although there are indications that it will be expanding, given the present high demand for cultivable land. This change signifies the fact that land is assuming a commodity value as a means of production and exchange, which attribute it did not possess prior to the advent of cultivation. Another implication of agriculture as practised by the Karrayu has to do with its being carried out on land under no legal recognition of private ownership. Hence, the different forms of land transfer including sales are not sanctioned by state law. Indeed, all pastoral land is declared 'state land' in the constitutions of successive Ethiopian governments. Thus, any contractual arrangement involving land use will be valid only upon the approval of the concerned government agency, as stipulated in pertinent decrees issued by respective regional states.

REFERENCES

Asmerom Legesse (1993)

"Adaptation, Drought, and Development: Boran and Gabra Pastoralists of Northern Kenya", in Huss-Ashmore, Rebecca & Katz, Solomon (eds), <u>African Food Systems in Crisis</u>. London & New York: Gordon and Breach Science Publishers.

Ayele Gebre Mariam (1986)

<u>Economic Adaptation and Competition for Scarce Resources: The Afar in Northeast Ethiopia.</u> Department of Social Anthropology, University of Bergen, M.A. Thesis.

Ayalew Gebre (1993)

The Arbore of Southern Ethiopia: A Study of Inter-Ethnic Relations, Social Organization and Production Practices. Addis Ababa: Addis Ababa University Printing Press, Published M.A. Dissertation.

Ayalew Gebre (1995)

"Land Tenure Systems and Their Effects on the Afar" in Seyoum Gebre Selassie (ed), <u>Pastoral Land Tenure Systems in the Horn of Africa</u>, A Compendium of Eight Case Studies from Ethiopia, Eritrea, and Sudan. Pastoral and Environmental Network in the Horn of Africa (PENHA).

Ayalew Gebre, (1997)

"Arbore Inter-Tribal Relations: An Historical Account", in R. Hogg (ed), <u>Pastoralists</u>, Ethnicity and the State in Ethiopia. London: HAAN Publishing.

Bahru Zewde (1984)

Environment and Capital: Notes for a History of the Wonji-Shoa Sugar Estate (1951-1974). Paper Presented for the Sixth Eastern Africa History Conference Held at Ambo, Ethiopia, 14-21 March.

Baxter, Paul (1966)

"Stock Management and the Diffusion of Property Rights Among the Boran", in <u>Proceedings of the Third International Conference of Ethiopian Studies.</u> Addis Ababa: Addis Ababa University, Institute of Ethiopian Studies, Vol. 3, pp. 116-127.

Baxter, Paul (1975)

"Some Consequences of Sedentarisation for Social Relationship", in T. Monod, (ed), <u>Pastoralism in Tropical Africa</u>, London: Oxford University Press.

Baxter, Paul & Hogg, Richard (1990)

Property, Poverty, and People: Changing Rights in Property and Problems of Pastoral Development. Manchester: University of Manchester.

Bondestam, Lars (1974)

"Peoples and Capitalism in the Northeast Lowlands of Ethiopia" in <u>Journal of Modern African Studies</u>, Vol. 12, pp. 428-439.

Bonfiglioli, Angelo (1992)

<u>Pastoralists at a Crossroads: Survival and Development Issues in African Pastoralism.</u> UNICEF/UNSO Project for Nomadic Pastoralists in Africa, Nairobi, Kenya.

Bruijn, M. de & Dijk, H. van (1995)

<u>Arid Ways: Cultural Understandings of Insecurity in Fulbe Society, Central Mali.</u> University of Amsterdam, Ph.D. Thesis.

Burnham, Philip (1996)

"Pastoralism under Pressure? - Understanding Social Change in Fulbe Society". Paper presented and discussed at the Colloquium on <u>Pastoralism Under Pressure: Ecological and Political Change among the Fulbe</u>, African Studies Center, Leiden, The Netherlands, 13 & 14 June 1996.

Carr, Claudia (1977)

<u>Pastoralism in Crisis: The Dassanetch and their Ethiopian Lands.</u> Chicago: University of Chicago, Department of Geography.

Cossins, N.J. (1972)

No Way to Live: A Study of the Afar Clans of Northeast Rangelands. Addis Ababa, Livestock and Meat Board.

Cossins, N. J. & Upton, M (1988b)

"Options for the Improvement of the Borana Pastoral System", in <u>Agricultural Systems</u>, Vol. 25, pp. 351-278.

Dahl, Gudrun (1981)

"Production in Pastoral Societies", in J. Galaty, D. Aronson, P. Salzaman & A. Chouinard (eds), *The Future of Pastoral Peoples*. Ottawa: International Development Research Centre (IDRC).

Dietz, Ton (1987)

<u>Pastoralists in Dire Straits: Survival Strategies and External Interventions in a Semi-Arid Region at the Kenya/Uganda Border, Western Pokot, 1900-1986.</u> University of Amsterdam, Ph. D. Thesis.

Dietz, Ton (1991)

"Crisis Survival Strategies: A Summary of Concepts and an Example from the Semi-Pastoral Pokot in Kenya/Uganda", in J. Stone (ed), <u>Pastoral Economies in Africa and Long Term Responses to Drought</u>. University of Aberdeen: Aberdeen University African Studies Group

Dietz, Ton (1996)

Entitlements to Natural Resources: Contours of Political Environmental Geography. Utrecht: International Books.

Doornbos, Martin (1993)

"Pasture and Polis: The Roots of Political Marginalization of Somali Pastoralism", in J. Markakis (ed), <u>Conflicts and the Decline of Pastoralism in the Horn of Africa.</u> Basingstoke: Macmillan Press, and The Hague: Institute of Social Studies.

Ephrem Amare (1989)

<u>The History of Metahara Sugar Factory from its Foundation to 1974</u>. Addis Ababa University, B.A. Thesis.

Fratkin, Elliot (1991)

<u>Surviving Drought and Development: Ariaal Pastoralists of Northern Kenya</u>. Oxford: Westview Press.

Harbeson, J. & Teffera-Worq Beshah (1974)

Ethiopian Nomads in Transition: Political and Economic Development in the Awash Valley. Unpublished IDR Document, Addis Ababa.

Hogg, Richard (1987)

"Development in Kenya: Drought, Desertification and Food Scarcity", in <u>African Affairs</u>, Vol. 86, No. 342, pp. 47-58.

Homewood, K. & Rodgers, W. (1984)

"Pastoralism and Conservation", in <u>Human Ecology</u>, Vol. 12, No. 4, pp. 431-441.

Jacobs, Michael, & Catherine, Schloeder (1993)

"The Awash National Park Management Plan, 1993-1997". The Wild-life Conservation Society International and the Ethiopian Wildlife conservation Organization, Addis Ababa, Ethiopia.

Lane, Charles (1996)

<u>Pasture Lost: Barabaig Economy, Resource Tenure, and the Alienation of their Land in Tanzania. Nairobi: Initiatives Publishers</u>

Little, Peter (1992)

<u>The Elusive Granary: Herder, Farmer, and State in Northern Kenya.</u> Cambridge: Cambridge University Press.

Manger, Leif et al. (1996)

<u>Survival on Meager Resources: Hadendowa Pastoralism in the Red Sea Hills.</u> Uppsala: Scandinavian Institute of African Studies.

Markakis, John (1990)

<u>National and Class Conflict in the Horn of Africa.</u> London and New Jersey: Zed books Ltd. (First Published by Cambridge University Press in 1987).

Markakis, John (1993)

"Introduction", in J. Markakis (ed), <u>Conflict and The Decline of Pastoralism in the Horn</u> of Africa. Basingstoke: Macmillan Press, and The Hague: Institute of Social Studies.

Mohamed Salih, M.A. (1990)

"Pastoralism and the State in African Arid Lands: An Overview", in <u>Nomadic Peoples</u>. 25-27, pp. 7-18.

Mohamed Salih, M.A. (1990b)

"Government Policy and Options in Pastoral Development in the Sudan", in <u>Nomadic Peoples</u>, 25-27, pp. 65-78.

Mohamed Salih, M.A. (1999)

<u>Environmental Politics and Liberation in Contemporary Africa</u>. Dordrecht: Kluwer Academic Publishers.

Muderis Abdulahi Mohammed (1998)

Resource Deprivation and Socio-Economic Changes among Pastoral Households: The Case of Karrayu and Itu Pastoralists in the Middle Awash Valley of Ethiopia. Agricultural University of Norway, M.Sc. Thesis.

Regassa Bayissa (1993)

<u>Labour Migration to the Commercial Farms of the Upper Awash Valley (1950s 1990).</u> Addis Ababa University, M.A. Thesis.

Robertson, A.F., (1987)

The Dynamics of Productive Relations: African Share Contracts in Comparative Perspective. Cambridge: Cambridge University Press.

Salzman, Philip (1980)

"Introduction: Process of Sedentarisation as Adaptation and Response", in P. Salzman (ed), When Nomads Settle: Process of Sedentarisation as Adaptation and Response. New York: Bergin.

Salzman, Philip & Galaty, John (1990)

Nomads in a Changing World. Naples: Instituto Universitario Orientale.

Tekele Tilahun, Bashir Hadi & Bashir Barre (1994)

"From Communal Grazing to Privatized Enclosures: A Case Study of Changing Land Tenure in Region 5", in Desalegn Rahmato (ed), <u>Land Tenure and Land Policy in Ethiopia After the *Derg.*</u> Proceedings of the Second Workshop of the Land Tenure Project, University of Trondheim, Norway

Teferi Abate (2000)

Government Intervention and Socioeconomic Change in a Northwest Ethiopian Community: An Anthropological Study. Boston University, Graduate School of Arts and Science, Ph.D Dissertation.

Tibebe Alemayehu (1997)

<u>Park versus Pastoralists: Conflict in the Awash Valley of Ethiopia</u>. Agricultural University of Norway, M.Sc. Thesis.

Toulmin, Camilla (1995)

"Tracking through Drought: Options for Destocking and Restocking", in I. Scoones, (ed), *Living with Uncertainty: New Direction in Pastoral Development in Africa*. London: Intermediate Technology Publications, Ltd.

UNDP/RRC (United Nations Development Programme/Relief and Rehabilitation Commission) (1984)

The Nomadic Areas of Ethiopia. Study Report No. 2, Addis Ababa, Ethiopia.